# BUSINESS MANAGEMENT

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# CONTENS

# CHAPTER 1

# OVERVIEW ON ONLINE SHOPPING

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**ABSTRACT:**

People's lifestyles have changed in recent years. Going to busy markets makes them feel anxious & time-consuming. As a result, E-Shopping is, a boon because it saves a great deal of time. Consumers purchase products, commodities, and other items directly from sellers on the Internet without the use of an intermediary provider. Shoppers may visit the web store the ease of the house & shop from sitting in the front of screen of the computer. Online store usually is available 24 hours and many of the customers have access to the internet at work as well as at home as well. Therefore, this is much more convenient than them shopping online. One of the most remarkable factors regarding online shopping is specifically during the season of holidays; this alleviated the need for waiting in the long line and searching stores for a specific item. A large variety of goods are available in online stores. So,a researcher wants to know the preferencesof the customer. 50 respondents were found and data were collected about their preferences for online shopping. The future electronic-commerce shopper will most likely use the voice command more& sale by the voices interaction that will hold considerable portions of the business conversions. In the future, shoppers will most preferably increase their dependence on the mixture of bricks and mortar and the digital channel for discovery, purchasing, and researching. It is whether, in the shop or online store, the brand meets up the shopper's requirements by utilizing information and machines that learn to understand behaviors and delivers personalized, seamless experiences.

**KEYWORDS:**

Customer, Internet, Online, Product, Shopping, Time.

## 1. INTRODUCTION

Online shopping becomes increasingly popular fora variety of reasons. There exists a number of the factors like difficulty to get to the traditional store and the hassle often related to the shopping mall & other the traditional store contributing to increased interest in online shopping. The consumer may get the complete information regarding the product that he/she is no longer limited to asking friends and family that there exist many reviews of the product on the web that gives an opinion to the existing user of products. Online shopping sites have varieties of goods at high quality and mild quality that keeps the level of existing user of products[1].

1. There exist no national barriers and international barriers.
2. In online shopping consumers always be in demanding positions and the suppliers will never be in commanding positions.

3. There exist several employment opportunities in online shopping.

Consumer preferences referred to," how the customer selects the good and the services in association with the factors such as preference, individual choice, and taste. The factors like the income of the consumer and the good's prices don't influence the customer that preferred the product and the services. Consumer preferences for products may make or breaks the company. If the consumer usually likes the product, this stays around for years and might sell for millions of the copy. Therefore, if the consumers don't like the product, this would disappear much more quickly. Online customers have access to the internet & have valid methods of payment for completing the transaction. Therefore, a high level of education and personal income corresponded to favorable perceptions of shopping online. The increasing exposure to the technologies increases the probability of developing favorable attitudes to the new shopping channel[2].

### 1.1. The DO's & Don'ts in online shopping:

If people that want as savvy online shoppers, enjoyed finding a great deal and avoiding becoming a victim of cybercrime, the customer wants to follow the fewer basic do's & don'ts whenever buying from the website.

#### 1.1.1. Dos:
1. Before giving the credit card information, sufficient time should be taken for the research websites. Contact the seller if the customer is purchasing for the first time. Most reputable sellers will have to toll-free the customer's service phone numbers. If the sites have only email addresses & no phone running sites before buying anything from them.
2. Paying from credit cards or online payment services. An online payment service offered some protections as well. To the extra degrees of protection, credit cards are best.
3. Buying websites that have encryptions. 'Encryptions are the keys for securing the internet purchase. This is the feature that automatically codes the customer's personal information whenever entered.
4. Checking the website's policy before placing the order. Reading out the website returned policies and other terms and conditions and the site privacy policies before ordering any of the things.
5. Using comprehensive computer securities soft wares. Make sure that the customer has up-to-date, comprehensive securities software like MCAs fees internet securities total protections before doing anything alongwith online stoppings. It will largely be reducing the risks of the contracted virus & will help for avoiding theft on the dangerous website.
6. Checking the credit card statement, making sure the customers charge the proper amount, & no extra was being added to the bill.

#### 1.1.2. Don'ts:
1. Don't buy online from the spammer. If the customers get an e-mail inviting them towards buying something such as a "Discount Rolex Watch" two of the things that are considered: are spam & possible spam.

2. Many of the spammers will steal credit cards or financial data and utilize it fraudulently. If the purchase is made by the spammer, the customers will not get what they have ordered. This becomes a risky deal.

3. Don't pay with debit cards, cash, or wire transfers. Whenever a customer pays by debit card, money came out directly from the customer's account. Getting the cashback could have been much more difficult, if not been possible. Whenever a person pays in cash or by using wire transfers, the money goes directly towards the seller's accounts. So, there isn't any recourse if something went wrong.

4. Don't buy by the website unless this gets certified for safety. People must need for feeling confident that whenever people make an online purchase, personal and financial data will not be been compromised.

5. Don't buy anything froma website that people aren't completely comfortable with.

6. Don't forget to inspect the new purchases as soon as they arrived. If the customers find problems notify the seller as soon it would have been possible.

The term is called Life Insurance, commodities products, therefore, & into other insurances products lines, the web offered insurance products line, web offered insurance companies new opportunitiesfor product and services differentiation & price discriminations. Online insurance industries have been much successful in attracting visitors that are looking for obtaining the price and the term of the insurance policy. The industries that have been lesser successful in getting customers for buying policies online. Also, this change, particularly in the area of automobile insurance policies that are lesser complex. This becomes difficult foran online seller for identifying customer wants and needs because the potential customer is larger in number. This is much important for identifying factor which influences customer for preferring online shopping. Hence, this able us to understand customer preferences for shopping & provided insights regarding online shopping.

For a variety of reasons, online shopping is becoming increasingly common. There are a variety of reasons, such as the difficulties of getting to a physical store and the inconvenience frequently associated with shopping malls and other traditional stores, which contribute to the rise in interest in online shopping. Consumers can provide comprehensive knowledge on a product without having to rely on friends and relatives since there are many product reviews available on the internet that provide feedback from existing users. Online shopping sites provide a wide range of items in both high and low quality, ensuring that the standard of existing product users is maintained. The term "market choices" refers to "how the customer chooses goods and services based on considerations such as desire, individual choice, and taste." Factors such as the consumer's wages and the cost of goods have no impact on the customer's choice of product and service[3].

Consumer tastes for goods have the potential to make or break a company. If the buyer generally enjoys the product, it will last for years and sell for millions of copies. As a result, if customers dislike the commodity, it will be phased out easily. Customers who shop online must have internet connections and legitimate payment options to complete the purchase. As a result, a high degree of schooling and personal income is associated with far more favorable views of online shopping. When people become more used to emerging technology, they are more likely to develop positive views toward the new shopping channel. The word Life Insurance, commodities products, and other insurances products lines, the site offered insurance products line, the web offered insurance companies new opportunities to differentiate products and services, as well as

price discriminations. Online insurance industries have had a lot of success in attracting visitors who are searching for information on insurance prices and terms. The sectors that have had little traction in attracting customers to purchase insurance policies online. Also, this is changing, especially in the field of less complicated car insurance policies. Since the number of possible customers is so high, it becomes impossible for online sellers to distinguish consumer desires and needs[4].

This is critical for determining the factors that affect a customer's decision to buy online. As a result, we were able to grasp consumer purchasing habits and gain insight into online shopping. Before providing credit card details, enough time should be spent investigating websites. If the buyer is making their first purchase, they can contact the vendor. Most trustworthy sellers would have to make their customer service phone numbers toll-free. If the pages just have an email address and no phone number, do not buy anything from them. Purchasing from encrypted websites.' The keys to protecting an internet purchase are encryption. When a customer's personal information is entered, this function instantly codes it. Don't make an online purchase from a spammer. If consumers receive an e-mail inviting them to purchase something like a "Discount Rolex Watch," two items must be considered: spam and the possibility of spam. Paying for debit cards, cash, or wire transfers is not a good idea. When a customer shops for a debit card, money is taken straight from their account. It may have been very difficult, if not impossible, to obtain the cashback. When an individual pays in cash or by wire transfer, the money is sent directly to the seller's account. As a result, if anything goes wrong, there is no redress. Don't buy from a website until it's been classified as safe. People must have the assurance that their personal and financial information will not be abused when making online transactions[5].

## 2. LITERATURE REVIEW

Chayapa & Cheng[6] studied online shoppers' behavior and the influence of Online Shopping Decisions. The current research has shown interest in the investigations of the consumers' motivation which affected online shopping behaviors. There is a need to understand what factor influences online shopping decision process. The study aims to provide an overview of online shopping decisions process by comparing offline and online decision makings and identifying factor which motivates online customer for deciding or not deciding for buying online. This is found which market communications process differ among offline and online customers' decision. Managerial implications that are developing to online store for improving the website.

Ye Diana & Henry[7] studied the overviews of online trust, its concepts elements, and the implication. The lacking trust has been identified repeatedly as the much formidable barrier for people to engage in an electronic-commerce, which involve transaction in which financial and personal data that is submitted to the merchant viathe Internet. The future of the electronic-commerce is tenuous without the general climatic online trust. The building of the customer trusts internet resented challenges to online merchant & research topics for increasing interest. The frameworks of the trust-induced interface designs feature that was articulated by the existing literature being presented.

Michael et al.[8]Studied the personality determinant of online shopping and explained online purchase intention by using hierarchical approaches. There have been many approaches used including those that are based on behavioral economics, lifestyles analysis, and the merchandise effect. They use data fromonline customer panels for developing a model of the useful

personality trait to predict the developmental hierarchy model for the personality useful to predict consumer's intention for purchasing products and the service online.

Nahida & Animul[9]studied the consumers buying behaviors in online shopping. The World Wide Web had propelled to no smaller extent the change in attitudes and the behaviors of people all around the world. Because of this blessing, online shopping emerged that influences the life of the ordinary citizen. Their study revealed that the consumer shop online for saving time and to available a variety of products and services. Both females and males have similar types of behavior to the liking and the disliking factor, they would like to deliver home facilities and they dislike the inability for the touch and the feel products the most. They have acquired online shopping data through the website,especially by social networking and purchasing apparel, and accessory the cash on deliveries methods payments. Most consumers are concerned regarding the security of the payments system, & overall online shopping satisfaction gets mixed. Without a general climate of online trust, the future of electronic trading is in jeopardy. Building consumer confidence on the internet posed challenges for online merchants, as well as research topics that piqued their attention. The trust-induced interface design frameworks that were articulated by the existing literature were presented.

Yi & Brenda[10] studied online shopping and have observed that the research that is associated with online shopping & conceptual frameworks guide the research. There are several online shopping theories and the framework that introduced a number of the factor that influenced consumer acceptance of online shopping. The process of online shopping environment and the consumer's perceptions as well of the securities and the privacy and the direction of the future have also been suggested. This is discovered, and it is discovered that the retail communication mechanism differs between offline and online consumers' decisions. Managerial implications are being developed for online shop to improve it. According to their findings, consumers shop online to save time and to take advantage of the wide range of products and services available. Both females and males who have identical patterns of actions when it comes to likings and dislikings would prefer to deliver home services and hate inabilities with touch and feel goods the most.

## 3.  DISCUSSION

This is difficult for online sellers for identifying the customer's want and need because the potential customers are in larger numbers. This is important for identifying factorsthat influenced the customer for preferring online shopping. Hence, this made us understand the attempts for understanding customer preference for online shopping.  These studies have been conducted for analyzing the preferences of the sample respondent. The studies have both the sources that are primary and secondary. The primary data have been taken utilizing systematically prepared questionnaires by online purchasing. The secondary data have been collected from journals, books, websites, and the thesis. The descriptive design of this shopping is analytical. There are some of the limitations of this study also.

The concept of this world that is being global all over has been known to everyone these days. Everyone is connected usingthe Internet. The world consists of everything and possesses the capability of connecting to everyone. One may shop for clothes, cars, and land and even get admission to colleges and schools online. Online shopping simply can be defined as the process by which any person can shop virtually anywhere. This helps electronic-commerce processes by which consumers that allowed for making direct purchases of types of services and goods. The

purchases have been generally made by certified sellers that market their products alongwith the help of web browsers. Online shopping has been developing day by day. Therefore, whenever everything goes shut and there has been a large riskof going out to market, online shopping proves to be lifesaving. This helps online presently websites where people place ordersfor their daily needs. The reliability of online shopping increasing significantly over the years. There are several advantages of online shopping (Figure 1).



**Figure 1: Illustrating the different advantages of online shopping that have been increasing these days**

### 3.1.Time-saving:

The major advantage of online shopping is the buyer that doesn't wait to the parking or to stand in the ques. One can simply place an order online and pay for things. The whole process of buying, selecting & then paying could be done by the medium of online web only. It saves a lot of time that person needs to spend when going to the market & travelingfrom one place to another.

### 3.2.Energy saving:

Apart from saving time, online shopping saves much energy also. This helps the person for sorting the shopping lists by sitting in one place. This saves peoplefrom getting exhausted by continuous shopping processes.

### 3.3.Availability in seconds:

Online shopping process doesn't take much time. It saves much time and allowed people for checking out in fewer minutes. Once the person shortlisted items, one needs for making the payment to the same and the order gets placed.

*3.4.Large deals:*

The increasing competition results in producing several deals for buyers. Every day, different website gives multiple deals for users. It is based upon the collection of data from websites regarding the likes and dislikes of users. Therefore, the deal strikes straightly toward the interest of the user.

*3.5.No limit of time:*

One of the also main advantages of online shopping is this doesn't limit the buyer for any time frame. Everyone can shop anytime for his product depending upon the convenience and the placing of an order forthe product or service he needs.
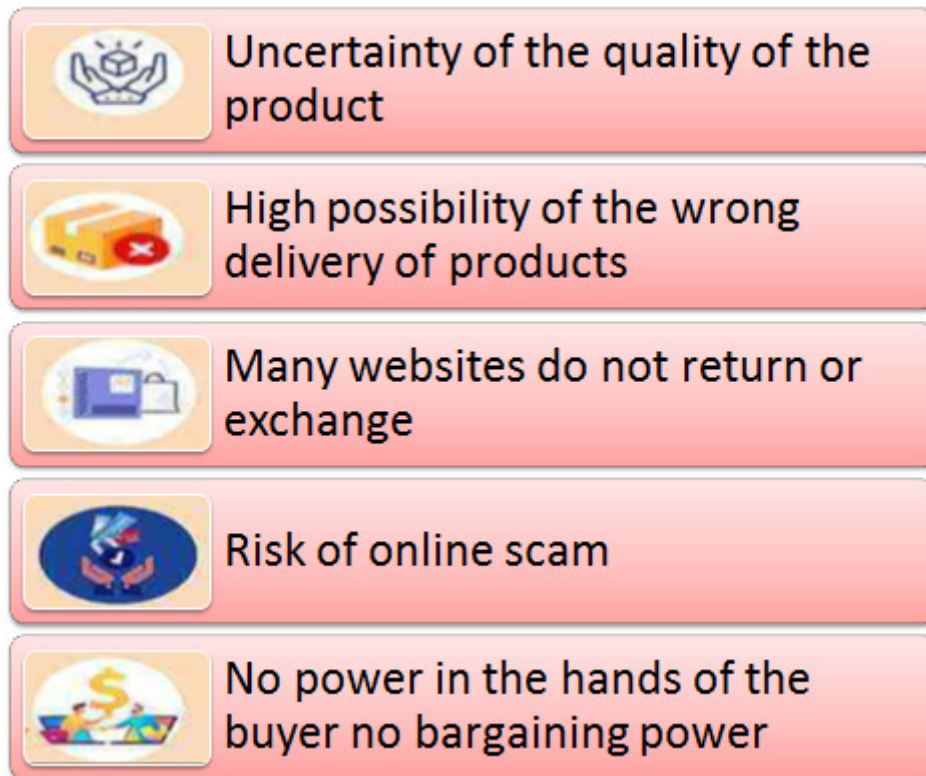


**Figure 2: Illustrating some of the various disadvantages of online shopping that trend has been increasing in the market these days**

Apart from the advantages there have been certain disadvantages of shopping online also (Figure 2). This concept of online shopping is virtual which means consumers cannot touch the product or feel it what he is going to buy. It means that the quality of products is always doubtful. The chance of human errors that are being much high as in the case of shopping online. These are in the form of wrong deliveries, wrong sizes colors, and many more such things. It doesn't guarantee the quality and accuracy of the products. It comes with the risks of misusage of money paid by users. In online shopping prices of the products have not been fixed always.

Since the prospective buyers are in bigger numbers, online retailers can't determine what they want and need. This is critical for determining the factors that affected the customer's decision to buy online. As a result, we will appreciate the efforts taken to comprehend consumer preferences

for online shopping. These experiments were carried out to determine the interests of the questionnaire respondent. Main and secondary sources are included in the reports. The primary data was collected by the use of systematically prepared questionnaires purchased online. Journals, magazines, blogs, and the study were used to gather secondary evidence. This shopping's informative style is empirical. There are some drawbacks to this research as well. Using information security software that is extensive. Ensure that the user has up-to-date, robust security tools, such as MCAs fees, internet securities complete protections, and web stoppings before doing so. It will significantly reduce the chances of contracting virus infection and will aid in the prevention of piracy on a dangerous website.

Simply put, online shopping is the mechanism by which any person can shop virtually from anywhere. These aid electroniccommerce processes by allowing consumers to make direct purchases of a variety of services and products. The orders that have been made in the past by accredited vendors who market their goods through web browsers. Online shopping is becoming more popular by the day. As a result, when everything has shut down and there are significant dangers associated with going out to shop, online shopping proves to be a lifesaver. This aids the current websites where people place orders for their everyday necessities. The trustworthiness of online shopping has grown dramatically over the years. A variety of online shopping theories and frameworks have been proposed, each of which introduces several factors that affect customer adoption of online shopping. The process of the online shopping world, as well as user expectations of security and privacy, as well as the potential path, is also discussed. New studies have indicated an interest in determining how shoppers' motivations influenced their online buying habits.

It is essential to comprehend what factors affect the online shopping decision-making process. The lack of confidence has been consistently identified as a formidable obstacle for people to participate in electronic-commerce transactions, which include financial and personal data being sent to the retailer through the Internet. Many different theories have been used, including those focused on behavioral economics, lifestyle research, and the merchandise effect. In recent years, people's lifestyles have changed. They are nervous and time demanding as they visit crowded markets. As a result, E-Shopping has been a blessing because it saves a lot of time. Without the use of an intermediate supplier, consumers buy products, services, and other items directly from sellers on the Internet. Shoppers will visit online stores from the comfort of their own homes and shop while seated in front of a computer screen. Online shop is normally open 24 hours a day, and many users have access to the Internet both at work and at home.

The main benefit of online shopping is that the customer does not have to queue for parking or lines. It is simple to put an order and pay for items online. The whole process of purchasing, selecting, and paying for items could be completed entirely by the use of the Internet. Apart from saving time, online shopping often saves a lot of resources. This allows the individual to sort their shopping lists while seated in one place. This prevents a person from being overwhelmed as a result of continuous shopping.The online shopping process is fast and painless. It saves a lot of time and allows people to check out with less time. Once a person has narrowed down their options, they must pay for them before an order can be placed. As the market becomes more competitive, a greater range of offers is available to buyers. Every day, a new website offers customers a variety of deals. It is focused on the aggregation of data from websites about users' preferences and dislikes. As a result, the offer is aimed squarely at the user's benefit. One of the most significant advantages of online shopping is that it does not impose any time constraints on

the customer. All can shop whenever he wants for their purchase, depending on their preference and the ease with which they can place an order for the product or service he requires. It does not guarantee the goods' consistency or accuracy. It carries the risk of money being misappropriated by the customer. The prices of goods in online shopping are not necessarily set.

## 4. CONCLUSION

As a result, shopping online is much more comfortable for them. One of the most impressive aspects of online shopping is that it eliminates the need to stand in long lines and browse around shops for a particular item, particularly during the holiday season. The wide range of products sold in online shops. So, if you're a researcher who needs to discover what the customer's tastes are, you've come to the right place. 50 respondents were found and data was gathered on their tastes for online shopping. Future electronic-commerce shoppers will be more likely to use voice commands, and sales based on voice interactions will account for a significant portion of company conversions. Shoppers will increasingly rely on a combination of bricks and mortar and digital channels for exploration, purchase, and testing in the future. Both in a physical store or an online store, the brand serves the needs of customers by using data and machines that learn to recognize patterns and provide customized, seamless service. All these days are aware of the idea of a planet that is global throughout. The Internet allows anyone to communicate with one another. The universe is made up of everything that has the power to communicate with others. Clothing, motorcycles, property, and even admission to colleges and schools can all be purchased online. This online shop model is abstract, which ensures that customers cannot touch or experience the product they are about to purchase. It implies that product consistency is still in question. When shopping online, the risk of human error is even higher. This may take the form of late delivery, incorrect sizes and colors, and a variety of other issues.

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# CHAPTER 2

# A REVIEW ON THE SUCCESS OF INDIAN START-UPS

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**ABSTRACT:**

India is amongst the few top-performing nations in terms of startups. Many organizations in India are established in the past few years and had grown enormously. These startups are started by graduates having no technical education in business neither at the family level nor at an academic level. But the mindset to make the idea work and bring in more business from the idea has resulted in the growth of these startups in a short period. The paper discusses how these startups have changed the stereotypical mindset of people and have grown by providing them with good service and the product they need. Thus current paper opens prospects to conduct more research on more startups in India established in recent times.

**KEYWORDS:**

Company, Founded, Organization, Started, Startup.

## INTRODUCTION

India is amongst the largest hub of startups across the globe. Almost everyday young and enthusiastic people come up with a new idea and start their venture to make it successful. The paper discusses the top 50 startups in India started either by young people having no industry experience or experienced veterans of the industry[1]. Experienced people analyze the current need and use their years of industry experience to meet customer demand. Table 1 provides the list of Indian Startups that have successfully grown in the last few years and their working area [1].

A few of top performing startups of India with their mode of operation are mentioned below:

1. *OYO Hospitality:*

Operating in more than 800 cities across the globe and providing service to people in more than 80 countries of the world[2]. Oyo Hospitality provides a one-stop solution for booking hotels at the choice of the customer. Oyo Hospitality was founded in year 2013, by Ritesh Agarwal [1]. Oyo Hospitality is now one of the largest chains of hospitality and hotels[1]. Operations of Oyo Hospitality are in India, the United States of America, Europe, China, and many more countries [1]. Earlier in 2012 founder established Oravel Stay and then in 2013, he established Oyo Hospitality [1].

2. *Flipkart E-commerce:*

Founded by Sachin Bansal and Binny Bansal in the year 2007. Flipkart is an online shopping platform that provides a variety of products. Online shopping platform is used by millions of people across the country. Updating their company activities on Twitter to launching new

products frequently is the strategy behind the success story of Flipkart. Acquired by e-commerce giant Walmart, Flipkart has Flipkart-Video-Originals [1].

### 3. *Paytm Finetech:*

Earlier the founder established a digital wallet but later the platform turned into a business source for many [3]. Paytm Mall provides a shopping experience witha variety of goods to the customer. Started by Vijay S Sharma the digital platform increased to 50 million customers within 3 months of demonetization [1]. Earlier the company had 125 million users, which increased to 185 million users after demonetization [1].

### 4. *Ola-Cab:*

Founded by Ankit Bhati and Bhavish Aggarwal an IIT Powai alumnus. Ola-Cab provides an application-based real-time cab booking service. The idea came when Bhavish was traveling to Bandipur from Bengaluru and faced a horrible experience as the driver left him on the highway due to a dispute over taxi charges. Now, the Ola-cab is operational in more than 50 cities in India. Services are also provided in Australia, the United Kingdom, and New Zealand [1].

### 5. *Swiggy Foodtech:*

Starting with 6 delivery persons and 6 partner restaurants, Swiggy launched its functioning in Bengaluru[1]. Founded by Rahul Jaimini, Nandan Reddy, and Sriharsha Majety the company now has more than 2 lakh delivery personnel[1]. The company works on the model of collecting food from a variety of partner restaurants and delivering the food to your space of comfort. The operation of Swiggy is carried out in more than 300 cities across the country [1]. Delivery persons deliver around 1.4 million orders of food daily across the country [1].

### 6. *Make-My-Trip Travel Agency:*

Make-My-Trip is an online travel website that provides good deals/discounts on the booking of hotels, buses, flights, trains, and traveling packages[4]. Founded by an alumnus of IIM Ahmedabad, Deep Kalra, now Make-My-Trip is known globally for its operation and also because of its listing on NASDAQ (American Stock Exchange) [1].

### 7. *Book-My-Show Online Ticket Booking:*

Founded by Parikshit Dar, Ashish Hemrajani, and Rajesh Balpande[1]. The services of Book-My-Show are operational in around five countries[5]. Book-My-Show deal with an online ticket booking system [6]. Customer book tickets to concerts, movies, music shows, and many other live programsvia online transactions with ease [1].

### 8. *Big-Basket E-commerce:*

Founded by VS Sudhakar, Vipul Parekh, VS Ramesh, and Hari Menon[1]. It is an online food and grocery shopping platform that provides fruits, vegetables, groceries, beverages, cosmetics, Fast-Moving-Consumer-Goods, snacks, stationery, household items, and many more. Currently, Big-Basket is operational in more than 25 cities across India [1].

### 9. *BYJU ELearning:*

founded by Divya Gokulnath and Byju Raveendran. Now BYJU is the highly reliable and widely used online education platform in India. The online platform gives teaching sessions to school students including class $8^{th}$ to competitive exams including CAT, GATE, GRE, and Civil Services[6]. Currently, BYJU has more than 2.4 million paid subscribers and 35 million users [1].

### 10. *Car24 Automotive:*

Founded by Vikram Chopra deals with buying and selling used cars. The employees of the organization provide an accurate valuation of used cars and perform all paperwork required for selling and buying used cars in one visit to an offline store [7]. This hassle-free dealing of used cars has made the company the no 1 choice of customers [1]. It has more than 100 offline stores in India and has a presence across the nation [1].

### 11. *Nykaa Beauty and Fashion E-commerce:*

Launched by Falguni Nayar an IIM Ahmedabad alumnus started Nykaa at the age of 50 years[1]. Earlier Falguni was working with Kotak and doing a 9 to 5 timings job which she quit to pursue her dream of being an entrepreneur. The platform provides a variety of beauty products from Indian and international brands in one place [1].

### 12. *Instamojo Services of Finetech Software:*

Founded by Sampad Swain, Akash Gehani Harshad Sharma, and Aditya Sengupta [8]. Instamojo creates a payment link that allows the companies to get the collection of payments easily. Instamojo also gives its customers products and a suite of services that allows the seller to create a store online and upload their products and range of variety provided. More than 12 lakh customers are using Instamojo now [1].

### 13. *Pharm-Easy Healthcare E-commerce:*

Started by Dhaval Shah, Dharmil Sheth, and Mikhail Innani. PharmEasy deals with delivering the medicines ordered online and laboratory reports from the mentioned laboratory. The services of the company are operational in Delhi, Mumbai, Bengaluru, Kolkata, Jaipur, Ahmedabad, Pune, and Noida[1].

### 14. *Mobikwik Digital Wallet:*

Founded by Upasana Taku and Bipin Preet Singh. It is a digital wallet that allows the user to use its money via various channels including desktop, mobile, register, IVR, and text. It allows Indian customers to pay bills, and do shopping with traders who are registered with the platform. Additional security provided with the wallet secures the money from fraudsters [1].

### 15. *Razorpay Mobile-payment, Microcredit, System of Payment, the technology of finance:*

Founded by Harshil Mathur and Shashank. Razorpay is the only converged payment system organization operational in India. The company allows the organization to accept payments, process payments and disburse payments via its software. The payment can be done using credit, debit card, net banking, UPI, and by using any of the popular wallets[1].

*16. Dunzo Service for Customer:*

It is a delivery application started by Ankur Agarwal, Kabeer Biswas, Dalvir Suri, and Mukund Jha. The delivery platform picks up anything from your desired location and delivers it to you at your doorstep. The operations are available in Delhi, Gurugram, Bengaluru, Chennai, Hyderabad, and Pune[9]. The delivery of any desired product links the customer with the smallest seller thus bridging the gap between buyer and seller [1].

*17. Innov8 Real Estate, Co-working, and Collaboration:*

Started by Riteish Malik. Innov8 is based on a Y combinatory type startup and provides a private office of high quality and a co-working area. The startup encourages entrepreneurs, freelancers, and employees from various walks of life. Currently operational in Gurugram, Noida, Mumbai, Bengaluru, Chandigarh, Chennai [1].

*18. Bombay-Shaving-Company Personal Care for Men:*

Founded by Deepu Panicker, Shantanu Deshpande, Rohit Jaiswal, and Raunak Munot. The startup focuses on providing a variety of skincare items, beard care items, and shaving care items for men [1].

*19. Toppr Education:*

Founded by Hemanth Goteti and Zishaan Hayath primarily for students. The startup provides online training to students preparing for competitive exams, various school boards, and preparation for college entrance. The teaching sessions are based on the behavior of students [1]. The student is analyzed via artificial intelligence and machine learning thus personalized learning for every student is provided[1].

*20. FirstCry Kids fashion retail:*

Started by Amitava Shah and Supam Maheshwari. FirstCry primarily focuses on selling infant and kids-related products including clothes, toys, diapers, stationery, feeding bottles, pram, and many other things required by infants and kids[10]. A variety of brands are available at FirstCry including Pigeon, Funskool, Hotwheels, MEE MEE, Disney, and many more [1].

*21. CarDekho Automotive:*

Founded by Amit Jain, the startup provides the customer with a wide range of variety of cars. The reviews of an expert about the brand, a particular model, pros and cons of the vehicle make the website/app highly used by customers before buying a car. The organization has collaborated with more than 400 car dealers and financers to increase the purchase of cars[1].

*22. Zomato Food Delivery & Service to Customer:*

Deals with online browsing of restaurants, searching for required dishes, and ordering the food. Zomato also allows the customer to reserve a table in a required restaurant and provides premium membership which gives special offers and discounts on dishes. By reviewingthe function of Zomato one can put a genuine review of a particular restaurant, or particular dish, thus making it unique and highly used by food lovers [1].

*23. Zivame Lingerie Ecommerce:*

Founded by Richa Kar the startup provides a variety of lingerie based on type, color, size, and design according to the choice of the customer. The discreet packing and quick service make the startup more user-friendly [1].

*24. Urban-Ladder Furniture E-commerce:*

Founded by Rajiv Srivatsa and Ashish Goel. The company focuses on providing a hassle-free home decoration experience. During current times of fast life, this startup provides a wide range of furniture especially crafted by the specialized team of Urban-ladder. The company provides buying safe delivery experience of more than 25 varieties of furniture with more than 1000 products available [1].

*25. ECom Express Logistics:*

Founded by Manju Dhawan, A Krishnan, K Satyanarayana, and Sanjeev Saxena. The startup was founded by veterans of the logistics industry. The organizations working mantra was focused to meet the market demand of the rapidly growing eCommerce industry [11].

**Table 1: Provides the list of Indian Startups that have successfully grown in the last few years and their working area** [1]**.**

| S.No | Company Name | Working Area |
|---|---|---|
| 1 | Policy Bazaar.Com | Insurance of automobile, building, finance industry |
| 2 | Limeroad | Fashion online shopping |
| 3 | Just Dial | Search Engine and Information provider |
| 4 | Epigamia | Fast-Moving-Consumer-Goods |
| 5 | Housing.Com | Online real estate |
| 6 | Bira91 | Craft Bear |
| 7 | No Broker | Online real estate |
| 8 | Vedantu | Education |
| 9 | BankBazaar | Finance Ecommerce |
| 10 | Chaayos | Restaurant |
| 11 | EasyMyTrip | Ticket booking |

| 12 | Pee-Safe | Wellness |
|---|---|---|
| 13 | Bare-Anatomy | Personal Care |
| 14 | Azah | Sanitary Napkins |
| 15 | Milkbasket | Food and beverage delivery service |
| 16 | CoWrks | Property management |
| 17 | Treebo Hotels | Hospitality |
| 18 | ZestMoney | Financial Services |
| 19 | Quikr | Classifieds |
| 20 | Grofers | Grocery delivery |
| 21 | CureFit | Wellness |
| 22 | Delhivery | Supply chain management |
| 23 | Xpressbees | Logistics |
| 24 | Faasos | Food processing and delivery |
| 25 | ShareChat | Social Networking |

## LITERATURE REVIEW:

Kamala K D and Sushil analyzed that entrepreneurial orientation is significant for the marketing at entrepreneur level and thought as well as working in an organization. The thought of the entrepreneur while developing a new product and during an innovation of technology drives the way an organization works. The service-based startup or product-based startup both focuses on the development of products and innovation of technology. The study provides suggestions to manage the focus on innovation to sustain in the market of competition. With the advancement of technology updated techniques and tools are required to be adapted to ensure the satisfaction of the techno-savvy consumer and to sustain in the current marketplace [12].

T. Shukla et al conducted a study to analyze the practical issues encountered by women entrepreneurs and their problems inthe realworld to motivate the legislation to take relevant steps to help women pursue their careers. In the past few years, almost every sector which was earlier predominated by women now hasan equal number of working women. Even female entrepreneurs have increased by up to 50 %. It is observed that getting a loan sanctioned, is easier for male entrepreneurs than for female entrepreneurs. While doing a business presentation

of a proposal played a more significant role in driving investors than for male/female entrepreneurs. Females also showed a type of pressure in their behavior while managing work along with household chores, the pressure of getting an equal salary totheir male counterparts, and the culture inside the office. For a female-run business, it was difficult to maintain authority over male employees and to maintain efficiency inside the workplace [13].

Mohit S et al analyzed that Flipkart showed approx. 79,000 TFF (Twitter followers friends ratio, the relation between the number of people and several followers followed by an account), and the CEO of Flipkart showed TFF ratio of 545. It is observed amongst all startups the sentiments of buyers were somewhere connected with the organization which resulted in a high number of followers of Flipkart. Flipkart and TVF showed positive-to-negative tweet ratios. It was observed that the CEO of both organizations tweet about the updates of the organization, newly launched products, and issues faced by the organization. They keep their followers updated about the activities that are taking place inside the organization. Thus, in a way follower feels connected with the organization. Delhivery has a relatively low TFF ratio and is assessed as the timing of the tweet. As Flipkart and Snapdeal have maintained regular tweetson at Sunday 4 AM, Monday at 11 AM, and Monday at 6 PM, thus keeping the follower waiting for the upcoming tweet [14].

As per cited literature, various studies have been conducted to analyze the pattern of business of startups. It is observed that both product-based and service-based startups need to rely on new technology to satisfy the customer. A pattern was observed where women entrepreneurs were asked about their day-to-day challenges. Also, a Twitter trend of the e-commerce startup Flipkart was observed that resulted in a high number of Twitter followers of the company. The trend followed by the startups in performing business and meeting the need of customers is analyzed and how the startups have grown their business in a very short duration of time is discussed.

## DISCUSSION

The paper provides a detailed idea about the top 50 startups in India, their working area, and their success story. The prime reason behind the growth and success of all startups was their strategy to meet customer demand. All organizations primarily worked to adapt to the new technology and keep the customer engaged and awaited for their new products. The core rules to adopt new-age technology while meeting customers' demand proved to be the success of all startups. Table 2 provides data on Indian Startups that received large amounts from foreign and domestic investors. The startups that received a large amount of funds from foreign as well as domestic investors include:

**Table 2: Provides the data on Indian Startups that received large amounts from foreign and domestic investors** [15]**.**

| S.No | Startup Name | Amount Received from foreign and domestic investors |
|---|---|---|
| 1. | Swiggy | Received funding of around 3.3 Billion Dollars from Naspers, Accel, Northwest Venture Partners, Bessemer Venture Partners, DST Global, and SAIF Partners. |
| 2. | Flipkart | Received funding of around 7.3 Billion Dollars from Naspers, Microsoft, DST Global, SoftBank, Tiger |

| | | Global Management, Tencent, Steadview Capital, and Accel Partners. |
|---|---|---|
| 3. | BYJU | Received funding of around 819 Million Dollars from Tencent Holding, Sequoia Capital India, Verlinvest, General Atlantic, Sofina, Chan Zuckerberg Initiative, and Aarin Capital. |
| 4. | Paytm | Received funding of around 2.5 Billion Dollars from Alibaba, SoftBank, SAIF Partners, Berkshire Hathaway, SAP Ventures, and Intel Capital. |
| 5. | Delhivery | Received funding of around 670 Million Dollars from Times Internet, SoftBank, Tiger Global, Fosun, Carlyle Group, and Nexus Venture Partner. |
| 6. | Ola-Cabs | Received funding of around 6.2 Billion Dollars from Tencent Holdings, SoftBank, and Tekne Capital |
| 7. | Oyo-Hospitality | Received funding of around 1.7 Billion Dollars from Lightspeed Venture, SoftBank, Huazhu Hotel Group, Sequoia Capital, Greenoaks Capital |

The working model, customer satisfaction, high growth, and increasing business of these startups has resulted in foreign and domestic investor investing in these organization. Having no education in business but with high creativity to understand the need of the current generation in various sectors these entrepreneurs have started a new era of business.  The paper provides a detailed work of various startups in India. All the founders were having no relevant experience in the industry they entered but with the passion to make the idea successful, these new-age entrepreneurs have proved themselves. Organizations like Ola-cab, Flipkart, and Big-Basket have entered the market and provided services in different sectors. While Flipkart focused on selling fashion products, electronic goods, and a large variety of various products via online platforms. The success of Flipkart clearly shows how the entrepreneurs have captured the mind of the stereotypical buyer of India.

For ages, shopping has been an experience of visiting the market with family, physically analyzing the product, comparing the product with other products, and then finalizing the product. The marketing strategy of the organization has not only changed the mindset of young buyers but also buyers of all age groups. As today people of almost every age group do online shopping.  Thus, to enter the business of any sector it is required to analyze the need of the customer. As with Ola-Cab, when the founder was traveling, he felt the need for a reliable commuting source [1]. The application detects the real-time location of the customer shares the data with the nearby cab drivers and the cab gets booked immediately. This saves the travel time of cab drivers as well as travelers. The option of pre-decided fare for traveling ensures no miscommunication and convenience to both traveler and driver. With changing lifestyle grocery shopping has been a time taking task for most people. With startups like Big-Basket person gets almost all items at their doorstep with just one click.

During the times of pandemic grocery delivery startups including Big-Basket and Grofers have supplied a huge quantity of groceries and other items to their customers than what they regularly deliver. These startups procure their raw material, store them in their warehouse, and deliver as per the demand of the customer. As during the lockdown, it was not feasible for everyone to visit grocery stores these startups have come up as blessings for many. Since these startups not only delivered groceries and related items but also prevented people from getting contaminated with coronavirus after roaming out.

## CONCLUSION

The paper describes the success story of Indian startups, and how the young age entrepreneur changed the mindset of people. Earlier it was believed that business is only done by people having a legacy of business and the rest all are suitable for 9 to 5 jobs either in the private or government sector. But the new age entrepreneurs, their working model, frequently changing strategy to adopt new age technology, following core values to meet the customer demand and to keep the customer satisfied all these have completely changed the way to conduct the business. New-age entrepreneurs have successfully analyzed the industry-specific need of customers. Startups like Nykaa, Pharm-Easy, Dunzo, FirstCry, and Zomato all work in different areas but the way they have analyzed the need of the customer to make their life easy is worth appreciation.

The startup Nykaa is an online shopping website that provides a wide variety of cosmetics to customers. Cosmetics available on Nykaa are of national and international brands. Earlier it was never thought that we as a customer will get a wide variety of cosmetics for nails, skin, eyes, lips, perfumes, hair, and wellness products including supplements at one stop. Nykaa also provides an authenticity certificate for products available to ensure the trust of customers. The certificate of authenticity makes the customer rely uponthe that the product bought is authentic and not a first-copy product. The customer review section gives the idea that the product is suitable for which skin tone/skin type. Customers upload pics after using the product and write the pros and cons of the product which gives a detailed idea of the product to a new customer. Earlier it was the mindset of most people that cosmetics are bought offline only. But now the mindset is changed and most customers use online sites to shop for cosmetics and wellness products.

Pharm-Easy is an Ecommerce website that delivers medicines. In today's times, it gets difficult for people to go and shop for desired medicines regularly as sometimes go out of stock. But startups like Pharm-Easy had made life easier by providing the desired medicine at the doorstep. These organizations tieup with wholesale sellers of medicine, where they keep an online record of available medicines. When a customer selects a particular medicine of a specific dose the website/app immediately displayswhether the medicine is available or not. When the medicine comes in stock again the customer is intimated about the same.

Thus it is required for an upcoming generation who are willing to peruse their career as an entrepreneur to analyze the market need of the concerned industry. As every student is different and the learning ability of everyone is different. Using Artificial Intelligence based technology to analyze the brain activity and facial expressions of students is an important step in providing effective teaching sessions to students. Similarly while analyzing the mindset of the customer it is required to consider the geographical location of the customer, the price range of products

bought earlier, products viewed, and products added tothe cart. All these things will give a précised idea of the mindset of customers to make customer-specific offers/discounts.

In the case of online shopping, it is observed that customers get first-copy products in the name of authentic branded products. It is suggested that all websites should adopt an authentication certificate policy to ensure the trust of the customer. As when a customer order a product and receives a first copy, he gets a feeling of being cheated. Thus to prevent the authenticity of every product is required to be checked before making it available to customers. Thus current paper opens prospects to conduct more research on more startups in India established in recent times.

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# CHAPTER 3

# INTRODUCTION OF CRYPTOCURRENCY IN INDIA: ITS CHALLENGES, FUTURE, AND ECONOMIC IMPACTS

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## ABSTRACT:

A cryptocurrency is a digital asset that acts as a medium of exchange that uses cryptography to protect transactions and limit the production of new currency units. Due to the rapid progress of data and communication technology, a variety of behaviors in people's daily lives have already been synchronized online, and they are becoming more adaptive and successful. Cryptographic currency refers to essential and non-material goods that are used electronically in a variety of applications and corporations, such as online informal communities, interactive games, virtual environments, and shared organizations. The use of fictitious money in various contexts has grown in popularity in recent years. The study explores the purpose of cryptocurrencies, their legal status and constraints, the rise of cryptocurrencies, and the expectations of future cryptocurrency consumers in India. It also examines consumer confidence in cryptocurrency in an era where the use of such virtual money is not fully monitored and regulated. This study looks at how the current regulatory regime on virtual currency is being implemented in India. The report also proposes a new cryptocurrency model regulation that will act as a foundation to govern cryptocurrency-based development in India.

## KEYWORDS:

Bitcoin, Cryptocurrency, Digital Currency, Legislations, Monetary, Opportunity.

## 1. INTRODUCTION

There is no doubt that the time of information and communication technology has created many wonderful opportunities. Various industries, including finance and business, benefit from these improvements and Internet connectivity. Cryptocurrency [1], virtual currency, and bitcoin, which are all electronic versions of monetary notes and coins, are among many things and administrations. Such new monetary goods and services address important issues such as money-related and macroeconomic credibility, buyer protections, spending, and the benefits of allowing such a new framework to surpass lawmakers and observers in the current payment foundation. This prompted several countries, including India, to consider administrative components that could be used to manage virtual money, with specialist founders as representatives, exchanges, incentives, responsibilities, and obligations in collaboration, as well as Customer privacy in India's payment architecture [2]. The need for secure correspondence spurred the development of digital currency during World War II. The natural nature of cryptography, which is not offered by any central location, making it impervious to interception or intimidation by the administration, is a distinguishing feature but perhaps its most striking attraction. Mobile

payments are a technology used to make money that involves security encryption. It is also known as virtual money or money.

Virtual money is a type of additional payment that is completely confidential and untraceable. Digital money is connected to the network, which employs cryptography. To track transfers and purchases, cryptography is the study of converting understandable data into virtually indestructible code [3]. Cryptocurrency is a technology for creating and receiving Internet communication, data, and money. In the advanced stage, it emerged with a mathematical hypothesis and bioinformatics components. Mobile payment is a digital resource designed to act as a communication medium that uses strong encryption to facilitate financial transactions, restrict the generation of additional units, and authenticate resource transfers. Cryptocurrency transactions operate on a decentralized basis, in contrast to sophisticated funding and focused financial structures. The growing number of online customers has given rise to fantasies about virtual environments and has given rise to new business structures [4]. There were many types of exchanges, transactions, and monetary forms. Cryptocurrency is one of the most unconventional monetary schemes that have evolved in recent years.

Digital currency can be thought of as any trading mechanism other than certified cash, which can be used in a variety of monetary agreements, whether virtual or physical. Cryptocurrency transactions are valuable and immaterial goods that can be used in a variety of applications and organizations as online interpersonal organizations, Internet community games, virtual universes, and shared networking, virtually or remotely. The cryptographic phrase spent the following refers to an elusive type of illegal tender that can be used as a medium of exchange and has been used between online/crypto money users in an electronic or computerized framework. Cash cryptography involves virtual exchange rates [5]. A spot coin is a subtype of virtual currency in which cryptography confirms the actual estimate of something like a specific unit. In most circumstances, virtual cash transactions require the consent of both the buyer and seller. Because the digital currency is not backed by any precious metal but is instead guaranteed by the government by providing fiat, it is fractional reserve banking rather than product-based money.

### 1.1. Features of Bitcoin:

Bit currency convention is much more than giving money to another person. It has several features that set it apart from other cryptocurrency transactions. Misrepresentation Control: Provides the highest level of protection for customers against most common counterfeits, such as chargebacks and unauthorized charges. Without enhanced security, customers can scour the entire wallet and have full power over their funds. As a result, there is virtually no risk of any other type of deception [6].

i. *Accessible Globally*:

Bitcoin enables any bank, company, or substance to securely make and receive payments anywhere, anytime. All methods of international payment are acceptable [7].

ii. *Effective expense*:

Bit currency exchange can be done without the need for a middleman. Compared to the alternative installment structure, the time and money of exchange are significantly less [8].

iii. *Transparency*:

All bit-currency Exchanges are easy to use and available to all customers. All else being equal, even the tower of corporate stores and documentation of everything.

### 1.2. Legal Status of Bitcoin In India:

The constitutionality of Bitcoin, as well as associated crypto products, varies widely from country to jurisdiction and is still unclear in a growing sample of countries. Even though most countries do not consider the use of Bitcoin to be illegal, its status as a currency or product has fluctuated, resulting in a variety of administrative consequences. While many states explicitly authorize its use and trade, others have restricted or limited it. To be honest, many national authorities, organizations, and courts have their Bitcoin regulations. Bitcoin is available all over India since 2012. In February 2018, the former finance minister said in his budget speech that the government would do everything possible to prevent the use of Bitcoin as well as various other monetary standards for illegal purposes in India. He highlighted that India does not recognize them as legal instruments and instead promotes the use of rectangular chains in digital currencies. According to the Indian government, residents using these types of monetary forms should be cautious, as there is no legitimate assurance for these monetary developments, so if there is abuse, no assistance is available from the government. The Reserve Bank of India (RBI) [9] banned the sale or purchase of encrypted money for drugs controlled by the RBI in mid-2018. A request was filed before the Supreme Court of India in 2019 to find out the legality of cryptocurrencies and a title or request limiting their operation. The Government of India has prepared an administrative framework for electronic currency. On February 25, the Supreme Court gave the administration one month to provide us with the crypto standard. At the time, the Supreme Court agreed to hear submissions from the country's central bank, the RBI, opposing the cryptocurrency boycott.

### 1.3.Opportunities of Bitcoin in India:

iv. Businesses in the nation see this as a unique opportunity to expand the use of touch coins and other cryptographic forms of money and property. According to reports, there are currently around 30,000 Bitcoin owners in India, and this figure is expected to increase.
v. This is an arrangement structure for customers who will not require personal credentials.
vi. Saving currency expenses is not important for promoters.
vii. It's a tool that allows backpackers to send to communities for free [10].

### 1.4. Challenges of Bitcoin in India:

It is completely decentralized, which means that if hackers and unscrupulous people break into the cryptocurrency system and figure out how to create virtual cash, they can create as much as they want [11].

### i. Government Regulation:

The primary threat to the development of the Indian administration is Bitcoin. At the moment, the future of cryptocurrency in India is unclear. The Reserve Bank of India announced in 2019 that cryptocurrency would not be accepted as legal cash.

*ii. Security Threat:*

Hackers and unscrupulous consumers can generate as much or as much virtual money as they want if they break into the infrastructure and understand the method for virtual currency presence. Basically by improving the balance of records, it will increase the ability to generate fraudulent virtual currency or take fictitious money.

*iii. Negative Impact On the Indian Monetary System:*

In special phases, cryptocurrencies such as Bitcoin could enable customers to acquire virtual and real products and enterprises using virtual cash to reduce real cash requests. Customers will no longer rely on real money to buy everything they need and will instead use fictitious money in all cases. Nonetheless, some websites entice buyers to swap digital money for real money, which will again increase the knowledge of real money. As such, the need to fluctuate supply will have a detrimental effect on real income systems.

*iv. Use for Suspected Activities:*

There have been several reports alleging that bit currencies are being used for illegal and criminal activities everywhere around the world, including illegal tax evasion, underground advertising, and tax loopholes.

*v. No Ombudsman:*

There is a stage where a consumer can communicate any support or complaint, which results in the Indian buyer's willingness to participate in dependent and informational activities.

*vi. Indian Own Cryptocurrency Upcoming Admission:*

According to a floor by Business Standard, the Indian government will issue its cryptocurrency, similar to the bitcoin "Lakshmi" and the debate continues.

*vii. Deep Embedding in Local Currency:*

According to EY's Chief of Innovation and Entrepreneurship, Paul Brody, the neighborhood's currency is deeply woven into the economy, the piece coin, and few other digital money, with less than any meaningful use in the district.

*viii.       Human blunder in online trades:*

Unregulated digital transactions individuals can be misleading or ineligible when it comes to accepting Bitcoin payments. The only difference is that while traditional banking risks are sometimes safer for account holders, bit currency traders do not provide the benefits.

*1.5. The Rise of Cryptocurrency Impact Currency Market:*

The Supreme Court recently struck down the Reserve Bank of India's ban on cryptocurrency in April 2018, paving the way for its legalization in India. In 2018, all business relationships involving individuals or organizations linked to cryptocurrencies granted to banks and certain other entities were to be suspended by the RBI for three months. People and organizations alike enthusiastically embraced and welcomed the most controversial decision of the Constitutional Court [12].

In the context of the region as a whole, people in developing countries want to search for transactional data, or concerning digital currencies, they want to buy something. Cryptocurrencies are increasingly trying to make their way into regulatory frameworks to see if they can be misused. Japan has managed to overtake the United States as the leading nation in the management of digital currencies; The United States is gradually developing guidelines and regulations; The United Kingdom and Australia are trying to dismantle the customs; And China has explicitly banned offerings (ICOs) of digital currencies for a myriad of purposes, including the recent ICO scam around the world. While India has a comparatively tiny percentage of the international electronic currency market, properly accounting for less than 2% of the combined market capitalization, the RBI has warned of great promise monetary, constitutional, buyer assurance, and access control risks in electronic money, despite the RBI's common press reports that it is launching one's digital currency called Lakshmi. The IT club's new initiative to conduct comprehensive reviews of all key trades has prompted the email to send personal assessment notification notices to those trades' clients. As a result, the rapid expansion of India's popular cryptocurrency atmosphere, with some of its benefits circumventing economic framework constraints as well as being unstable, has raised doubts about the Indian currency's future.

### 1.6. Crypto Currencies Can Boost India's Digital Ambitions:

In 2013, a vintage pizza business in Mumbai began taking Bitcoin, the first cryptographic form of money to be accepted in India. Since that day, Indian interest in cryptocurrencies has only intensified, resulting in the establishment of many Indian cryptocurrency exchanges and associations that accept electronic money. Given the fact that India has over 600 million youth, it is clear that innovation selection and global trends (especially crypto enterprises) move at an alarming pace. The Indian economy, on the other hand, is governed by complex macroeconomic regulations, which have far-reaching implications for the country's economic crypto major shareholder valuations. Against the backdrop of stringent regulation and naturally related sectors, the crypto scene evolves and is accompanied by additional difficulties in Karnataka. It is this article that will demonstrate the complexities of the Asian economy, as well as why different monetary standards can help India's technological development by integrating smarts with something called the Indian Stack [13].

### 1.6.1. Cloudy with a Chance of Legitimacy:

According to a new IT report, the Indian crypto business employs 200,000 technically proficient brokers every month and has generated $3.5 billion across exchanges in the past 17 months. Given the massive expansion, the participants must be anticipating the clear attitude of the government. While many countries have made both favorable and bad decisions about cryptographic forms of currency, India's top monetary regulator, the Reserve Bank of India, has been issuing advice to financial proponents since December 2013, when a pizza restaurant in Mumbai sold bitcoin to bitcoin. began to accept The topic remains secret until now, and there can be significant security and financial risks associated with digital currency enterprises and trading. As a result, the government would have been unable to protect customers exposed to this volatile market. The Finance Minister of India, Shri Arun Jaitley has stated that various monetary measures are not a medium of exchange in India, which means that cryptocurrency exchanges cannot be used as a substitute for INR at this time. As a result despite the fact transferring is not illegal, the crypto market is relatively unorganized and without a legal framework [14]. However, the government has recently made progress in digital currency legislation; The Union

Budget for 2018, which was again presented on 1 February, contains the following key assumptions:

1. The government will use all available means to prevent illegal activities conducted by cryptographic forms of money.
2. As part of the Digital India initiative, the government will also focus on the use of distributed records technology.

This is in line with recent reports that India aims to regulate digital currency exchange as a major step toward curbing illegal protests. This is significant as India is now dealing with challenges such as cross-border psychological manipulation, and the administration is wary of the possibility of circulating black money in the crypto-market, which would increase such risk. Consequently, the new law will have a two-pronged organization, with specified criteria to look into the source of finance and assure regular financial support. It is worth mentioning that in India, all crypto exchanges are now subject to KYC, and capital conversion is done through computerized banking. This is in contrast to South Korea, which has now recently implemented the principles of using the same name in both the bank and the exchange.

### 1.6.2. *Virtual Currency Is Great for India Stack:*

According to the official site, India Stack is an ambitious endeavor for 1.3 billion Indians, depicted as the following. India Stack is a set of APIs that enable governments, businesses, new enterprises, and designers to use a uniquely advanced foundation to address India's tremendous challenges with no-shows, paperless, and credit-only support delivery. Aadhaar is the world's largest biometric identification system, with over 1.2 billion Indians enrolled. Since its inception, it has been completely consistent for any Indian to register an advanced bank account and attach the current document to the identity [15]. Even though this is the foundation on which the computerized banking framework and installment network are being built, a square filament of electronic money with permission from the government is required towards becoming entirely credit only. This will result in a significant difference in the way money is exchanged, as well as the complete removal of defilement, such as financial fraud and duty evasion. Aside from it though, the vast customer base that is migrating to industrialized economies would benefit from the increased internet trade. This will also eliminate the additional costs associated with card payments, benefiting both small and medium-sized businesses as well as consumers. [14]

Perhaps it was not far from the minds of people in November 2017 when news of the introduction of a Lakshmi (goddess of wealth) currency came, which the Indian government would legally approve. The official website for the currency will not provide a launch date, only that it will be available shortly. Till now nothing has been checked by the concerned authority. Similarly, there are countries in the world that are adopting bitcoin and other cryptocurrencies, such as the Arizona Senate passing measures allowing crypto coins to pay for annual expenses, and Russia adopting the crypto ruble. is constructed. In addition, though, Venezuela has developed and deployed a state-backed currency branded to allow citizens to make payments across systems and government agencies. Even though it is claimed that the Hydrocarbon coin was founded as a means of fighting the near financial meltdown, it is a classic example of its use in a control framework [16].

## 2. LITERATURE REVIEW

The researcher T. Agarwal et al. [17] experimentally study the impact of crypto-currency trading on electricity consumption as an important consequence of blockchain technologies on climate change. In this paper, the author evaluates the impacts on the total primary energy supply using data from all crypto-currency trading volumes along with bitcoin transaction volume for the period 2014M1 to 2017M12. According to our empirical findings, trading volumes of crypto-currencies and energy usage are positively correlated. Additionally, during the research period, the amount of symmetric encryption traded has a co-integration to energy consumption, indicating that these particular variables have significant co-integrations. In other words, our data suggest that cryptocurrency activity has only a largely positive and growing effect on energy use, both in the short and long term. This study goes a step further by looking at the effects of royalty payments in cryptocurrency trading volumes on royalty payments in electricity consumption to confirm that higher transaction volumes in cryptocurrencies can lead to higher power consumption. Our results indicate that trading crypto-currencies have a detrimental effect on the environment, the more asymmetric encryption transactions, the higher power consumption, which damages the ecosystem.

The researcher A. K. Agrawal et al. [18] illustrate that Cryptocurrency has created panic around the world. Cryptocurrency and Bitcoin blockchain technologies are putting pressure on the banking system. Alternative and creative blockchain-based options for the transfer of funds and some other money transfers have started to strain the banks. After the 2008 financial meltdown, virtual currency is being considered as a replacement for the traditional economic framework based on banks, credit cards, and other payment processors. A monetary system that is not tied to a sovereign state is considered a way to avoid central authority interference in currency price manipulation. Governments, on the other hand, are divided on how to handle the use of digital currencies as fiat cash. Its strength is about current currencies, the global environment, and the Indian cryptocurrency industry. Cryptocurrencies are said to be so strong that they cannot be ignored. The only way out is to adapt the existing currency system to incorporate virtual currency with effective security safeguards.

The other researcher S. Farooq et al. describe that cryptocurrencies have recently attracted a lot of attention from the general public. With each passing day, a large number of businesses are adopting cryptocurrencies as part of their payment solutions, paving the way for a real revolution. Currently, over 700 crypto-currencies are available for trading on Coin Desk alone. The market share of cryptocurrencies is over US$14 billion as of November 2016. Cryptocurrency transactions and their customers are vulnerable to a variety of risks as the monitoring of the transfer of cash is done to ensure no attention is paid to it. In this article, we attempt to describe operations with some of the most prominent cryptocurrencies that are now available in the market. The author also discusses some of the most dangerous attacks that can be launched against these cryptocurrencies, as well as how the general mechanism of cryptocurrencies mitigates these threats. The author will offer an assortment of the five most prominent cryptocurrency exchanges and compare their features.

## 3. DISCUSSION

The benefits of using digital money are huge. Cryptocurrency is easily available to the common people. Paying using crypto-currency is very simple. This makes it much easier to transfer money in a transaction involving two parties. The use of cryptographic keys supports such

transfers for national security reasons. Administrative fees for these transfer payments are minimal. Users can avoid huge wire transfer costs between most banks and other financial institutions by using cryptocurrency operations. Inter-country transactions with cryptocurrency are relatively simple as it is not controlled by a central bank. There is no institution like a bank that he should trust. No one can take personal data from the store, ensuring that personal information is kept private. Since it uses NSA-developed cryptography, the entire transaction will be secure. Not all benefits mean that investing in cryptocurrencies is risk-free. There are also some drawbacks of Bitcoin. This article covers the disadvantages of cryptocurrency transactions. Cryptocurrency is very new on the scene and has a steep learning curve. Because many people do not understand how to handle crypto money, they are exposed to hackers. People invest in cryptocurrency exchanges without sufficient knowledge, and as a result, they lose a lot of money that they do not understand. Cryptocurrency is still not generally recognized by services and companies. Only a few countries have allowed the use of cryptocurrencies. The main disadvantage of cryptocurrency is that it lacks wide acceptance, yet it is slowly but surely gaining ground.

## 4. CONCLUSIONS

For example, BitCoin offers an innovative, efficient, and attractive method of payment that has the potential to increase income for both businesses and operators. Apart from real money, it also offers alternative payment options that allow customers to carry out financial transactions such as buy, sell, transfer, and trade with ease. Cryptographic money will have a greater impact on the e-commerce and e-payment industries. However, there is not much assurance when it comes to digital currency. In many crypto-money-related companies, there are countless problems, roadblocks, and challenges. To use digital money, customers should avoid potential risks until it is fully monitored and controlled. As a result, the lack of guidelines is considered a primary concern in digital currency systems. In India, an entire industry has been built around Bitcoin, with dealers, traders, and shippers accepting Bitcoin payments. Spar coins have got unmistakable recognition across the world, thus banning them in India would be a mistake. In the end, he has to be in charge of the company. The sooner it happens, the better. Alternatively, the Reserve Bank of India may need to examine how to employ Distributed Ledger Technology (DLT) for wealth management and overall benefit to the Indian industry. The application of blockchains in trade, finance, lending, and other monetary institutions will usher in a new era of the fintech goods and services industry in India. As a result, this advanced structure, such as a centralized or decentralized distributed ledger, has the potential to increase the efficacy and comprehensiveness of the Indian monetary framework. The development of cryptocurrency will benefit the carefully enabled local region as well as the country's digital program and information economy. This step will be a major step towards ensuring e-governance, which will include financial company electronic governance, user-friendly products, programming, youth job openings, and the overall development of the Indian economy. This installment record mechanism provides India an opportunity to handle financial issues in public view, while also providing wider access to funding.

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# CHAPTER 4

# FACTORS THAT INFLUENCE THE CONSUMER BUYING BEHAVIOR AND THE EFFECT OF CONSUMER BUYING BEHAVIOR ON THE MARKET

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**ABSTRACTS:**

Consumer behavior is the study of consumers or the method they use to select or dispose of a product as well as a service, but also the mental, emotional, or behavioral response of the customer. In marketing strategy, consumer purchasing behavior is important. According to government data, the majority of India's population lives in rural areas, accounting for 55% of the total consumption, and Indians living in rural areas are as smart as their urban counterparts. Increased income, increased non-farm work options, greater ambitions as well as the government's focus on rural sustainability programs have contributed to the expansion of rural markets. Rural markets in India are expected to grow at a faster rate than urban markets. Since this is a new market, it can provide producers with insight into the behavior patterns of rural customers. Consumer behavior and decision-making have evolved in recent years and have become a hot issue in the marketing world. Since marketing begins and ends with the consumer, a customer's purchase choice reflects how well an organization's marketing strategy meets a marketing need. The psychological processes that customers go through to understand their desires are called consumer behavior. The main objective of this paper is to study the factor influencing consumer buying behavior, and in this paper, the author talks about the form of customer buying behavior or process of consumer buying behavior. In the future, this paper helps to understand the process of buying behavior and the factor that influences consumer buying behavior.

**KEYWORDS:**

Behavior, Consumer, Influence, Market, Psychological.

## 1. INTRODUCTION

Consumer behavior research is important because it allows marketers to better understand the factors that influence customers' purchasing decisions. Researchers as well as others who study how consumers make purchase decisions can identify the goods needed to fill that void in the market. Consumer research also helps marketers determine the most successful ways to sell their goods [1]–[3]. It is essential to understand the buying patterns of your consumers to communicate with and entice them as well as encourage them to buy from you. Consumer behavior is the study of how people allocate their limited resources ("money, time, and effort") to various items. This straightforward description of customer behavior encourages marketers to

focus all their efforts on the end customer and track their behavior by paying special attention to them. The decision-making process defines the number of persons engaged in the process as well as assigns each of them a position, such as a user, decider, influencer, or buyer. It is thought that consumers and customers make purchasing decisions based on the reception of a limited amount of well-selected data. As a result, it's critical to understand what information the client needs and how much of it he needs to appraise the services and goods on offer [4], [5].

Consumer behavior research shows that customers must go through five stages in the decision-making process when making a purchase. This is described in Figure 1, which shows that each transaction involves five processes that customers must go through. On the other hand, consumers frequently erase or reverse parts of these steps in regular purchase choices [6]–[8]. The acceptance of the requirement is the first step in the procurement process. Consumers recognize a problem or demand at this stage or respond to a marketing stimulus. The second step is to look for information or determine how much data customers need to choose from. Information can come from internal resources such as memory or experience, as well as external sources such as relatives, friends, or family, as well as social media or marketing staff who can provide customers with essential information [9].

### 1.1. Process of Customer buying behavior:



**Figure 1: A diagram showing the process of consumer buying behavior and showing that each transaction has five steps that customers must complete.**

The customer buying process is a streamlined step-by-step operation and the marketing understands a customer's (cultural, economic, political, or technological) desire to buy, based on stimuli (pricing, promotion, product, or location,) or environmental variables. After that, their characteristics, such as their opinions, values, or motivations, influence their decision-making process, ultimately resulting in a choice to buy or not to buy [10].

### 1.1.1. Problem Identifying:

In the first stage, the buyer determines the demand for a product or service. For example, as their firm expands, they may realize that hand email outreach is no longer effective, requiring the use of an email automation solution.

### 1.1.2. Correct Knowledge about the product:

After identifying the need for a service or product, the buyer begins looking for information. They can get it from multiple sources (mass media, friends, advertisements). For example, a prospect might start looking at email automation services and reading reviews.

### 1.1.3. *Evolution of alternatives:*

When the buyer has gathered all the necessary data, he can start weighing the prospects. They may look at key features or prices to evaluate whether one device is better than others. Various possibilities are weighed against customer requests, wants, financial resources, and preferences, among other factors.

### 1.1.4. *Product buying decision:*

At this stage, the buyer will either commit to a certain option or make the final decision. Your selection may be influenced by availability and pricing. After examining the product, the customer makes a purchasing decision and they may, for instance, start a free trial or purchase a premium membership.

### 1.1.5. *Post-buying evolution:*

After receiving the goods or services, the customer analyzes whether it meets or exceeds their expectations. At this stage, they can also publish online reviews of purchases or share their thoughts with colleagues, customers, or friends. During this stage, the consumer evaluates whether the purchase meets his needs.

### 1.2. *Forms of Consumer Behaviors:*
### 1.2.1. *Complicated Buying Behavior*

Customers participate in this type of behavior while purchasing an expensive, infrequently purchased item. They are significantly involved in the buying process as well as customer research before making high-value transactions. Consider buying a home or vehicle; both of these are examples of smart shopping.

### 1.2.2. *Buying Habits that Reduce Discrepancy:*

In any case, when a buyer is fully involved with the purchase system, he or she may be attempting to distinguish between different brands. Conflicts arise when a customer is concerned that his choice will be criticized. Assume you're looking for a member of the Legislative Assembly. You'll choose one based on price or lodging, but after you've decided, you'll want to know if you've made the proper choice.

### 1.2.3. *Frequent buying habits*

Habitual buying is defined as a lack of customer interest in a product or brand category. Consider the following grocery shopping scenario, customers visit a store to buy their favorite bread. Instead of displaying considerable brand commitment, you are following a trend. In this situation, a customer buys a different product because they want variety, even if the first is great, for example, when you're testing the scent of a new shower gel [11], [12].

### 1.3. *Factors influencing customer behavior:*

Many things affect customer behavior but some of the most important factors that have been discussed are those that affect consumer behavior.

### 1.3.1. Marketing campaigns:

Marketing efforts frequently affect purchase decisions and they may also influence clients to switch products or go for more expensive solutions if done properly and consistently with a compelling marketing message.

For example, e-commerce is a form of marketing activity and Facebook advertising can also serve as a reminder for products and services that people need regularly but are not always readily available. A well-crafted marketing message has the potential to influence impulsive purchases.

### 1.3.2. Economic circumstances:

The purchase of valuables is greatly influenced by economic conditions (such as a home or automobile). When the economy is doing well, consumers are seen as more confident or willing to make purchases, nevertheless of their financial commitments. The customer's decision-making process for an expensive purchase is lengthy, or it may be influenced by many different variables at the same time.

### 1.3.3. Personal inclinations:

Personal characteristics such as likes, dislikes, morality, and values might impact consumer behavior. In domains like fashion and cuisine, personal opinion is immensely essential. Advertisements do influence behavior, but at the end of the day, client preferences play a crucial role in their decision. If you're a vegetarian, no matter how much burger advertising you see, you'll never consume meat.

### 1.3.4. Influence of a group:

Peer pressure has an impact on consumer behavior and the opinions or actions of our family and friends, classmates, close relatives, neighbors, and acquaintances influence our decisions. Social psychology has an impact on consumer behavior. One of the following scenarios occurs when consumers choose fast food instead of homemade food. Variables such as culture and education can have an effect.

### 1.3.5. Power of purchase:

Last, but certainly not least, our purchasing power has a significant impact on our choices, and before making a purchase, consider your budget unless you're a billionaire. The product may be excellent, or the marketing may be impeccable, but you won't be able to buy it if you lack the financial means to do so. Consumers can be classified based on their purchasing power, which will help marketers identify eligible customers and improve results.

### 1.4. Other Factors Influencing Consumer's Behavior:
### 1.4.1. Cultural Factor:

- Customers are influenced by cultural characteristics, conceptual aspects, civic components, and psychological variables. Marketers use these components to not only distinguish consumers but also to choose the right plan of action for which client categories to target.
- As a consequence, these variables are utilized to segment the market and define client segments.

- Cultural elements-cultural variables are recognized as one of the major influences on consumer behavior. They are divided into three categories such as cultural subgroups, culture, and social classes.
- Culture is often seen as the primary source of individual needs and desires. Consumer behavior is mostly driven by the values or beliefs people observe in different groups of individuals starting in adolescence, but these values also influence their behavior and decision-making. As a result, marketing personnel is attracted to these characteristics, which are important markers of specific customer behavioral preferences.
- Cultural subgroups are minuscule groups of people who share values and views about things like origins, belief systems, as well as worldly places. Recognized cultural subgroups can be offered as a significant or profitable market segment.
- Social classes are made up of a range of components that bring different sorts of affiliates together. Civil classes, which are identified as a class system, are some of the recognized components, as are earnings, duration of animate existence, the progress of knowledge, or property.

### 1.4.2.  Civil factor:

Reference groups, home roles or status, as well as civil family structures, are among the social components separated into three categories.

### 1.4.2.1. Reference groups

Individuals' conduct is influenced by these groups based on the beliefs they hold about them. Consumers such as relatives, neighbors, or coworkers are influenced directly through membership organizations. Individuals aspire to be members of reference groups but are unable to do so. Individual behavior or attitude is influenced by reference groups both directly and indirectly. Reference groups can impact a person's behavior in three different ways. Reference groups expose people to new habits and ways of life, have an influence on an individual's personality and self, and foster the desire to be validated by others. Another significant impact is the opinion leader, who persuades people to adopt his or her beliefs and attitudes about certain problems, goods, and regions [13]–[15].

### 1.4.2.2. Household:

Household affiliates have a significant effect on consumer shopping behavior. The levels of attachment and dominance of family members, as well as the extent and pattern of dominance, vary. As a result, it is important for marketing professionals to determine what role each member of the family plays and to focus on promotion to the dominant class of domestic associates.

### 1.4.2.3. Status and Roles:

People belong to a variety of groups and perform distinct roles within those organizations while holding varied positions. Roles may refer to the actions that members of a group expect others or individuals to accomplish.

### 1.4.3.  Personal factor:

These elements have a greater influence on the customer behavior indicated below, such as:

- As people go through life, they go through numerous stages and these numerous stages also depict the adjustments that customers may experience as they go from one phase to the next. As a result, to build an appropriate marketing scheme, marketers identify their market aims in the context of several phases.
- A consumer's occupation has a major impact on their buying habits and the purchases of the customers are influenced by the actions performed by the employees. This opens up the opportunity to generate a variety of products that cater to customers who are identified as above average in a certain economic situation. Customers' product preferences are influenced by their wealth. Some customers might well be price-sensitive when it comes to items and services, or they may not place a high value on the amount of money they make. Quantity of retaining, level of interest, as well as the primary items and services.
- The visionary perception in human beings demonstrates people's characters are known as self-concept and self-image. Since people might have had an approach that fulfills who they are but not who they want to be (the perfect oneself concept), this method may generate some dispute.

*1.5.Psychological factors:*

Psychological factors are classified into four categories, as follows: (learning, motivation, perception, beliefs learning, and attitudes).

*1.5.1. Inspiration:*

This is a notion that relates to a specific criterion that must be met and these needs come in a variety of forms, including: (biological necessities like hunger for food, displeasure, or thirstiness). There are also mental criteria such as the desire for acknowledgment, veneration, and belongingness. Needs are not met until they reach a certain level of intensity, at which point they become motivators for the consumer to complete the establishment. Human people, according to Freud, do not completely understand their intentions. As per Maslow's theory, people's needs are arranged from the most urgent to the least urgent needs, and this is known as Maslow's hierarchy of requirements, which starts with physiological desires, safety requirements esteem needs, social needs, or self-realization needs, or when one need is met, the individual moves on to the next need to be met.

*1.5.2. Conception:*

This term refers to how people interpret their surroundings in different ways. Conception is the process through which a person selects, organizes, and interprets data. There are three different processes for understanding information that determines how individuals perceive their information: selective distortion, selective consideration, and selective retention.

*1.5.3. C Learning:*

Learning may be described as the act of influencing human behavior via the use of the following components:

1. Drives are powerful inner desires that compel you to take action.
2. These are the things that make you want to do something.
3. Cues are little stimuli that describe when, where, or how a person will respond.

4. Reinforcement occurs when an object's reaction and stimulus are performed several times.

Human beings can develop perceptions and opinions through learning or practice and they can influence buying behavior by creating a picture in the minds of customers based on the brand and the goods. A belief is an explanatory idea about objects that are based on anecdotal information, attitudes, and religions. Beliefs can also arise from human emotions and the human assessments, feelings, and attitudes toward certain things, as well as human judgments about things like likes or dislikes, are all examples of attitudes.

### 1.6. *Effect of consumer buying behavior on the market:*

Purchaser behavior is closely linked to marketing methodology: it aids businesses in determining whether or not what they are giving will be useful, as well as matching their marketing strategy to the correct target market. Organizations all throughout the world influence shoppers by urging them to buy products or services. This is accomplished by looking into client demands and making substantial advancements to support item purchases. A few advertising tactics are used to influence customer behavior, which influences purchasing decisions. The most important consideration when developing an item marketing strategy is to communicate with customers on a personal level. This may be accomplished by providing unique products that attract clients' attention. Buyers are drawn to goods that elicit positive sentiments such as enthusiasm and shock, according to a study.

In this paper, the author discussed factors that influence consumer buying behavior and also the process of consumer buying behavior, and also the forms of consumer buying behavior.

## 2. LITERATURE REVIEW

S. Dibb et al. studied consumer behavior and in this paper, the author claims that the customer is the king of any business. Consumer behavior includes consumer activities in the acquisition, consumption, or disposal of economic services or goods, as well as the decision-making process that precedes or affects these acts. Consumer buying behavior research has become one of the most important and difficult tasks for businesses. To obtain a competitive advantage over competitors, a significant amount and time are spent on studying the nature of the customer buying process. This study attempts to understand the buying process of consumers and the factors that influence such decisions [16].

N. Ramya and M. Ali studied Factors affecting consumers' buying behavior. According to the author, several aspects, characteristics, or traits affect the identity of the individual and the decision-making process of the consumer, the buying behavior, the buying habits, the brands they buy, or the stores they visit. Each of these elements has an impact on the choice of purchase. By identifying and understanding the factors that influence their customers, brands can develop a more appropriate approach, a marketing message, or a marketing campaign that is tailored to the needs and ways of thinking of their target consumers. Things might be made better by recalling affecting factors, and the goal of customer happiness could be reached. The designer believes that customer purchasing behavior is crucial to marketing success [17].

C. Hervé and E. Mullet, studied the factor that impacts consumer behavior. Many elements, qualities, or attributes have an impact on a person's identity, but also a user's decision-making process, buying behavior, buyer habits, and brand selections. Each of these factors influences the

buyer's decision. By recognizing and understanding the components that influence their customers' demands and ways of thinking, brands might develop more effective techniques, and marketing messages, including marketing campaigns that are more tailored to their target consumers' needs and ways of thinking. They will be able to better address their client's needs, resulting in increased sales. An effective consumer-oriented market service supplier must behave like a psychologist to attract customers [18].

S. C. Eze and A. O. Bello studied the factor affecting consumer purchasing behavior, the purpose of the study, according to the author, is to find the sociological concerns that influence customers purchasing behavior in the garment sector. This study used a qualitative method to investigate the important elements that influence customers' purchase decisions. The relevance of this discovery is that advertisers should continually research their clients' behavior traits before making plans to acquire products or services supplied to customers since the characteristics investigated in this study show that they have a substantial influence on consumers' purchasing habits. Consumer purchase behavior is influenced by age, quality, income, and wealth, according to the findings of this paper [19].

## 3. DISCUSSION

From start to finish, the customer is at the core of marketing. Customer happiness is the primary goal of every business. Knowing the customer, his likes and dislikes, expectations, and incentives, in short, consumer behavior is critical to achieving customer satisfaction. Recognizing and understanding consumer needs requires an understanding of customer behavior. As a result, customer analysis is important for marketers in deciding the fate of their businesses, and consumer behavior research is important for controlling consumer consumption as well as, consequently, economic sustainability. Consumer behavior has been extensively researched. This allows companies to learn more about how customers make purchase decisions. Marketing professionals are always eager to learn more about customer behavior so that they can better organize advertising efforts along with the communication of their product or service. Many people shop daily, but many are unaware of the factors that influence their selection.

Consumer buying behavior is influenced by psychological, cultural, and personal variables. Consumer behavior is not constant or consistent under all circumstances; it keeps on changing. Many elements affect the customer experience. When several factors, such as demographic characteristics, social factors, and cultural characteristics, change, consumer behavior changes. The purchasing decision-making process for consumers is divided into five stages, with the final stage being the actual purchase. Problem detection, information search, alternative evaluation, purchase decisions, and follow-up actions are not included in every decision-making process, but not every consumer choice includes these steps, which are determined by the degree of complexity, such as the problem. Detection, alternative evaluation, information search, purchase decision, as well as a follow-up action.

## 4. CONCLUSION

Consumer buying behavior is a set of activities, methods, as well as processes engaged by customers before and after receiving a service or product in the market. These actions are influenced by attitudes, intentions, preferences, and decisions. These activities or operations can

now take place both offline and online, thanks to the new business paradigm. Consumer behavior refers to the process through which individuals select, acquire, or use goods as well as services to satisfy their requirements and wants. Many steps are taken in the buying behavior of the customers. Consumers first try to figure out what they want to consume, but then they choose only the most effective items. Finally, buyers evaluate the price of the product and make purchase decisions based on their findings. Many variables influence what people buy at the moment. Clients prefer civic components, cultural components, personal components, and psychological components. Customers go through a five-step process when they buy something. Consumer The first step is to identify a problem; the second is information search, the third one is to conduct purchasing development; The fourth is to make a purchase choice, and the last step is to conduct the post-purchase development. An effective customer-oriented market service supplier must behave like a psychologist to attract customers. Things can be improved by taking into account the influencing factors, and the goal of customer satisfaction can be achieved. The author covers the process of consumer buying behavior along with customer buying behavior, the main objective of this study is to find out the effect of variables on consumer buying behavior. In the future, this study will aid in the understanding of the buying process and the factors that impact customer purchasing decisions.

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# CHAPTER 5

# SURVEY OF THE EFFECT OF ELECTRONIC COMMERCE ON THE INDIAN ECONOMY

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**ABSTRACT:**

Electronic commerce is the activity of doing business through a computer network, in which a user can now sit in his chair in front of a computer and buy or sell anything using the capabilities of the Internet. Unlike traditional commerce, which needs individuals to go out and purchase items, eCommerce has made it simpler for consumers to avoid manual work and save time. Security issues have hampered e-commerce, which began in the early 1990s and has developed dramatically in the computer world. Security is becoming the most significant barrier to e-commerce, but there is still plenty to be done. Customers can explore online shops, compare prices, and place orders from the comfort of their computers, which is the primary advantage of e-commerce over traditional commerce. The author analyzes e-commerce, its development, and its benefits, as well as its influence on the Indian economy, in this article. The main objective of this paper is to know more about e-commerce and its impact on the Indian economy. In the future, by 2025, the Indian e-commerce industry is projected to grow from US$ 46.00 billion in 2020 to US$ 188.00 billion.

**KEYWORDS:**

Business, Consumer, Economy, E-Commerce, Traditional commerce, Govt. Guidelines.

## 1. INTRODUCTION

Large countries need to serve the workforce in the unorganized sector because it is difficult for large countries to provide each firm with the required land or issue loans from organized financial institutions. In India, the industrial and service sector is undergoing a dramatic transformation from smaller and smaller outlets to emerging firms supported by corporate culture. The Indian economy has grown dramatically since 1991, when economic reforms were introduced, to the extent that the state's economy is concentrated, resulting in urban overcrowding [1]–[3]. Due to the limitations of the state and the paucity of resources to develop each city equally, it has been found that some selected cities have emerged as growth centers. In Haryana, for example, before the reforms, there was prosperous business in Panipat, but today Gurugram has surpassed all other cities in terms of business prospects and employment generation. It is a bitter truth that as cities grow, municipal facilities also expand, but on the other hand, in search of low-paid workers, a slew of small colonies emerge to fill the void [1], [4].

Workers start shifting from backward states to modern cities and cities become a source of attraction for them. It has been observed that as a city begins to expand, it expands its reach,

making it difficult for law enforcement organizations to identify crime, as well as traffic management. E-commerce provides many benefits in our life as it eases the daily life of people. Several theories have been presented for e-commerce, most of which are based on prior e-commerce experience [5]–[7]. E-commerce, like e-commerce, has many different meanings and is used in different settings. IBM was among the first to adopt the term in October 1996, when it launched a campaign focused on e-business. Today, large organizations are rethinking their operations in light of the new culture or capabilities of the Internet, which some refer to as e-business. There is no universally accepted definition of e-commerce and e-business. Consequently, there is a need to define terminology or explain the context in which many of them were employed.

### 1.1. Requirement of E-commerce:

Every day, the bank system examines letters over the Internet, which has become a vital part of our everyday lives. Online business has grown increasingly important in our culture. The Internet economy is booming, with e-commerce sales increasing by 20 to 25 percent on an annual basis. Customers appreciate the ease of product reviews or updates, so buyers are willing to sell at interest. Customers are more interested in checking reviews on the Internet than browsing through a phone book to call a firm, so the company owner can't rely solely on advertising. Every company is different, and the need for electricity is universal, and being connected to the Internet is more important than ever to stay competitive. In this competitive environment, a website's net operational costs have become minimal when compared to advertising's return on the investment as shown in Figure 1.
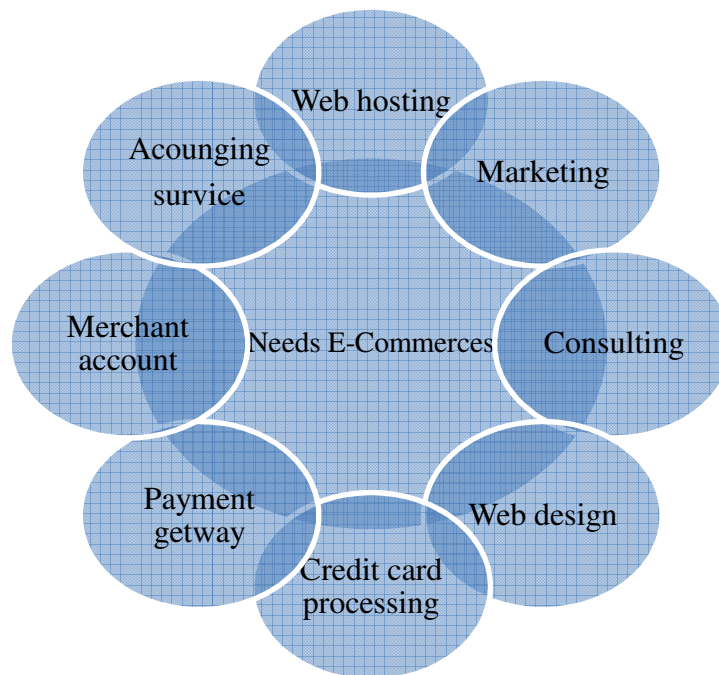


**Figure 1: It shows the Requirement for Electronic Commerce.**

*1.2. E-commerce evolution:*

ECommerce is an online or over-the-internet way of doing business, or in other words, e-commerce, often called e-commerce, will happen when you buy or sell anything online or through electronic media as shown in Figure 2.
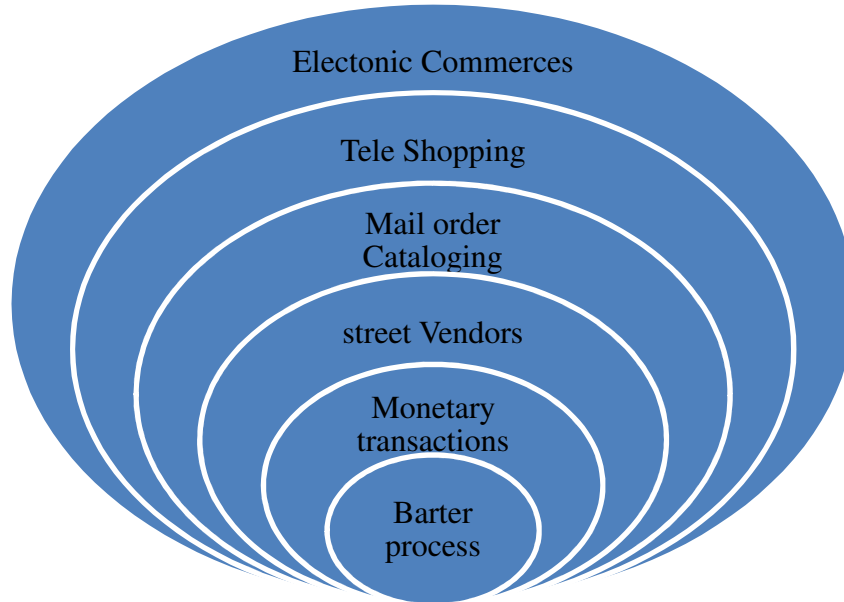
Electonic Commerces

Tele Shopping

Mail order Cataloging

street Vendors

Monetary transactions

Barter process

**Figure 2: Illustrate the Evolution of Electronic Commerce.**

*1.3. E-Commerce's Evolution and History on a Timeline:*

1. The founding of Amazon or eBay in 1995 was a turning point in the human history of eCommerce. Amazon was created by Jeff Bezos, and eBay was founded by Pierre Omidyar.

2. In 1998, PayPal introduced the first e-commerce payment system as a way of exchanging money.

3. Alibaba began operating its online commerce platform in 1999 with a capital investment of more than $25 million and has since grown into an eCommerce behemoth.

4. Google AdWords, the first digital advertising tool, was launched in 2000 to assist businesses with pay-per-click (PPC) campaigns.

*1.3.1. 2005 to 2009*

E-Commerce has evolved in several ways during the last years:

1. In 2005, Amazon Prime was founded as a mechanism for consumers to receive free two-day shipping for an annual fee only.

2. Etsy was created in 2005 to allow small or medium-sized enterprises to sell their goods online. In the previous several years, there has been a lot of advancement in the subject of eCommerce, including:

3. In 2011, Google released its online wallet payment program.

4. Facebook first introduced Sponsored Stories for ads in 2011.
5. In 2014, Jet.com, an online shopping site, was launched.
6. Instagram launched the Shoppable tag in 2018, allowing users to sell directly from the network.
7. Between the years 2021 to the present, major developments have taken place in the eCommerce sector, including:
8. Larger stores have been pushed to offer online;
9. Smaller companies have seen growth, with local merchants now operating from social media sites.
10. Operating expenses in the B2B industry have come down; Package shipping prices have increased dramatically in the eCommerce business. Many eCommerce markets have sprung up, allowing more businesses to offer their wares online. With the development of automation technologies and artificial intelligence, logistics have changed.
11. Social media has evolved into a tool for promoting businesses as well as increasing sales. Sellers on social media networks like Facebook or Instagram are selling out fast.
**12.** With an increasing number of people using eCommerce to shop, the COVID-19 pandemic has impacted purchasing decisions**.**
13. Sellers are adopting an all-encompassing selling strategy, aiming to deliver a consistent buying experience across all media and platforms.

   *1.4.   Type of E-commerce:*

There are other forms of E-Commerce, however, in this study paper, people will focus on only five as shown in Figure 3.
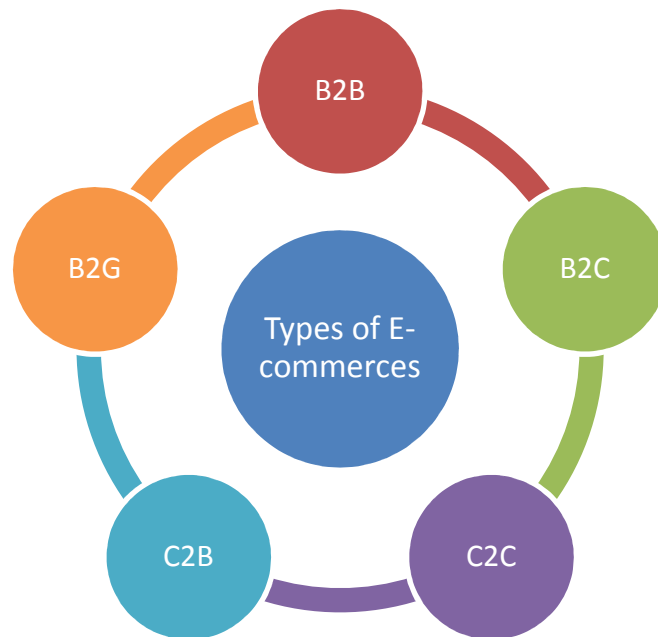


**Figure 3: Illustrate The Some Major Types of Electronic Commerce.**

*1.4.1.   Business to Business:*

This is very important in the field of e-commerce. It includes all electronic goods and service transactions that take place between businesses. It can help an organization's ability to manage transactions with its partners and distributors. For example, Samsung is one of the most important suppliers to Apple in the manufacture of the iPhone. Apple also has business-to-business agreements with Panasonic, Intel, and Micron Technology. The car sector relies heavily on B2-B transactions.

*1.4.2.   Business to consumers:*

This type of e-commerce focuses on personal-to-personal commerce transactions, except for merchants. It is a direct-to-consumer retailer. Business to consumers (B2C) deals with the process of selling products directly to the consumers who are t end-users of a company's products and services. Most businesses that sell directly to the customer are called B2C businesses.

*1.4.3.   Customer to Business:*

Individual customers provide their products to businesses in this type of eCommerce. It also determines how much money they can spend on specific goods or services. A food blogger who uses her site to promote a kitchen industry culinary stuff affiliate program. A technical blogger who, in exchange for a portion of the ad revenue, displays a company's service ads to her audience.

*1.4.4.   Business to government:*

In this type of e-commerce, the government develops a website that acts as a communication platform between both the government and its residents. A business-to-government service would be a small-scale corporation providing IT services to a local government entity. This includes all types of contracts for products, services, or data between all types of businesses and all branches of government, especially state, municipal, and federal governments.

*1.5.   The Social and economic impact of E- Commerce*
1. Adding to the growing competition in the e-commerce sector, individuals who can customize and enhance the quality of their goods will benefit and contribute to the growth of our country's economy.
2. Both e-learning and mobile learning expand access to high-quality educational resources in underserved locations.
3. The growth of online sales in emerging markets will motivate retailers to start online businesses to expand globally.
4. Owing to the significant demand for supply, e-markets are performing well in our country.
5. Mobile banking lowers the cost of financial transactions, allowing more people to access financial services through the rapidly growing mobile market.

*1.6.   Performance of E-commerce in India's Regional Market:*

In terms of total sales or revenue, Tier-I cities like Mumbai, Delhi, Kolkata, and Delhi are the most popular destinations for online merchants. It is said that eight out of 10 orders come from

these cities. Delhi NCR is the largest online shopping metropolis in the world, accounting for a third of all online sales. 75 % of India's population lives in non-metropolitan areas. These markets, driven by rising disposable income, better internet access, and increasing mobile phone usage, cannot be ignored. Recognizing these market dynamics, online retailers are striving to broaden their customer base by communicating with consumers in their native languages, wooing discounts, offering cashback, etc. By 2020, it is expected that there will be over 1.3 million Internet merchants, of whom about 70% will be located in Tier 2 or Tier 3 cities.

### 1.7. Challenges of E-Commerce in India

India has a small credit card population, and rural India lacks quick postal services. Slow transfers, frequent shutdowns, the expense of wireless connections, as well as the wireless communication protocols through which data is sent, are now impeding Internet access. Most residents of the country do not have access to high-speed, high-bandwidth Internet connections at a reasonable cost. In India, most people are either unaware of the English language or are inadequate. As a result, language becomes one of the most important variables in buying, renting, and selling goods or services via the Internet via electronic devices. Many difficulties of trust in e-commerce technologies, including a lack of universally accepted standards, online payments, and the security or confidentiality of personal and corporate data transmitted over the Internet is not guaranteed.

### 1.8. Impacts of E-Commerce on the Indian Economy:

E-commerce is rising in India not so much because internet access is growing, but also because Due to the favorable ecology of the market. India has experienced remarkable growth due to e-commerce and technological automation applications. E-commerce is connecting rural India with business objectives, resulting in the development of rural economies. According to the National Report on E-commerce Growth in India, there has been a significant increase in Internet usage in India. In 2017, the number of Internet users grew to 429.23 million, with an estimated growth of 829 million by 2021, helping India's online economy grow dramatically. With the rise of digital awareness or internet penetration in India, it became necessary to establish a link between the growth and impact of e-commerce in the Indian context. "With the increase in digital shoppers, it was clear that internet penetration would eventually reach a certain amount, and as people saw in an earlier study, m-commerce has also expanded dramatically, resulting in m-commerce. -Commerce has grown. With the development of technology and the increasing market share of smartphones and internet service providers, it was evident that more internet penetration was needed to have a greater impact on the Indian market.

This paper is divided into several sections instructions, literature review, discussion, and conclusion. In the introduction, the author discussed e-commerce, types of e-commerce, the development of e-commerce, and the impacts of e-commerce on the Indian economy. In the literature review section, the author discusses serious studies on eCommerce, and in the discussion section, the author talks about the benefits of eCommerce. And in conclusion, the author concludes the overall paper.

## 2. LITERATURE REVIEW

Kumar Anuj et al. studied e-commerce's effect on the Indian economy According to official statistics, internet use in India has climbed to 429.23 million users and is anticipated to reach

approximately 830 million by the year 2021. "India's online economy was worth 125 billion dollars in 2017, indicating a tremendous increase in e-commerce." In this article, they will examine the government's participation in the e-commerce business, as well as the many hurdles to eCommerce in India." In this study paper, they focused on B2C E-commerce and its contribution to the Indian economy as a proportion of GDP. The author of this article highlighted the importance of entrepreneurs and the diminishing value of trading across borders in India, which placed 100th out of 190 nations in 2017 after ranking 132nd in 2008. E-commerce is a fantastic platform for not only developing infrastructure but also raising employment rates in India, which has a positive influence on the Indian economy's overall socio-economic progress. The author concludes that the government, through various laws and policies, has also had a significant impact on the expansion of online commerce.

N. Kumari studied India's economy is the world's fastest-growing and has the world's largest market. In light of this, there is significant room for growth in both the offline and online markets. The usage of the internet and smartphones has increased dramatically in the last 15 years, and this has played a significant influence on the growth of the e-commerce business. Characteristics such as convenient payment methods, cash on delivery, quick product delivery, customer-oriented enticing programs, and an easy way to return a product, among others, are required infrastructure features. play a critical part in the growth of e-commerce Different government programs, such as Digital India and Start-up India, also encourage individuals to buy and sell things online. According to the author, the e-commerce market in India was 3.8 billion US dollars in 2010, but it grew to 12.6 billion US dollars in 2013 and 38.5 billion US dollars in 2017. Electronics, clothing, and cosmetics are largely offered online in India, which has a significant impact on the retail business.

Yaswanth Sudineni et al. studied COVID 19 impact on eCommerce. In India, online shopping is a fast-developing phenomenon that allows people to purchase at their leisure. Understanding the elements that drive consumer happiness is critical for the continuing expansion of online purchasing. The goal of this study is to find out what factors impact customers' online buying habits. COVID-19 also has a significant influence on the e-commerce business. This study examines how people shopped during the COVID-19 outbreak. The author discovered the primary characteristics that impact people shopping online by gathering and analyzing information from online buyers. They were able to detect changes in online buying related to the pandemic by comparing shopping behavior before or during the COVID-19 shutdown. Our research will aid in understanding the elements that influence e-commerce in India, as well as in the context of COVID-19.

## 3. DISCUSSION

E-commerce has now become an integral part of daily life and E-commerce is proving to be an important tool to certify the growing economy of India. With the rapidly increasing internet usage, e-commerce presents a lucrative opportunity for the growth of merchants. To achieve this additional investment should be made in infrastructure support as well as new or game-changing marketing strategies in India. E-commerce is also witnessing remarkable growth in terms of promoting global trade and breaking national boundaries. It also contributes significantly to GDP. The import of products is also expanding as a result of e-commerce, which will benefit many sections of society in terms of information, skills, technological improvements, advanced

marketing methods, and employment opportunities. Digital marketing is also evolving rapidly because it is fast, affordable, and simple.

Web-based business is defined as the electronic buying or selling of goods via the Internet and this e-business is divided into two categories and is famous for the many benefits of web-based advertising, electronic money transfer and mobile trading.

1.  Direct-to-consumer online retail shopping using mobile applications, websites, or even virtual assistants, chats, or chatbots.
2.  Sellers participate in online markets where a lot of third-party transactions take place.

### 3.1.  Advantages of E-commerce:

This letter was written to help you learn more about the benefits of e-business and if you are trying to expand your business, the Internet Marketplace is a great place to start. As seen in Figure 4, the author outlines the types of rewards that exist by sharing what people know about Internet marketing, in short, these are the benefits people will explore.



**Figure 4: Illustrate the Major Advantage of Electronic Commerce in India.**

### 3.1.1.  Faster purchasing process:

Customers will have the opportunity to shop for the items they desire. They can swiftly scan a big number of goods and purchase whatever they choose. When customers purchase online, they might find items that are accessible in physical shops far away from them but not in their town. Ram, for example, is a customer who visits a store to purchase a washing machine. After much searching, the writer discovers that he is unable to obtain the item he requires. He searches for a

washing machine on a large e-commerce site. Furthermore, there is a fantastic deal, and it may be delivered right to his doorstep. This is where the e-commerce sector comes to the rescue for many buyers. They go online, searched for an item, receive immediate replies, and even make a purchase nearly immediately. The ability to choose from and order a large number of goods or services is one of the benefits of doing business online. It only takes a few seconds to find an item, read the description, and add it to your cart, and the consumer is happy because he was able to find the item without having to travel great distances.

### 3.1.2. *Cost reduction:*

One of the major benefits of a web-based business for businesses is cost reduction, which drives suppliers to market their products. To run their actual business, many merchants spend a lot of money and may have to pay extra in advance, for items such as leasing, endorsement, shop planning and transfers. However, after investing in administration, support, inventory and an employee, many merchants fail to achieve the required productivity and ROI. Using an internet store allows a business to save money on shop maintenance and an e-commerce store is less expensive as it requires less investment than a traditional firm. This is an alternative for small and medium sellers who wish to generate money but don't have the necessary start-up capital.

### 3.1.3. *Advertising or marketing at a low cost:*

To market their wares, sellers don't need to invest a lot of money, and in the world of e-commerce, there are various low-cost and fast ways to advertise your business online. Sellers can display their items on e-commerce platforms, which are visual media. Amazon merchants, for example, can use advertising abilities to include videos, infographics, and high-resolution photos in their listings. From the plain, monotonous text, DIY capabilities can be used to generate unique discounts, promotions, A+ content, and sponsored ads. Many online marketplaces offer consumer intelligence solutions to analyze customers. This is a page where you can view all of your orders, including those that are pending, not shipped, shipped, cancelled, or reimbursed.

### 3.1.4. *Flexibility for customers*:

The ability of sellers to provide flexibility to customers is a significant advantage of e-commerce for enterprises. One of the most attractive qualities is the availability of goods and services 24 hours a day, seven days a week. As a result, the vendor may sell his items whenever and wherever he wants. Customers are always present in the e-commerce market, so they're more inclined to return for repeat purchases because of the benefits they receive. Some of the perks include free shipping, quicker order fulfilment, promotions and discounts, and membership privileges. They also leave reviews for the products they've bought. Two further eCommerce benefits follow good reviews. One is that the number of positive reviews encourages buyers to trust your store. Another benefit is that it might assist you in identifying your best-selling items.

### 3.1.5. *Comparison of products and prices:*

Some of the advantages include free shipping, quicker order fulfilment, offers and promotions, as well as membership privileges. They also provide reviews on the products they buy. Two further eCommerce advantages follow good reviews. The first is that a large number of positive reviews encourages people to trust your store. It can also assist you in identifying your best-selling items.

### 3.1.6. *Several payment options are available:*

Personalization attracts buyers, so the same is true when it comes to paying for their products. UPI, Card on Delivery, EMI on Credit or Debit Card, Cash on Delivery, Net Banking, or Pay-Later Credit are all supported by the e-commerce platform. Cart retrieval is a valuable feature of online shopping that allows customers to go to the checkout page but skip their purchases. Customers can be contacted by phone or email to complete their transactions. However, each order has only one payment method and order value, ease of payment, and cash or credit card availability can all affect this choice. In special circumstances, a payment mechanism may be used with a specified wallet amount.

## 4. CONCLUSION

The rise of e-commerce is dependent on IT security systems, which require that the most important technical and legislative provisions are regularly updated and enhanced. While many enterprises, companies, and communities in India are starting to take advantage of e-potential, there are still significant difficulties to solve before e-commerce can become a valuable asset for the general public. With the expansion of Internet connectivity across all platforms, more customers are making decisions online, and as a result, many businesses can build their brands digitally and increase productivity, however, government regulations also assure effective technologies. Should give. E-commerce aims to expand both in terms of revenue and geography. The need for e-commerce consumer trust includes concerns and issues that require additional investigation. The author of this paper examines eCommerce, its growth, and its benefits as well as its impact on the Indian economy. The primary goal of this article is to better understand e-commerce and its impact on the Indian economy.

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# CHAPTER 6

# EXPLORING THE CHALLENGES, EFFECTS AND FUTURE OF CHATBOT SOFTWARE IN COMMUNICATION

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**ABSTRACT:**

A chatbot is a platform, conversational medium as well as intelligent operator, originating in Artificial Intelligence (AI) which talks with customers using primarily voice over the Internet. Chatbots are created with a predesigned dialogue box based on the Natural Language Processing (NLP) engine. When a consumer raises a query, the bot answers swiftly, and the consumer feels as though they are conversing with a human. The need for Chatbot is necessary because it performs the frequent operation at a specific time and gives the employee time to focus on the important work which in turn saves the time of the customer. This study is focused on studying the problems and the future of Chatbot software in communication. A chatbot is very useful for both the customer as well as for the companies, it helps to solve them quickly and save time and money. Chatbots could reach out to a large audience on messaging applications as well as be more successful than people. They may grow into a powerful information-collecting tool in the upcoming future.

**KEYWORDS:**

Artificial Intelligence (AI), Chatbot, Customer, Communication, and Natural Language Processing (NLP).

## 1. INTRODUCTION

Chatbot is based on software that replicates social conversation via text as well as voice conversations. Chatbot is normally defined as a website that will talk with people utilizing Artificial Intelligence (AI) [1], [2]. It is utilized to do things such as fast responding to guardians as well as kids. As Humans can only serve a certain number of scholars at a comparable moment [3], [4]. This constraint doesn't apply to chatbots, but they may handle all the essential inquiries concurrently. That's why Chatbots are being produced to ease the thanks to acquiring information instead of confronting a variety of difficulties, when performing business linked to the sale of goods or services on the Internet, it's natural to utilize solutions and possibilities that will enable us to function more efficiently and improve sales. New technologies as well as the potential they bring are a particularly intriguing sector [5]–[7].

Among the numerous productivity tools as well as particular attention should be made to bots that may be utilized for contact with clients. CommBox (CommBox built a chatbot) is pretty effective and well-organized [8]. Users in both business-to-business (B2B) as well as business-to-consumer (B2C) contexts increasingly employ virtual assistants (chatbots) to complete basic

tasks. The addition of the chatbot assistants decreases expenses and utilizes the supporting staff time enhanced in addition to helping firms to offer customer assistance during hours when real agents aren't accessible.

### 1.1.    Chatbot:

It is a virtual advisor or assistant whose mission is to talk with Internet users in real-time. However, they hold discussions without human meddling. In reality, they are computer programs armed with sophisticated algorithms that permit dialogue as well as actions linked to your customers wants. A big benefit of this instrument is the ability of all the time client assistance throughout the year.  For access to all the essential information on a specific issue, reasonably rapid replies, and complete availability. Of course, it's not a tool without problems as well as it can enable you to make them work for you, but you'll soon understand the advantages of this means that communication can be massively expanded and includes not only the enhancement of user experience and happiness but also cost savings [9], [10].

### 1.2.    Types of Chatbots:

There are three different types of chatbots as shown in Figure 1:
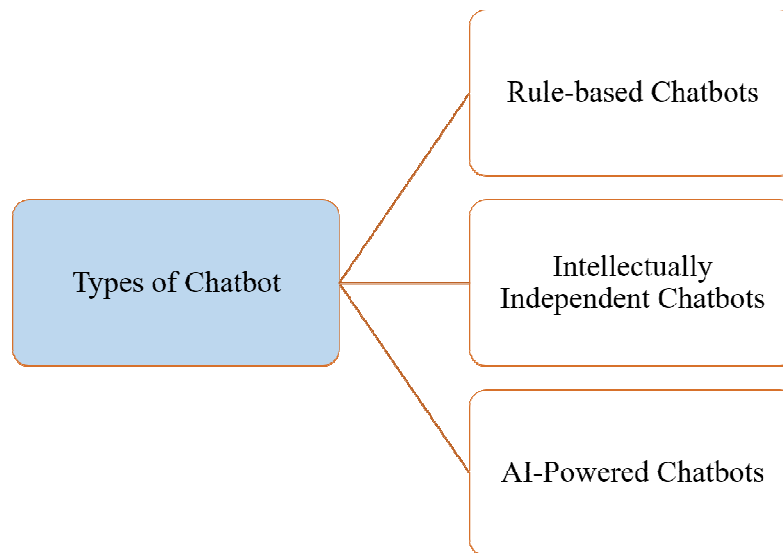


**Figure 1: Illustrating the various Categories of Chatbot Software.**

### 1.2.1.   Rule-based Chatbots:

Anyone may communicate with this type of chatbot by clicking on buttons as well as utilizing specified choices. However, people can only make, restricted options which makes such chatbots the slowest to assist your clients locate their answers.

### 1.2.2.   Intellectually Independent Chatbots:

These chatbots employ Machine Learning (ML) to learn from users' requests and inputs. Individuals may teach these bots to comprehend certain keywords as well as phrases that trigger their answers. Over time, these bots may educate themselves to comprehend more as well as more inquiries.

### 1.2.3. AI-powered Chatbots:

These chatbots are a blend of the other two sorts of bots and these bots employ AI, Natural language processing (NLP), as well as ML to grasp and remember the context of the discussion. So, now that you understand the basic principles of how chatbots function, as well as the three kinds of bots your company, may utilize, it's time to look at the advantages of chatbots [11], [12].

### 1.3.    Uses of Chatbots and Working:

There is no one, easy solution to this topic, the world of chatbots is expanding dynamically as well as we've deployed all kinds of unique solutions. The purpose is simply to maintain contact with the consumer, together with future and existing. However, for simplicity, the following areas are obvious instances in which bots will show themselves as shown in Figure 2. Chatbots are a reaction to the expanding requirements and expectations of consumers, hence the scope of their operations will continue to rise.

Chatbots have variable degrees of sophistication, being also stateful or stateless. Chatbots like Stateless treat each discussion as though conversing with a fresh user. In comparison, stateful chatbots may evaluate prior encounters and structure new replies in context. Deploying a chatbot to a sales team involves a minimum. Many chatbot service providers enable developers to construct conversation user interfaces for 3rd commercial applications. The major part of chatbot deployment is choosing the exact NLP engine and if the users communicate with the chatbot using voice.
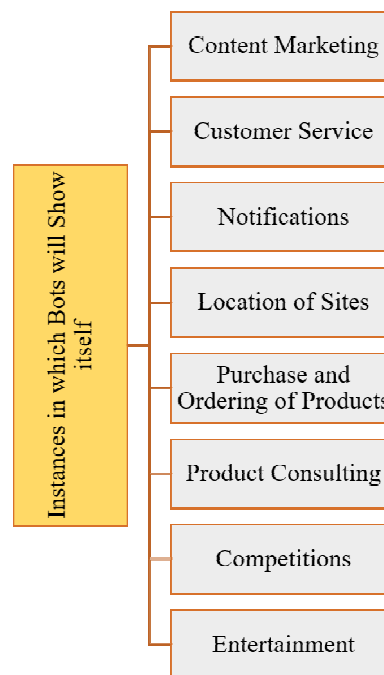


**Figure 2: Illustrating the Various Types of Situations where Bots will Appear.**

### 1.4.    Importance of Chatbots:

Organizations aiming to boost sales may employ chatbots for savings time as well as efficiency subsequently AI chatbots can speak with users and solve frequent issues. A chatbot is a software

or service that effortlessly communicates with you to assist address your problems. The services that a chatbot may offer are fairly broad, from sending crucial saving-life information to checking the weather report to buying a new pair of shoes. The objective of chatbots is to scale company teams and support them in keeping pleasant contact with their consumers. This helps organizations cut down on operating expenses, save time and assure profitable productivity as all the simple and boring inquiries are handled by the chatbot while sophisticated issues are taken care of by the support staff. Chatbots can help consumers make e-commerce buying, answer customer questions, monitor employee or client experience, improve return rates from customers, deliver a personalized experience, derive business intelligence, and automate, and anyone can come up with a chatbot use case for every single business or industry. This study discussed all the terms related to the Chatbot such as the definition of a chatbot, its types, importance, challenges faced along with its benefits and future scope.

## 2. DISCUSSION

In recent years there has been major progress in the creation as well as usage of chatbots with huge advantages in various sectors. At the place of customer service centers, they work 7 days a week, 24 hrs a day, while managing multiple consumers simultaneously, improving payroll expenses considerably. Similarly, in education, they support a rising number of students to whom they supply instructional material as well as personal help. In some conditions, like in the situation where they minimize the language anxiety of the foreign language kids, they even exceed human instructors. In the area of healthcare, they supply patients with several services. It also provides the use of natural language interactions for the advantage of Robotics. However, the value of chatbots isn't confined to the areas stated. It may not be significant to mention that in most circumstances where communication takes place via human language is also an application potential for a chatbot we have previously observed, the use of chatbots poses difficulties largely with personal data security. In this area, however, protective technologies are being developed.

Apurva Sanjay Salkar et al. explained in their study about AI and deep learning-based intelligent Chatbot systems. This study discussed the capability of chatbots as well as the way they will be added to employing an application or maybe an internet site. According to the authors, the chatbots are easy to use and it is user-friendly so anyone can use them. The authors also suggested that in the future this will help the business to make a good relationship with the customer. Mrs. Nidhi Sharma and Gayatri gave a review on Chatbot using AI, in this study authors propose a model for inquiry in colleges with the help of chatbots, such as the fee structure of the colleges, and various courses, the facility provides by the colleges, etc. By employing AI to user supply college information this might be a text-based talk, even a non-verbal conversation.

One more study on the AI-based Chatbot by Bhakti Karkera and Flavia Gonsalves. According to the authors, Organizations lean toward various technologies to draw in customers, raise customer support as well as improve their client experience with the help of various technologies. The authors have given an overview that AI may deliver significant benefits to any client of any organization. There is increasing excitement for chatbots, which are machine experts functioning as common dialect UIs for information as well as service suppliers. Sumit Wailthare et al. [13] proposed a model of a Chatbot based on AI. According to the authors to offer a piece of accurate advice to the visitor of a shopping mall, there is a virtual robot that directs us with the navigation and according to the newest discount going on in the store. This proposed model helps the

visitors, gives direction, and also shows the discussion on particular shops inside the mall. The main aim of this system is to provide information to the visitors and save them time. This study mainly focused on the importance, challenges, and future of the chatbot. Consumers may use chatbots to make e-commerce purchases, monitor employee or client experience, enhance customer return rates, answer customer inquiries, give a tailored experience, extract business analytics, automate, and there is a chatbot use case for any organization or sector.

### 2.1.    Advantages of Using Chatbot:

There are various benefits of the chatbot for both the company as well as customers which are shown in Figure 3. Bots are a solution that delivers several advantages to marketers. Among them, it is worth emphasizing the obvious one of becoming a quicker and cheaper customer service representative, but also the possibility to attract new clients from organizations that spend a lot of time on the web utilizing mobile devices and various advances of the chatbot are shown below:

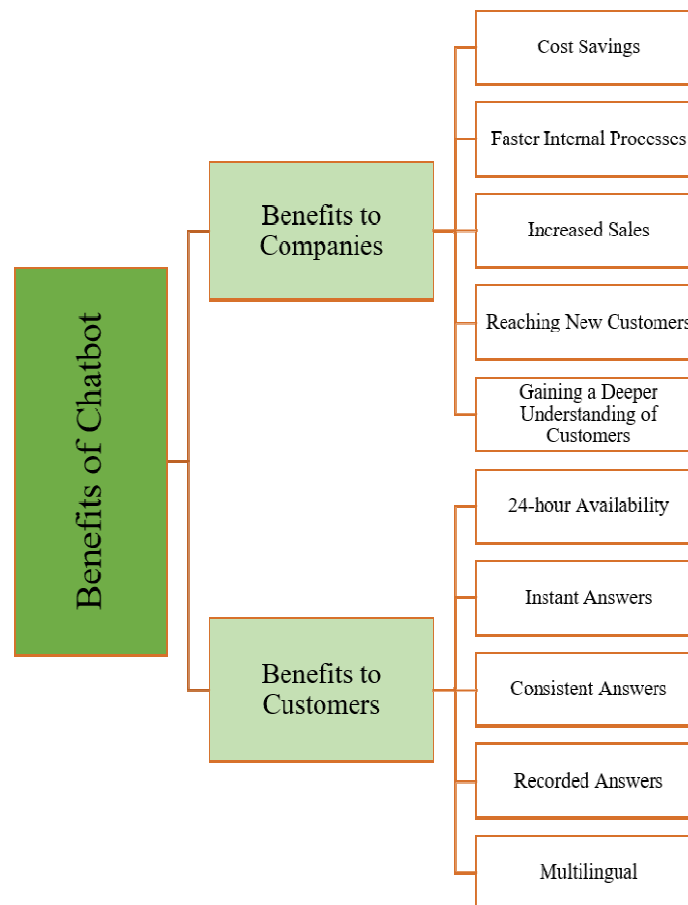**Figure 3: Illustrating the Different Types of Benefits of Chatbotsfor Companies and Customers.**

1.  Save Time and Cost-effective

The employment of chatbots in sales on the Internet offers various benefits. Above all, though, it saves both money and time. Chatbots may automate operations done often and at certain times. This provides personnel time to concentrate on more vital activities and avoids consumers from

waiting to get replies. In the case of money, it's mostly about minimizing the expenses required to provide a suitable number of people managing the customer care department. It's believed that bots can deal with as much as seventy percent of the duties done by human services. So utilizing the Chatbot for speedy and efficient communication with customers is a good concept. It is a smoother as well as cheaper only one-time investment than building a specialized, cross-platform offering or employing extra staff. In addition, bots can avoid pricey challenges affected by human blunders. User acquisition expenditures are also decreased with a chatbot's capability to reply within seconds.

2. Proactive Customer Contact

In the past, firms depended on passive consumer connection as well as delays for purchasers to seek out the first. By chatbots, enterprises may communicate proactively, since bots can begin discussions as well as watch how consumers utilize the landing pages and websites. The organizations may then utilize the information acquired through the monitoring to give customized incentives to purchasers, assist visitors to navigate the sites, as well as answer subsequent inquiries.

3. Analyses as well as Consumer Monitors Data

Chatbots gather comments from each encounter to aid organizations to increase their services as well as merchandise or maximize their websites. Bots may also obtain user data to monitor activities as well as purchase trends. This info may provide firms insight on how to effectively sell their goods as well as services, and the frequent hurdles that customers experience throughout the purchase process.

4. Improves Customer Engagement

Most organizations currently contact clients with the help of social media. The chatbots can make this encounter more engaging. The various buyers infrequently contact individuals within organizations, consequently, chatbots provide a channel of communication where consumers may participate without the hassle of speaking with additional persons.

5. Simplicities Scalability to Worldwide Markets

The chatbots can address consumer issues as well as inquiries in many languages. Their all-time obtainability allows clients to utilize them irrespective of time.

6. Enlarges the Client Base

Chatbots may boost lead generation, nurturing, as well as qualification. Chatbots may ask inquiries along the buyer's journey in addition to giving data that may convince the user and produce a lead. Chatbots may then transfer potential client information to the sales staff, who may engage with the leads.

7. Methods Lead Qualities

The chatbots may aid sales teams to control a lead's credentials by utilizing defined critical performance elements, such as timeline budget, as well as resources. This may prevent organizations from degenerating so much timing on unusual leads as well as time-consuming clients.

8. Automated Customer Service for Identical Queries

For each industry kind, if you take into account the user base, there are certain fundamental queries that people often ask. And for these exact inquiries, identical precise replies are needed to be supplied every time the consumer asks the comparable inquiry. Well, for such objectives, the chatbot is the greatest engaging approach to answer these typical inquiries.

9. Improves Business Brand without Extra Efforts

The competition is growing intense, and clients become attracted to a solution that does not need much work and at the same time delivers a limitless answer. In summary, they are striving for a more quality answer with minimal effort. With chatbots, targeting prospective clients is simple by delivering essential information regardless of the day or time. Bots are less prone to mistakes, the improved customer experience may assist to develop a stronger brand.

*2.2.    Challenges of Chatbots:*

While chatbots increase Customer experience as well as help enterprises, they also bring significant obstacles, following difficulties which include:

10. New Technologies with New Barriers

Chatbot technology is still the latest as well as has hurdles that corporations might not know as well as how to address. While AI bots may learn from each interaction but also improve their conduct, this process may cost firms a lot of money if the early contacts lead consumers to disconnect and turn away.

11. Safety

Users should believe the chatbot sufficiently to disclose personal information. Therefore, enterprises must ensure they construct their chatbots to only request important data as well as securely communicate that data over the internet.

12. Various Methods in which People Speak

Chatbots may struggle to grasp these variances. Such as the users may utilize slang, misspell phrases, or use acronyms. Inappropriately, NLP is restricted as well as cannot entirely tackle this difficulty.

13. Random Human Behavior, Emotions as well as Moods

Humans are unpredictable as well as emotional experiences typically affect user behavior, so users may rapidly alter their beliefs. After first asking for a proposal, they can elect to offer an order instead.

14. Satisfaction of the Users

Users continually demand the best experiences but are never happy. They continually want the chatbot to be better than it already is. This suggests firms implementing chatbots must continually update and enhance them to make consumers feel like they're talking to a trustworthy, competent source.

## 3. CONCLUSION

From the above study, employing a chatbot is a solution that delivers advantages both for consumers, who can simply receive the essential information, as well as for enterprises, owing to enormous savings and exploitation of data with speed. With the fast-growing technology AI, clients are getting technological help in many sectors of their lives. The internet offers different channels to gather information and has fundamentally transformed the way we interact. Innovation has increased our life with new options, and everything is fairly easy for any of us. Everybody wants to talk and expects rapid replies without waiting. It might utilize internet networking systems or websites every day for different goals to connect with people. Chatbots may reach out to a wide audience on chat applications and be more successful than individuals. With further development of AI as well as machine learning, someone may not be capable of knowing whether he talks to a chatbot or a real-life agent. This study gives crucial information on the underlying concepts of chatbots. Users and developers may have a more accurate comprehension of chatbots and can use and design them effectively for the purpose they intend to run. Further work in this subject would require evaluating in detail current chatbot systems but also comparing them. It would also be fascinating to analyze the degree of originality and utility of modern chatbots. Certain ethical concerns linked to chatbots would be worth exploring including deception and abuse, as people, on certain occasions, believe they talk to genuine humans while they are conversing with the chatbots. Many developers have a growing focus on constructing voice-based chatbots that can act as conversational agents, grasp numerous languages, and respond in those similar languages.

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## CHAPTER 7

## A COMPREHENSIVE STUDY ON THE KEY ROLE AND IMPORTANT FACTORS OF SOCIAL MEDIA IN MARKETING

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**ABSTRACT:**

"Social media marketing" (SMM) is a sort of digital marketing that uses the power of social media to accomplish marketing as well as branding. Social media is now one of the most important components of digital marketing that gives amazing benefits that assist reach millions of customers internationally. It is just never too soon to begin building your social media strategy. Whether it means beginning from scratch or encouraging employees to develop personal brands, the impact of digitalization has never been greater. This study studied the purpose of "social media" in marketing and also analyses the functioning of social media marketing, its relevance, the marketing strategy of social media, and the barriers that are met by SMM. The relevance of social media to promotion has risen considerably with expanding social media presence across the audience. The utilization of social media platforms to reach more consumers, communicate with the audience and enhance brand recognition are some of the good consequences of social media on business.

**KEYWORDS:**

Business, Digital Marketing, Networks, Social Media Marketing (SMM), Social Media.

### 1. INTRODUCTION

Social Media can be described as a group or gathering of people linked through computer-mediated technology for a stated purpose. Major channels include blogging, social networking, video sharing, etc. The importance of all social media platforms is to build interaction with the audience. It offers an audience with information or entertainment or recent updates. Social media is the greatest expanding digital platform. No marketer can argue the importance of social media in marketing. It not only gives multiple channels for reaching out to the intended audience but also creates a unique platform for the exponential development of a firm. Social media may bring exponential development to a firm with a precision targeting of the client [1], [2].

This strategy of creating content for social platforms to advertise goods and services, build a community with potential customers, and generate traffic to your company is known as SMM. The SMM is always evolving, with extra updates as well as platforms appearing regularly. It's all about meeting the target group and customers where they are and when they interact with your company on social media. Although SMM as a whole is very beneficial and profitable to your business's growth [3], [4].

### 1.1. *Social Media Marketing (SMM):*

The word SMM relates to the utilization of social media and online platforms to sell a company's goods and services. SMM allows firms a chance to communicate with current clients as well as attract new ones while assisting them to express their intended purpose, culture, etc. SMM delivers determination-built data "analytics tools" that enable marketers to examine the effectiveness of their hard work [5]. SSM in basic words is the use of social media platforms and websites to enhance online traffic. The use of social media in marketing is also to promote brand recognition with the ultimate aim of sales of items or services.

All sorts of advertising done on the internet utilizing social strategies and apps to attract customers are SMM. Social media marketing is sometimes termed digital marketing as well as online marketing. It comprises the use of social networks to boost the visibility of a brand and attract new consumers. Today organizations employ social media marketing to generate company development and profit. They advertise their brand, engage current consumers, and broaden their client reach by utilizing social networks and apps. The 7 finest social media marketing tools and how to utilize them as shown in Figure 1.



**SOCIAL MEDIA MARKETING PLATFORMS**

| | PEOPLE | CONTENT | STRATEGIES | CONS |
|---|---|---|---|---|
| f | • 25-34<br>• Boomers | • Photos & links<br>• Information<br>• Live video | • Local mkting<br>• Advertising<br>• Relationships | • Weak organic reach |
| ▶ | • 18-25<br>• 26-35 | • How-tos<br>• Webinars<br>• Explainers | • Organic<br>• SEO<br>• Advertising | • Video is resource-heavy |
| ⓘ | • 18-24, 25-34<br>• Millennials | • Inspiration & adventure<br>• Questions/polls | • Ecommerce<br>• Organic<br>• Influencer | • High ad costs |
| 🐦 | • 25-34, 35-49<br>• Educated/ wealthy | • News<br>• Discussion<br>• Humor | • Customer service<br>• Ads for males | • Small ad audience |
| in | • 46-55<br>• Professionals | • Long-form content<br>• Core values | • B2B<br>• Organic<br>• International | • Ad reporting & custom audience |
| ♪ | • 10-19<br>• Female (60%) | • Entertainment<br>• Humor<br>• Challenges | • Influencer marketing<br>• Series content | • Relationship building |
| 👻 | • 13-17, 25-34<br>• Teens | • Silly<br>• Feel-good<br>• Trends | • Video ads<br>• Location-based mkting<br>• App mkting | • Relationship building |

**Figure 1: Illustrating the most popular platform that is used for Social Media Marketing [6].**

### 1.2. *Working on SMM:*

The function of the social networks in marketing has grown up significantly with a increasing "social media" appearance among viewers [7],. In short terms the importance of SMM is significant and any savvy company owner would always make the most of it. SSM May help a firm advance by jumps and bounds only by putting effective processes in place. An important function of SMM is the use of its enormous role. SSM works following your company's goals. The role of social media is critical at every stage of the customer experience. It aids in the completion of the company's prospecting aim at every step. Companies must choose their target audience and begin their marketing campaigns on "social media".

Many digital marketers begin by examining the total reach of different channels. Practically speaking, the bigger the number of users, the greater the overall number of possible leads. Since audiences may be more segmented than more conventional channels for marketing, organizations can guarantee they concentrate their efforts on the population that they want to reach through SMM. The uses of popular social media are used for SSM and Figure 2 shows the report on the use of social networks in billions globally, July 2021.
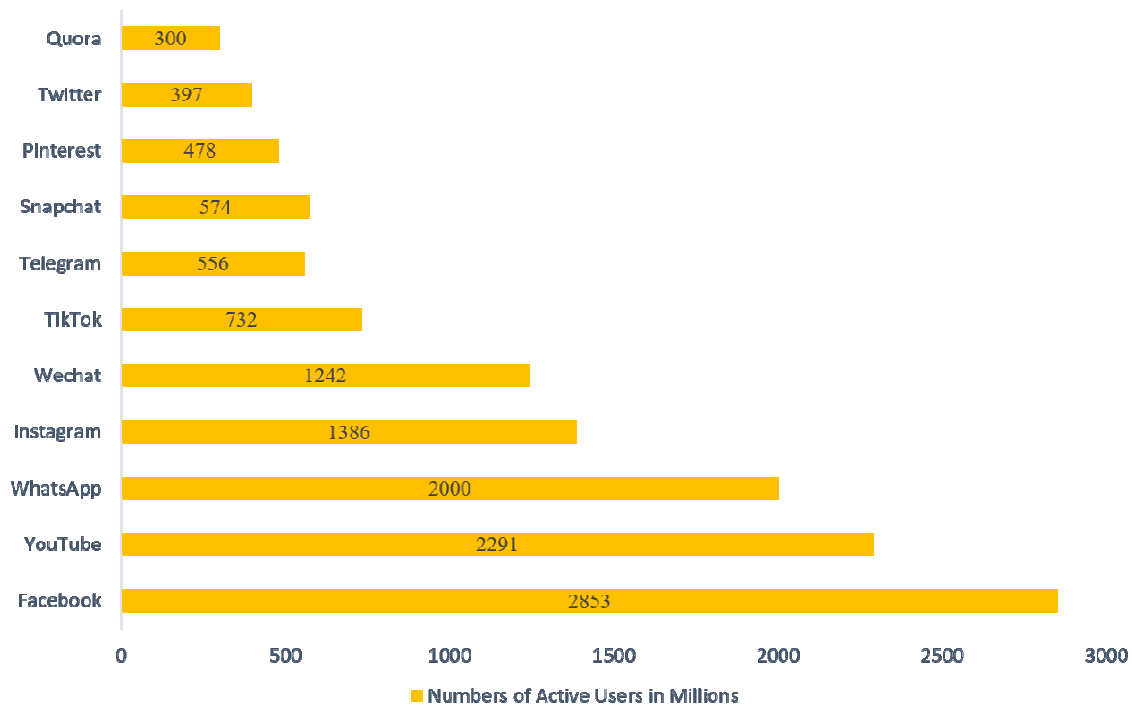


**Figure 2: Illustrating the Worldwide Data for the Uses of SMM in the Year 2021.**

"Social media" has changed the way individuals collaborate as a group, particularly how they interact with one another. As platforms such As Twitter, Facebook, and Instagram surged in popularity, businesses took note. Throughout SSM, people started to utilize these sites to investigate their hobbies. This is because these sites can affect client behavior. Due to social media, marketers can now employ a variety of ways and strategies to promote content and persuade people to interact with it. Numerous social networking sites enable users to input particular geographical, demographic, and personal information, allowing marketers to

personalize their pitches and determine what is most likely to interest buyers. There are five essential pillars of social media marketing, as depicted in Figure 3.
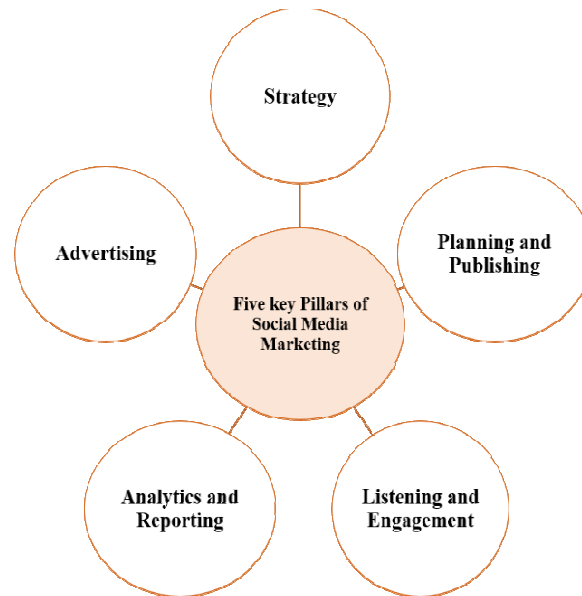


**Figure 3: Shows the Important Five Keys that are Necessary for the Social Media Marketing.**

### 1.3. *Important Role of SSM:*

Social media assists in delivering relevant data regarding their target client activity. Their likes and demographics, dislikes, etc. normally had to be obtained by spending a great amount of money on marketing research organizations. The significance of social media is of exceptional relevance in digital marketing owing to its extensive visibility. It is quite unlikely for a firm to develop without the support of "social media". The significant characteristics of "social media" are listed below which makes it crucial in digital marketing as shown in Figure 4.
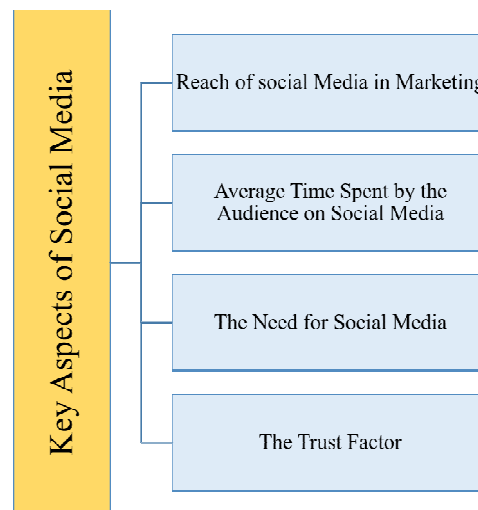


**Figure 4: The Main Aspects of Social Media are Stated, which Makes it Vital in Digital Marketing**

*1.4.    Marketing Strategy of the Social Media:*

Various marketing strategies which are used for social media marketing are shown below:

*1.4.1.   Start creating a Strategy for Social Media by Trying to answer Key Questions:*

Before making posts, design a social media plan which administrators, the legal team, advertising, and sales will all agree on. Determine why social is being exploited as a marketing and advertising channel, and whether there will be any impediments. For example, regulated industries like banking and health must follow tight standards. As part of the broader social-media strategy, a policy should be put in place for all stakeholders on what to share and what is off-limits. After identifying the ground rules, assess the key questions while building a strategy:

- What does your objectives and how will you assess them?
- What sort of content will you post?
- So, when will you post?
- How many networks would your priorities be?
- Who will develop and distribute content?
- How do you motivate staff to generate content?

*1.4.2.   Select a Management Tool for Social Media:*

Several "social media management tools" support social media administrators to generate and disseminate their content. Popular tools included Buffer, Falcon.io, Zoho Social, HubSpot, as well as Hootsuite. Many of these technologies are meant to aid the company's reaching audiences on Instagram, Facebook, as well as Twitter. To reach target audiences on LinkedIn Sales Navigator is a premium service for information on possibilities and it allows you the opportunity to send In-Mail communications to target customers.

*1.4.3.   Train the Employees:*

Even if you have a strategy defined and resources placed in place, it's time to instruct workers. When they should attend a training webcast or read an employee social media manual, it's crucial employees know what the expectations are. Be sure you include the standards, but also instruct personnel on what promotes participation with prospective clients. Not everybody is a natural social media expert at first, but most individuals can acquire the hang of it when they realize its relevance and how their involvement helps make money.

*1.4.4.   Create an Approval Process and Content Calendar:*

Another aspect ofa great SMM is organization and thoroughness. To generate attractive content, social networking teams ought to construct a content schedule and review system. Marketing may arrange material on a weekly, bimonthly, or quarter basis using a posting schedule. Editorial calendars help content teams manage content categories, authors, channels, and more, in addition to publishing dates. When constructing this schedule, don't forget to check the most effective pieces to reprint your most popular content.

## 2.  DISCUSSION

The use of social media and the internet has been rising at a spectacular pace; it has simply become a part of user's normal life. As the Internet and Social Media Sites boost communication

and connectedness, this has resulted in customers' views garnering more consideration than they had previously received before. SSM is not simply about showcasing the goods and its services on the top page of a respected platform or conveying a message of good word utilizing these platforms via a renowned brand ambassador. As the utilization of the internet, as well as Social Media Sites, is expanding every day, it thus generates new approaches in which the producer may attack the targeted audience for the supplying service. These methods can serve as a significant boon if properly implemented and can be devastating if a slight mistake has been made as to the major regulation of branding the goods now fell into the hands of customers, thus requiring deep canalization of the market dynamics as well as the impacts these platforms have on the customers. Social media marketing platforms usage trend in the years 2019 and 2021 as indicated in Figure 5 and Figure 6.
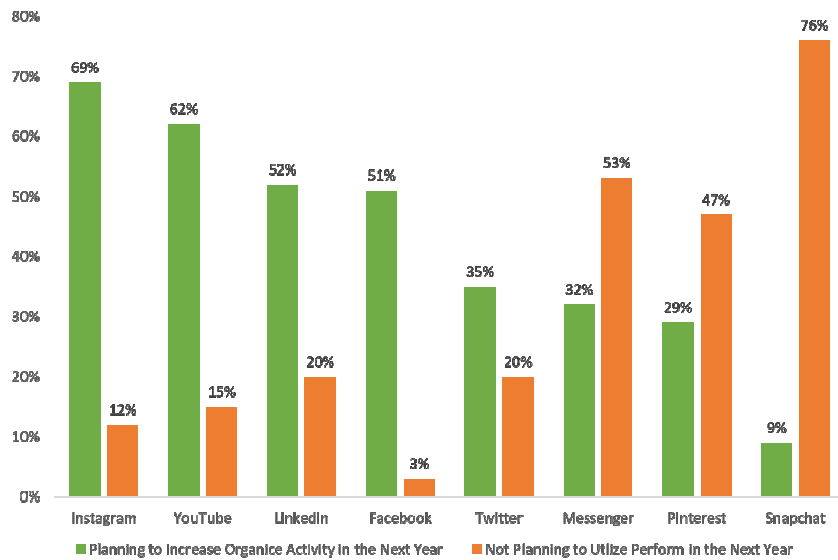


**Figure 5: Illustrating the Social Media Marketing Platforms Usage Trend in the Year 2019.**
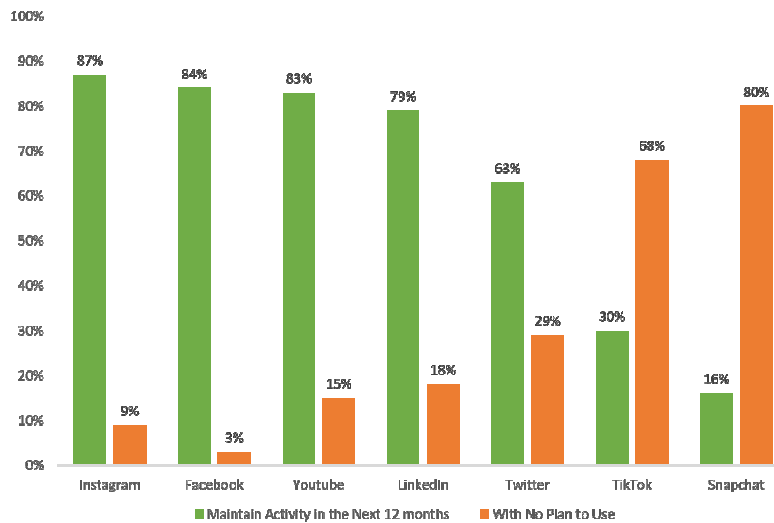


**Figure 6: Illustrating the Social Media Marketing Platforms Usage Trend in the Year 2021.**

## 2.1.    *Reasons behind the Importance of SSM:*

Imagine expenditure as little as six hours a week to boost your business's gratitude, traffic, as well as income with little to no investment. Around 90.00 percent of executives demanded that "social media" created tremendous revelation for their company, as well as that's solitary of its numerous rewards. "Social networking" sites are attractive and an integral portion of any marketing plans, as well as the benefits of doing so, are tremendous that anybody who isn't making use of this lower-cost source is inattentive to a fantastic marketing opportunity. SMM is self-evidently important for marketing success, and also many marketers are aware of the platform's possibilities for company expansion. However, some of these specialists are unclear about which tactics to use or if they are beneficial. As per the Content Marketing Institute, 96.0% of marketers are presently employing SMM, yet 85.00% of those polled are confused about which tools to use. With the help, we'll dispel the myth by clearly outlining the benefits of using social media to advertise your business, as well as a slew of other reasons for the importance of SSM (Figure 7).
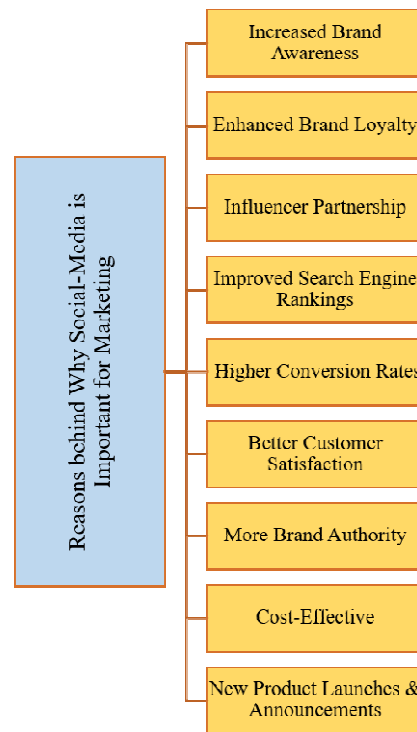


**Figure 7: Illustrating the different Kinds of Reasons behind the Importance of SMM.**

## 2.2.    *Challenges of SMM:*

Social media marketing could be a mystery if you are inexperienced with the way it functions. By identifying its flaws, you may handle them better. You may build your strategy, use the necessary tools, and change your approach appropriately. SSM and its issues have been around for as long as social media has been. Since before social media marketing overwhelmed all other channels, marketers have been confronting obstacles and issues in leveraging the platform efficiently, various challenges that are faced by SSM are shown in below Figure 8.

**Figure 8: Illustrating the Main Five Social Media Marketing Challenges.**

The purpose of "social media" in marketing is to utilize it as a channel of communication that enables people available to individuals interested in your goods/service and makes you visible to others who don't know your product. Social marketing strives to accomplish behavior change across a broad variety of problems that are vigorous to the wellness of people, groups, societies, as well as the globe. Recognizing people's but also enterprises' motives, as well as the factors that affect them, allows social marketing strategies to be developed to affect and achieve behavioral change. If you want to stay in touch with your customers, social media is the place to be. There are lots of positives to getting social, as well as a few negatives. Comparing them includes making a determined choice, as social media has to be operated effectively and with objectives in mind. Planning your approach is a critical component of social media marketing, as is picking the correct platform. All methods of marketing come with their own set of obstacles and Social media marketing is no exception. Social media can be a great tool for any company, it may expand your exposure, give a venue for feedback, create two-way contact with clients, develop connections, as well as increase the awareness and reputation of the firm. For these reasons, social media platforms have become a vital forum for companies.

## 3. CONCLUSION

The employment of social media platforms to reach more customers, engage with your audience, and increase brand awareness are some of the favorable effects of social media on a firm. Social networking sites are growing more and more popular, which is why small and emerging enterprises must market and sell their items across multiple social media platforms. Even as the popularity of "social networking sites" grows and there is no turning back, it looks like social

media will overtake other marketing functions to a great extent. By maintaining contact, building trust, and engaging with the right audience in the most efficient way possible, social media is attempting to bridge the gap between marketers and customers. While SMM may be tough, there are numerous strategies to overcome these issues and boost the effectiveness of current digital marketing processes. Using social media may aid almost all organizations to produce fresh ways of awareness raising while some may be employed for the consideration and conversion stages of a marketing funnel.

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# CHAPTER 8

# A COMPREHENSIVE STUDY ON THE DEVELOPMENT AND APPLICATION OF NEW TECHNOLOGIES IN SPORTS

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**ABSTRACT:**

Sporting technologies are artificial technologies created by humans to achieve human objectives. In sports, technology refers to a range of technical devices that athletes employ to enhance their training and competition conditions to boost their overall athletic performance. Technology has become a huge part of sports, ranging from mobile phones to sports equipment and many more. There is no doubt that the importance of using technology has increased over time, and since then, sports have become a global activity, as decisions can affect the outcome of an event. The study focuses on new technologies related to sports and their importance and also discusses implementations of such technology to replace sports training, and significant technological developments in sports. The use of technology has resulted in worthy decisions being made, leading to victory slots for the proper team. Technology has an impact on many areas of the game, from on-field and off-performance to pageantry and public image. The current study will aid in the development of technology to enhance professional athletics.

**KEYWORDS:**

Players, Sports, Sports Technology, Training, Wearable.

## 1. INTRODUCTION

The world of sports is always changing with the times, and the implementation of technology is just one of the areas that have an influencing impact on the wide variety of sports today. The greatest technical ideas in sports are recognized each year at the annual Sports Technology Awards. Changing a game by incorporating new technologies has sparked debate on several occasions. One criticism of the use of technology is that it slows down the pace of the game, for many others seeing the appropriate judgments being made makes watching it more enjoyable. If a new technology is available and is correct, it should be used to make the appropriate decisions. It's only right for the players and teams if the right decisions are made [1]–[3].

Sports, in any form, are a testament to hard work, devotion, persistence, and ability. From the beginning of time, it has been an important part of human entertainment. At the time, mobile phones and the whole online world were not even a distant dream. Something is enthralling about all sports that keep spectators glued to their seats. Technology in sports is crucial to the expansion of all sporting disciplines [4]. Sports engineering is constantly improving, allowing all types of sports to push beyond the limits of human capability. Given the pace and effects of

technological advancement, an increasing number of athletes are motivated to gain a competitive advantage in their respective sports, Figure 1 shows the importance of Information Technology in Parts of Sports [5], [6].
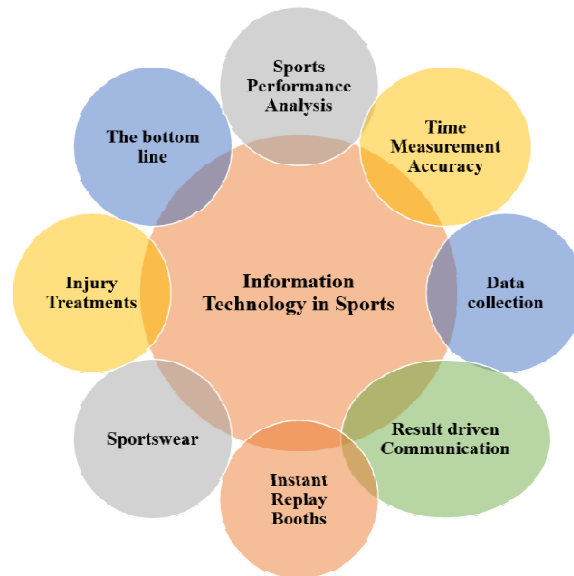


**Figure 1: Demonstrating how Information Technology Has Influenced Many Parts of Sports.**

### 1.1. Way of Transforming Technology in Sports Training:

Sports education that is used demands substantial documentation as well as post-practice effort on behalf of both the trainer as well as the player. While the athlete was training, thorough notes and footage were recorded [2], [7]. After practice, the instructor, as well as the athlete, would work together to address hurts, feelings, and ideas concerning physical activities that had happened earlier. The plan was challenging, but it worked so far as the coaches and players were concerned. That is until the world of sports training was transformed by current technology. In recent years, improved technology has gotten sturdier, smaller, and far less cumbersome, paving the door for new prospects, notably in sports (Figure 2).
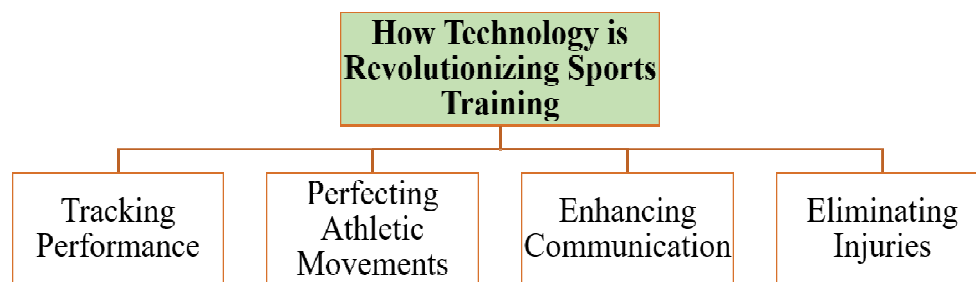


**Figure 2: Illustrating the Using of New Technology to Transform Sports Training.**

### 1.1.1. Performance Monitoring:

Sports trainers may access as well as analyze performance in real-time using sensor detectors worn on the body. From breathing and heart pulse to dehydration and temperatures,

nearly everything about a runner may be tracked. These real-time statistics may enable the trainer to judge which regions of each demand further attention. Individual performance measurements in real-time may offer a more precise and accurate baseline for athletes. Instructors may apply live measurements to identify whether it's time to rest, exercise, or train harder whilst practicing.

### 1.1.2. *Getting Athletic Movements Just Right:*

Technology has increased an athlete's abilities merely by boosting previously undetectable performance-related actions and occurrences. The biker may, for example, utilize heads-up display (HUD) glasses that reveal heart rate, speed, slope, and other critical riding statistics. Because cyclists may make alterations during a ride, measures like these may help them concentrate and progress. Swimmers, as well as swimmers, participate in a sophisticated sport that includes sensors in their activities. When swimming or diving, the detectors take into account and over merely time and effort. Rotational speed, leg movement, dive angle, as well as hydraulics are all mapped out. This quantity of motion tracking is unrivaled, and it allows trainers to aid athletes in fine-tuning their activities. They may only improve by seconds, although in a race, a millisecond may indicate the difference between victory and failure.

### 1.1.3. *Improved Communication:*

YouTube and other video-sharing sites have also enhanced communication throughout training. Countless times of workouts, as well as game plays, are available for everyone to see and share on YouTube. Players and coaches may upload and view important footage during practice before on their own time to improve their understanding by learning film or arguing plays.

### 1.1.4. *Getting Rid of Injuries:*

One of the most remarkable effects of technology in sporting activities is that accidents have been reduced substantially and may thus be identified considerably earlier. Tracking performance, improving motions, and enhancing communication aren't merely advantages, they also aid to decrease the incidence of workplace injuries**.**

### 1.2. *Various kinds of Sports Technologies:*

Modern sports, sports psychology, and coaching are all developing as a consequence of technological breakthroughs. Speed Skating, cycling, golf, skiing, swimming, surfing, tennis racket football, running facilities, and many more sports utilize cutting-edge technology to boost performance. Today's technology in sports arises in a diversity of forms and sizes, with each creation having the potential for beneficial and harmful impacts. Understanding the relevance of sports technology demands a basic typology for categorizing them. These are grouped into six types of sports technologies, which are not mutually exclusive; in certain cases, the same technology may fall under numerous categories. While several technologies have yet to have an impact on the sport, recognizing the numerous forms of sports technology may help athletes have a better grasp of the technological choices they will have contact with as well as how they will disturb their performance, various types of sports technology are shown in Figure 3.
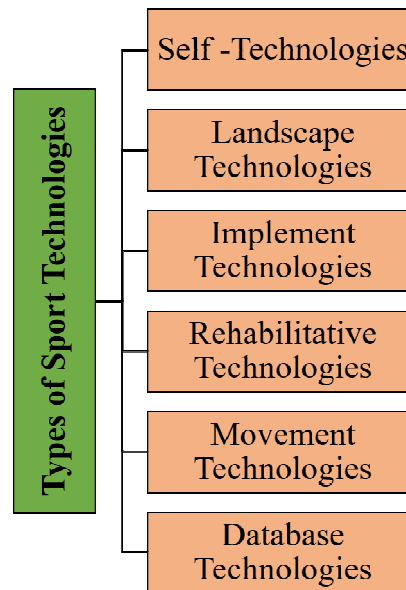
**Figure 3: Illustrating the Different Types of Sports Technology that are Used Today.**

*1.3.    Important Technological Developments in Sport:*

Without a doubt, significant developments in fast-growing tech like Artificial intelligence (AI) as well as the Internet of Things (IoT) have had a huge influence on the sport and fitness industry. It can see new technology in sports being investigated and welcomed with great interest, in addition to the already popular fitness trackers as well as smartphone apps for a diversity of sporting activities, shown below (Figure 4):
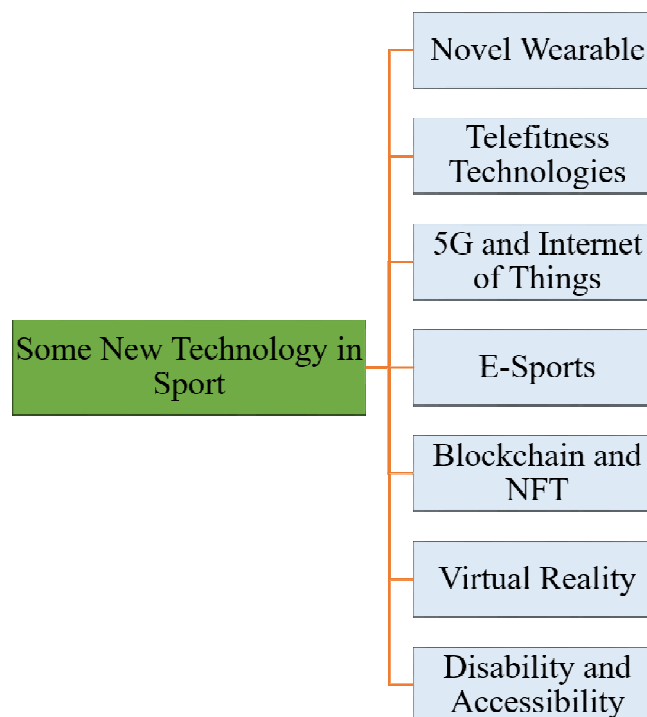


**Figure 4: Illustrating the Various kinds of New Technologies that are Used in Sports.**

### 1.3.1. Wearable:

The days of Fitbit bands and basic pedometers being the only wearable associated with sports and health are long gone. The variety of wearable devices available today, as well as the versatility with which they may be used, is astounding. Bicyclists may utilize smart glasses to build and present routes in realtime, while swimmers might use goggles to capture critical data on the move. Sensor-enabled football as well as traction, and running shoes monitor speed, motion, force, and other parameters. Full-body uniforms nowadays are obtainable, which enable monitoring and review and muscular synchronization during training and help to enhance the experiences.

### 1.3.2. Tele-fitness Technologies:

The realization of the home office has surely strengthened the notion of Tele-fitness as well as all sports technology developments that enable home exercises and virtual coaching. This area also covers a broad variety of solutions, such as popular video conferencing tools and smartphone applications for teachers and students, as well as futuristic fitness equipment such as smart mirrors. The nicest aspect about these technologies is that they are fairly likely to remain with us for a long time. Tele-fitness services are especially useful for clients like the elderly, those recuperating from injuries, and those who can't drive to the gym or find it difficult to exercise outdoors for various reasons.

### 1.3.3. The Internet of Things (IoT) and 5G:

The upcoming 5G technology and the Internet of Things are two more game-changing technologies that will have an impact on sports from a variety of angles. Wearable tech is just a tiny component of linked technology, however, the opportunities afforded by the IoT and ultrafast communication are tremendous. Massive infrastructure, including connected stadiums, comprehensive audience interpretation of augmented reality as well as Virtual reality systems, and operational monitoring and analytics tools, belong under this category. These technologies are projected to become important drivers of digital transformation in sports in the following days.

### 1.3.4. Non-Fungible Token (NFT) and Blockchain:

The effect of different technologies on sporting is less obvious yet significant. Blockchain as well as NFT, despite appearing to be the least obvious contenders for inclusion on this list, are in reality two of the most significant business drivers in sports. These technologies fuel fan tokens, digital tickets, and digital memorabilia, including loyalty programs that bring millions of fans closer to their favorite clubs and athletic events.

### 1.4. Technology in Sports Equipment:

Various kinds of technology are used in sports as discussed below:

### 1.4.1. Sports Entrepreneurs Usually Place a High Priority on Equipment:

The evolution of technology in sports equipment may be observed not only in the change of classic things such as treadmills but as well as in previously unknown products such as progress monitoring systems. These are a few instances:

### *1.4.2. Smart exercise Equipment:*

When ordinary training equipment, such as treadmills is fitted with detectors, it becomes a source of exceptional performance data that may be utilized to monitor and change workout routines in real-time, boost efficiency, as well as avoid accidents.

### *1.4.3. Gear that is Linked Together:*

Skilled athletes' necessary gear packs now contain smart suits, glasses, helmets, golf clubs, as well as other things. These technologies provide essential information to professional athletes and their coaching staff to build successful training regimens and strategies.

### *1.4.4. Sports Facilities have been Improved:*

Technology influences sport not solely in terms of player training and competition, but also in terms of the sports context. Large-scale structures such as racetracks, stadiums, and especially ice rinks are problematic and expensive to maintain. All these facilities are becoming smarter and more sustainable as they integrate sensors, power management systems, and other technologies to provide players and spectators with exceptional conditions for athletic events.

This paper demonstrates the various types of new technology that are used in sports. Also discussed more particular interpretation of sports technology, based on a basic grasp of the idea of technology. The concept of technology as a manifestation of human interests and ambitions is at the heart. The discussion about the topic and its advantages are discussed in the discussion section after that this study is finished with the conclusion, in which the outcome of this study is explained.

## 2. DISCUSSION

In today's world, technology is unavoidably important and ubiquitous. From the most basic day-to-day tasks to the most complex training processes, technological advances seem to be the current reality that must be accepted. The current years have been very demanding in terms of this problem in terms of sports, and progress has been rapid. Detectors and smartphone apps that handle biometric data, video systems that monitor athlete shows, and stadiums that are tech displays are just a few examples of the rapidly expanding technology that surrounds the sports community. This rapid development, as well as the development, resulted from the invention of new methods for monitoring and training to maximize performance, as well as new methods of organizing sporting organizations, and more recently trade [8]–[10].

### *2.1. Technology and Performance:*

Human physiological responsiveness and efficiency throughout real-time physical exercise are growing more popular. Consumers benefit from the development of gadgets technology such as heart rate monitors, pedometers, and accelerometers, as well as their implementation into personal devices such as mobile phones, which allows low-cost and readily accessible monitoring systems. Aside from this normal being used, there is an increasing niche for sensor usage and advancement in competitive sports scenarios. Individuals and sports teams will be able to track movement physiologically and biomechanically, as well as analyze workload and respond in real-time, to improve performance. Furthermore, this might aid in the detection of fatigue, movement flaws, and even the avoidance of accidents.

Even though technology has spread across sports, the component linked with players and their performance remains the most important. Technology alone cannot guarantee victory or success. It should be used correctly and provide coaches and players with accurate and trustworthy results to improve performance. As a result, including the complete sports community in the growth of these new ideas becomes critical. In actuality, coaches and players should bear a significant amount of accountability in the development and implementation of new technologies. Trainers must be conscious of these new growths and trends to make the most of them. As a result, they must keep their knowledge up to date regularly and may enlist the help of a multi-disciplinary team comprised of biomechanics, physiologists, as well as and equipment technicians.

Wearable technologies and sensors provide the option for easy mobility as well as real-time assessment, indicating training control strategies and a step forward in evaluation. There is a profusion of possibilities for regulating and monitoring every component of performance that should have an effect, some of which were unfathomable just a few years ago. Technical developments, for example, have been applied to produce fabrics that may be coupled with physiological sensors, enabling athletes and sports experts to undertake interactive analysis. These advances permit maximum learning by offering actual information to the sports sector and academics, connecting skills and experience, and boosting knowledge for everybody.

### 2.2. Organizations and Sports Technology

Organizations may reorganize their operations and followups with athletes and clubs throughout their training as a consequence of technological innovation. Most significantly, companies now have the potential to deliver the ideal experiences for fans during a competitive result. However, there are a lot of difficulties to be mindful of when dealing with big volumes of data and commercialization. Sports need adaptable organizational structures suitable for adjusting to the problems of a community in continual and quick change, all while keeping a theme of social responsibility, professional ethics, and especially transparency. These predictions are based on the actual reality that can be checked. Organizational administrative procedures must be re-adjusted to boost organizational efficiency and react to the institutional aim. There is also a need to improve the attractiveness of new practitioners and spectators, especially in locations where systematic practices are limited.

### 2.3. Advantages of technology in Sports:

Technology has a huge impact on many aspects of the game, from on-field and off-field performance to spectator mode, including public perception. Technology is rapidly affecting both grassroots and professional athletics. Technology has advantages in athletics, but it also has drawbacks. Technology usually has to be incorporated and refined before it can be used properly, and problems usually only appear after some time. Various advantages of introducing new technology in sports are shown in Figure 5 [11], [12].
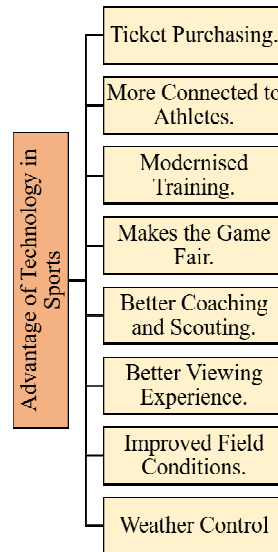
**Figure 5: Illustrating the Various Types of Advantages of the Sports Technology.**

## 3. CONCLUSION

But there is still a long way to go, but one must be confident that the use of technologies in sports opens an open door for new information and the stimulating effects of sporting events. With the rapid development of technology in physical education and sports, there are many challenges that the sports community must tackle. Regulators will certainly have to respond to what can be considered a new form of doping arising out of current society, and technological advances, sooner or later. To use the new features, some businesses need to be renamed, and organizations need to change. However, it is important to remember to follow ethical guidelines and maintain anonymity when necessary. The contemporary world revolves around innovation. As a result, encouraging the use of technology will almost surely lead to increased innovation. There is an opportunity for development in all aspects of life, including technology, as a result of greater innovation. The use of science has resulted in the fast development of sports equipment, footwear, apparel, and accessories during the previous two decades. The rate of technological advancement, on the other hand, has been modest. Humans have been hesitant and resistant to accepting technology in competitive sports in numerous ways. Their main point is that over-reliance on technology in sports would stifle natural competitiveness and diminish the joy of competition. Technology will provide smooth and integrated outcomes in the future, enhancing the sporting experience. Furthermore, it will result in increased audience engagement as well as improved commercial consequences.

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CHAPTER 9

# CONCEPTUAL ANALYSIS OF TRAINING AND DEVELOPMENT ACTIVITIES AND THEIR IMPACTS ON ORGANIZATION'S EMPLOYEES

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**ABSTRACT:**

Employee knowledge and skills relevant to teaching programs within a firm are designed to improve the employee's knowledge and abilities, as well as provide information and advice on how to perform certain tasks more efficiently and effectively. Training is a responsive, short-term approach to workers and processes, but the advancement is an active, ongoing exercise for leadership. In education and training, employees aim to achieve additional competencies and a complete mindset. Management wants to step into training to meet the current requirements of the employees. The developmental period is taken into account to reach the future needs of an employee and training and development activities an emphasis on individual career progression, and the application of new organization development literature to the creation of training programs were all added to the scope of training and development.

**KEYWORDS:**

Employees, Human resources, Development, Organization, Training.

## 1. INTRODUCTION

Discrimination based on the abilities, knowledge, and motivation of an organization's workers is now becoming increasingly necessary as it seeks strategic competition. According to a recently published industry analysis by the "AmericanSociety for Training and Development", American businesses spend more than $ 126.01 billion each year on the exercise and progress of employees [1]. "Training" is a systematic method of training and development aimed at enhancing the performance of individuals, teams, and organizations. On the other hand, development refers to the actions that lead to the adoption of new skills and intellectuals for self-improvement. However, determining how well a research study is focused on teaching, development, or both can be problematic. The researcher will use the term "training" to refer to both training and development opportunities during the rest of that assessment.

*1.1.Five pillars of the training and development activities:*

Any business is only as good as its employees, and if the organization is profitable, it is because of its effort and dedication. On the other hand, every professional needs training to function at a high level [2]. The ultimate goal of every training program is to provide value to human

resources. If a person does not know how to use the equipment, he will never complete his work, i.e. the ultimate objective of every training program is to make a valuable contribution to the human resource. Any training program that doesn't provide value should be abandoned. As a result, companies will make employee development an ongoing process. Figure 1 shows the five major pillars of a training and development program.
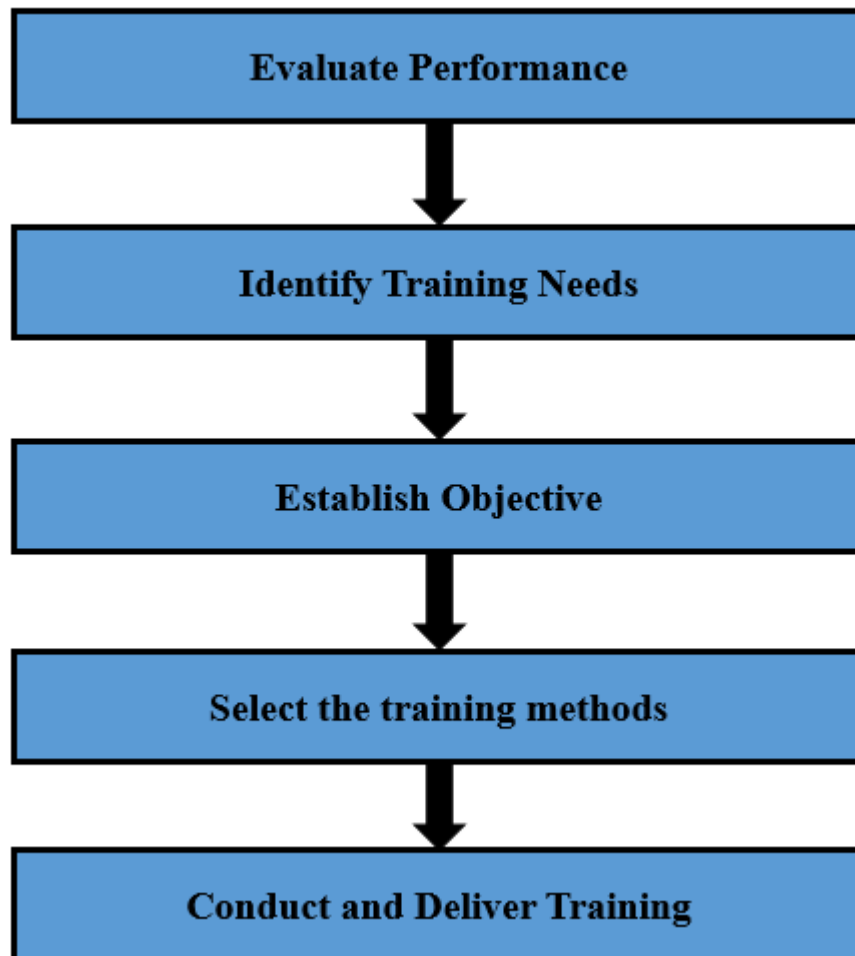


**Figure 1: Illustrates the major five pillars of the training and development activities.**

*1.2.Types of Training and Development:*

On-the-jobtraining and off-the-jobtraining are the two primary categories of training.

*1.2.1.  On-the-job training:*

According to the study, on-the-jobtraining is often completed by coworkers, administrators, executives, and teachers to helpemployees correct their new jobs and prepare them with essential jobskills. According to the study, on-the-jobtraining may include instruction or mentorship by more-experienced workers or training at the workplace or on the counter. Can include collection assignments and developments, as well as the use of teamleaders and teammanagers [3]. On-the-job-training is now the only opportunity to mature and rehearse the detailed supervisory, team-

leading, mechanical, sales, user guide, and organizational skills required by society, and has economic benefits of realism and urgency as employees [4] and applies when learning and is determined by the following.

### 1.2.1.1.On-the-job Training Methods:

Workers can acquire the skills they need to perform in real-world situations while also getting used to the work situation. In addition, firms will incur no additional cost in setting up classes or a simulated environment to provide training to employees away from the original workplace. The whole process is depicted in Figure 2.
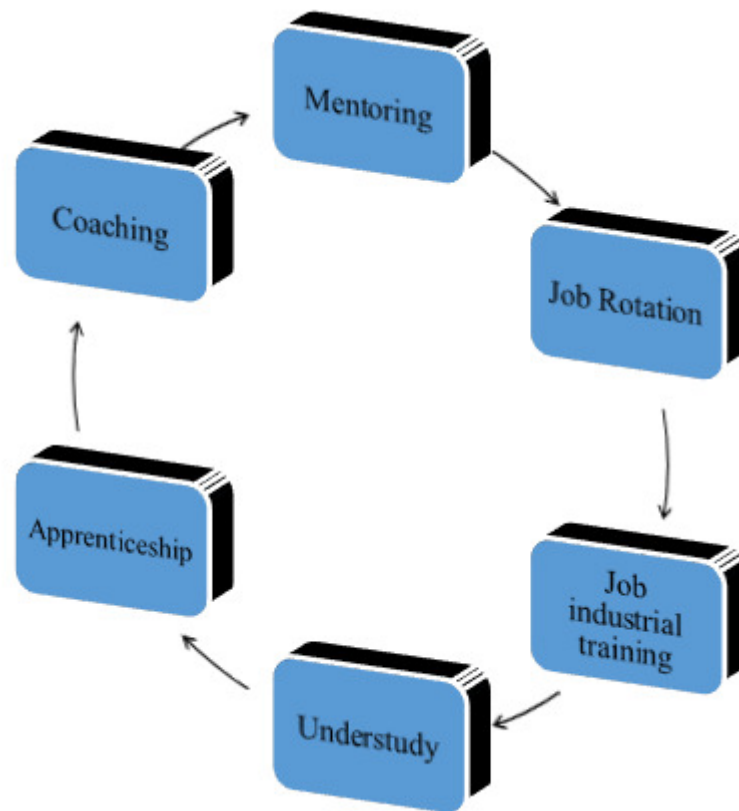


**Figure 2: States the six methods of On-the-job training.**

### 1.*Coaching:*

This strategy requires senior or experienced workers to instruct employees on how to perform a mission. It is a one-on-one-training staff through which they will be able to receive solutions to their queries through the orders and examples of the superior [5].

### 2.*Mentoring:*

This course is for those who work at the management level, where superiors or managers instruct the closest subordinates on how to perform day-to-day tasks. This is yet another exercise panache in which the director entertainments themself as a counselor to the sub-ordinate, controlling someone through interesting conditions [6].

*3.Job-Rotation:*

Often turns to other related occupations as part of a work rotation, intending to introduce an employee to a variety of employment backgrounds. It allows him to avoid boredom caused by doing similar tasks and also aids in the development of associations with other followers of the association [7].

*4.Job-Instructional-Training:*

An instructor provides a step-by-step teaching technique in which the individual is instructed on how to perform the task correctly. Before teachers demonstrate the required credentials for the site, the student is given a summary of the design as well as anticipated benefits. After that, a worker is encouraged to perform the position based on his or her achievable abilities or potential, and eventually, individuals are requested to continue providing feedback and asking a question about the results of the training program have come.

*5.Understudy:*

In this position, the greater offers instruction to subordinates as a student or aid, expected to fill a situation twisted by the senior's graduation, allocation, appointment, or decease.

*6.Apprenticeship:*

This type of assessment is usually given to individuals in the workplace in the craft, trade, or specialty industries who are required to study for a long time and then become proficient in particular areas.

*1.2.1.2.Advantages of on-the-job training:*

Both employees and managers benefit from on-the-job retraining, which will be discussed in more detail in the next chapter.

1. More efficient training with real-world experience
2. The more rapid adoption of new jobs
3. The trainee can do easy tasks right from the start.
4. Have good employees.
5. Attract appropriate personnel to your company.
6. Creating a cohesive group
7. Knowledge Management Basics
8. Financial Benefits

*1.2.1.3.Disadvantages of on-the-job training:*

According to the study, the quality of on-the-job mentoring and coaching has a significant impact on the efficacy of learning. Many managers and supervisors lack training skills and are reticent to implement or support it [8]. Additionally, depending on staff for "sit near me" training has obvious drawbacks, as the teaching may be substantial, and the program may reinforce unwanted behavior. The student may once again be attracted to the same environment, making it difficult to grasp basic abilities quickly. To tackle these questions, a train-the-trainer program should be implemented regularly to improve supervisors' abilities and internal training [9].

*1.2.2.  Off-the-job training:*

Coursework, vestibule retraining, role acting, journal articles, conversations, and simulations will be included in off-the-job instruction, according to the study. As part of off-the-job development, the research included learners participating in, team building, Internet learning, recreational games, and seminars [10]. Off-the-job training may be given by employees of relevant departments, outside of higher educational institutions, or by educational institutions, consultants, or guest speakers, so according to them. He urges top management to bring realism to classrooms, supports students' learning, and guarantee that employees who participate in off-the-job retraining are appropriately selected, instructed, and planning and budget-based planning are supervised.

*1.2.2.1.Off-the-job Training Methods:*

Simply put, off-the-job-learning is the exercise of employees who are forced to acquire services and develop so well-versed with tools and processes that specific training and testing on the manufacturing side will be used in a detailed integrated form, which may be closer to actual employment and the protocol is shown in Figure 3.
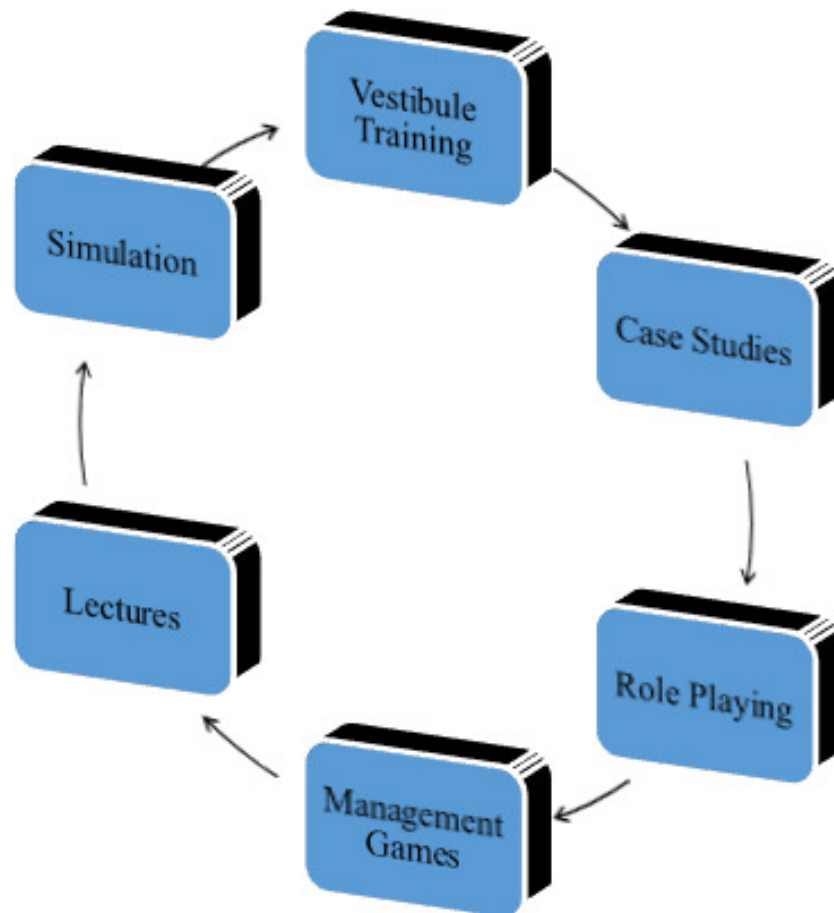


**Figure 3:States the six methods of Off-the-job training.**

*7.Special-lectures:*

This is also known as classroom training and involves instructing employees about job prerequisites and talents. A presentation or workshop is generally considered to be one during which instructors or experts from universities and organizations deliver all necessary training to the workforce. The main goal of this training is to inform employees about their job responsibilities and to allow employees to discuss any challenges they may face after completing the lecture [11].

*8.Simulation:*

The learner must master the operations and capital equipment that is appropriate to look like those engaged on the construction site as part of this course. It was one of the most frequent methods of training, in which the individual works to use machines and equipment that are similar to them in the workplace [12].

*9.Vestibule Training:*

This training method is based on the technology it is designed for, requiring administrative personnel and personnel to learn how to use equipment and materials that are off the actual work floor. This type of assessment is given to the learners to understand how they would feel in the factory [13].

*10.    Case-Studies:*

Students are faced with a situation or problem in the form of a case study and are encouraged to solve it using the information learned during the training program.

*11.    Role-playing:*

This form of evaluation is needed, as it would be for customer service. Trainees take on different scenarios and take on characters from characters. Individuals behave as if they are in serious trouble and must manage anything on their own, even without supervision.

*12.    Management-Games:*

Learners are divided hooked on different clusters and then faced with a replicated market or situations in which they have to use their information and research.

*1.2.2.2.Advantages of Off-the-job training:*

Off-the-job coaching can help with firm brainstorming, and because it is valuable, the employees received may be both more appreciated by the company, and therefore more determined and loyal. Because the instructor is a knowledgeable authority in this field, but there are many possibilities, the instructor is highly likely to deliver high-quality teaching.

*1.2.2.3.Disadvantages of Off-the-job training:*

This can be costly, although there is a possibility that the newly skilled person will leave. Training may not be individualized to the needs of the company, culminating in the owner taking time off work to attend training, as well as the opportunity cost while the learner is absent from his or her job.

## 2. LITERATURE REVIEW

R. Bharthvajan and S. F. Kavitha illustrate that the research is about a study on the efficiency of learning and development in its solutions, thereby assessing and examining the effectiveness of the employee. A random selection approach was used to select 110 personnel out of a total of 195 employees for this experiment. Employees are given a variety of questions to answer to get feedback on the changes resulting from training. Employees get a variety of training before the company learns. The researcher in this study is evaluating employee effectiveness after learning and support. Employees are given 110 questions, and the answers are compiled for findings, suggestions, and recommendations. Square and percentage methods are used to check the responses received from the respondents. Following the findings, it was concluded that the study objectives and recommendations were agreed upon [14].

A. Majeed and S. Sidra state that the goal of this schoolwork was to scrutinize the value of vocational preparation and improvement. The most essential factor in workplace performance is training and education. Training focuses on the current operations of the institute, while development focuses on future duties and responsibilities. One of the most important HRM tools is training and development to enhance the production and capabilities of a business organization. This is a quantitative and secondary research project. The information was obtained from the financial sector of India. A sample size of 200 people was used in this study. The study's findings indicate that job performance may be affected by training and education. It also recognizes that an employee's abilities and talents are essential for the survival of the business, and these abilities are acquired through learning and support [15].

A. S. Abogsesa and G. Kaushik embellish on this investigating the impact of training and education on the organizational productivity of an organization was deeply questioned by the employees. According to the findings, there was a lack of a complete system for evaluating educational needs, selection of participants, and appropriate assessment methods. Furthermore, effective training was inadequate and mainly for appearances. Furthermore, it was far more responsive, rather than implementing training measures. Education and training were also clearly important and determined to be successful in enhancing the knowledge, abilities, conduct, and attitudes of staff members. There was no effect of training on creativity, absenteeism, higher turnover, or quality of work life. Regardless, the instruction increased the employee's level of job productivity [16].

*Research Question*

- How can study the purpose of employees participating in training and development?
- What is the impact of training and development on the total productivity of the organization?
- How might the organization's personnel be more satisfied via training and development?

## 3. METHODOLOGY

*3.1.Design:*

In this part, the researcher used a random sampling approach to conduct the research. Facts and numbers are collected using both primary and secondary sources. Employee's responses to a questionnaire are used to obtain primary data and secondary data was collected from the organization's published journals, handouts, and annual reports on the company's website.

*3.2. Data Sample and Instrument:*

In this phase, the researcher collects the full sample size for the study, which is 100 respondents from various organizations and companies, 54 of who are men and 46 of whom are women. The entire data set has been doubled, classified, numbered, and aggregated, with the emphasis on tables being the conclusions. Where appropriate, percentages we're set to aid in interpretation. For better form and explanation of reports, tables and charts, and bar charts are used for quantitative reasoning.

*3.3. Data Collection:*

In this phase, the researcher will collect data from a variety of sources, including primarysources and secondarysources. Primarydata is material that has been together straight from the origin. It mostly involves interviews and discussions with leaders and employees. Primary data was collected using a constructed, unstructured questionnaire, whereas secondary information was analyzed using a structured, unstructured questionnaire. Secondary data is information that was already collected by others in a specific way. This includes the company's official website, the internet, manuals, research papers, and books.

**Table 1: Illustrates that the respondent data of induction training is a well-planned exercise.**

| Sr. No. | Answer | No. of respondents | Percentage of respondents |
|---------|--------|--------------------|--------------------------|
| **1.** | Strongly agree | 58 | 52.72% |
| **2.** | Agree | 31 | 28.18% |
| **3.** | Disagree | 21 | 19.09% |
| | **Total:** | **110** | **100%** |

According to Table 1, 58 respondents strongly agree that induction training is beneficial for organizational practice, 31 respondents agree that induction training is a well-planned organizational practice, and 21 respondents disagree that induction training is a well-planned organizational practice.

**Table 2: Illustrates the different training methods provided by the organization.**

| Sr. No. | Answer | Number of people that responded | Percentage of people who responded |
|---------|--------|---------------------------------|-----------------------------------|
| **1.** | On-the-job training | 12 | 10.90% |
| **2.** | Off-the-job training | 0 | 0% |
| **3.** | Both | 98 | 89.09% |

| | Total: | 110 | 100% |
|---|---|---|---|

According to Table 2, 98 respondents to this investigation claim that the business provides both training arrangements, while 12 believe that perhaps the organization supports on-the-job training.

**Table 3: Display the different training methods provides in On-the-job training.**

| Sr. No. | Answer | No. of respondents | Percentage of respondents |
|---|---|---|---|
| 1. | Coaching | 72 | 63.63% |
| 2. | Mentoring | 13 | 12.72% |
| 3. | Job rotation | 25 | 23.63% |
| | Total: | 110 | 100% |

In Table 3, 72 respondents say that the organization provides coaching in on-the-job training, 13 respondents say that the company probably provides mentoring in on-the-job training, and 25 respondents say that the organization provides job rotation in on-the-job training.

**Table 4: Display the different training methods provides in On-the-job training.**

| Sr. No. | Answer | No. of respondents | Percentage of respondents |
|---|---|---|---|
| 1. | Lecture | 55 | 50% |
| 2. | Sensitivity training | 53 | 48% |
| 3. | Simulation exercise | 3 | 2% |
| | Total: | 110 | 100% |

Table 4 shows that respondents to questions about on-the-job training receive good responses. According to the findings, 555 respondents believe that the organization provides lectures in on-the-job training, 53 believe that the organization provides sensitivity training in on-the-job training, and 3 respondents believe that the organization provides simulation exercise training.

*3.4. Data Analysis:*

In this study, 58 percent of respondents strongly agreed that induction training is a well-planned practice in the organization, 31 percent agreed that induction training is a well-planned practice in the organization, and 11 percent disagreed that induction training is a good practice. It is a type of exercise planned in the organization as shown in Figure 4.
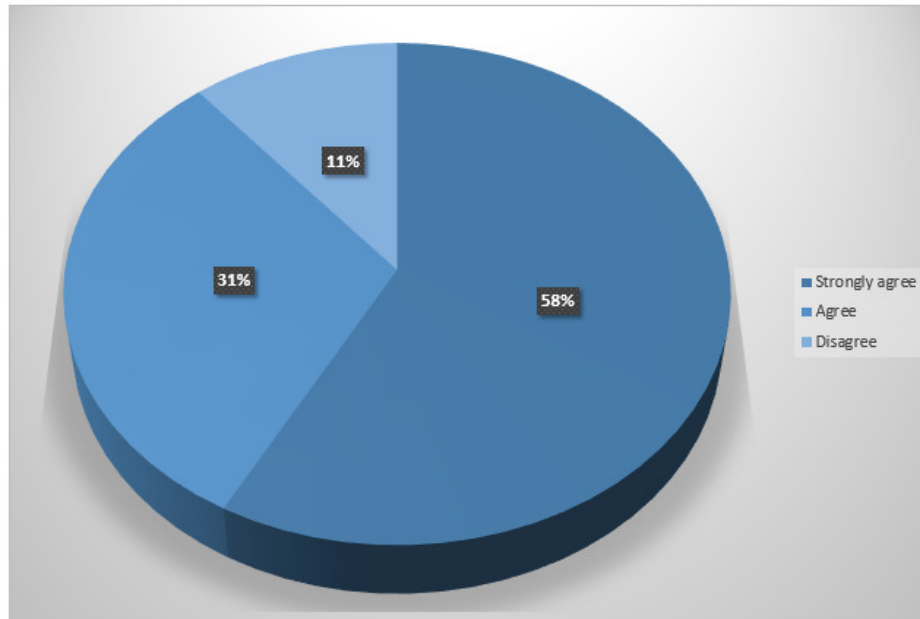
**Figure 4: Display the graphical representation of the respondent data of induction training as a well-planned exercise.**

Figure 5 shows the findings of this survey, with 89% of respondents claiming that the business provides both training methods and 11% claiming that the firm provides on-the-job training.
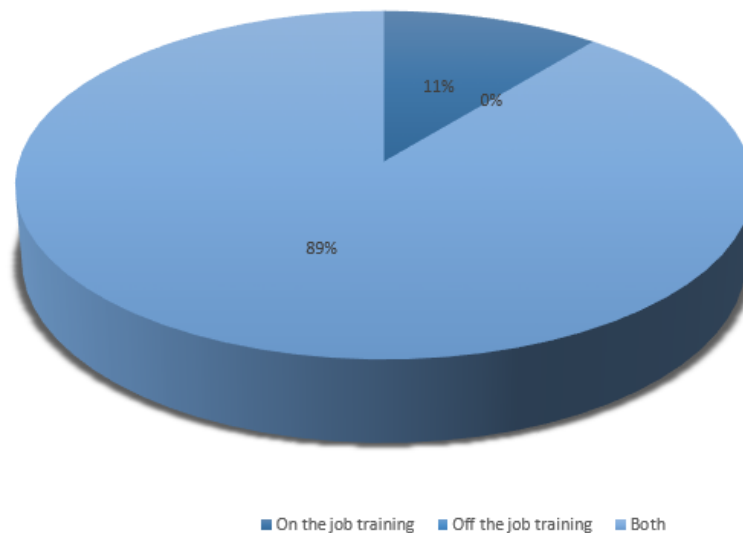


**Figure 5: Display the different training methods provides by the organization.**

According to the survey results, 23% of the respondents believe that their company offers job rotation as a type of on-the-job training. Figure 6 indicates that 12.7% of respondents say that the firm provides mentorship in the form of on-the-job training and 64% say that the organization provides coaching.
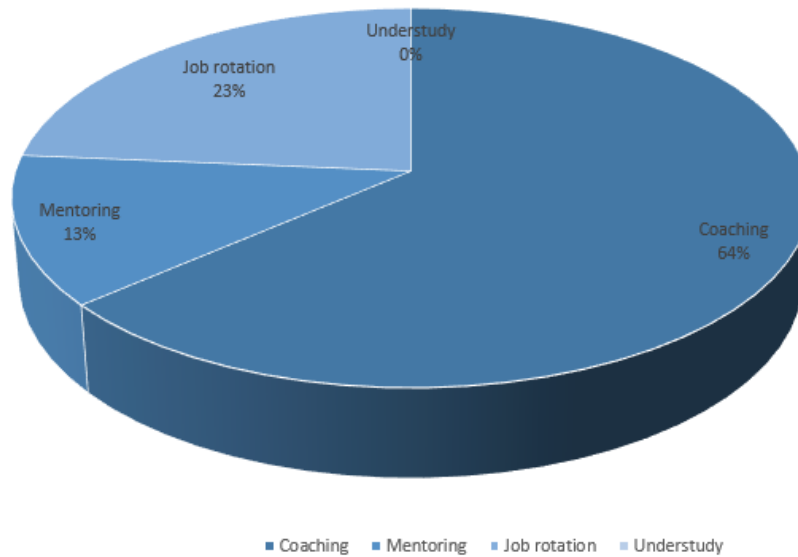
**Figure 6: Display the graphical representation of the different training methods provided in On-the-job training.**

As per the survey results, 50% of the respondents feel that the firm provides presentations as an off-the-job training approach. According to 48% of the respondents, the firm provides anger management through an off-the-job training style. The company provides transactional training for an off-training approach, according to 2% of respondents, and then all the data is shown in Figure 7.
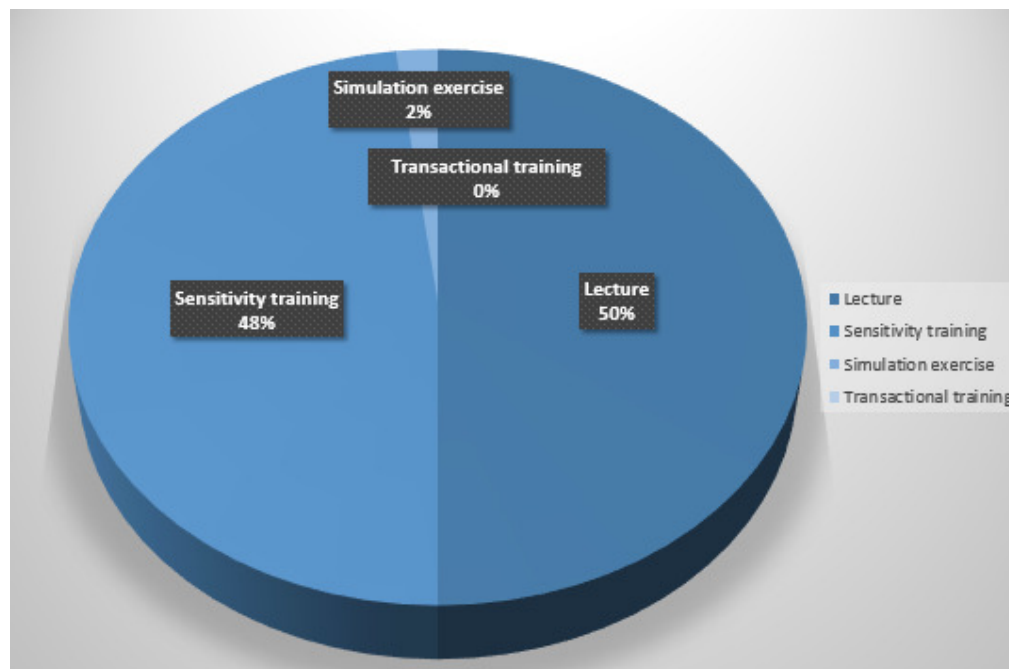


**Figure 7: Display the graphical representation of different training methods provided in On-the-job training.**

## 4. RESULT AND DISCUSSION

The findings of the recent study can be used in different ways by different organizations. In general, companies are seen to place the highest value on their personnel and to create insolences and behaviors that indicate the greatest amount of employee engagement Employees might believe that they are directly contributing to the business's future vision creating a favorable impression, and are committed to doing their job effectively. Furthermore, while it is challenging for most firms to build long-term corporate institutions and offer wide opportunities for internal promotion, it's also simple and clear for businesses to have good career goals and priorities to help their employees. Some organizations may understand that their employees are generated who later go on to work for other organizations; Still, businesses can also understand that they improve employee loyalty. According to this research, individuals and organizations can derive a variety of benefits from training programs. Efficiency and elements that are directly or indirectly linked to an employee's performance are included in such allowances. Good results of training programs for organizations are documented in this study. These benefits include better organizational performance as well as other benefits that are directly or indirectly linked to personnel performance.

## 5. CONCLUSION

As a reference point for our research, the researcher believes that training provides major benefits for both people and businesses. These rewards, according to existing research, vary based on organizational effectiveness. To better understand the strengths of training and development, the researcher implemented various levels of employee development programs and disciplinary measures. In our inquiries, the researcher also addressed ways to increase the benefits of training. These characteristics provide a strong emphasis on professional development, delivery, and transfer. The researcher believes that it is very beneficial for the company to take up Staff Training and Development courses after studying the subject. If companies provide a complete training system for their personnel, companies will have an edge over their competitors and continue to appeal to employers. Firms will benefit greatly from a structured and detailed transformation plan with the tools backed up in retaining their highly talented employees, especially those with extensive industry experience. Enterprises that can help all people meet their customers will process steps and organizations in the long run. It is also important for a business to evaluate the performance of existing staff training initiatives regularly.

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# CHAPTER 10

# ANALYSIS OF SOCIAL AND STRUCTURAL BARRIERS TO FEMALE-LED STARTUPS IN INDIA

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## ABSTRACT:

Startups have been drivers of innovation and economic progress over the last decade, a tendency that is growing more prominent in emerging nations. In India, starting a business is difficult regardless of the gender of the entrepreneur. However, there has been an increasing amount of discussion concerning the lack of parity between male and female entrepreneurs. According to government and international reports, just 15% of the companies that have established long-term operations in India were created or headed by women, with the majority of them being self-financed. This research looked at the Social and Structural Barriers that women face in the workplace. Negative stereotyping, childcare duties, lower literacy rates, a lack of public safety, and the prevalence of a negative prejudice towards women in the workplace limit women's capacity and inclination to start businesses. This is a symptom of the greater issue of women's underrepresentation in the Indian workforce, which wastes economic development potential. This study also includes legislative ideas for creating an atmosphere that encourages female-led entrepreneurship.

## KEYWORDS:

Female Entrepreneurs, SocialBarriers, Startups,Structural Barriers, Women Entrepreneurs.

## 1. INTRODUCTION

A startup is referred to as a business that is just starting. These businesses are often originally launched by their business-minded founders to profit from creating something or a service that they think there is a market for. Startups aim to successfully create and test a scalable business model. In contrast to generic entrepreneurial initiatives, which also encompass all types of self-employment and firms that never aspire to expand into established corporations, startups have workers, an expansion plan, and a desire to become large-scale organizations [1].

For the last 20 years, entrepreneurs were at the forefront of organizational entrepreneurship, and their impact on economic activities and profitability has grown dramatically. The 21st century's major technical developments and the development of an environment that is suitable for the formation of new enterprises and is defined by the accessibility of financing and public assistance are both responsible for the increase in startup firms. Nevertheless, the desire and capacity of people to support themselves while simultaneously exploring advancements via self-employment is by far the most significant factor behind the creation of entrepreneurs in the

twenty-first century. Startups are creative because they strive to disrupt markets rather than follow customary market behavior. Because they enable people to freely fulfill their capabilities and concepts in a capitalistic environment where the person's desire is often subjugated to the desire of organizations and they have little control over their employment, startup enterprises are also seen as good forces in the community. Even though entrepreneurs have been essential for fostering individual growth and socio-economic development, some individuals and groups are less able to launch new businesses owing to social norms and cultural precepts. As a consequence, female entrepreneurship saw a considerable increase in scientific attention throughout the first decade of the twenty-first century, both in terms of education and research.

This study consists of the following parts: a literature review on startups, specifically female startups; an explanation of the twofold method used, namely the survey and interviews; and the third part presents the findings of the research and the conclusions. The results presented in this study can contribute to the body of knowledge and help researchers, actors, and decision-makers in the startup environment and education.

## 2. LITERATURE REVIEW

The institutional obstacles that women entrepreneurs must overcome are a manifestation of India's predominate Brahmanical Patriarchy structure as a whole. Insofar as it prevents women from entering the profession, its effects are comparable to those of foreign patriarchal societal structures. Nevertheless, caste is inextricably related to its beginnings. The preservation of "caste purity" has traditionally limited the principal function of women in society [2]. The absence of capital markets and social networks, the lack of entrepreneurial interest amongst women, and the different conceptions of achievement amongst women and men have all been connected in the study conducted worldwide. Although studies on mental explanations have not been clear, there are significant correlations between females' developmental measures and their participation in the marketplace and public life. For instance, lower involvement percentages in entrepreneurs are thought to be caused by lower education levels and an absence of availability to professional training for women in India. Maharashtra, West Bengal, Andhra Pradesh, Kerala, and Tamil Nadu are the top five states in India in terms of the proportion of women entrepreneurs, and they also have some of the higher literacy percentages [3]. Even if places like Kerala and the Northeast have greater rates of schooling, the opportunity for entrepreneurship in such areas is constrained since both genders do not have access to money.

Women have been compelled by childbirth to take on the tasks of agents who safeguard the advancement and purity of a family, sub-caste, and caste in addition to those of homemakers and childrearing. Because these myths prevent women from associating with males from different castes, this has important ramifications for women's freedom of employment. For ages, the subcontinent's predominant social structure has been Brahmanical Patriarchy. Nevertheless, progressive politicians and liberation warriors, the majority of whom partially or rejected these ideas, established the ideology of the constitution of the sovereign state that is now recognized as India. The Indian Constitution not only guarantees women 's similar economic and social rights, but it also calls for affirmative action in important fields like businesses that are crucial to ensuring women's liberation and equality of the sexes. Considering the constitution's liberal tone, Indian culture still confines women to their homes. Even when parents let their daughter or daughters-in-law work, social inequality prevents them from achieving their career ambitions, and their employment is only intended to provide money for their families. Women are

discouraged from pursuing, much alone generating, employment due to concerns about their safety, particularly in the workplaces and social areas [4].

Various national and state administrations have made empowering women a priority in their public policies. The Beti Bachao, Beti Padao campaign was most recently launched by the right-wing national administration to promote education for girls and lower India's rising rates of female foeticide and infanticide. The Start-Up India initiative, which aims to encourage domestic business creation, investment, and capital development, was also introduced by the same administration in 2015. The government put aside Rs 10,000 crore as a Fund of Funds as part of this scheme, which would be made accessible to business owners via the privately held Small Industries Development Bank of India [5] For female-led companies, 10% of these funds have been set aside. A webpage for female entrepreneurs named Udyam Sakhi was developed by the Ministry of Micro, Small, and Medium Enterprises in 2018 to provide them with information about incubator facilities, technical assistance with building company concepts, and advertising low-cost services and goods. It strives to lessen socio-economic imbalances in India's corporate world by focusing on women from low-income households. The research indicates that, despite these initiatives, the growth of female entrepreneurship is still uneven [6]. The Sixth Economic Census shows that just 14% of enterprises are operated or owned by women. And perhaps most crucially, just 11% of all businesses in India are owned by women. In another ranking that examines access to financial services, development results, and ease of doing business for women, India is placed 52nd out of 57 nations [5]. According to research by Shah & Saurabh, women in India have greater difficulty launching companies than those in other South Asian countries [7]. This may be ascribed to both the failure of government initiatives as well as the current societal circumstances. For instance, the Beti Bachao Beti Padhao initiative spent Rs 364.66 crore, or 56.27 percent, of the cash allotted to it on advertising. Comparatively, just 19% of the funding was given to states and districts to support empowering efforts. Hardly 9 percent of senior managerial roles are held by women, and the percentage of women in the workplace is dropping, which might be connected to the dearth of female entrepreneurs [8].

## 3. METHODOLOGY

### 3.1. Design:

A two-fold methodology was used in this research. Initially, the research relied on secondary resources like the prior research articles. A total of 29 articles were found based on the specific keywords as "entrepreneurs", "Start-ups", "Female entrepreneurs", "Structure Barriers", "Social Barriers", "Gender Biasness", and "Workplace". Secondly, the survey was conducted to gain the response of female entrepreneurs. The survey included a structured questionnaire, in which startup entrepreneurs were involved. Interviews were conducted from May 2021 to September 2021. A total of 60 Female Entrepreneurs were selected. Figure 1 is illustrating the structure of the two-fold study.
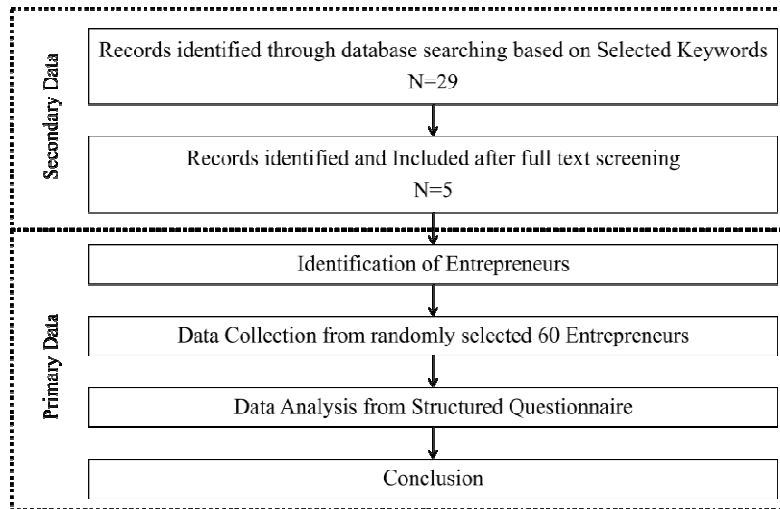
**Figure 1: Illustrating the Research Flow of the Current Two-Fold Study**

*3.2.Sample:*

A total of 60 entrepreneurs were selected randomly who started their businesses at the beginning of the year 2021. Because of security issues, the city and work profiles of the start-ups were kept confidential. Data was collected based on Age, Marital status, Number of children, education, and prior work experience. Table 1 is illustrating the detailed demographics of the collected data from the respondents.

**Table 1: Illustrating the Demographic Profile of Randomly Selected 60 Entrepreneurs.**

|  |  | Count | Table N % |
|---|---|---|---|
| Age | Less than 25 | 15 | 25.0% |
|  | 25-35 | 25 | 41.7% |
|  | 35-45 | 14 | 23.3% |
|  | 45-60 | 6 | 10.0% |
| Marital Status | Single | 20 | 33.3% |
|  | Married | 35 | 58.3% |
|  | Widowed | 5 | 8.3% |
| Number of Children | None | 22 | 36.7% |
|  | Two or less | 34 | 56.7% |
|  | More than two | 4 | 6.7% |
| Level of Education | High School | 3 | 5.0% |
|  | Intermediate | 13 | 21.7% |

| | | | |
|---|---|---|---|
| | Graduation | 26 | 43.3% |
| | Post-Graduation | 15 | 25.0% |
| | PhD | 3 | 5.0% |
| Work Experience | None | 2 | 3.3% |
| | One | 16 | 26.7% |
| | Two | 22 | 36.7% |
| | Three | 15 | 25.0% |
| | More than three | 5 | 8.3% |

*3.3.Instruments:*

In the current study, SPSS software is utilized for the analysis of the collected data. IBM created the statistical software package SPSS Statistics for multivariate analysis, advanced analytics, data management, corporate intelligence, and law enforcement. In the current study, the authors have used this software for analyzing the correlation between the factors that can be counted as influencing factors for female entrepreneurs.

*3.4.Data Collection:*

The reliability analysis of all variables is shown in Table 2 below. According to Uma Sekaran [9], dependability rises when Cronbach's alpha, a reliability indicator, gets closer to 1.0. According to Tabachnick and Fiddell [10], Cronbach's alpha must be greater than 0.55. The overall dependability of six loaded elements demonstrates the reliability of the information. From the collected data it was reported that the majority of the female entrepreneurs started their businesses with the help of personal savings (Figure 2). Also, the majority of the respondents had their initial startup and started because of extra income (Figures 3 and 4). Most start-ups have a limited number of employees or are in a growing phase (Figures 5 and 6). Gender biases are a major issue that influences the number of female entrepreneurs and it was reported that the majority of the respondents faced gender biases (Figure 7).

**Table 2: Illustrating the Cronbach's Alpha of Demographic and Social and Structural Barriers**

**Reliability Statistics**

| Factors | Cronbach's Alpha | No. of Items |
|---|---|---|
| Demographic Factors | 0.732 | 5 |
| Social and Structure Barriers | 0.783 | 6 |
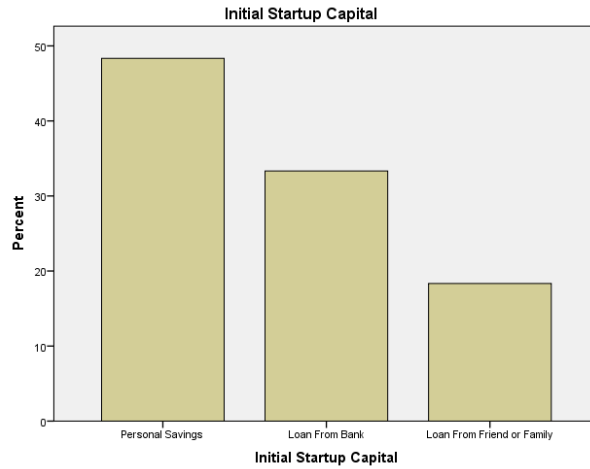
**Figure 2: Illustrating the Percentage of Various Entrepreneur's Initial Start-up Capital**
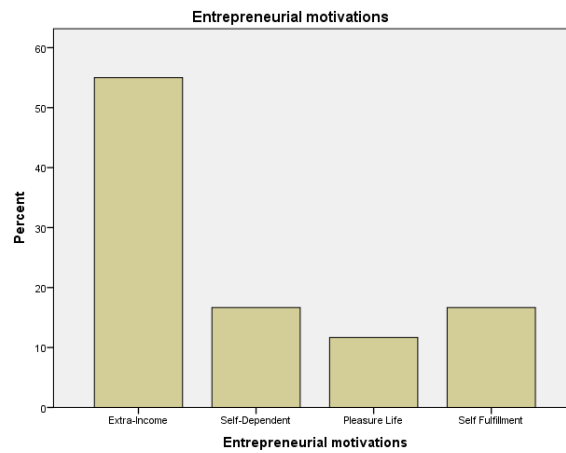


**Figure 3: Illustrating the Percentage of Various Entrepreneurial Motivations.**
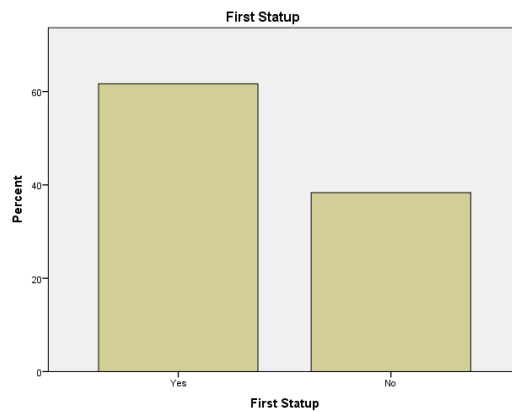


**Figure 4: Illustrating the Percentage of Entrepreneurs Having First Start-up.**

**Figure 5: Illustrating the Percentage of Entrepreneurs Facing the Work-Life Conflicts.**
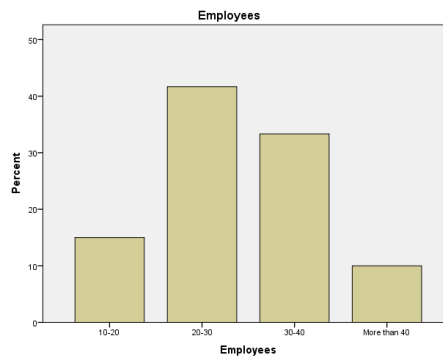


**Figure 6: Illustrating the Percentage of Start-ups having Different Numbers of Employees.**
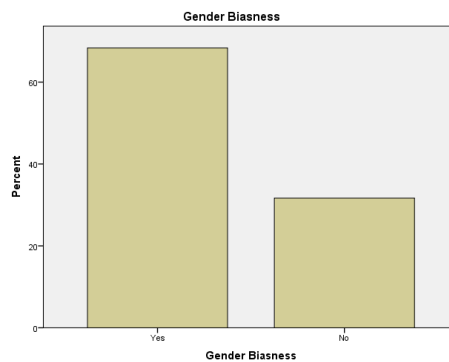


**Figure 7: Illustrating the Percentage of Entrepreneurs that have faced Gender Biasness.**

*3.5.Data Analysis:*

During the analysis, all insignificant values were excluded. It was reported that there was a strong, positive correlation between age and work experience, which was statistically significant ($r = 0.685$, $n = 60$, $p = 0.000$). It indicates that with the increasing age, there isa 68.5% chance of gaining more work experience. Similarly, there was a weak, negative correlation between age and entrepreneurial motivation ($r = -0.156$, $n = 60$, $p = 0.000$) which indicated that with increasing age, there was a decrease in the motivation to start a business by 15.6%. Also, Entrepreneurial motivations were positively influenced by marriage, the number of children, education, and work experience but capital to start the start-up decreases these motivations. Also, Entrepreneurial motivations strongly and positively increase the percentage of the first start-up

by 42.8%. Also, Gender biases strongly and positively increase the work-life conflicts of female entrepreneurs (Table 3).

**Table 3: Correlation Analysis of Demographic, Social, and Structural Factors that Influences the Women Entrepreneurs**

| Correlations [c] | | Age | Marital Status | Number of Children | Level of Education | Work Experience | Initial Start-up Capital | Entrepreneurial motivations | First Start-up | Employees | Gender Biases | Work-Life Conflict |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | Pearson Correlation | 1 | | | | 0.685 | | -0.156 | | | 0.52 | 0.301[*] |
| Marital Status | Pearson Correlation | | 1 | | | 0.149 | 0.129 | 0.280[*] | 0.101 | | -0.075 | -0.21 |
| Number of Children | Pearson Correlation | | | 1 | -0.473 | 0.245 | -0.402 | 0.227 | 0.053 | 0.328[*] | -0.141 | -0.302[*] |
| Level of Education | Pearson Correlation | | | | 1 | | 0.061 | 0.328 | 0.23 | | 0.13 | -0.286[*] |
| Work Experience | Pearson Correlation | | | | | 1 | 0.078 | 0.359[**] | 0.107 | 0.139 | -0.057 | -0.25 |
| Initial Start-up Capital | Pearson Correlation | | | | | | 1 | -0.263[*] | 0.266[*] | | 0.127 | 0.163 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entrepr eneurial motivati ons | Pears on Corre lation | | | | | | | 1 | 0.4 28 | | -0.20 3 | -0.40 9 |
| First Start-up | Pears on Corre lation | | | | | | | | 1 | 0.007 | 0.05 3 | -0.21 4 |
| Employ ees | Pears on Corre lation | | | | | | | | | 1 | -0.17 9 | 0.12 1 |
| Gender Biasnes s | Pears on Corre lation | | | | | | | | | | 1 | 0.48 5 |
| Work-Life Conflict | Pears on Corre lation | | | | | | | | | | | 1 |

## 4. RESULTS AND DISCUSSION

Regardless of the entrepreneurs' gender, building a sustainable company in India's highly competitive climate is challenging. Obtaining enough capital, lesser developing skills, and a complicated regulatory framework are major obstacles for entrepreneurs in India. Nevertheless, there are extra obstacles for female businesses which are a component of a larger and more obvious gender divide in the mostly male Indian culture. Unintended and spontaneous psychological connections based on sex that is derived from customs, conventions, beliefs, society, and/or experiences are referred to as implicit gender prejudice. It is a significant barrier to the advancement of female entrepreneurs, particularly in emerging nations like India. Spontaneous connections allow for a rapid evaluation of a person and often influence decisions that are averse to women. Stereotypes that are often repeated support the idea that males are more financially savvy. This is reflected in the unequal treatment of female entrepreneurs by investors and lowers the likelihood of receiving seed money and investment, which is thought to be required for maintaining enterprises beyond a certain point. Any management or startup's capacity to make choices and handle a project efficiently is harmed by persistently combating unfavorable views. According to research, unfavorable preconceptions make female entrepreneurs feel less confident, which makes them less inclined to take the effort to launch new businesses [8].

Among the most often mentioned obstacles to women in leadership is masculine business environments. Female workers of many businesses, namely Flipkart, have charged the company's owners with gender discrimination. Due to the significance of networking in India's specialized sectors, which entrepreneurs prefer to investigate, a hyper-masculinity job

atmosphere separates women and results in lower levels of involvement of women in significant business networks [8]. In India, women take on more responsibility at home and dedicate an average of 5 times quite so much time to housekeeping, household maintenance, and other unpaid duties than men do. Even if women are choosing to engage in this conduct, it is thought that societal conditioning is to blame for this tendency. The amount of non-financial investment made by female entrepreneurs in their companies depends on whether there is support for them or not. Women bear the majority of the social cost of childcare. This exclusively burdens female entrepreneurs and compels them to balance work and family obligations difficultly [11]. The Kauffman Foundation claims that women-driven private technology enterprises are more successful and capital-efficient than startups managed by males. The Boston Consulting Group's research indicates that female-led startups provide greater rates of return for investors throughout the first five years of operation [12]. According to Forbes research from 2019, the workforce of businesses run by women tends to be more diverse, which often fosters a more favorable work atmosphere.

### 4.1. India's Policies and Strategies for Women Entrepreneurs

Women's business ownership has been acknowledged as a significant driver of economic expansion. In addition to creating new employment for themselves and others, women entrepreneurs offer society many answers to managerial, organizational, and business-related issues [13].

### 4.2. India's Policies and Strategies for Women Entrepreneurs

Women's business ownership has been acknowledged as a significant driver of economic expansion. In addition to creating new employment for themselves and others, women entrepreneurs offer society many answers to managerial, organizational, and business-related issues. They are still a small portion of all entrepreneurs. Gender-based obstacles that prevent women from beginning and expanding their enterprises include unfair property, marriage, and inheritance rights and/or cultural customs; absence of availability to formal financial channels; restricted portability and sharing of data and connections, etc. [14].

### 4.3. Top Government Programs for Women Business Owners

The moment has come to acknowledge that there was once a masculine majority in societal structure. The lady initially had to take care of the household, and starting a company was only a pipe dream. Figure 8 is representing the list of current government initiatives for female entrepreneurs in India.
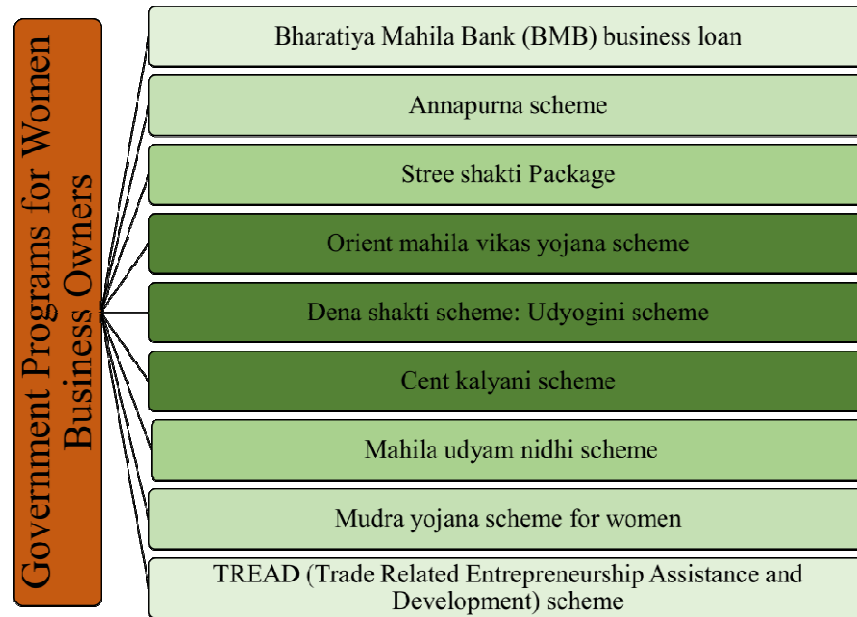
**Figure 8: Representing the Government Initiatives for Female Entrepreneurs in India.**

## 5. CONCLUSION

It has been acknowledged that women entrepreneurs are a significant driver of economic progress. Women entrepreneurs generate additional employment opportunities for themselves and others, as well as offer society various answers to administrative, managerial, and commercial issues. They still make up a small portion of all business owners. Every country must prioritize female entrepreneurs. Men and women should engage in all professions equally if we wish to compete with other advanced economies. Men achieve effectively, thus women also should develop successfully as businesswomen. Government should put in place services that support women to become more successful business owners.

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# CHAPTER 11

# EXTENSIVE ANALYSIS OF RECESSION IN THE INDIAN STOCK MARKET DUE TO COVID-19 PANDEMIC

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**ABSTRACT:**

The emergence of the Corona Disease Virus 2019 (COVID-19) has had a significant influence on the worldwide financial industry. Because of the global market disturbances created by the COVID-19 epidemic, the Indian finance sector likewise reacted with extreme volatility, indicating that the Indian economy is facing an economic downturn. Given the COVID-19 circumstance, this research study examines COVID-19's influence on the Indian stock market using daily closing prices of indexes such as the Nifty-50 and the Sensex. This research looks at the volatility of both indexes from January to July 2020. Furthermore, the research aimed to do a complete investigation of the stock market's return before COVID-19 and during COVID-19. The GARCH (Generalized Auto Regressive Conditional Heteroskedasticity) model is used to represent the indexes' volatility. The stock market in India witnessed instability throughout the pandemic era because of the COVID-19 Virus and the country's lockdown, according to the findings. When comparing the findings to those obtained before COVID-19, we see that the return on the indices was greater before COVID-19 than during COVID-19. During the first shutdown period, which lasted from March 24 to April 6, both the stock and bond markets returned to zero.

**KEYWORDS:**

Stock Market, Covid-19, Sensex, Market, Business, Finance.

## 1. INTRODUCTION

The new coronavirus, or COVID-19, responsible for causing the human-transmitted illness, was discovered for the first time in Wuhan, China, in December 2019. The crucial influence of this disease outbreak goes far beyond health and safety concerns alone because the majority of nations were forced to shut down their economic systems to combat COVID-19, and government agencies struggled to put together extraordinary economic and health welfare programs including situational techniques. The country's economic terrible and financial performances as a consequence of the public health effect have influenced the stock market's productivity [1], [2].

Many countries such as India have adopted stricter segregation policies to combat the invisible epidemic, and economic activities have been shut down abruptly. Limited global exports have decreased economic activity worldwide. Most crucially, because of conflicts between them and the resulting unease in the market, consumers and businesses have reduced their regular usage. The pandemic has had a significant influence on the world economy, particularly the growing

and rising economies like India, Brazil, Italy, Spain, and the US. This has produced uncertainty and danger. The finance sector has responded significantly and has been negatively impacted by this situation. In reaction to the epidemic, the danger to the world's financial markets has significantly grown. The anxiety and uncertainty are causing enough losses for investors. For instance, from the 24th to the 28th, the global stock market lost nearly US$6 trillion as a result of the effects of this epidemic. Ever since the Covid-19 epidemic, the stock capitalization of the Standard & Poor (S&P) 500 indices has decreased by 30% [3].

Even though there is little existing research on the effect of COVID-19 on the finance sector, the investigations that have been done so far have shown encouraging findings. Research on financial markets and banks has discovered that there is still a declining trend in oil, equity, and bonds due to the COVID-19 disease outbreak due to social isolating measures, which negatively affects the efficiency of the businesses and causes a decline in earnings, increased the cost, and difficulties with cash flow for the businesses [4], [5]. The success of the stock market is crucial to any business and inadvertently reflects how confident a nation is in its investors. Predicting a short-term return is challenging, which has been particularly difficult during the financial crisis. Understanding the stock market is necessary to maintain vigilance, particularly in trying times when business foundations are less important yet have a significant impact on macroeconomic variables. It is common knowledge that having a better grasp of the stock market is essential for conquering difficulties with short-term investments. This is particularly true during financial crises, which are made all the more advantageous when they are brought on by an epidemic.

## 2. LITERATURE REVIEW

Numerous insightful studies of developing and emerging nations have examined the effects of COVID-19 on the stock market and finance sectors. Based on 4 continents—North America, Africa, Asia, and Europe we carried out technical research to determine the effects of the social eradicating program implemented to stop the spreading of the Corona Virus. According to several experts, market uncertainty the key factor in each stock market investing decision—is strongly correlated with stock market volatility. According to the research, fluctuation is among the best indicators of risk. A market crash is more likely when fluctuation is larger, and a bull market is more likely when volatility is lower. Volatility is "the amount of fluctuation over a term of a trading price" in the investing world. Volatility raises risk since it causes stock prices to fluctuate more in the near term with increased volatility. A low fluctuation level means that the short-term fluctuations in share price are less pronounced. The standard error is the most often utilized for the measurement of volatility, although it has a drawback since it is founded on the supposition that returns are regularly dispersed [3], [5]–[10].

Another metric is skewness, which doesn't assume a normally distributed and instead focuses on the extremities of the set of data instead of the average yield. Since their investing goal is not to average out over the long run, short- and medium-term investors must concentrate more on extremes. Another measurement to employ whenever the tails have high values is kurtosis, which is similar to skewness. There is a significant likelihood of either good yields or modest returns with a strong kurtosis, which suggests a high amount of investment risk. In the Indian market, the higher moments, such as skewness and kurtosis, are also valued [7], [8], [11], [12]. Since January 2020, the majority of scholars have been focusing on determining how COVID-19 has affected a variety of factors, such as the stock market, economics, healthcare, and several others, such as the environment, packaging, and climate science. A small number of academics

have focused mostly on composite indexes of the mature markets while conducting this study for various nations. There isn't much research on developing markets, but there aren't many studies that take sectoral indexes into account. None of the research, which takes into account composites and sectoral indexes, is restricted to the Indian stock market.

## 3.  METHODOLOGY

Sources of primary data are the foundation of the investigation. Information on the Nifty and Sensex indexes' closing prices per day has been gathered from the BSE and NSE official websites. Information is gathered from February 2020 to April 2020, covering both COVID-19 and the time preceding it. On January 30, 2020, the first positive incidence in India was discovered. Information about COVID-19 confirmed cases is gathered from a report by the Indian Government's Ministry of Health and Family Welfare. Therefore, for the sake of this research, the period before this date is referred to as the pre-COVID-19 era, while the time after this date is referred to as the COVID-19 era.

*3.1.Sample and Instruments:*
*3.1.1.   S&P BSE- Sensex*



**Figure 1: Illustrating the Lowest S&P BSE- Sensex in the Indian Stock Market**

- As we can see on 24th March 2020 - the SENSEX index in the Indian stock market touched 52 week low of about 25638.90 points (Figure 1).
- As on 20th January 2021 which is a PRE-COVID level Sensex was atan all-time high/52-week high of about 42059.45 Points.
- From 20th February 2020 major covid-19 cases started coming in India following the government putting restrictions on travel in and outside of India. From that day Sensex started following with an average downfall rate of 400-800 points daily.
- And on 24th March 2020 in the history of the Indian stock market, Sensex touched an all-time low. With a downfall of Approx. 39% from 52 weeks high of 20th January 2020.

*3.1.2. NIFTY 50:*



**Figure 2: Illustrating the Lowest NIFTY 50 Sensex in Indian Stock Market**

- As we can see that on 24$^{th}$ March 2020 – the NIFTY-50 index in the Indian stock market touched 52 week low of about 7511.10 points (Figure 2).
- As on 20$^{th}$ January 2021 which is a PRE-COVID level, NIFTY-50 was atan all-time high/52-week high of about 12430.00 Points.
- From 20$^{th}$ February 2020 major covid-19 cases started coming in India following the government putting restrictions on travel in and outside of India. From that day Sensex started following with an average downfall rate of 200-300 points daily.
- And on 24$^{th}$ March 2020 in the history of the Indian stock market, Sensex touched an all-time low. With a downfall of Approx. 39% from 52 weeks high of 20$^{th}$ January 2020.

*3.2.Data Collection:*

After keeping track of an equivalent time window for the sub-samples, the period was separated into two, i.e., even before an emergency and even throughout the disaster. It is noted that almost all of the indexes' lowest values from January to May 2020 happened on March 23, 2020, making that same day one of the worse in the Indian stock industry's history. Both the BSE and the BSE 500 Sensex plummeted by 13-14 percent in one day. All sectoral indices finished in the red, with the financial and capital goods sectors losing 18.40 and 16.1 percent, respectively. During the disaster's five-month period, all indices display lower daily mean returns or, to be more accurate, lower returns—than they did prior. The care services business was the only one to make a gain during the catastrophe.

*3.2.1. Market Capitalization in Investment:*

Before making a stock investment, it's crucial to examine not only the prices of individual stocks but also their market capitalizations. Market capitalization allows us to distinguish portfolios with different-sized companies by giving a clear image of the company's worth and associated risks. Which general category—small cap, medium cap, or big cap a publicly listed corporation belongs to depends on its market capitalization. Usually, businesses are classified into the below groups based on market capitalization:

- Large-cap: These firms often have a market value of $10 billion or more, are completely matured, well-known, and operate in well-established sectors.
- Mid-cap: Some good businesses with market values ranging from $2 billion to $10 billion compete in industries that are experiencing or are expected to experience rapid growth.
- Small-cap: These are start-up businesses with a market value of under $2 billion that cater to developing sectors.

Market capitalizations for large corporations are typically $10 billion or above. These businesses have been around the longest and are the dominant forces in the well-established sector. Substantial organizations may not need large outlays of the cash up front, but over time, they often reward investors with a consistent rise in share price and dividend payouts. Due to their long-standing market position, these businesses are seen as being less hazardous since pricing tends to be steady. Reliance Industries, HDFC Bank, ITC, and others are other examples of huge organizations (Figures 3, 4, 5, and 6).
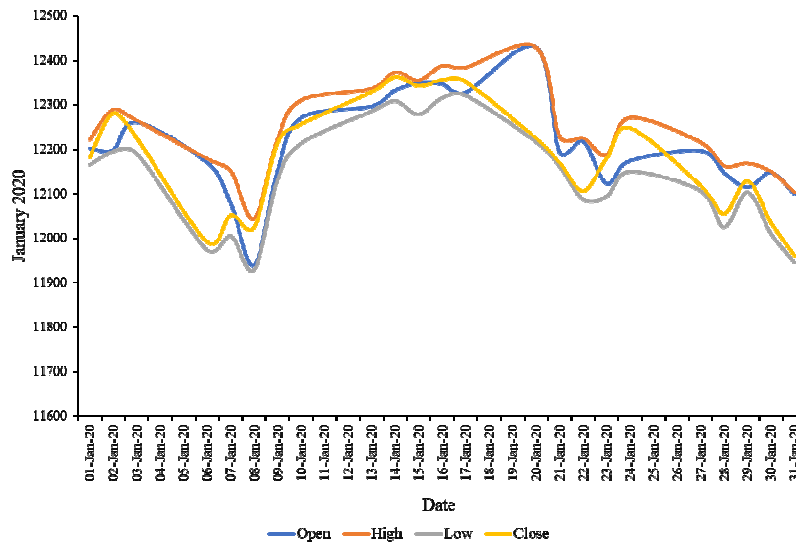


**Figure 3: Illustrating the Open, High, Low and Closing Index in January 2020** [13]
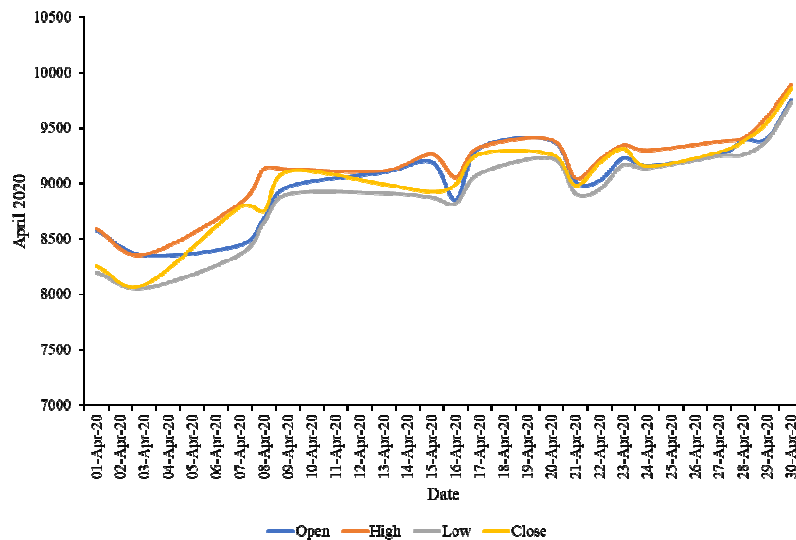
**Figure 4: Illustrating the Open, High, Low and Closing Index in April 2020** [13]
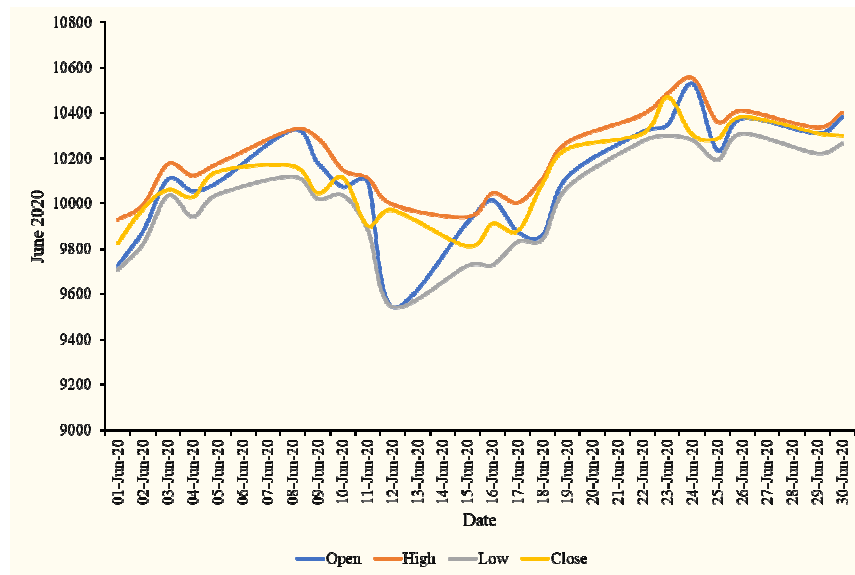


**Figure 5: Illustrating the Open, High, Low and Closing Index in June 2020** [13]
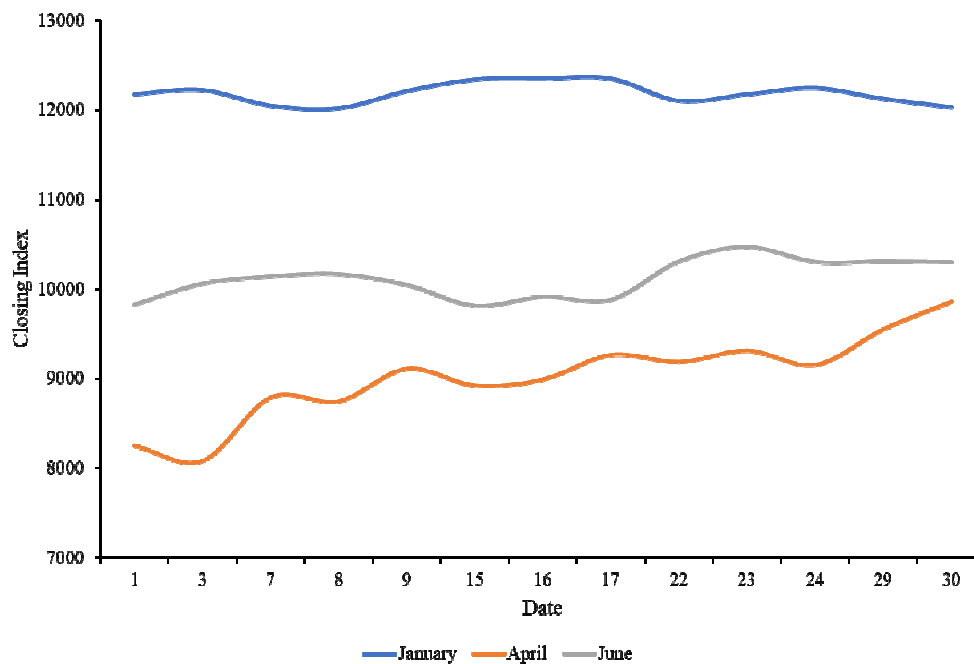


**Figure 6: Illustrating the Comparison of January 2020, April 2020 & June 2020 Data** [13]

Market capitalizations for mid-cap corporations typically range from $2 billion to $10 billion. These are well-known businesses that are involved in a sector that is predicted to develop quickly. They are growing at the moment. They are less established than large-cap firms, which increases their risk, but their potential growth draws in investors (Table 1).

**Table 1: Illustrating the Comparison of Indian Stock Markets in Pre-COVID and Post-COVID Time.**

| Bourses | 14 Jan 2020 | 24 April 2020 | 24 Jun 2020 |
|---------|-------------|---------------|-------------|
| NIFTY-50 | 12,362 | 9154 | 10305.30 |

Companies classified as low-income are those with market investments ranging from $300 million to $2 billion. These tiny businesses may be young or may cater to specific markets and emerging sectors. Due to their size, age, and target markets, these businesses are regarded as high-risk ventures. These businesses have little resources and are very vulnerable to economic downturns. Thus, compared to mature and big organizations, the stock values of tiny companies are often significantly stronger and less liquid. Simultaneously, as a high-risk, return-suggesting investment, smaller firms often provide better growth prospects than bigger corporations. Micro-cap refers to even little businesses with revenues of between $50 million and $300 million.

*3.4. Data Analysis:*
*3.4.1.    The market before COVID-19:*

The emergence of Covid-19 coincided with a worldwide stock market catastrophe. worldwide recognized, as well as in commercial land. Throughout the international economic meltdown of 2008, markets fell to a record low. Even though the world has historically caused a market slump, the effects of COVID-19 have been quite different since the outbreak has traveled more widely as a consequence of this financial instability. For around three months, the nation was shut down entirely, which had a significant impact on several economic activities. The information provided suggests that the Nifty 50 Indian markets would close in January, April, and June 2020. It can be observed that the stock market was quite busy in January '20 before the COVID-19 virus entered India. It started to collapse at the end of March 20, and when the nation reached the country on April 20, it crashed. As the nation's economy started to pick up speed and recommence at the end of May, stock indicators started to speed up the recovery process, as can be seen in the June 2020 data.

*3.4.2.    Impact of COVID-19 on the Indian stock markets:*

Past is testimony that occasionally things happen that no one foresees or believes are possible. These are the kinds of things that leave everyone in a state of shock that destabilizes society and disturbs daily life. These occurrences are known as black swans. The phrase dates back to 1697 when people thought that swans could only be white. However, Dutch explorers later discovered black swans in Western Australia, dispelling the widespread belief that swans could only be white. One instance of a black swan event is the effect of the new coronavirus (COVID-19) on the stock market.

Before COVID-19, the market value of each of India's major exchanges was around $ 2.16 trillion. In 2019, there were just 8–10 large-cap stocks present. In 2019, several well-known companies, including Hindustan Unilever, Reliance, Infosys, TCS, HDFC Bank, Kotak Bank, and ICICI Bank, will not see Sensex gains but would instead have returns of around 14%. (Excluding profits). negative. However, by the beginning of 2020, there had been a full recovery, and trading on the NSE and BSE had achieved record highs, with 12,362 and 42,273 peaks,

respectively. This year's IPOs for up to 30 companies were predicted to begin early. The market conditions were ideal at the time they hit record highs in mid-January.

## 4.  RESULTS AND DISCUSSION

In this research, we looked at how COVID-19 affected the functioning of the BSE and NSE, 2 Indian stock exchanges. By comparing two direct examples of COVID-19 in India, one "before" and "one after the other", the comparison model is utilized to gauge stock market volatility. The closing stock prices of the BSE and NSE indexes are regarded as the variable variance and these two times as the dependent variables. The outcome demonstrates that throughout the pandemic, the stock market is erratic, particularly the BSE Sensex. It has been discovered that the COVID-19 period has little to no impact on the volatility of the NSE stock price in the case of another stock index, NSE Nifty. Separate calculations are made for the return specified in COVID-19 and pre-COVID-19. The outcome demonstrated that throughout the outbreak, the stock market lost money due to negative returns, but positive returns were seen during the pre-COVID-19 era. Mean and standard deviation were compared, and it was found that the deviation was higher during COVID-19 than it was before COVID-19. Similar to this, there has been a major movement in the price of stock indexes.

The price was high before COVID-19, but during COVID-19, it exhibited a slowing until the first closing period, or until the end of March. However, following this point, it also began to move gradually higher. It is a result of the Indian government's addition of relief to the locking policy. Challenges have arisen as a result of an unprecedented outbreak in practically every nation. Due to COVID-19, no category is unaffected. In essence, the findings show that the Coronavirus epidemic had an impact on inflation and exacerbated volatility in the Indian stock markets and financial system. As a result, by focusing on the Indian stock market, this research aims to present a much more straightforward yet statistical examination of the COVID-19 outbreak. As the Nifty 50 fell by 38%, there was a significant adherence to trends and indications in the global market. Since the start of the year, the total market capitalization has declined by an incredible 27.31 percent. The stock market was nothing more than a reflection of how investors felt about the outbreak globally. Companies have started to track their expenditure, which has resulted in job losses and increased unemployment. The hardest hit industries are those in travel and transportation, entertainment, and oil and gas. These firms' shares have decreased by more than 40%. Several businesses have declared their resignation owing to closure-related business failure.

## 5.  CONCLUSION

The awful Covid-19 outbreak has brought us a national financial, economic, and medical problem. Although these are trying times, humanity is resilient and will emerge from them stronger than before. An intelligent recovery strategy is necessary to boost the economy and expand the company. Both importation and international investment should be emphasized in the area. We should encourage regional manufacturers and advertise things created in India. In reaction to the present scenario and to remember the turmoil caused by the pandemic, the RBI and the Government of India have implemented several reforms, including the decrease of repo, the continuation of the regime by prolonging the suspension, and a few initiatives to improve system investment. The administration must focus on improving its Make in India initiatives, indigenous new tech trade, the creation of an open, innovation system (PDS), the provision of healthcare in rural areas, import and export, and the adaptation of cutting-edge technology

solutions like artificial intelligence (AI), educational machinery, arithmetical information, and so much more. Businesses with innovative goods expanded marketing options, technologically advanced business procedures, and strong financial standing will encourage the development of resilience. The only way to revive the economy is to increase citizen skill levels and achieve national independence.

The examination of the Indian stock market's pre and post-COVID-19 circumstances has created a significant foundation for future research on the impact of stock prices and the overall economy of the nation. By collaborating on the aforementioned subject, we hope the researchers will broaden the scope of their research.

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# CHAPTER 12

# LITERATURE SURVEY ON THE ROLE OF ACADEMIC EDUCATION FOR PREVENTING THE CHILD LABOR IN INDIAN SOCIETY

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**ABSTRACT:**

Child labor is a serious crime where under-age children are forced to work and child labor is among the most serious issues addressing the globe at large, particularly in developing nations like India. Child labor is frequently compelled by the parents' financial constraints and Child labor is mostly motivated by excessive poverty and unemployment, hence children are seen as an additional source of income in poor families. Because such parents feel that each child is a bread-earner, that's why they have much more kids. These youngsters are supposed to share their families' tasks as they grow older. Illiteracy is one of the major contributors to this issue. Illiterate parents believe that academics and learning are a strain since they must invest more in contrast to the rewards they receive from their children's salaries. This paper contains a literature survey that focused on the influence of effective academic education on preventing the issues of child labor in Indian society. The data for this study is obtained through various responses such as buying behaviors, and people's perceptions with the help of online surveys and direct interviews. The results show that peoples have distinct opinions regarding the problem of child labor in India. To address these concerns, governments as well as parents should implement effective strategies to encourage children to pursue academic study to help children and nations grow in the future.

**KEYWORDS:**

Child Labor, Education, Illiteracy, Indian Society, Poverty.

## 1. INTRODUCTION

Child labor is a crime in which the child is forced to work ata very young age. In our Indian society child labor is the biggest concern and it originates only due to a lack of education among them. India is a vast nation that still has a long way to go in terms of child education and child labor. Around 1.4 million child laborers in India are between the ages of 7 and 14. Education is the only effective and successful way to reduce child labor in India [1]. People in India can see that many children are collecting bottles on the side of the road, some children are found in the car wash center, some are polishing shoes on the roadside, etc., and all of them fall into child labor. Education is an essential component for the development of the society. The development of a nation can be praised or appreciated based on its education level. Poor education is caused by civil disorder as well as other problems in society [2]–[4].

Child labor is one of the hazardous issues of our social behavior toward the future of our country. One of the many social difficulties that might occur as a consequence of low levels of education is child labor[5]. Poverty has a significant impact on child labor difficulties. Children are seen as an additional source of income in poor families. Because such parents feel that each child is a bread-earner, that's why they have much more kids [6]. These youngsters are supposed to share their families' tasks as they grow older. Illiteracy is one of the major contributors to this issue and Illiterate parents believe that academics and learning are a strain since they must invest more in contrast to the rewards they receive from their children's salaries [7]. Child laborers are subjected to unsanitary working conditions, long hours, and various hardships, all of which have a significant effect on their intellectual growth.

Children's delicate and underdeveloped minds are unable to handle such conditions, resulting in mental and physical discomfort [8]. Unethical organizations prefer to employ children over adulthood since they can get more work done for less money [9], [10]. The scariest kind of child labor is bonded child labor. Children are forced to work to repay a family loan or debt in this sort of child labor[11]–[15]. Labor trafficking has also resulted in the smuggling of these poor youngsters from rural to urban regions, where they would work as domestic assistance, in tiny manufacturing houses, or simply as street beggars. The cases of child laborers in Indian society rapidly increaseover the passing years, below Figure 1 shows the increasing data of child laborers in India from 2015 to 2021.



**The Increasing Data of Child Labourers in India Since 2015- 2021**

■ The Increasing Data of child labourers in India since 2015 to 2021
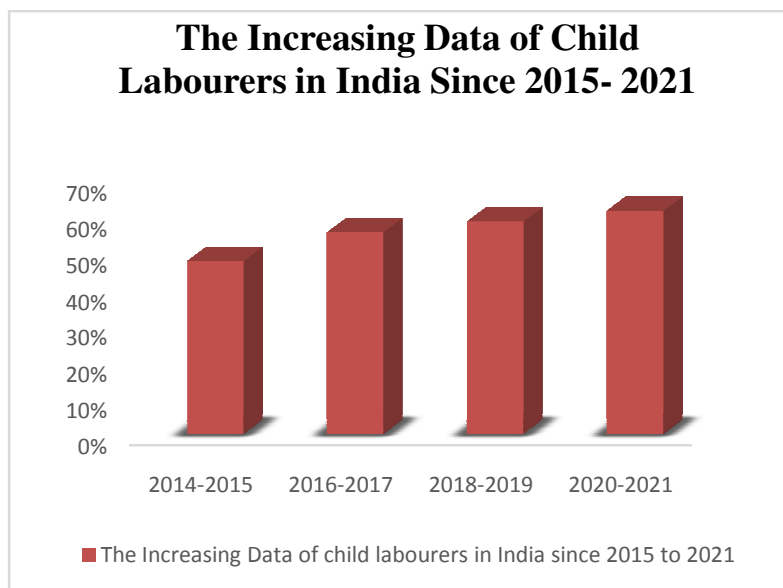
**Figure 1: Illustrates the Data on Child Labor that Shows the Increasing Order of Child Laborers in India From 2015-2021.**

The present research focuses on the influence of effective education on reducing the growth of child labor in India. The complete research is divided into several sections where the above section is an introductory section in which the authors of this study state the importance of education and also mention the increasing data on child labor in India from 2015-2021. After that, the literature review section is given which demonstrates the reviews and recommendations of previous studies in terms of how education affects child labor in India. Furthermore, the methodological section of this study is mentioned where the data is examined in the following

sub-sections. After that, the results and discussion part are discussed where the results are compared with the existing data followed by the methods applied in this research. Lastly, the conclusion of this research is declared where the researchers provide the outcomes, their opinions as well as future benefits of the present research.

## 2. LITERATURE REVIEW

A study about the influence of child labor on children's education in Katsina state, Nigeria was discussed by A. Abdu et al. As per their research child labor has now become terrifyingly common, with harmful outcomes for the growth of Nigerian children [16]. The author's study investigated the impacts of child labor on children's academic learning for this investigation the authors survey to analyze the problems. For this study, a multistage sampling technique was utilized for selecting a total of 216 child laborer's three distinct districts of Katsina state. The results conclude that the rate of child labor was terrifyingly high day by day and suggest that in Katsina state parents must motivate their children for going to school.

B. Yıldırım et al. [17] proposed that Effective education among the people is a significant tool for individuals' and society's growth. As per the author's study Children and future adults were crucial components of the educational system. To develop, the educational system should be expanded to include all people, particularly youngsters. According to the authors in Turkey, the procedures of the academic education process was extended to twelve years, known as the 4+4+4 method, and this decision generated much criticism due to the potential outcomes. Their results conclude that child labor brings a lot of complications for the growth of any nation and the government should provide effective education through which child laborers give their potential for the growth of the nation.

M. Naidu and K. Ramaiah state that the spread of child labor is among the most serious issue facing the globe in today's generation, especially in emerging countries such as India. According to the authors in many circumstances, child labor is forced upon parents due to financial constraints and the major problem of child labor is severe Illiteracy, unemployment as well as stagnating wages among the adult impoverished segments of the society, which is increased by population expansion. As per their study huge families having less income and also having less educational resources, ignorance of their parents towards the significance of academic education as well as illiteracy are some causes that promote child labor in the nation. Their outcomes conclude that Modern governments should be practical and realistic in their laws and regulations regarding child labor and the growth of effective education [18].

The literature from the above different reviews demonstrates the leading cause of child labor and how it affects the nation's overall growth. As per recognizing the above reviews, this research states the major problems which occur due to the increasing numbers of child laborers in Indian society. This study addresses the preventive measures to reduce the problems of child labor in India and also mentioned what steps must take by the governments and parents to stop these issues.

*Research Questions:*

- What are the negative effects of child labor?
- What are the main reasons for increasing child labor in Indian society?

# 3. METHODOLOGY

*3.1. Design:*

The present research is employed through an online survey of various professions, students of different ages, learners, educators, educational sectors, professional backgrounds, and socioeconomic status throughout many rural and urban regions of India. For this study, all the data is gathered through the polling and questioning of the respondents. The primary data for this assessment was obtained by asking several questionnaires to the citizens of India and also taking some personal interviews with educators belonging to higher academic institutions to gain some relevant evidence and information about the effects of education on reducing child labor in India. Moreover, the secondary data for this research are obtained through online surveys such as news, google forms, newspapers, articles, etc.

*3.2. Sample:*

The gathering of data for this survey is done with the help of questionnaires because survey questions are the easiest and most effective means for acquiring the data related to the study. Distinct sorts of questions were used to gather information about the influence of education on preventing child labor in India and what the efforts government should be made to minimize child labor in Indian society. For this survey 200 people were asked accordingly who are belonging to different occupational backgrounds, professions, distinct ages, etc., to know why it is important to educate children and the effects of reducing the child labor issues in India.

*3.3. Instruments:*

In this segment, the researchers used to collect the data and also determine how effective education decreases the child labor system in India and why it is necessary to educate the children. As an instrument, the researchers of this study used google forms, newspapers, magazines, and the responses which are gathered from the respondents to analyze the recommendations of people regarding the emerging issue of child labor in Indian society. The obtained data were taken from the respondents living in rural and urban regions of India. Several types of survey questions which were used to frame this research are listed below:

- What types of problems are faced by the children due to lack of education?
- What are the negative effects of child labor?
- What are the main reasons for increasing child labor in Indian society?
- What should governments have to do for reducing the cases of child labor?
- Child labor exposes children to which societal evils?
- Is child labor a serious crime or not?
- Are you agree that education will decrease the growing cases of child labor in India?

*3.4. Data Collection:*

All the gathered data is demonstrated in distinct figures which are listed below. The acquisition of data is done with the help of people's opinions, responses which are obtained from the respondents, and the information gathered through newspapers, articles, google forms, etc. The collection of data is done from primary and secondary sources where the respondents give their responses and suggestions towards the effect of education for reducing the cases of child labor in India. The below figures depict the data according to the responses of the respondents gathered

from the students, educators, and citizens of India regarding how child labor becomes a serious issue in our Indian society.
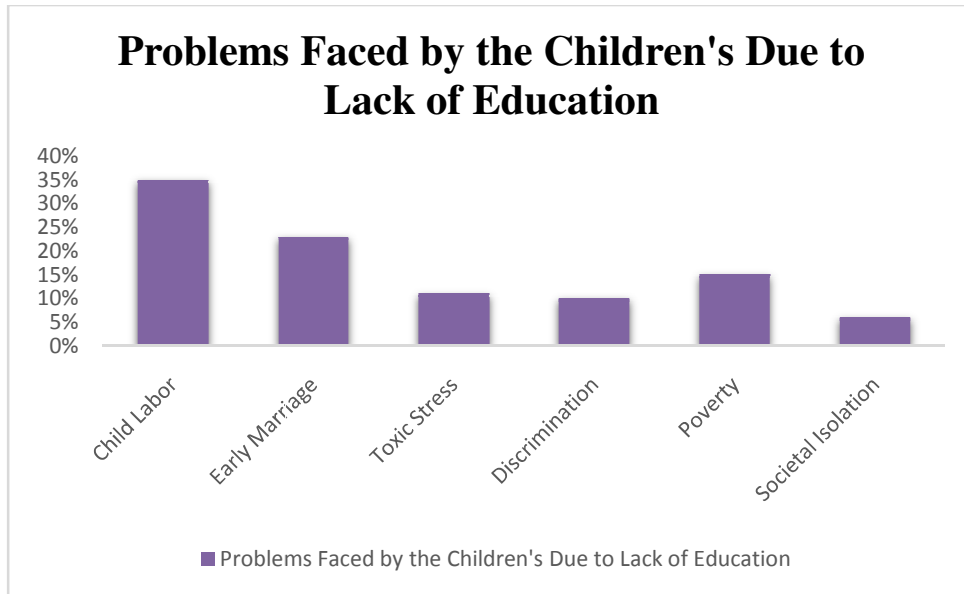


**Figure 2: Illustrates the Challenges Faced by the Children in India Due to the Lack of Effective Education in India.**
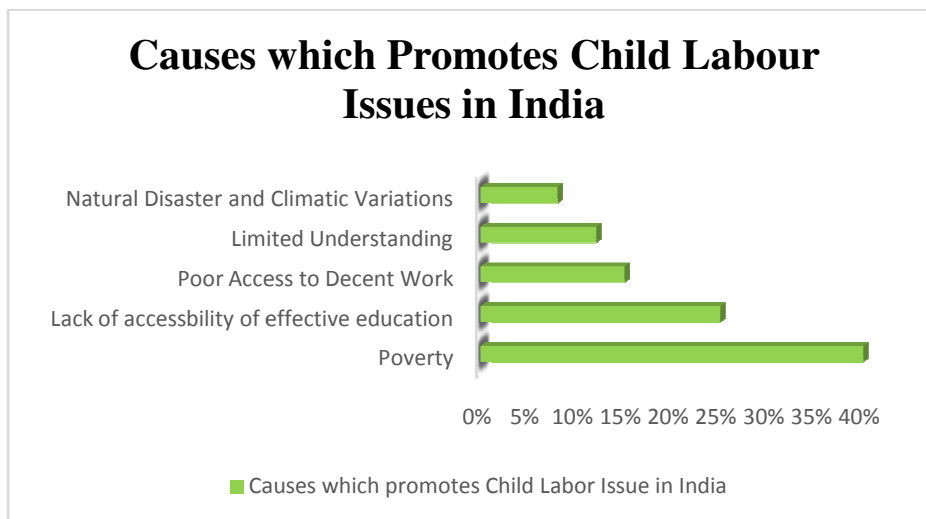


**Figure 3: Represents the Major Causes that Lead to Promote the Child Labor in India.**
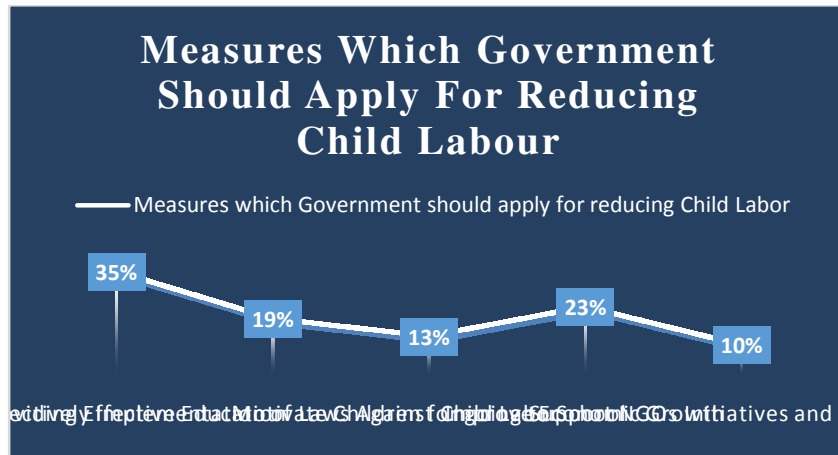
**Figure 4: Illustrates the Graph of Preventive Measures that Government Should be implemented for Decreasing the Child Labor System in India.**
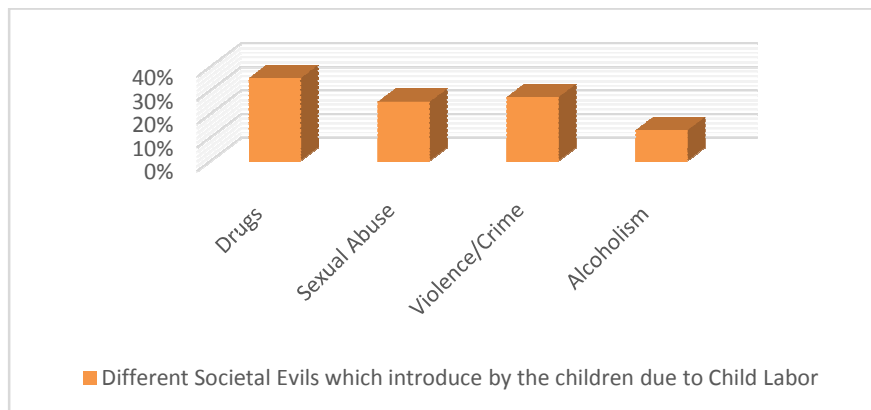


**Figure 5: Illustrates the distinct Societal Evils which are Introduced by the Children's Due to Child Labor.**
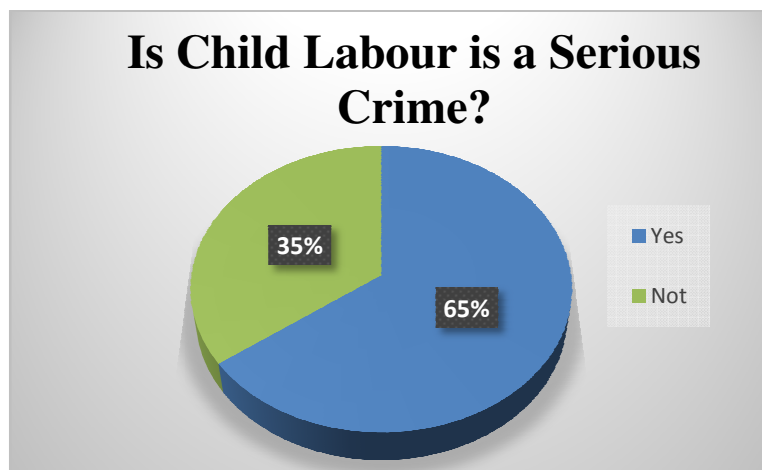


**Figure 6: Represents the Responses of the People who Said "Yes" and "No" Towards the Child Labor is Crime or Not.**
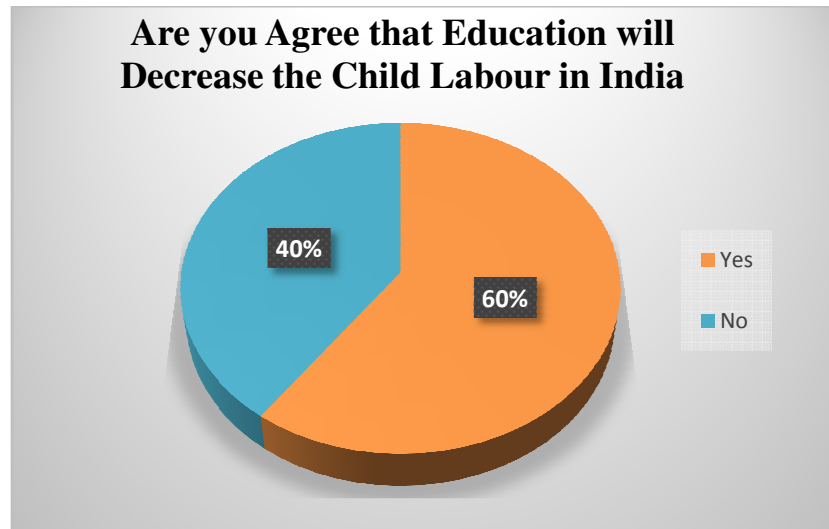
**Figure 7: Depicts the Responses Through the Respondent's Answers on whether Effective Education will Decrease Child Labor in India or Not.**

### 3.5. Data Analysis:

The purpose of this survey is to assess and evaluate the findings as well as to clarify all of the issues raised in this study. It is very easy to find the analysis outcomes by acquiring the data through the responses of the people. The different gathered data on the role of education in reducing the problem of child labor in India were mentioned in the above figures. In Figure 2 and Figure 3, the author discussed the problems which are faced by the children due to lack of education and the causes which promote as well as encourage the issues of child labor in India. Furthermore, Figure 4 and Figure 5 depict some positive measures that the administration and the government should implement for decreasing the growth of child labor in India and distinct Societal Evils which are Introduced by Children Due to Child Labor as well as lack of academic knowledge among them.

Moreover, from Figure 6 question were asked to the respondents which is "Child labor is a serious crime or not" where 65% of the respondents accepted that child labor is a serious crime on the other hand 35% were not. Lastly, as per Figure 7 through this survey respondents are asked that "are you agree that effective education will decrease the emerging issue of child labor in India" where 60% of the respondents were believed that providing effective academics can decrease the growing number of child labor in India on another side 40% were not. Child labor is a big concern for the nation's growth. Child labor introduces several types of problems for families, societies, and nations and also for children. Mainly child labor is seen in the rural areas of India because, in the rural areas, the quality of education is much poorer than in urban areas. Most of the families in the rural areas of India do not encourage their children for going to school due to lack of financial help, and they are less aware of academics. Figure 8 illustrates the several sorts of causes the problem of child labor promotes in India and also demonstrates the different preventive measures by which it can be decreased.
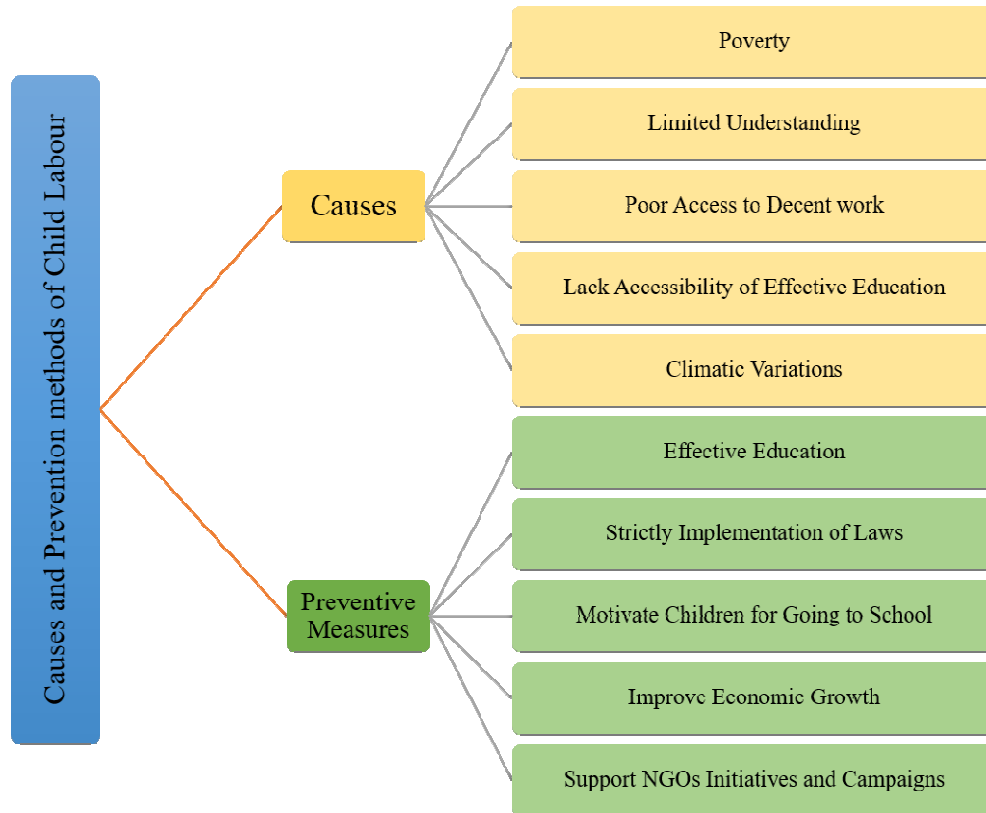
**Figure 8: Flowchart Illustrates the Causes and Prevention Methods of Child Labor in India.**

## 4. RESULTS AND DISCUSSION

Child labor is described as the forms of child labor that deprive them of their youth, education, and development prospects. A great England poet John Milton once said that a child shows the man as morning shows the day which means children are the future of any nation's growth. Many disorganized small businesses choose to hire youngsters because they demand less as well as easier to handle. In the fight against child labor, the government does have a critical role to play. Because Illiteracy and poverty is the leading source of child labor in our nation, the government should ensure that the poorest members of society have access to essential services. The money should be distributed equally to provide equitable jobs to the poor, more job possibilities must be created. Various Non-governmental organizations (NGOs) around the country should step up and offer vocational education to these youngsters in order to help them find work or become self-employed. Effective education is the only way to reduce the influence of child labor in our nation. The government and parents should inspire children about the importance of education in our life. The impacts of effective academic education for preventing the emerging numbers of child labor in India are observed in the above research after analyzing the different sorts of results which are based on several sorts of data gathered from the respondents.

The primary data of the present study were utilized to conduct the research through news, google forms, newspapers, articles, etc, and these data were based on several sorts of questionnaires asked by the respondents about the leading cause of child labor and how it affects the Indian

society. After examining the data, which is based on people's statements, the author identifies minor as well as significant data, indicating that individuals have different perspectives and perceptions on the effects of effective education for reducing the growing cases of child labor in India. According to the above data, the author observes that poverty and lack of education is the major concern to promote child labor in India and due to such concern nowadays children are more likely to engage with social evils. Through this study, it is also identified that government should introduce effective education among the children and influence them to get educated. Below Figure 9 demonstrate the major leading causes which promote the influence of child labor in Indian society.
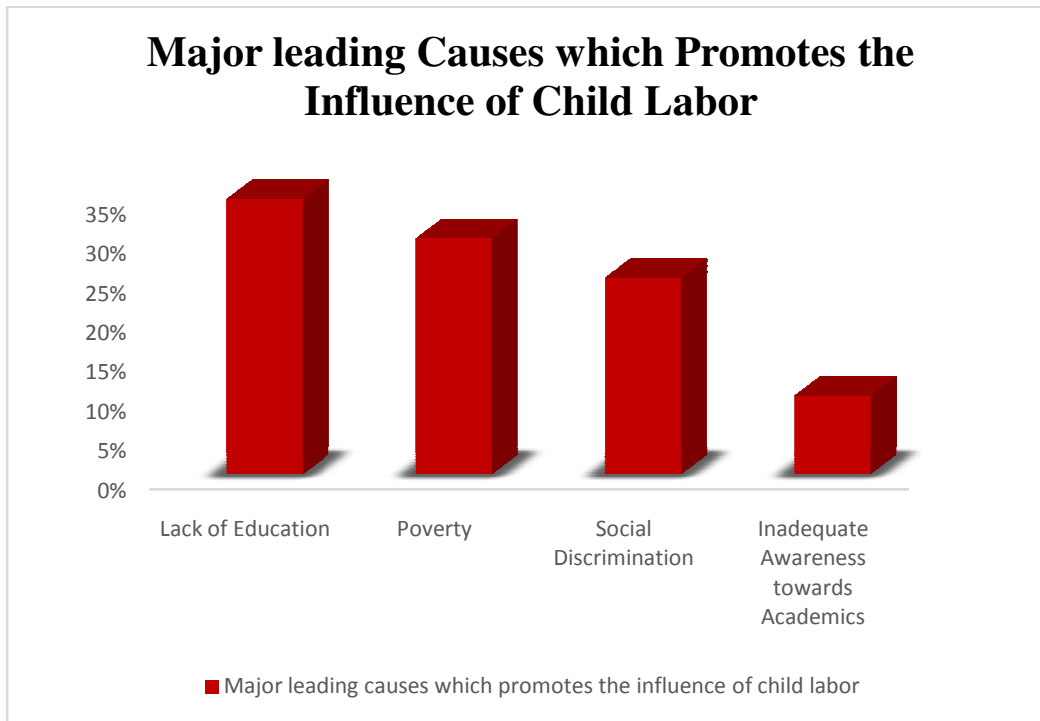


**Figure 9: The Above Data Represents the Major Leading Causes That Promote the Growing Cases of Child Labor in our Indian Society.**

## 5. CONCLUSION

Children are the most significant human resources for the country and it has been seen that illiteracy and poverty is the leading cause of child labor in India. The nation's economic well-being is dependent on how its youngsters grow and develop. People should be aware because child labor is an issue that exists not just in underdeveloped nations such as India, but also in developed economies. The police are unable to visit every location to check for the presence of underage labor. To put a stop to this problem, individuals and their mindsets must be improved and recognize that child labor is a serious crime for any nation. As a result, child labor is an economic and social disaster that undermines the nation's as well as the economy's core foundations. As civilizations become more and more sophisticated, there is an increasing worry about child labor. India, like any other emerging country, is worried about child labor. Government should introduce effective education among the children and also parents must encourage their kids for acquiring academic learning for reducing the issues of child labor in the

coming days this also helps to improve the illiteracy rate and decrease the poverty issues within Indian society in the future.

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# CHAPTER 13

# A COMPREHENSIVE STUDY ON ROLE OF BUSINESS MANAGEMENT TOOLS IN PROJECT MANAGEMENT

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**ABSTRACT:**

An effective project management tool that makes monitoring the implementation of project progress easy and also project management is the process of planning, coordinating, and assigning resources to finish a project. The problem without the use of proper project management such as Organizations and customers are exposed to haphazard management, ambiguous objectives, a lack of resources, impractical planning, high risk, low-quality deliverables of the project, projects that are over budget, and late delivery. Therefore business has to overcome this problem with the help of project management with software tools such as it facilitates collaboration, coordination, and centralization, as also better planning and scheduling, customer interaction, resource utilization, and budget management. This paper discusses many factors such as the importance of using project management software in businesses, project management requirement of software, the variety of tools in project management for every project manager, and the importance of project managers in management. It concluded that project management solutions are essential for many business workflows because they offer project tracking and resourcing. In the future, companies must change swiftly and offer services and commodities to the market as the economic environment grows more global, digitalized, unpredictable, and fast to be finished successfully.

**KEYWORDS:**

Business, Communication, Collaboration, Management Tools, Project Management, Software.

## 1. INTRODUCTION

In today's modern competitive global business world, it is important to be able to deliver projects on time and adhere to corporate goals. This is why the project manager must provide a comprehensive understanding of the project from the fundamental concept to the substantial expertise. Construction companies have a challenging job that requires a combination of administrative, analytical, and interpersonal abilities. The discipline of project management involves planning, coordinating, and allocating resources to complete a project. Any activity including several connected tasks can be called a project as shown in Figure 1. A project can be straightforward or complex. A good project management application makes it simple to plan, administer, and track project status. They keep meticulous records of who does what and when. Many business operations require project management systems since they provide some features

such as customizable project views including Flowcharts, spreadsheets, and portfolio views, as well as for analytics, project monitoring, and resourcing [1].

When anyone starts thinking about planning, it's critical to think about which project management solution is ideal for your team. If anyone still needs more convincing, consider this: project management software is used by 77 percent of high-performing teams. Furthermore, companies that invest in project management technologies waste 28 times less money than those that do not. These figures are difficult to ignore.



**Figure 1: Illustrates the Fast Project Management Tools which are Used by Businesses in Recent Times**[2]**.**

Except for a few major differences, a program management tool is essentially similar to a project management tool. Let us just compare projects and programs first before we examine project management software and solutions. Projects frequently have set start and conclusion deadlines, and also short-term goals that provide concrete results or deliverables. The feasibility of a project is influenced by price, manpower, money, and time restrictions. Programs, on the other hand, are made up of a collection of related projects that, when combined, achieve a long-term business purpose. Individual projects are managed by project managers, whereas program managers oversee groups of initiatives with a shared goal [3]. Program management systems must have advanced features to monitor programmers at a higher level and how one project connects with the others. Timesheets, cross-functional resource management, dashboards, reporting, flexibility in work views, and Gantt charts are all project management tools.

To summarize the standard project management comparison, it is found that Project management solutions track several interacting projects that work toward a bigger, longer-term corporate goal, while project planning tools assist you to structure individual projects. Some of the project

management tools and their features such as Planning. Project management helps employees to arrange and distribute tasks in one location using projects, sub-tasks, directories, templates, processes, and calendars. Rather than depending exclusively on email, you may build a smarter way of working with your organization through assigning the tasks, writing comments, arranging the dashboard, and verifying changes with a project management program. Using file management and reporting, it is possible to avoid having outdated files. Management and reporting are used to evaluate and assess production and growth.

### 1.1. History of Project Management:

Project management  is the process of using information, skills, tools, and strategies to finish a project following certain requirements. Identifying the problem, creating a solution, and implementing that alternative until the problem is resolved is the essence of project management. It may look easy, yet each step requires a significant amount of effort. Project management may be traced directly to the development of Giza's pyramids and the Great Wall of China. However, project planning as people know it now began in the eighteenth century, when railroad companies bought large quantities of raw materials and engaged hundreds of people to work on the Transcontinental Railroad. Frederick Taylor brought project management principles to the workplace in the twentieth century, inventing strategies to try to improve inefficiencies rather than pushing employees to work larger and harder hours. Henry Gantt, a colleague of Taylor's, took those concepts and created a new way of thinking about project management, utilizing bands and diagrams to show when particular activities, or a series of tasks, had been completed.

The present paper is a study about the profession of planning, coordinating, and assigning resources to finish a project is known as project management, and it is used as a business tool. This paper is divided into several sections where the first is an introduction and the second section is a literature review of previous studies. The next section is the discussion and the final section is the conclusion of this paper which is declared and gives the result as well as the future scope.

## 2.  LITERATURE REVIEW

Tania Ferreira et al. [4] have explained that understanding project management was concentrated on budget, schedule, and allocating of resources. The author of that report studied the three popular project management tools, Asana, Freed Camp, and Ace Project. The author's strategy for evaluating Asana vs. Freed Camp vs. Ace Project's project management (PRM) tools. As a result, three freemium project management applications have been offered to help small and medium-sized enterprises, as well as startups, choose the right tool for their needs. The winner was determined to be the program with the highest score, with the freemium version containing several functionalities that are necessary for project management.

Anabela Tereso et al. [5] have explained that most private organizations, regardless of area of business, employ project management principles. According to the author, practitioners' qualities affect their choice of project management practices, and their application in clutches is also examined. According to the results, the most often used project management techniques include kick-off meetings, activity checklists, progress meetings, Flowcharts, and foundation planning. It was concluded that Businesses want a more in-depth grasp of the most often-used project management methodologies in private companies.

M. R. Ghaeli [6] has explained that a study to determine the essential tools, which are most commonly used and linked to project management success A survey report, according to the author, is used to identify six sets of factors: analysis, background, control, identification, planning, and tracking. It was found that various background elements had the greatest impact on PRM tools, followed by tracking, planning, and analysis. It was concluded that the association between PRM tools and financial numbers in each firm should be investigated further by future academics.

Hana Krchová [7] has the main objective that In the Slovak Republic, project tools are used in a variety of organizations, including public entities. The author chose 154 companies at random to implement the technology in the Slovak Republic and then ran a cluster analysis on them. As a result, there is a variance in the use of the particular instrument, not just in terms of firm size, but as well as in associated with project types accomplished. It concluded that given the relatively high rate of unsuccessful projects, the project management evaluation is still positive.

V.K. Chawla et al. [8] have explained a literature analysis from the previous year in which several concerns impacting project management sustainability were investigated. In the realm of project management, the author has addressed a basic understanding of the difficulties, threats, possibilities, procedures, and benefits of sustainability. According to the author, several components of sustainability goals and criteria for selecting multiple techniques to accomplish sustainable development in projects. It was concluded that Optimization algorithms may also be used to anticipate the best resource allocation for long-term project management.

The above study shows that knowledge of project management centered on key skills in scheduling, budgeting, and resource allocation, as well as the use of project tools in a couple of organizations, including state institutions in the Slovak Republic. In this study, the author discussed many factors such as the importance of using project management software in businesses, and project management requirement of software benefits like centralization, coordination, and communication.

## 3.  DISCUSSION

Although it can control a project without using software, this raises the risk of mistakes and inefficiencies. Project management software facilitates visibility and collaboration. While using a spreadsheet to track projects is viable, it takes time and effort, and work. Manually updating a spreadsheet increases the possibility of errors, and the spreadsheet must be re-saved and re-uploaded to a centralized location for the rest of the group to see the change. The user can monitor project performance by selecting the project tool management. It can quickly generate new activities and assignments from old files and templates, adjustments to established projects and tasks are instantaneously updated in real-time on any linked tasks, dependencies, and other variables, and it can easily develop new activities and assignments from old files and frameworks. To aid visualization, reports, and dashboards can be created. Stakeholders may see real-time progress and reports, and there is less chance of losing your progress than with manual monitoring approaches. Having everything in one location allows you to get a clear view of the project's overall health. Notifies you of any new or overdue chores. In one centralized spot, users can set up, benefit from, and store documentation from previous projects.

### 3.1. Project Management Requirements of Software:

Project management software is beneficial to all companies that handle projects, regardless of their size or sector. The application may be used for project financing and administration by anybody, especially firms that do not perform formal projects. Any company that wishes to evaluate, plan, monitor, execute, and charge its services more efficiently may benefit from the project management software. It allows you to create, execute, and manage efficient and customized operations for both your team and your firm. The three benefits of implementing project management software are:

### 3.1.1. Centralization:

Each team will have a central workspace and knowledge base thanks to projecting management software. Tasks and projects may be easily tracked thanks to centralization, which reduces confusion and inaccuracy. This visibility aids future project scheduling and budgeting. Time records assist you to determine billable hours by allowing you to evaluate previous projects and forecast how long specific duties will take. This data can also be used to determine whether or not a project will be lucrative [9]. Additionally, project software decreases the amount of time and effort necessary to manually track and assemble data. There is always the possibility of human mistakes, delays in updates, and several versions of the same material when using manual methods like spreadsheets. One can easily manage a single version of the truth with software.

### 3.1.2. Coordination:

Project management software can aid in task coordination and workflow automation. It alerts team members when they must begin working, avoiding the need for delays and intermediaries. Project management software also gives information on progress, setbacks, and accomplishments [10]. Time monitoring is the most important feature of project software for small organizations. Small business owners can recognize and overcome obstacles by tracking where every minute goes. This feature also enables the early discovery of problems and delays. You and your team may be vulnerable to missing -documentation, miscommunication, and guesswork regarding duties and progress if they don't have a centralized platform for coordination and information sharing. Project management software guarantees that quality is maintained and that tasks are completed on time.

### 3.1.3. Communication:

One of the most essential advantages of project management software is improved communication. Businesses are depending on remote teams, contract workers, and freelancers more than ever before. Companies' ability to interact successfully with team members both inside and outside the office is becoming increasingly crucial [11]. Virtual teams and stakeholders may access your central workspace from anywhere, at any time, with cloud-based project management software. Anyone can simply communicate throughout countries and time zone differences thanks to this 24-hour connection. All main parties, regardless of where they are, have fast access to updates, progress reports, and project information thanks to projecting management software. You'll have never to wait for old reports to be emailed to stakeholders again. Everyone may offer comments on jobs through a centralized hub, which eliminates extensive, difficult-to-follow email conversations.

*3.2.The Variety of Tools in Project Management For Every Project Manager:*

Simple initiatives merely require checklists, nevertheless, more complicated projects require sufficient organization, task assignment, deadline setting, deadline enforcement, and financial tracking. Various types of projects for Project Management are shown below:

*3.2.1.  Kiss flow project for Project Management:*

This all-in-one robust solution is one of the best free project management solutions accessible. Kiss Flowing Project is a fantastic project management solution for both experienced and inexperienced project managers. Kiss Flow Project meets all of the requirements with its comprehensive collection of project management capabilities. Because of its user-friendly and attractive graphical interface, the solution is an excellent alternative for all sorts of businesses. It has all of the features of a modern project management solution, but it's geared toward functional managers with erratic project responsibilities rather than trained project managers. The following are the primary characteristics of this project management: Ability to generate subtasks and convert them into standalone tasks Customized project stages and active, on hold, and completed status There are numerous ways to visualize tasks (List, Kanban, and Matrix views) For custom field and segment jobs, advanced filters are available. For each assignment, there is a long audit log and a history of performed activities [12]. Notes on tasks that are relevant Task observers can be added to offer granular visibility. The ability to set deadlines Integration between GSUITE and Microsoft 365 When there are deadlines, you will receive automatic email alerts. Data Ability to build bespoke reports and underground reports Duplicate project capability to assign team member roles using configurable and which was before project management templates.

*3.2.2.  Trello Used in Project Management:*

It's a well-known online project management tool with built-in collaboration tools for working with groups. It's compact, light, and easy to use. It uses a board, checklists, and cards to establish tasks and keep track of them. Users may converse, share documents, and write comments on the card. It lacks Kiss Flow Project's monitoring and project management capabilities. It's best for people or organizations who only do a few chores at a time.

*3.2.3.  Asana Tool for Project Management:*

Asana is a collaborative project management solution that is available as a SaaS. Workflows are useful for automating repetitive operations. With such a range of task representations and the option to add text boxes and forms, it's user-friendly. Users can invite as many people as they like. It's also possible to define custom rules and approval procedures. While Asana offers a lot in terms of productivity and collaboration, many critical project management duties are done via integration which might not be ideal for many users. This is advantageous for organizations of all sizes, however, it is not suitable for freelancers. Although some users perceive the Asana interface to be very basic as well as the system to be overly restrictive, it does provide excellent task coordination and management features.

*3.2.4.  Zoho Project used  for Project Management:*

Project Management software is a popular Zoho tool that enables organizations to monitor projects, communicate, track issues, and produce real-time reports. Online project management application includes features such as Flowcharts and the capacity to work on many projects at the

same time. Zoho Projects features a broad collection of communication tools in addition to real chat and forum sites. Many users claim that using Flowcharts is cumbersome and that monitoring splits for big teams is insufficient. Users can exchange documents from within the tool.

### 3.2.5. Wrike Tool  used for Project Management:

It's a cloud-based project management software that simplifies project planning, enabling users to track their team's progress, stay on top of deadlines, and communicate with all participants. There are making and managing, Flowcharts, a real-time newsfeed, and more complex features accessible. Task prioritizing can help you change important activities forward and fulfill deadlines. It's a flexible project management tool because of its various integration options. The sheer quantity of options may be overwhelming for most new subscribers, and the straightforward design doesn't help much. It is appropriate for a multiplicity of departments inside a company, including marketing, software development, and professional services.

### 3.2.6. Proof Hub Tool used  for Project Management:

There is a central spot for task lists, workflows, Flowcharts, discussions, calendars, and documents. It enables you to organize, organize, and track your team's work. It takes teamwork and communication with external customers easier. Various reports, such as workload and capacity reports, are accessible. Proof Hub has relatively little integration and job management due to its concentration on simplicity. This is beneficial to freelancers as well as organizations of all sizes.

### 3.2.7. Clarizen Tool used for Project Management:

It's a well-liked online project management tool for small to medium-sized businesses. The unavailability of a smartphone app may restrict the system's utility for some teams because it is exclusively for Internet project management [13]. Users like the extensive reporting options and the ability to manage resource consumption, but there is no to-do list or time monitoring. The degree of difficulty is a little steep because it offers specific techniques to handle workflow. It's designed for entrepreneurship project managers, technology companies, and professional support teams searching for a powerful, adaptable, and easy-to-use web-based project management tool.

### 3.2.8. Air-Table Tool used for Project Management:

It utilizes a combination of Excel spreadsheets in that it is customizable and simple to use, and it is appropriate for companies of all sizes. There aren't many reporting alternatives, which may be a problem for certain customers. A database may be used to hold information for project management and operational planning. Many users like the Air-spreadsheet table's versatility in data organization. Kanban, Listing, Graph, and Calendar are just a few of the views accessible.

### 3.2.9. Kanban Tool used for Project Management:

It's an excellent starting point for agile projects because it allows you to view your process and measure time in realtime. Communication and work tracking is made easier with features like notifications, analytics, and team leadership. Reporting, content sharing, native mobile applications, and a plethora of other capabilities make it ideal for medium and large businesses. Enterprise customers can also host applications according to their servers using Kanban systems.

### 3.3. Importance of Project Manager in Management:

Project managers, in a nutshell, are in charge of organizing, implementing, reviewing, managing, and ending projects, thus they should have a thorough grasp of the process. When it comes to project management principles, however, this is just the tip of the iceberg. The various features of a manager in product management are:

    i.   Make a strategy

Project managers have the responsibility of creating the most viable courses for the project. The plan should cover the project's scope, timeframe, and budget. This might also require figuring out which tool is ideal for the job. Organize the team: One of the most critical components of project management is selecting the correct team . Thus every software developer will be unique, depending on the scope of the project and the tasks necessary to complete it. It's best to find professionals and subject matter experts for every project. Assign a task: Project managers should provide their teams with detailed instructions on specific activities and tasks for each step of the project. Even though each team member will be responsible for their tasks, many activities will require cooperation from team members both internally and outside. Managing a group: That now the group has been formed and their responsibilities have been allocated, the project manager has to keep the machine running smoothly, covering all aspects of the project and beyond. This will include checking for progress reports, discovering and removing roadblocks, managing arguments, keeping high team morale, and providing training and mentoring.

    ii.  Budget management:

Because almost all projects will require some investment, learning how to build a budget for the project and manage expenditures is critical to success. This would require comparing actual monthly expenditures to projections and, if appropriate, making changes to the project design. Keeping track of Deadlines: Project managers, like projections made, are in terms of maintaining things back on track such that the team can fulfill its deadline. Setting realistic time boundaries all through the life cycle of the project, engaging with the management team for progress updates, and adhering to strict timetables are all necessary.

    iii. Stakeholder engagement

They are generally influential people who will be influenced by the project. Project managers must establish positive relationships with stakeholders and keep an open line of communication, which may not only help those overcome obstacles and improve their team but could also create unnecessary bottlenecks and damage a project if they go unrecognized. Turn in the project: That's because the program's objectives have been met does not mean the project manager's job is done. As the project progresses, the project manager must give it over to the group in place of managing, developing, and running it. The project manager will no longer report to an individual and will be allocated to a new project at this point. Processes should be documented: Not only is it a good idea to discover and document the knowledge gained for individual project managers' development, but it's also a good idea to share that knowledge with other teams in the company for future use. This will assist others to avoid repeating the same mistakes or using shortcuts that have been uncovered.

## 4.  CONCLUSION

Project management solutions are essential to many business workflows because they offer a variety of capabilities such as configurable project views such as Gantt charts, tables, and

portfolio views, as well as statistics, project tracking, and resourcing. When anyone starts thinking about planning, it's critical to think about which project management solution is ideal for your team. In this study, the author discussed the many factors such as the importance of using project management software in businesses, project management requirement of software, the variety of tools in project management for every project manager like Kiss flow project for project management, Trello used in project management, asana tool used for project management and so on. It concluded that in a simple, intuitive interface, users can envision with Kanban, assign responsibilities, prepare reports, track time, work collaboratively, and generate reports with project management tools. If they're really a professional project manager or just getting started, the project management may help users implement effectively and produce the product that their team is searching for. In the future, as the corporate world grows increasingly global, digitalized, unpredictable, and rapid, there will always be sophisticated and tough activities that demand a steady hand and a certain set of skills to be accomplished effectively. Organizations must react swiftly and bring services and commodities to market.

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# CHAPTER 14

# A COMPREHENSIVE STUDY ON THE PRACTICE OF DIFFERENT RELIGIONS IN PARTS OF THE WORLD SINCE ANCIENT TIMES

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**ABSTRACT:**

A socio-cultural system of prescribed values, beliefs, worldviews, sacred sites, prophecies, morals, or organizations commonly known as a religion that generally associates mankind with superstitious, and spiritual components. Many religions in the world ideally serve many functions that give meaning and purpose to life, strengthen social unity and stability, act as agents of social control, and promote psychological and physical well-being promotes. In this paper, the author focuses on the various religions that have existed in the world since ancient times such as Christians, Hindus, Muslims, Jews, and others. Also discusses the different types of religions in the world along with their characteristics, philosophy, history, geography, and sociology. It concludes that in most civilizations around the world, religion is important to people's daily lives. In the future, most people will still be Christians, but Islam will expand more quickly than any other major faith. By 2030, if current trends continue, Muslims will soon overtake Christians in terms of the global population.

**KEYWORDS:**

Ancient, Christian, Religions, Population, Spiritual.

## 1. INTRODUCTION

The field of religious studies known as comparative religion refers to the systematic comparison of religious concepts, rituals, and themes, as well as the movements of many religions throughout history. A fuller comprehension of the core philosophical issues that underlie religion, such as ethics, epistemology, and the nature and modes of salvation, results from the comparative study of religion in general. Additionally, it examines and contrasts the historical contexts and parallels that exist across the many global faiths. A deeper and more in-depth knowledge of human beliefs and practices about the holy, numerological, spiritual, and divine is facilitated by the study of such literature[1]. Even when they are not completely certain or able to provide evidence, belief is a state of mind in which they hold an idea to be true[2]. Everybody has their own set of assumptions about how the world works and how life works. Philosophies, which could be religious, philosophical, or ideological, can be formed by beliefs that reinforce one another.

To connect humans to spirituality and occasionally moral ideals, religion is a combination of cultural forms, belief systems, and worldviews. Stories, symbols, rituals, and sacred histories from many religions all attempt to explain the beginning of the cosmos or existence or to provide

purpose to life [3],[4]. Their conceptions of the cosmos and human nature serve as the foundation for their morals, ethics, religious rules, and favored lifestyles. For the sake of morality, clergy, compliance or membership, lay congregations, devotion or prayer of a deity, holy sites whether they be natural or built, and texts, many faiths organize regular gatherings or services. Religious practice may involve preaching, remembering the deity or deities' deeds, sacrifices, celebrations, banquets, cemeteries, initiations, funerals, wedding services, mindfulness, music, art, dancing, community service, or other parts of human culture [5],[6].

However, some examples of faith do not include all of these aspects of organization, belief, or ritual. People have had different types of spiritual beliefs since ancient times. Whether it is sun worship, the understanding of gods and goddesses, the understanding of good and evil, or the sacred, many human cultures have left us historical evidence of their belief systems. All these structures testify to mankind, including Glastonbury, the Bamiyan Buddha, the Almudena Monastery in Madrid, Uluru in Alice Springs, the Bahá'í Gardens in Haifa, Fujiyama, the Sacred Mountains of Japan, and the Kaaba or Golden Temple in Saudi Arabia. Amritsar. The notion of spirituality may be an expression of objective reality or maybe the result of people searching for answers to the purpose of life and their place in the universe.

In the history of humanity, religions, and associated cultural and social structures have been crucial. They affect how we perceive the environment and the beliefs we accept or reject since they are mental constructs. As social institutions, they offer a network of assistance and a sense of community [7],[8]. In many instances, religions serve as the foundation for and are linked to power hierarchies. There are many examples of religious nations throughout history, whether they are Christian, Hindu, Muslim, Jewish, or other. There are de facto and official state religions in Europe, indicating that the division between the two is still relatively new and only partially maintained. Unless it is impacted by tolerance values, it often does never cause any special issues. Many others live in environments where the numbers of religious adherents or belief are never correct given the dynamic nature of this pattern and the truth that religious freedom and belief is not respected. Table 1 approximate number of followers of the largest religion.

**Table 1: Illustratesthe Billion Projected Numbers of Non-Theistic, Agnostics, and Atheists that Belong to the World's Largest Religion**[5]**.**

| Sl. No. | Adherents of the Largest Religious | Number in Millions and Thousands |
|---|---|---|
| 1. | African Traditional and Diasporic | 100 million |
| 2. | Zoroastrianism | 2.6 million |
| 3. | Tenrikyo | 2 million |
| 4. | Spiritism | 15 million |
| 5. | Shinto | 4 million |
| 6. | Unitarian-Universalism | 800 thousand |
| 7. | Cao Dai | 4 million |

| 8. | Baha'i | 7 million |
|---|---|---|
| 9. | Buddhism | 376 million |
| 10. | Chinese Traditional Religion | 394 million |
| 11. | Hinduism | 900 million |
| 12. | Christianity | 2.1 billion |
| 13. | Judaism | 14 million |
| 14. | Neo-paganism | 1 million |
| 15. | Islam | 1.5 billion |
| 16. | Primal-indigenous (tribal religionists, ethnic religionists, or animists) | 300 million |
| 17. | Rastafarianism | 600 thousand |
| 18. | Sikhism | 23 million |

The present paper is a study of the field of religion including various religions that focus on systematically opposite beliefs and practices, themes, and influences, including movements of many religions around the world. This paper is divided into several sections where the first is an introduction and the second section is a literature review and suggestions from previous studies. The next section is the discussion and the last section is the conclusion of this paper which is declared and gives the result as well as the future scope.

## 2. LITERATURE REVIEW

Simon Dein [9] et al. have explained the COVID-19 pandemic's effects on mental well-being and religion. The primary goal of the study was to determine whether the COVID-19 pandemic's effects on mental health had started to become apparent. The study implies that four main areas of interest were noted: religious doctrinal answers, spiritually connected behavior, prejudiced attitudes and behavior against religious groups; and strains, strains, and disputes over religious concerns. It was found that the pandemic had a considerable impact on religious activity, resulting in the cessation of live religious services, the closure of religious schools, the postponement of pilgrimages, and the forbidding of group contacts. It concluded that unfortunately, it can be safely concluded that prejudice towards others can intensify their distress and, in some situations, set off mental illness. Christopher D. Ives and Jeremy Kidwell [10] have explained that almost solely in a secular philosophical context, social values as they connect to environmental sustainability concerns have been discussed. The study's major aim was to investigate how societal ideals for sustainability and religion interact. The extent to which they are transformed into pro-environmental attitudes and behavior differs depending on the author's perspective. It was found that spiritual viewpoints can help operationalize theories of systemic transformation for sustainability. It concluded that religion needed to be viewed as a complex embodied institution with significant social and political significance.

Tamer Koburtay [11] et al. have explained the effects of culture, Islam as a religion, and the legal system on the employment of women and their restricted development in the hospitality sector.

The main focus of those research has been on the discrepancies between Islamic practices and views of the proper role of women. In those works, feminist theorizing on religion has been employed to articulate and support our debate, which emphasizes women's situation in terms of culture and religion rather than gender and feminine identity. The results demonstrated that tribal and Bedouin traditions restrict women's employment due to patriarchal perceptions of Islamic principles for fairness and justice in participation. It concluded that the intersections of culture and religion and how to affect women's work. Quan-Hoang Vuong [12] has explained the literature by using Bayesian statistical analysis to analyze Vietnamese folklore. The primary goal of this study is to classify the basic meanings of significant collections of Vietnamese folktales and stories according to whether they are consistent with or contrary to Confucianism, Buddhism, or Taoism. The study implies to have developed a new method for encoding the values and beliefs of the Three Great Religions of East Asia Confucianism, Taoism, and Buddhism into binary values. As a result, the folktales exhibit both Buddhist isolation and a higher likelihood of interaction or addition of Confucian and Taoist ideas, demonstrating the existence of cultural additivity. It was concluded that the behavioral pattern is pervasive in that it can be observed in Vietnamese arts, architecture, and the acceptance of new ideas and faiths, among other things.

M. D. Cookson and P. M. R. Stirk[13]have explained the effect of young people's religious devotion on how they view representatives of various confessional affiliations. The author discusses the issue of religion-man-ethnos-language in contemporary society in addition to discussing the theoretical underpinnings of research in linguistics, ethnic psychology, cultural awareness, sociolinguistics, and psycholinguistics. The author used description, observations, questionnaires, comparisons, and analyses to understand all religious groups that are connected by shared spiritual practices and creeds. It is based on the breadth and frequency of religious orders being carried out, the amount and quality of religious concepts already in existence, and the ongoing necessity for their extension. The study concluded that Orthodox Christian's and Muslims' religious identities in young people's environments grow primarily as traditional-cultural and ethnic and linguistic in origin.

The above study shows the effects of culture, Islam as a religion, and the legal system on the employment of women and their restricted development in the hospitality sector as well as the effect of young people's religious devotion on how they view representatives of various confessional affiliations. This study mainly focuses on the field of religion which includes various religions.

## 3.   DISCUSSION

Many diverse religions have existed throughout history, and some still maintain millions of adherents. Students can refer to philosophy, history, geography, sociology, and anthropology, to mention just a few, through comparisons to other religions. Teachers can use dialogue as opposed to religion to add rigor to their classrooms and support students in developing critical thinking skills during how religion interacts with their doctrine.

### *3.1. Various Types of Religious:*

There is a lot to be said about religion, a silence in that religion affects every aspect of our lives, from our purpose in life and being responsible for everything from the universe to how we treat each other. We do. Huh. We do. To the principles, rules, and beliefs that guide us, act, and

engage with society. Ideas of spirituality influence organized religion and ethics for all, regardless of their religious belief or level of skepticism. They create historical narratives, power relationships, and cultural masterpieces. Additionally, they can advance social justice, moral change, and intellectual creativity. The different types of religions are described in detail in the sections below.

### 3.1.1. Agnosticism:

Atheism is defined as either a lack of belief in the presence of gods or a conscious rejection of this belief. This worldview rejects both theology and the structure of organized religion. The phrase was employed in antiquity to discredit those who widely disregarded religious doctrine. It was initially used in France in the eighteenth century during the Age of Enlightenment. The priority of human reason over the impersonal authority of religion served as the inspiration for the French Revolution. An era of skepticism ensued, during which atheism emerged as an important cultural, intellectual, and political force. Many who identify as atheists argue that a lack of evidence or scientific process disqualifies belief in a deity. Some who identify as secular humanists have created a set of moral principles that are distinct from the worship of God. Estimating the exact majority of practicing believers is challenging because there is no single, united religious institution. The survey has produced a wide range of results, with the highest atheism rates in East Asia and Europe.

### 3.1.2. Baha'i:

The Bahá'í religion generally teaches the ethics of all traditions, emphasizing the principle of equality and unity among all peoples. The founder of the Bahá'í Faith, Bahá'u'lláh, developed his philosophy in 1863 in Persia, or what is now Iran. The Babism tradition, which originated from the Muslim sect identified as the Sheikh alone, is where the Bahá'í, a mixture of several religions, first appeared. Baburism, which now has a few thousand believers and is mostly centered in Iran, differs from other Islamic philosophies around it. Similar to Babushism, Bahá'í combines some Christian beliefs with some Islamic teachings. The Universal Council of Justice, a nine-person council that serves as the main governing authority of the Bahá'í Faith, is based in Haifa, Israel. Today there are 5 to 7 million people who follow the Bahá'í Faith around the world.

### 3.1.3. Buddhism:

Buddhism is a philosophy as well as a religion, the fundamental instructions of Gautama Buddha, a learned figure who is said to have flourished between the 4th and 6th centuries BCE, where Buddhism and ideals were associated with Traditions can be found. A Buddhist was a religious person who lived and taught in the eastern region of ancient India. He offered models of dharma based on the ideals of moral purity, the absence of material hatred or want, the ability to bring peace and illumination through meditation, and living a life committed to enlightenment. In the years that followed, the Buddha's teachings were widely disseminated in most parts of Asia. Buddhism is primarily divided into two branches: Theravada, which aims to achieve liberation from understanding, material attachment, and anger by following the Great Eightfold Path in one, and Mahayana, whose writings and traditions have inspired innumerable other sects and ideologies have affected does the realm of nirvana; and Mahayana, which aims to attain Buddhahood by following the Zen practices of abstinence, meditation, and applying the

Buddha's wisdom in daily activities, especially for the benefit of others, to the point of attaining bodhisattva, or reincarnation. The never-ending loop that allows you to keep people in the know.

### 3.1.4. Christianity:

Based on the teachings of Jesus of Nazareth, Christianity is the dominant faith, the major biblical idea of Judaism, the Torah, the source of Christianity's claims that Jesus is indeed the Word of God and that the Messiah is the one who will save humanity. The Old Testament, also known as the Torah in Christianity, contains a biography of Jesus and his teachings, while the New Testament contains the writings of his followers today. These include the core of the Christian Bible. In Jerusalem, Christianity emerged as a continuation of Judaism, which saw Jesus as the Messiah. The concept and its proponents grew rapidly in ancient Judea before spreading to the ancient world around the 1st century CE.
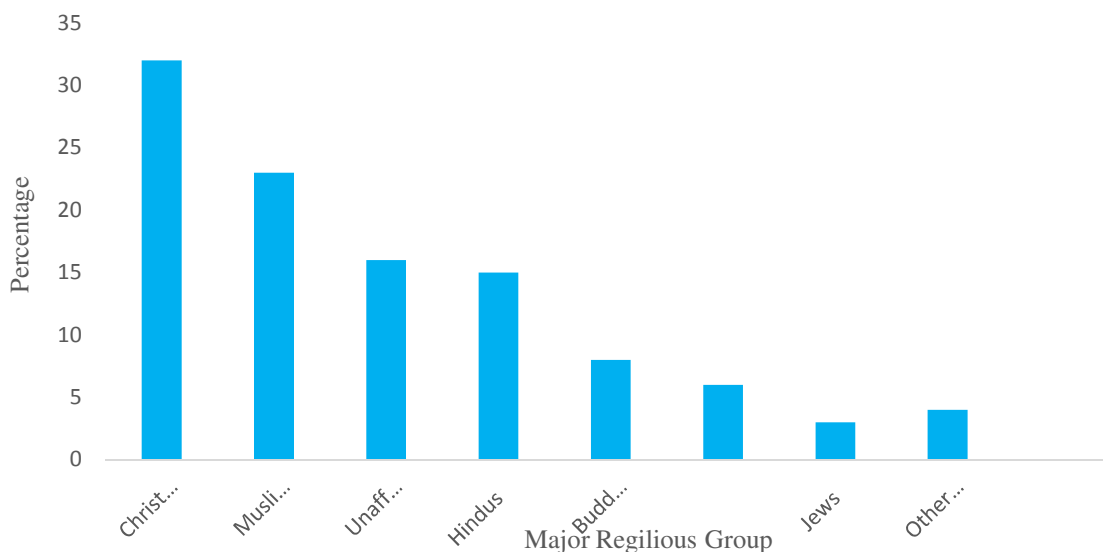


**Figure 1: Illustrates the Size of Major Religious Groups in Percentage of Global Population.**

Christians believe that Jesus fulfilled all the norms of the commandments of the Old Testament by living a perfect life, dying on the cross to atone for the sins of the world, and rising from the dead. Then those who trust in him may have their sins forgiven, be healed by God, and receive grace for everyday life. After physical death, Christians believe that they will live with Almighty God, while those who have not accepted Jesus as their savior or have their sins forgiven will spend eternity separated from God in hell. Between 2010 and 2050, the percentage of Christians will remain stable, despite increasing in absolute terms in Figure 1. If it is 31.4% of the population in 2010, it will do the same in 2050. However, the Muslim population will increase. This will increase from 23.2 percent in 2010 to 29.7%. By 2050, about 3/10 people will identify as practicing this belief.

### 3.1.5. Confucianism:

Confucianism, which originated from the doctrines of the Chinese philosopher Confucius, who lived 551–479 BC, was an important philosophical concept and religious orientation in Chinese history. Confucius saw himself as a medium through which the religious ideals of the ruling

dynasties could be expressed before him. Confucianism had a distinctly humanist and even radical religious worldview, with a focus on family and social peace. Confucianism had a significant impact on the formation of Eastern legal traditions, the rise of a learned elite, and the establishment of a just system of government. Nevertheless, it is an academic, legal, and commercial endeavor. Confucianism's emphasis on hard work is seen as a major driver of Asian economies in the late twentieth century. There are already several autonomous Confucian religions, but the Holy Confucian Church was founded in 2015 by a group of church leaders in China.

### 3.1.6. Druze:

The term Druze refers to an Arab ethnic-religious minority that developed in the still heavily populated Druze Mountains in southern Syria. The Druze, while having a relatively small number of adherents, had a significant impact on the development of the Levant, as their region was referred to historically. Jethro of Midian, who is revered in Jewish scriptures as the father-in-law of Moses, is seen by the Druze as his immediate ancestor. Jethro is regarded by the Druze as a secret prophet through whom God spoke with Moses, the revealed prophet. As a result, the Druze are seen as having a marriage relationship to Judaism. The Druze are polytheistic, worshiping only one deity, such as their in-laws. Even though they are derived from Islamic cultural teachings, the Druze schools are based on the wisdom of Greek thinkers such as Plato and share Hinduism's views on reincarnation. An important ideological component of Druze's society is Jethro's role as a hidden prophet. Its current texts and organization are slightly different. Close communities with roots in modern-day Syria, Lebanon, and Israel have long faced persecution, especially at the hands of Islamic clerics. The Druze actively participate in the government and economics of their countries, which may be one reason they defend their traditions and rituals against outsiders.

### 3.1.7. Gnosticism:

Gnosticism most likely emerged from an interreligious phenomenon in which many people from different places came to share the same system of beliefs and ideas, rather than a single religious point of view. Gnosticism is a term used in modern historical discourse to refer to various religious systems and ideologies that developed from the Judeo-Christian heritage in the ancient world. These religious systems believed that all people are carrying the spark of God's life as they are all descendants of the same God who created the material universe. Here the dualistic philosophy of Gnosticism clearly distinguishes between the superior spiritual realm and the lower physical reality, allowing passing from one to the other by the acquisition of special, occult knowledge. The simplest way to look at the development of Christianity and Gnosticism in the 1st century AD is an interim set of beliefs that were shared by different regions of the world, while Judaism was gradually converted and influenced by Christianity.

### 3.1.8. Hindu Religion:

Hinduism is said by some to be the oldest religion in the world and may have originated in the Indian subcontinent during the Vedic era. From 1500 to 600 BCE, the civilization changed from a nomadic and pastoral lifestyle to a settled and agricultural lifestyle. Social classes, government agencies, and monarchies all developed as a result. The Vedas, which are the main historical writings of this period, had a tremendous impact on Hindu harmony. The doctrines of Hinduism evolved from different ideologies to share a coherent set of beliefs between about 500 BC and

300 AD. This period was characterized by many links between the Indian cultural and spiritual heritage. The themes of the four purusharthas, or aims of human life, are important in these ideas: dharma morality and obligation, Artha, prosperity and karma, desire and emotion, freedom of enlightenment, and attainment of redemption. Samsara, the Hindu notion of reincarnation, and many yogic techniques linking the body, mind, and elements are additional essential concepts. Emphasizes a universal relationship between karma, action, intentions, and consequences.

### 3.1.9. Islam:

Like Christianity and Judaism, Islam is a religious tradition that originated with Adam and Eve, Adam and the Prophet Abraham. Islam believes that Muhammad is the messenger of God and that Allah is the only God. Islam states that in about 600 AD, God communicated with Muhammad through the Angel Gabriel, resulting in the revelation that gave rise to the Qur'an. A complete and unchanging guide to living is provided by this central act of the Islamic faith, which followers believe to be the real Word of God. Every sphere of life, including the worship of immorality and family problems and economic transactions, is governed by the Islamic legal code called Quran and Sharia. Islam holds that disobeying the teachings of Muhammad while behaving well will end in hell and obeying the law will result in death in heaven.

### 3.1.10. Jainism:

Jainism, which flourished in the spiritually rich Indian subcontinent, is one of the oldest religious traditions and has elements from both Buddhist and Hindu traditions. Jainism emphasizes the concepts of karma, reincarnation and monastic spiritual pursuits, as do Hinduism and Buddhism. Contrary to Hindu or Buddhist beliefs, that the soul is a component of an endless and continuous world, Jains believe that the soul is an ever-changing entity that remains permanently attached to the body only throughout life. Jainism's class system, which, like Hinduism, forces adherents of social freedom in favor of spiritual liberation, shares this emphasis on the physical. Most of the 4 - 5 million Jains worldwide now live in India.

### 3.1.11. Rastafarianism:

In keeping with the Abrahamic heritage of monotheism, which is related to a single deity as Jam, Rastafarianism is a relatively modern religious movement. Although they interpret the Bible using their own particular political and geographical conditions, Rastafari Christians maintain the Bible as their principal source of religious instruction. Rastafarianism developed in the 20th century, with a focus on Jamaica, as an ethnic response to British oppression. This persecution would have a significant impact on Rastafari's understanding of Scripture.

### 3.1.12. Shinto:

Japan is the country that first gave birth to the Shinto religion, Shinto was more than a distinctly Japanese type of cultural practice, and it was a structured system of beliefs and mythology. The term Shinto, first used in the sixth century CE, serves as a link between traditional Japanese practices and contemporary Japanese culture. The central tenet of Shinto is communication and connection with kami ghosts through open shrines.

### 3.1.13. Traditional African Religion:

The peoples of the African continent are influenced by a vast array of religious traditions, each with its unique customs and beliefs based on region and race. The continent's history is a

patchwork of different spiritual traditions because Africa has a diverse population and because the beliefs of its people are intricately intertwined with those of its landmass and tribal areas. They have much in common, such as respect for the deceased, belief in ghosts, and the importance of the meeting point of nature and humans. It is also distinctive that, rather than text, many of these religions rely on tradition and oral history. Conservative estimates put the number of adherents of traditional African religions at 100 million, although Christians and Muslims currently make up the majority of the continent's religious traditions.

### 3.1.14. African Diaspora Religion:

The African diaspora is the result of the European slave trade and colonial policies, where individuals, families, and entire populations were uprooted from the African villages or tribes they formerly called home. As a result, from the 16th to the 18th centuries, many religious organizations spread throughout the Caribbean, South America, as well as the southern United States. Each had unique linguistic, spiritual and ceremonial practices that were often based on their history and the new situation in which they found themselves. These organizations often shared common themes about honoring spirits, worshiping the departed, and a common origin story they come from African religion.

### 3.1.15. Indigenous American Religion:

Native American religions cover a wide range of practices, beliefs, and rituals of indigenous communities practiced in the Americas before the arrival of European colonists. Practices and beliefs are represented here as diverse as large population centers, tribes, and small nomadic groups that have lived in the Americas for millennia. Many different monotheistic, polytheistic, and animistic beliefs are represented in theology. The internal hierarchical structures, ideologies, and oral histories of these numerous indigenous communities are all quite different from each other. In pre-Latin American monarchical cultures, in particular, some religions developed around fixed governments and towns, while others arose around nomadic tribes who moved within and between regions. There are some similarities between the feeling of connection to nature and the belief in ghosts.

## 4. CONCLUSION

In both instances, the rise of religious doctrine was closely related to the social hierarchy of caste, one of the long-standing systems of human interaction. The primary tenets of each religion provide more structure and direction for how individuals should live their best lives and interact peacefully with one another. Both gave instructions on how to achieve salvation in this case by breaking the cycle of reincarnation and documentation. Conscience is not specific to any one social group, religion, or society. Religious intolerance and prejudice affect everyone in Europe, although the amount of protection for freedom of religion and belief varies widely among the Council of Europe's member states. Attitudes towards religion developed in both the ancient world and the Middle Ages as a result of attempts to attack or protect certain systems. Furthermore, it attempted to align the interpretation of religion with the progress of understanding. Religions spread around the world as a result of extensive commercial and cultural exchange.

Moral standards and communication between cultures were underpinned by these religious systems. It inspired individuals to connect, exchange ideas and conduct commerce across

geographical boundaries. People quickly adopted the religion because it provided the kind of structure and importance that is provided when being a member of a close group. Freedom from discrimination is also included in many human rights violations involving freedom of religion or belief. Even though it violates international law, many individuals in Europe face discrimination based on religion and belief every day. Someone can be discriminated against based on their religious affiliation, however, if they do not hold that belief. It states that religion and belief are sometimes associated with culture, nationality, and heritage. In the future, all of the world's major religions have different fertility rates and youth demographics, and individuals are also changing their religious affiliations, leading to a rapid change in the religious landscape.

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# CHAPTER 15

# ANALYSIS OF THE FACTORS RELATED TO TIME MANAGEMENT AND OPERATIONS SCHEDULING IN PROFESSIONAL ORGANIZATIONS

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**ABSTRACT:**

The defined order of operations for the production route is followed while scheduling operations. Scheduling determines different capacities for resource groups, based on the specified operating period on the construction route. The art of scheduling is organizing your tasks so that you can accomplish your objectives and set goals in the time you have available. In this paper, the author discusses the importance of time management and operational planning in businesses and how they can benefit the management system of any organization. This paper explains the work with the use of time management, ensuring that people have enough time to complete each assignment. Time management and operation scheduling are very important in any organization to make a good environment in work culture and these become a major part of the organization in the future.

**KEYWORDS:**

Management, Manufacturing, Operations, Scheduling, Time Management.

## 1. INTRODUCTION

A person's daily activities include taking care of basic needs, participating in work-related tasks and engaging in leisure activities like watching television, listening to music, going out with friends, etc. When a person multitasks, especially those employed, for example, a director in a reputed company, who has many tasks to complete, or a student, who has to be with all his classes. Along with taking time out for extra-curricular activities, it is important to implement proper time management for all these people. There are many properties of time, such as it is measured in units, that everyone gets the same amount of time each day, that no one has more or less time than someone else, and that time is available to everyone in their own right. It is important to meet job obligations effectively and responsibilities [1].
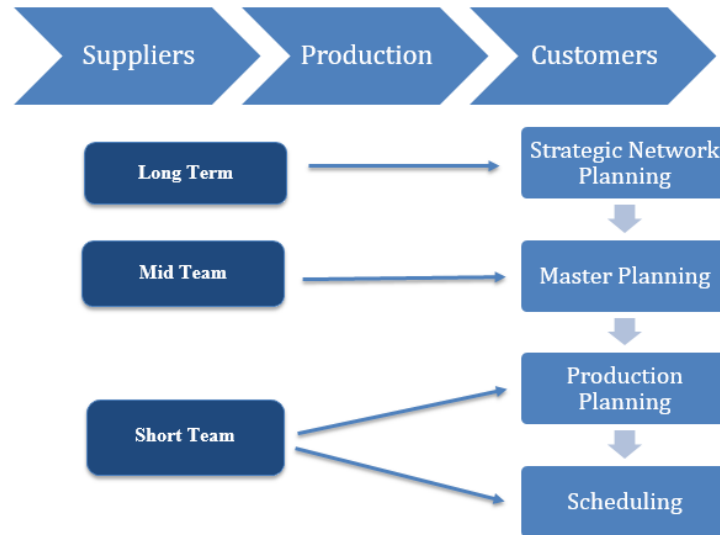
**Figure 1: Illustrate the system hierarchy with the long-term, mid-term and short-term** [2]**.**

Many tasks and activities, including meetings at work, class periods at school, lunch and leisure time, working hours, etc., are timed. Because of this, everyone needs to manage their time effectively in all activities, tasks, and responsibilities, regardless of the nature of their employment.  Management wants to increase manufacturing profitability and become more competitive. Managers are focusing on a range of topics right now, including improved customer response, higher productivity, lower manufacturing costs, improved quality, quicker cycle times, bottleneck control, and operation and maintenance forecasting. Through internal production materials, contractual relationships and supplier competencies, the management of manufacturing technology aims to trade products and services to market. As a result, it is appropriate to hierarchically organize problem-solving, taking into account the different aggregation levels of information and judgment, Figure 1.

*1.1 Time Management Techniques:*Several time management techniques have been considered [3].

i.  *Plan:* A person should organize his goals, ambitions and duties which he should accomplish within a given time frame. Planning tasks and goals are important because some activities are more important than others. For example, if someone has a project to work on, they should focus on it instead of going out with friends to see a movie. One must be prepared to face any obstacle that may come calmly.

ii.  *Organize:* Everyone wants to reach their goals and objectives. To do this, they have to plan all their actions and actions, including using technology, formulating their ideas, and setting up their workspace.

iii.  *Staff:* The performance of duties and obligations is undoubtedly aided by effective communication as well as requests for support, assistance or assistance from supervisors, subordinates or co-workers. It is very rewarding to work in teams, form groups and solicit ideas, advice and recommendations from others.

iv.  *Direct:* One should always have a good attitude towards himself, reward himself with pleasant hobbies, work hard and be motivated by himself.

v.    *Evaluate:* To identify his shortcomings and take action to strengthen them, a person needs to assess his performance, attitude and conduct. Detection of defects and anomalies is essential, and to do requires examination.

### 1.2 Management of Intrusions:

Conducting all kinds of jobs and activities often involves interruptions, disruptions, hindrances and hindrances. They usually take either a major or minor form; For example, if someone is working on their computer or an important assignment when the doorbell rings and a friend comes, they should make time for their friend and temporarily stop finishing their work. Granted, this is an example of a minor glitch [4]. On either side, a morning trip to school interrupted by a car accident that sends a person to the hospital is an example of a significant obstacle that has arisen during his studies. A person should be able to handle obstacles properly; He must be disciplined internally and with the people around him to remove the sources of such disturbances [5].

There are strategies for dealing with obstacles. Before starting any work, it should be decided whether it is necessary, such as to discuss, or whether email or telephone communication can be used instead. They should schedule their time to work on any project, assignment or duties so that they can also schedule time for other activities. Users should ask friends, co-workers, and other family members to call them before they arrive so that they can properly schedule their duties [6]. If they call, this lets you know that they will contact people. One must maintain a stress-free, calm state while focusing on their work as they will be able to perform to their full potential and thus manage interruptions and distractions.

### 1.3 Management of Procrastination:

Procrastination is the practice of delaying, postponing, or putting off tasks. Sometimes people avoid a task because they have a good reason, and other times it's because they like to spend their time doing something else [7]. Procrastination occurs when a person is focusing on something other than their personal goals or company priorities. It is not procrastination when one chooses to do a less important duty in favor of a more important one rather, it is effective time management and prioritization.

People create ways to handle procrastination according to their motivations, which have contributed to procrastination in the past. First of all, people cannot enjoy their jobs, so they should think about the compensation and benefits they will get when this unbearable work ends. Second, if someone is disorganized, in this instance, they must learn to organize their files and other papers properly, check and answer emails, and plan all the work tasks they have to complete on time [8]. Third, if a task or project seems difficult, one should try to do it in small pieces. Though it may take a little longer, completing a small portion of it every day will help him to complete it successfully. Fourth, perfectionism creates a fear of what will happen if something goes wrong [9]. When one has doubts about something, one should always seek guidance and support from supervisors, co-workers, or subordinates getting a second view always helps instead of doing the task entirely. Lastly, it is important to seek advice from knowledgeable and experienced people around when a person is having trouble making a decision. Finding answers requires being an introvert and refraining from sharing your issues and challenges.

## 2. DISCUSSION

Establishing the timing and use of resources in the organization is called scheduling. Scheduling deals with the use of equipment and facilities, the planning of anthropogenic activities, and obtaining supplies under operational levels in both construction and construction. Operational scheduling is viewed as a short-term concern, whereas the difficulties associated with facility site, property and machinery procurement, and overall planning are long-term and intermediate-term, respectively [10]. According to the hierarchy of decision-making, scheduling is usually the last step in the process of change before actual products such as finished items are generated. As a result, scheduling choices are made within the parameters set by these long-term options. Scheduling goals often include balancing competing objectives for the effective use of workers and equipment, lead times, inventory levels, and processing times [11].

Forward scheduling and reverse scheduling are the two main methods of scheduling. The technique used is unimportant as long as the principles are used correctly. Forward scheduling and backward scheduling produce similar results if the process lead time (move, queue and setup time) is added to the task lead time and the processing time is expected to be at the end of the process. Forward scheduling involves choosing an estimated order release date and organizing all actions that begin on that day [12]. Every person is engaged in some kind of labor the fulfillment of responsibilities in some form or the other. The work can be household chores, work-related obligations, schoolwork, meal preparation, creative endeavors, athletics, or any other form of extra-curricular activity [13]. Along with professional obligations, there are other recurring tasks such as eating, bathing, dressing and moving, engaging in physical activity or even just resting or sleeping [14]. People fulfill all these duties according to the passage of time. For example, they must be at work or school at a certain time, have their lunch at a certain time, and have a regular bedtime that includes getting up and sleeping at set intervals. Everyone has to improve their time management abilities and learn to use their time effectively to accomplish all these jobs and responsibilities effectively.

Proper time management demands several techniques including planning, organizing, staffing, directing, and reviewing. There are many ways to use time management effectively, including self-evaluation, setting goals, behavioral analysis, which can be both short-term and long-term, visualizing objectives, tasks, and tasks, being productive and working hard, and asking involves believing [15]. To help and support others in handling key tasks and creating schedules. Disruptions and intrusions do happen during the time management process, but people should not get irritated or lose their temper. Instead, they should try to find solutions to any problems they face in their performance or work. Setting priorities and getting things done that are more important than others should come before taking on less important tasks is another important topic.

### 2.1 OPERATIONS PLANNING WITH EXAMPLES:

Operations are processes that are performed on machines in manufacturing or production to achieve desired results. In scheduling, tasks are given to manufacturing units with exact timing requirements. It also includes the manufacturing process and continues until the finished item is produced and ready for distribution. Scheduling optimizes processing timeframes to ensure that all tasks and activities are completed on time and that the finished product is delivered to consumers on time.

Difficulties arise in maintaining timely and effective production in manufacturing and production operations. Due to technological improvements, this difficulty is experienced by many enterprises. One approach to these problems or difficulties is operational scheduling. This includes delegating operations or duties to appropriate machinery and manpower resources. Operations scheduling, then, is a process that specifies the completion time of each operation in the particular manufacturing process, to put it simply. According to Kimball and Kimball, scheduling involves calculating the time required to complete each operation as well as the time required to complete the full range of specified operations.

Using available resources is essential if you want to ensure that production will be completed on time. If operational scheduling is done effectively, it can help boost the income of the organization and cut down on the total production time. Planning involves the proper distribution of various resources and supplies for each job, while scheduling adds to the temporal component of production planning. It ensures the creation and implementation of the most effective production schedule by optimizing the operation sequence on allocated resources.

### 2.2 Objectives of the Operations Scheduling:

Scheduling is the daily planning of operations that specifies which tasks will be completed through which workstation, the start and end of an operational state or job, the equipment on which the operation must be completed, and who will be in charge of the completion. A segment of work activities on different machines or work stations and also in Figure 2 shows the operations scheduling objectives.
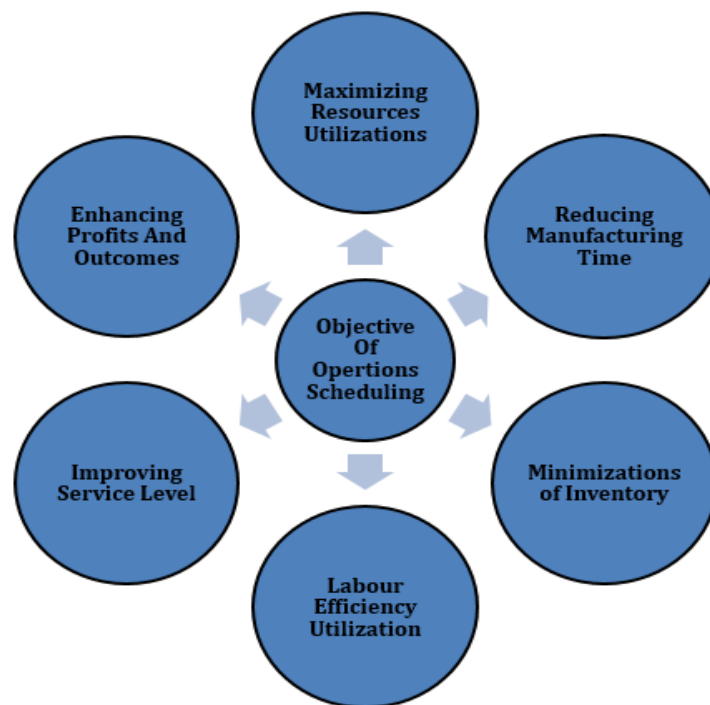


**Figure 2: Illustrate the objective of operations scheduling at different levels.**

### 2.3 Factors that Affect Scheduling:

a.      *Internal Factors Affecting Scheduling:*

i. *Finished goods inventories:* Scheduling is based on how many finished items the business has in stock. Most businesses keep a month's worth of stock of each product. The company's product will need to be adjusted according to whether it moves quickly or slowly.

ii. *Process intervals:* Depends on how often each product is processed. The time taken to manufacture a product is called the process interval. The process elapsed time varies for different items. For example, the production cycle of a car lasts longer than that of soap. For each processing interval, a new schedule will be used.

iii. *Type of machines available:* The type of machinery available also had an effect. If the firm uses old, outdated equipment, the timetable should account for the breakdown of the machine. Scheduling has been made incredibly simple by modern computers.

iv. *Availability of personnel:* The ability to schedule also depends on the availability of employees. Employees who are inexperienced and trained will increase the time it takes to develop the product. As a result, the schedule must account for this. For skilled and knowledgeable workers, a quick schedule will be essential.

v. *Availability of materials:* The availability of resources also has an effect. If a steady supply of supplies is available, the business can operate on a regular schedule. The timeline should be flexible, however, if the supply of materials is uncertain. For example, the timetable will move faster while the supply is good, and vice versa.

vi. *Manufacturing facilities:* The availability of a company's production facilities affects scheduling. This includes room for additional equipment, personnel, etc. Availability and supply of water and electricity, both of which may be essential to the industry, have also been included. The production timeline can be accelerated if all necessary infrastructure is ready, and vice versa.

vii. *Economic production run (EPR):* Economic production cycles also play a role. The term economic production runs (EPR) refer to the ideal lot size. In other words, how many goods must be manufactured in a single lot to keep manufacturing costs to a minimum? If the organization produces more or less than the ideal lot size, the cost of construction will increase. There are several formulas available to determine the ideal lot size. Scheduling should be done only after determining the ideal lot size.

b. *External Factors Affecting Scheduling:*

i. *Consumer demand:* Consumer demand also has an impact on the schedule. Sales forecasting can be used to determine consumer demand. As a result, the manufacturing schedule is created using the sales projection. However, if the actual demand is different from the projected sales, it should be revised.

ii. *Consumer delivery dates:* Consumer delivery dates also have an impact on the production timeline. The most important person in a corporation is the customer. Therefore, this aspect has to be given more importance than the other variables. The manufacturing plan needs to be set up in a way that ensures that consumers get their orders on time. Production of seasonal goods should be spread throughout the year to prevent excessive pressure during peak periods of demand.

iii. *Dealers and retailers' inventories:* Additionally, it is based on the inventory of items kept with wholesalers and traders. The production manager needs to know how much

inventory is with the traders and dealers. They should also be aware of the purpose behind their reserves. Are they maintaining this inventory to meet the current demand? If so, the normal program can proceed. However, maintaining stock in anticipation of demand in the future will require slowing down the schedule as there will be fewer orders in the future and also shown the factors which internal and external affect the scheduling in Figure 3.
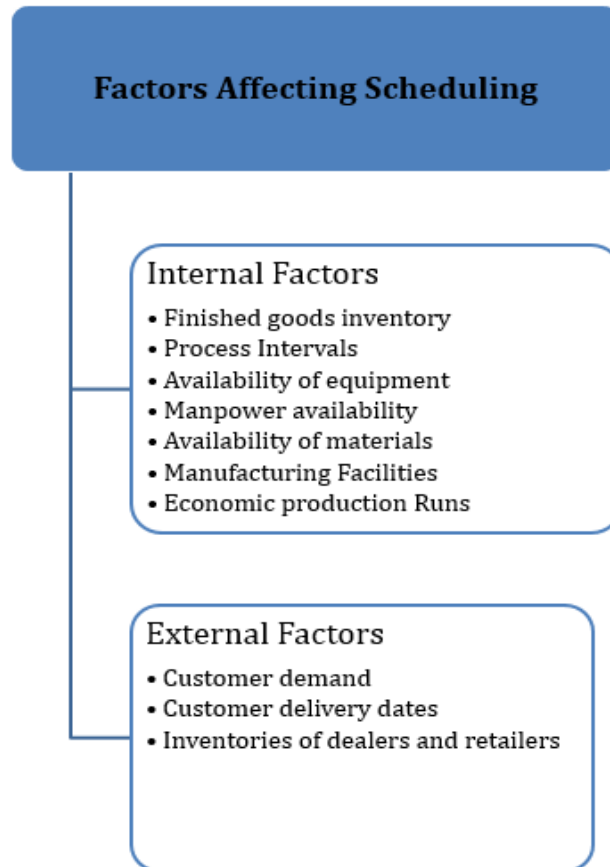


**Figure 3: Illustrate the Factors affecting scheduling with internal and external factors.**

*2.4 Scheduling Activity under Production Planning and Control (PPC):*

The process of organizing, managing and organizing the workplace and workload in a particular manufacturing process is known as scheduling. Scheduling is used to distribute resources for equipment and buildings, prepare human resources, organize work processes, and purchase goods [16]. Dispatch, material control inspection and expediting, and work-in-process analysis all affect the control phase. The PPC cycle is eventually completed by assessment, and remedial measures are implemented using inputs from the analysis. Figure 4 shows the Scheduling Activity under Production Planning and Control.
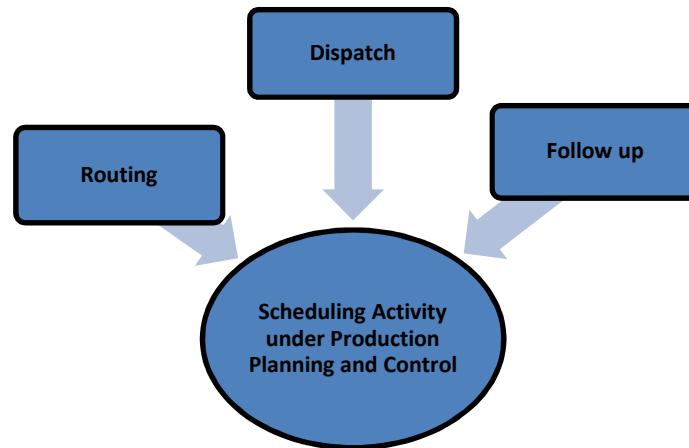
**Figure 4: Illustrate the Scheduling Activity under Production Planning and Control.**

*2.5 Scheduling Strategies:*

As a result of production amount, type and size as well as the organization's policy, priority and other factors, different organizations have different scheduling strategies. Since the same facility produces multiple products, there are more problems, so these tips are mostly used in job shop construction. Detailed scheduling, cumulative-wide scheduling, cumulative scheduling, and priority decision processes are among the classifications and are also seen in Figure 5.
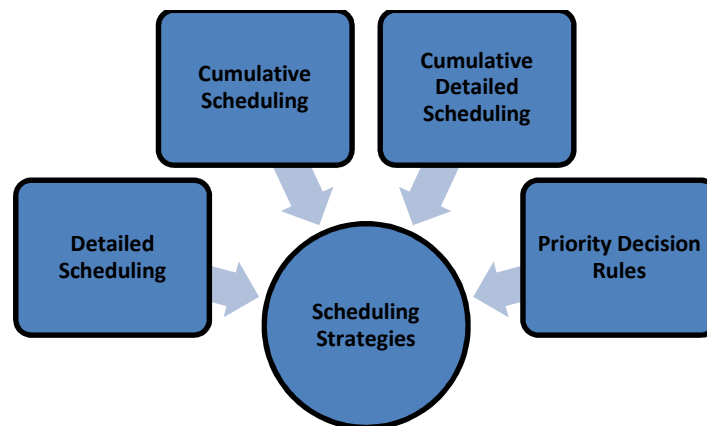


**Figure 5: Illustrate the scheduling strategies with four different scheduling factors.**

Every student understands the importance of time management, but students who are active in student groups understand this value even more. When it comes to managing your day, participating in an extra-curricular activity or organization means that in addition to your regular obligations like courses, meals, work and socializing, a substantial portion of your time is automatically consumed. Time is one of your most valuable resources, and the material provided here and on the linked sites gives some tips on how to handle it more effectively. Time management is a very personal skill. Only you know your ideal working hours, attention span and dietary requirements. You can develop a successful time management plan using the information you already have about yourself. The material in the link below presents comprehensive success principles and examples of how these principles can be used. Remember to consider your self-awareness and choose whatever approach works best for humans.

## 3. CONCLUSION

Time management is viewed as a talent that people of all levels and backgrounds should be able to master. Some people maintain incredibly busy schedules as a result of their academic obligations, office work, employment responsibilities or household commitments. If one does not want to experience pressure or stress at work then effective time management should be used. This study highlights the importance of time management, time management techniques, how to apply time management effectively, how to handle interruptions, how to manage procrastination, and the use of time management case studies is inserted. Correct management of one's life is sometimes considered time management. To manage their time effectively, one has to decide what one wants to do in life and how to go about finding a better option for owners. When you manage your time well, you'll experience less stress and tension, more free time, higher completion rates, and more success which also help in the future.

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# CHAPTER 16

# FUNCTION OF COMMONLY USED BUSINESS TACTICS TO MAKE BETTER MANAGEMENT DECISIONS

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**ABSTRACT:**

Typically, a strategy cascades from top to bottom, accumulates input from bottom to top, and then iteratively refines. A well-thought-out company strategy will guarantee that everyone in your organization is working toward similar objectives and fosters a sense of shared responsibility among staff members. People can assess your organization's performance and progress about your intended goals by using business strategies. The strategy includes promotion, providing an essential service, getting a major customer which brings in many more customers, getting the required inputs for less money investment, and many more etc. As a result, using techniques that help you to beat the competition with different organizations. This author explains how to use business methods to improve an organization's strategy. Also, describe the function that is mostly employed for business strategies and helps in management choices. Expanding a product range, opening additional locations, or engaging in customer acquisition are all ways to accomplish growth for any organization. A firm's industry" and target markets have an impact on the business strategies of any organization's future growth.

**KEYWORDS:**

Business Strategy, Management, Organization, Strategy, Warby Parker.

## 1.  INTRODUCTION

The word "strategic" is derived from the Greek for "military cleverness" and "a good military commander". A strategy provides an initiative with a broad direction, or to put it another way, outlines how it will move forward and how humans will get there [1]. Strategic management involves the creation and achievement of primary programs and objectives created by the organizations of senior management on the behalf of owners, following the evaluation of resources and the external and internal contexts in which the company operates [2]. The aims of the chosen organizations, the formulation of strategies and strategies to achieve these aims, and the assignment of assets to the execution plan are all part of strategic management, which gives the firm broad direction.

The highest level of organizational activity is the essence of the strategy, which is planned, created or supervised by group directors and then put into practice under the direction of a senior management team [3]. Strategic management, which gives the business its overall direction, is strongly linked to the discipline of organizational studies. When discussing business management, it is helpful to discuss the strategic sustainability of an organization with its environment or strategic alignment. To explain how a company creates a competitive edge over its competitors in a given industry, the strategic literature suggests several business models or competitive strategy paths. All these different business strategies tend to emphasize the relative weighting of performance and efficiency in the market.

Organizations must be intelligent to adapt and rapidly antedate these developments in a rapidly changing economic environment as a result of many innovations and technological advancements by developing sustainable innovations in line with market demands [4]. Social capital and corporate strategy orientation are critical to fostering a market's ability to compete. Businesses must adopt an entrepreneurial attitude that values innovation, initiative, and taking risks [5]. These qualities are essential for revitalizing long-standing businesses and boosting their marketability. It takes skill, technological know-how, and cooperation from many stakeholders to engage with and promote new thoughts, inventions, experiences, and creative processes.

The corporate strategy uses a portfolio framework to analyze all of a firm's operations to determine how to optimize value. Companies must take into account how many businesses fit around each other, how those affect one another, and the way the parent organization is structured to maximize human resources, processes, and governance. Figure 1 illustrates how company strategy is constructed on top of strategic planning, which focuses on making sensible business choices.
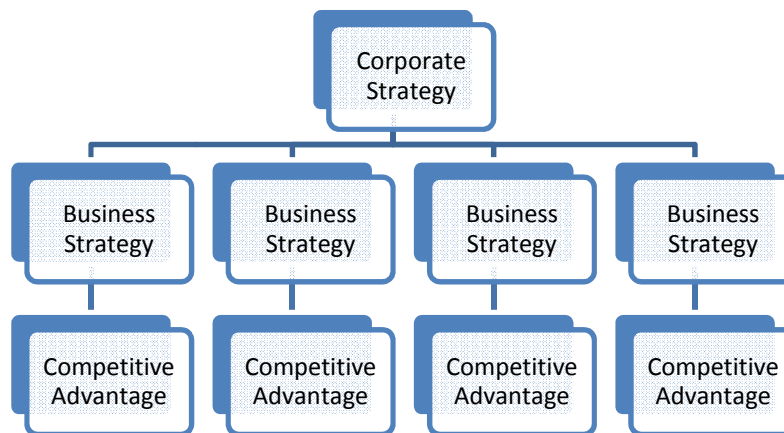


**Figure 1: Illustrate the Corporate strategy of business strategy and the competitive advantage.**

*1.1 Six Elements of Effective Strategic Planning:*

1. *Define your vision:* A statement of purpose outlines the long-term goals of your business and offers a clear template for choosing the most appropriate action for the now and the future. It produces the troposphere and acts as the North Star for the horizon. The company with an effective vision detail by Warby Parker, an online seller of prescription lenses founded in 2010 and today valued at an assessed $3 billion. Warby Parker's mission statement includes two elements: People think buying glasses will be simple and enjoyable. It should be content, and attractive, and leave you with cash in your pocket. Additionally, the author thinks that everyone can see what they want" and has to right what they want. The vision statement summarizes the goals of the firm in just three phrases. Specifically, to make the experience of buying preparation eyewear and sunglasses enjoyable and simple as opposed to the traditional method [6]. The goal is for customers to be able to buy stylish frames for less than what is available now. The purpose statement is added to the last section of the vision statement aka why the company exists: Everyone has a right to be seen and think too. Warby Parker has always bragged about its Buy a Pair, Give a Pair initiative, which provides free glasses to people

who otherwise couldn't afford them. Although not all business executives emphasize the social impact in their company's mission and vision statements, the practice is gaining popularity as a result of the increasing purchasing power of Gen Z consumers and Millennials. A good vision statement will have just as much impact on your organization as it will on the firm's personnel to help them focus their efforts in the proper directions [7].

2. *Create your mission:* Without a statement of purpose, your company is without a why and a how. There may be contradictory tactics and actions if each individual in your business has their interpretation of the vision. Warby Parker's company purpose, which states that purchasing glasses should be simple and entertaining, may be accomplished in a variety of ways. It should be content, and attractive, and leave you with cash in your pocket. By eschewing conventional routes, producing glasses in-house, and interacting directly with clients, the business hopes to be the highest-Quality, superior-looking prescribed eyewear at a quarter of the existing price. The founding team intended to discover means to cut prices and promote quality, as well as to see how a large firm made a profit after dominating the eyewear sector with exorbitant prices. As a result, many formerly outsourced functions, such as design and consumer marketing/sales, were brought in-house.

3. *Set your objectives:* By using the notion of initial success, you may gauge how well you're doing at attaining your goal and vision. Despite not being a publicly traded company and not legally obligated to do so, Warby Parker voluntarily prepares annual impact reports. Giving readers an insight into the organizational strategic aims by covering essential subjects that are significant to both stakeholders and the company.

4. *Develop your strategy:* A successful strategy is the result of vision and execution working together. Compared to an objective, objectives, and purposes, initiatives are significantly more constrained in their emphasis. They function best when developed following the needs of the business and the market, they are frequently only shared inside the organization. Strategies should encourage innovation, guard against unanticipated problems, and link long-term aims to specific targets and doable tasks. [8]. There may be a different plan for each specific objective inside the firm, and strategic plans are often over three to five years. The Warby Parker Annual Impact Report has further information about the strategy we used to accomplish each of the aforementioned objectives. We'll go through several innovative Buy a Pair, Give a Pair strategies.

5. *Outline your approaches:* The plan of action provides a framework for addressing the significant issues that will eventually determine the plan of action. It also instructs a business on how to effect strategic plans. In our Warby Parker e.g., each strategic plan contained a vision that directed the leadership team's scrutiny and plan execution. They won't go into every decision we made in terms of business, but we'd want to concentrate on two key ones: the growth of the Pupil's Projects and the launch of the Scout corrective lenses line. The Warby Parker management team requires a plan for confronting each significant alternative for the program when it comes to extending the Pupils Project. There were probably more choices than people could have covered in a whitepaper, but we'll concentrate on two: whether to partner with an existing non-profit or create our program and how to optimize donations. Leadership strategies likely include debating

whether to build a program structure and operate it internally or work with existing non-profits' past decision points, such as a student program in Philadelphia to expand or not. Ultimately, the corporation decided to collaborate with two neighborhood groups in Philadelphia. How to get the greatest impact with the allocated funds was another important choice that required a strong strategy within the student program. Business needs a strategy that aids in decision-making and provides answers. Those options may include determining whether to donate glasses directly or donate cash equivalents to nonprofits, how to select schools for the projects for example, and the degree of overall required or the number of glasses. Considering what Warby Parker can offer, who should be in charge of arranging the logistics of screening and delivery of the glasses?

6. *Get down to tactics:* Warby Parker used a variety of strategies to transform each option from a concept to an actual program or product. The author has highlighted one or two examples for each option, while there may be hundreds of different methods for each. For the Warby Parker Pupils Project, several strategies or efforts were required to decide to make the most of the impact possible. The business opted to have screenings by the non-profit partners, with Warby Parker providing the glasses and letting the kids choose their favorite designs from 40 selections at a truck show [9]. Bringing the logistics and design teams together to identify the possibilities of a style that is kid-friendly, affordable, and simple to manufacture in large quantities was an essential technique. Choosing how to make and supply glasses to children, whether they should be sent to their homes or their schools, and how to guarantee the glasses fit properly, were perhaps a more important strategy. The ultimate aim of the Pupils Project is to provide children with glasses to support their ability to read and to achieve this, they must use glasses over time. It's important to have frames that fit properly as well as styles that kids enjoy. Figure 2 shows the different levels of marketing that how the organization works.

**Figure 2: Illustrate the different stages of the business strategies which make the marketing strategies.**

Once the business has selected a design team, project managers decide on the techniques for the Scout contact lens launch to turn the concept into a reality [10]. Very strict research instructions were given to the designers, to identify materials and methods of construction that met the requirements of high quality, comfortable, moist, breathable, affordable and inventive. The finished item is manufactured using modern techniques to promote eye comfort using a material that resists drying [11]. In addition, the firm's design team developed flat-pack packaging, which is more sanitary, consumes fewer resources, and occupies less space than traditional contact lens packaging. To reduce the possibility of adulteration from dirt or germs when the wearer places contact in their eye, even the location of the contact (inverted) was intentional. Each of these topics was probably presented as a strategy or project that helped develop Scout Glasses. Each was closely connected to Warby Parker's decision-making procedure, general strategy and arrangement with the greater goal and hallucination of the organization. When you look closely, each technique may not seem related at first, but you will find that a successful strategy should always be tied to strategy, objectives, purpose and vision.

## 2.  DISCUSSION

The authors distinguish between the two traditional functional departments of the supply chain: internal support functions, Research and Development (R&D), sourcing, manufacturing, and marketing and sales to better understand what practical units businesses are limited to in a host nation and To what extent are these facilities incorporated into the global corporate structure [12]. The three techniques we have identified have a notion that is transferable only at the functional level. The authors distinguish between the two traditional functional departments of the supply chain: internal support functions, R&D, sourcing, manufacturing, and marketing and sales to better understand what practical units businesses are limited to in a host nation and to what extent are these facilities incorporated into the global corporate structure. The three techniques we have identified have a notion that is transferable only at the functional level. Figure 3 details these definitions for each business function.
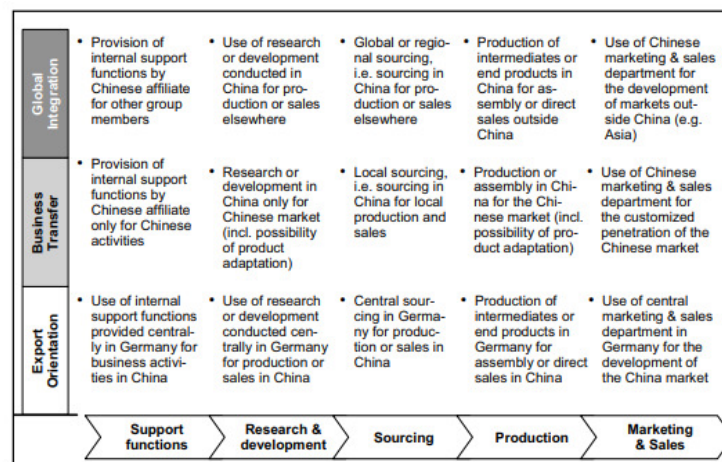


**Figure 3: Illustrate the business function which shows the different levels of the business strategies [2].**

Any organization's ability to endure, expand, and flourish relies on the chosen forms of strategy. Future higher administrative frameworks are created taking into account any social changes that may result from implementing the plans, regulations, and procedures for implementing these strategies to attain the objectives. In line with the business plan method, putting into practice a cohesive competitive strategy is necessary for creating a competitive advantage [13]. The organization's vision, goals, and overarching objectives must be in line with the assets power, people, money, and materials that are taken into account in a sound business plan. This project often uses a range of strategies to achieve its goals, including information sharing, reducing obstacles, encouraging support, and offering resources to assist in fulfilling the vision and the purpose.

Strategies, on the other hand, guide what to do and how to start along the path to success. Using strategy, the company may choose how to concentrate on the essentials to accomplish its vision and objectives. Being able to evaluate and address issues that affect the administration, such as those relating to global trade in the region, the increase in speed of the consequences the emergence of acquainted economies as one of the forces propelling globalization in different spheres of life, and the enormous and accelerated subjective progress of information technologies. The effect on regional company activity and the increase in local competitiveness shows how crucial business strategy Motivates senior management and strategic policymakers in the company by reality perceptions attempting to predict financial value, trying to respond quickly to customers, and anticipating future behavior. Gain these abilities and skills. This will give these organizations a competitive advantage. This essay intends to describe the benefits of competitive advantage creation and provide fundamental knowledge of excellent company strategy. To further explain the importance of a company's strategy to gain a competitive edge in the marketing industry which is also shown in Figure 4.



**Figure 4: Illustrate the three strategies which are strategic production planning, strategic marketing planning and strategic business planning** [14]**.**

Marketing planning dominates business planning because it is the conduit between a company and its customers, and the firm exists only because of its consumers. In market-oriented business planning, the entire process of company planning is therefore guided by the marketing strategy. The author can refer to it as a strategic business plan because strategies play such a major role in it. The strategic marketing plan and the strategic manufacturing plan are components of the strategic business plan. Both are being guided by the same marketing technique. Marketing strategies are usually a top management concern and are developed first in the business plan for market-oriented organizations.

### 2.1 Business strategy used in the organization:

The term "business strategy" mentions to a structure for deciding an organization's long-term scope and direction, and how it plans to get the funding required to satisfy the expectations of its customers and constituents. Organizations that wish to succeed in a particular market must adopt the most crucial tactics as business strategies, and they must also be in line with corporate policy objectives. Therefore, the very first is to devise a strategy at the stage of business decomposition to research the affordable audience by learning as much as possible about the competitors of the market. Additionally, the person must be highly capable in instruction to provide excellent customer service. Additionally, the prospects for development and utilization of market chances should be examined [15]. Because the business segmentation strategy is anticipated to be the most apparent in every sector of the organization, each department will be able to readily connect its work to its department plan. They should also be familiar with the most effective approaches to execute this plan. The responsibilities, goals, and ideals of the business division are made apparent. Different forms of competitive work teams are necessary for organizations to execute team strategy effectively. Each team needs a distinct strategy to carry out the tasks that have been given to it. All of the strategies must work in harmony with one another to ensure the organization's success. In accumulation to managing resources, one of the most crucial factors in a team having achievement and efficiency would be the employment of quality systems, which emphasize quality work and improve business execution.

### 2.2 Classification of the business strategy:

The division of a company plan into a variety of detailed pieces. The prompt for each category is shown in parentheses. The company aspires to differentiate itself from rivals by developing a product whose uniqueness is recognized by the whole profession and can, as a consequence, command a premium price. Company managers place a lot of emphasis on product differentiation, but they also consider cost minimization. An organization may use one or several of the following strategies to set its products apart from those of rivals highly excellent product functionality, state-of-the-art product technology, product reliability, a range of promotions or alternatives, exceptional customer service, merchandise affordability, and timely delivery are among the qualities of a product [16]. The company's business plan is to differentiate its goods from similar, competing items based on one or more criteria, such as service delivery or quality, while also offering a variety of products at a reasonable price.

As a consequence, even if the company has a strong strategic focus on product uniqueness, it also gives cost containment and operational efficiency a lot of attention. The key strategic goal of the firm is to provide the least expensive or least expensive goods on the market. Using its experience, the firm pursues cost reductions aggressively and has a focus on operational performance, fixed cost management, and overhead control. The goal of a complementary

strategic emphasis is to distinguish services' hypothetical attributes. The corporation wants to dominate total cost, according to its business plan. This strategy's key elements include the aggressive creation of efficient facilities, the firm endeavors to reduce costs with expertise, increased emphasis on organizational effectiveness, stricter marketing, R&D, etc. Even while other factors like quality and service are not ignored, firm management places a lot of emphasis on cutting costs.

## 3. CONCLUSION

The long-term success plan for the business is described in the strategy. The business must make an essential decision when selecting a strategy since once executed, it is expensive and difficult to change and requires a significant expenditure of funds. An effective strategy helps the firm to have a deeper understanding of its customers and competitors. This type of business approach has many advantages, containing higher earnings for the company, better forecasting of future demands and quicker response times than competitors, and a stronger brand that can more easily cope with changes. In this paper, the authors explain that strategy is the procedure of identifying an organization's main long-term objectives, as well as formulating plans, achieving. Distribution and allocation of resources to meet such objectives. A company's strategy helps it maximize its strength while minimizing the power of competitors. A strategy provides a foretaste into the future, affirms an organization's mission and core values, founds goals, defines risks and chances, and chooses how to best exploit strengths and weaknesses to be reduced. As a result, it inaugurates frameworks and separate parameters within which choices can be made. The phrase "strategic advantage" describes market advantages that have a significant impact on an organization's chances of success in the future. These advantages typically contribute to an organization's current and future competitive performance compared to other manufacturers of comparable goods.

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# CHAPTER 17

# TOOLS FOR STRATEGIC PLANNING IN THE CORPORATE SECTOR FOR MAKING AN ORGANIZATION BETTER

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**ABSTRACT:**

Business executives use strategic planning approaches and models to identify the current state of their organization, its analyzethe future position of their organization. Increase awareness of the business environment, opportunities, strategic issues, and threats that help alleviate the risks associated with making critical decisions, and priorities of the complex companies. The Objectives, vision, core values, areas of strength and weakness, opportunities, threats and strategies are used in this paper to examine the strategic planning process and organizational performance. This paper also explains about the objectives and operating methods are also included for making the organization better with strategic planning. An organization can set goals, distribute resources, and align personnel with its mission and vision through strategic planning that is concluded in this paper. Effective planning and vision statements give clarity and direction that will be used in the future for making a better organization.

**KEYWORDS:**

Corporate, Management, Organization, Planning, Strategic Management.

## 1.  INTRODUCTION

Strategic management is the method of quantitatively imagining a better future and choosing the best approaches to attempt to achieve the desired goals. The strategic plan discusses and specifies the main directions and justification for choosing where a business should go and satisfies the criteria under which any organization may choose what to do or how to accomplish it [1]. Strategic management is the process of making decisions across departments that will assist a business to achieve its long-term objectives [2]. Before assigning resources to achieve these objectives, it explains the purpose, vision, and objectives of the company. Strategy development, strategy implementation, and strategy assessment are the three main phases of the strategic management process [3]. To achieve its objectives, it also places a lot of emphasis on examining the company's internal and external environments. Planning strategically is a component of strategic management, and if it is not controlled, it often results in strategic concerns [4].

Creating a vision statement is often seen as the initial step in the strategic planning process. Today, strategic planning is essential for all companies. Without a question, organizations, have never before faced such a significant increase in both unpredictability and competitiveness [5]. In addition to helping to accomplish top management's vision and mitigating unforeseen risks, strategic planning provides many other benefits [6]. An essential step on the road to effective

corporate operations is strategic planning. Every firm has a planning process and strategic planning is realized, understood, and used by managers in many ways. There is a great deal of understanding about strategic planning in the setting of large firms, but less knowledge is built up in the context of smaller firms [7].

Due to the world's current rapid technological advancement, market opening up and fierce competition, organizations and institutions must be accomplished with meaningful management styles and be able to outperform their immediate surroundings, to meet objectives and functions [8]. To be constantly changing in which they were created [9]. This approach is known as strategic management. Small and medium-sized enterprises (SMEs) that give strategic planning a high priority do better than those that don't. Strategic management is the process of making cross-functional decisions that will aid a corporation in achieving its long-term objectives. Before assigning resources to accomplish these aims, it explains the purpose, vision, and goals of the company [10]. The three major stages of the strategic management procedure are strategy execution, strategy formulation, and strategy evaluation. In addition, it has a strong focus on analyzing the internal and external environment of the company to meet its goals. Creating a vision statement is often seen as the initial step in the strategic planning procedure [11].

The process of choosing an organization's path and how to deploy its resources to research this route is known as strategic planning. The science and art of formulating, carrying out, and assessing cross-functional choices that support an organization's objectives are referred to as strategic management. Strategic planning is also referred to as an efficient organizational process that is used to establish priorities, direct resources and efforts, boost productivity, and ensure that all parties are treated equally. Working toward objectives, and evaluating and adjusting the course of the organization in response to external change conditions [12]. Business strategy refers to a company's strategy for gaining a competitive advantage in its markets. This involves forecasting which markets are more attractive or how a company may provide a particular value to consumers in areas where it is difficult for rivals to copy. It is predicated on the idea that business executives understand how to succeed in the market [13]. Consequently, strategic management is a procedure that instigates with self-actualization and ends with a company positioned to succeed in a cutthroat commercial environment and also shows the theory of change in Figure 1.

This paper discusses the value of strategic planning in determining a company's success as well as the causes of strategic planning failure in an organization. As a consequence, it seeks to provide a critical analysis of the strategic planning factors affecting the firm's performance. The evaluation contains details on the organization's mission and goals, fundamental values, areas of strength and weakness, chances and threats, as well as objectives, strategies, and operational procedures. The components help develop a theoretical understanding of how strategic planning affects organizational performance.Guides organizational planning by highlighting factors to keep in mind when creating research ideas. But to assess the efficacy of research and analyze potential problems, the study must apply the results it has reached.

**Figure 1: Illustrate the theory of change which shows the six different steps.**

## 2. DISCUSSION

Strategic planning is defined as the procedure of assisting organizational stakeholders in creating the operational and procedural developments necessary to realize the desired future of the organization and improve its performance of the organization. Therefore, strategic planning is critical in defining how an organization will grow and develop, which will ultimately determine the success of the company. In 2011, Forbes listed 10 factors from the entire strategic planning process that contributed to the failure of a strategic plan [14]. According to a Forbes article, developing a strategic plan just because it's the hallmark of an organization that has a plan is one of the major reasons such plans fail [15]. Organizational planning teams must be aware of and interpret changes in the business environment to maintain a firm's competitive edge. If they are unable to do so and instead place more emphasis on the outcome, their strategy will fail [16].

The success of strategic planning is also greatly affected by partial commitment, and failure results from a lack of necessary personnel and resources [17]. Nowadays, instead of relying on people who lack commitment or insufficient expertise in carrying out the strategy in difficult situations, it is necessary to assign the proper persons to carry out the best strategy.

| Determine Position | Develop Strategy | Build the Plan | Manage Performance |
|---|---|---|---|
| Strategic Issues | Mission | Use SWOT | Rollout |
| Industry and market data | Values | Organizational Goals | Set Calender |
| Customer Insights | Vision | KPIs select key performance indicators to track progress. | Leverage Tools |
| Employee Input | Competitive Advantages | Department Goals | Adapt Quarterly |
| SWOT | Orgainzation Wide Strategies | Team Member Goals | Update Annually |
| | Long Term Objectives | Budget | |
| | Forecast | | |

**Figure 2: Illustrate the Strategy Management process represents four different steps.**

The goal of the strategic management process is to get from point A to point B quickly, effectively, and with pleasure while learning from experience. Planning and implementation are both components of that journey. Effective execution ensures you're checking in along the route while having a sound plan that determines how you travel on the road you choose. This process can take an average of three to four months [18]. Since no two businesses are alike, you can choose to speed up or slow down your process. Use this as a resource and move at a pace that is right for you and your team. If you want to take a closer look at each component of the planning phase, you'll find a link to a comprehensive how-to guide at the top of each step shown in Figure 2.

➢ *From this two key lessons can be learned about the business planning process:*

1. Strategic choices, such as this disinvestment, are not made according to a set timeline. They are created when upper management determines that an entity's affairs require intervention.
2. Official planning procedures are not meant to make such strategic choices easy, even if it is simply because a division manager rarely suggests closing his business. Instead, formal corporate strategy planning aims to maximize the combined thrust of ongoing operations, a more modest but no less important goal.

Approving a division's strategic plan to shut down the unit after only three months is neither hypocritical nor a bad plan [19]. The ax is far more forgiving than a creeping strangler because of insufficient funds. Division management must demonstrate the stability of its business in the interim until the ax is dropped [20]. While a good strategy deserves approval, only senior management has the authority to determine whether the company is stable enough to execute that plan.

### *2.1 Levels of the strategy:*

The levels of organizational strategies vary. They distinguished four levels: corporate, functional, business, and operational strategies.

a. *Corporate level tactic:* This approach mostly focuses on choosing the right business, products, and market.
b. *Business unit tactic:* A business strategic unit may be a division, profit center, product line, geographic region, etc. contingent on the company or region. Positioning a company against competitors, incorporating new technology, altering the nature of antagonism through horizontal and vertical integration, lobbying efforts and networking are all examples of strategic challenges at the business unit level.
c. *Functional level tactics:* Business operations and value chains are linked by strategic challenges at the functional level. These strategies include production, marketing, finance, and research and development (R&D).
d. *Operational tactics:* These focus on how each division of a company is set up to deliver strategic direction and operational plans at the corporate and business-unit levels. The operational strategy, therefore, focuses on matters related to processes, people and financial assets, etc. These tactics include decisions made by employees and managers on the shop floor, such as paying bills, managing the supply chain, and using assets and other resources, such as employees, to achieve the organization's best competitive edge in the interest.

### *2.2 Three Levels of Strategy:*

When discussing the most important aspects of their profession, every corporate executive employs the phrases strategy and planning. Strategic planning is at the core of the president's job, so people are concerned about it. A division general manager often thinks of himself as the company's president, in control of its strategy and the tactical planning necessary for it to prosper and grow [21]. Because the success of the company relies on its marketing, production, or research plans, even an executive in charge of an ideal task, like a division marketing executive, recognizes the necessity for strategic planning.

These perfectly acceptable uses of planning and strategy have obscured long-range planning. While the author believes that our definitions of strategy and planning are helpful, others have given alternative, equally valid interpretations of these terms. In the 20th century, the traditional strategy process described in this paper has changed [22]. It was during this time that large international and diverse businesses that eventually became global conglomerates began to grow. The movement of goods across international borders also increased competition. The development of concepts like positioning, analytics, strategic decision, and asset management was a reaction to the post-war economy's growing complexity. Figure 3 shows the strategic planning process.
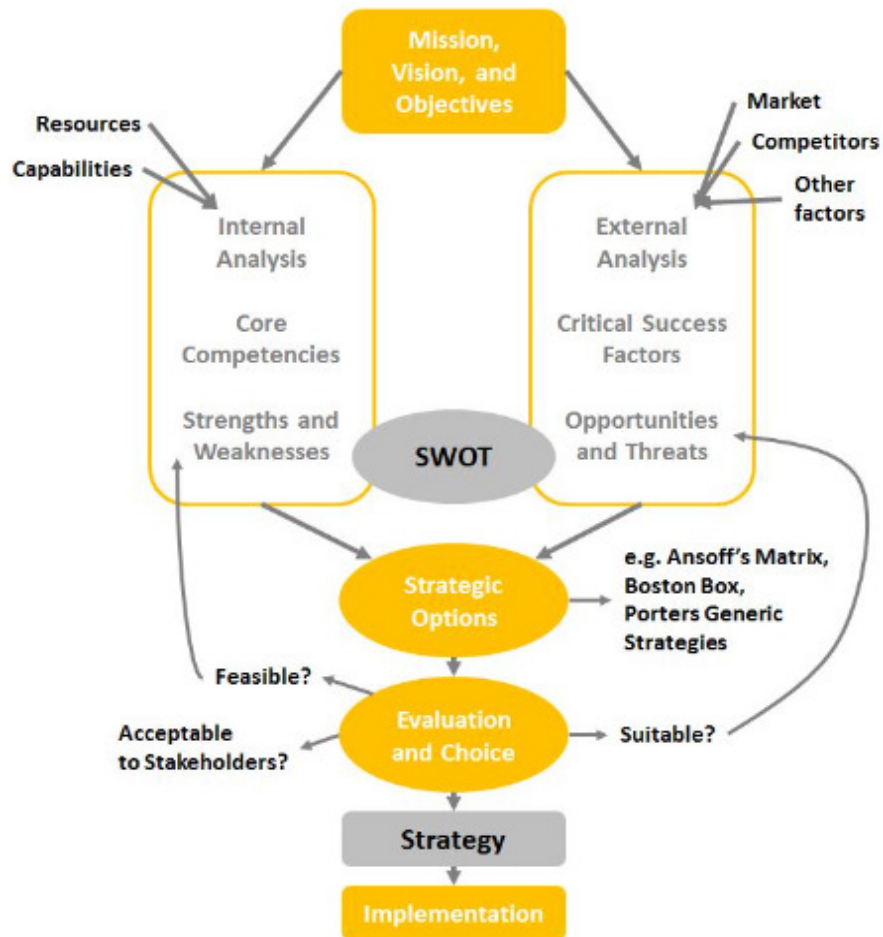


**Figure 3: Illustrate the Model of the strategic planning process [evolutionizer].**

The three organizational levels depicted in the exhibition headquarters (corporate strategy), division (business strategy), and departments are where the strategy formulation process (functional strategy) should take place. The planning procedures that lead to the development of these strategies might be referred to as business planning, corporate planning, or functional planning. Before building the structure of the planning process, we should quickly define these signals:

*2.3 Strategic Planning Tools:*

Additional resources are available to support whatever type of strategic plan you choose to implement. These are some of them:

*1. SWOT Analysis:*

The SWOT analysis, which knows for strengths, weaknesses, opportunities and threats, is a method for strategic planning. It is used to classify each of these components in the light of your company. They can identify new possibilities and areas of your firm that need improvement with our strategic planning tools. In addition, you will determine elements or hazards that could harm your enterprise or achievement.

*2. Porter's Five Forces:*

Use "Porter's Five Forces" as a strategic planning tool, to discover the economic factors affecting your sector and the competitive positions of your organization of the five forces:

i.  "Competition in the industry

ii.  Potential of the new entrants into the industry

iii.  Power of the suppliers

iv.  Power of the customers

v.  The threat of the substitute products."

*3. PESTLE Analysis:*

Another approach to strategic planning is pastel analysis. This presents:

P: Political

E: Economic

S: Social

T: Technological

L: Legal

E: Environmental

Each of these modules enables a corporation to evaluate the industry it operates, which aids in the creation of a winning strategy. To get started, use a PESTLE Analysis template.

*4. Visioning:*

Strategic planning employs the goal-setting technique of vision. It helps build your organization's long-term goals and vision for the future. After thinking about the objectives you want to achieve over the next five years or more, you and your team can decide where you want to go. You can then develop your strategy plan from there.

*5. VRIO Framework:*

Another technique used for strategic planning to pinpoint the competitive advantages of your product or company is the VRIO structure. It is made up of four different apparatuses:

i. *"Value:*Does it provide consumers value?

ii. *Rarity:*Do you own a rare resource or cutting-edge technology?

iii. *Imitability:*Can rivals quickly replicate it?

iv. *Organization:*Does your company have the procedures and infrastructure in place to make the most of its resources?"

The author can develop a strategic plan to better meet your customers' demands by examining each of these areas of your company.

*2.4 Strategic planning tools for strategy formulation:*

The real work begins when a strategy is developed. By this point, you have a clear grasp of your goals, your talents, the situation outside, and your surroundings. So, it's time to come up with a strategy for getting there.

i. **Google Sheets:** An improvement over Excel because it makes it easier for peers to work together while building your approach.

ii. **Strategic Planning Questionnaire***:* You and your team can download a questionnaire to complete before a strategy development meeting to get your ideas flowing.

iii. **KPI Library:** You can get inspiration from a free online library of KPI examples for various fields. Take inspiration from them instead of copying them verbatim.

*2.5 The use of classic strategy tools has changed:*

Undoubtedly, strategic planning as used in the last years of the 20th century is now ineffective. But this does not mean that one should doubt the benefits of a methodological approach in general. Additionally, depending on the business and the field in which it operates, it may still be able to selectively employ specific relevant tools. These can also be quite complex, but they work in a context that is widely known. Traditional methods are effective even when such clearly stated issues exist. These techniques have the huge advantage of being famous among practitioners. The components of these strategies are known and understood by managers and planning professionals. Here, experts offer quite a bit of beneficial help. Usually, such a process is well-established and well-accepted within the company.

Corporate plans must be designed effectively as they are the foundation of survival in a disconnected business environment. An effective evaluation strategy is essential for the successful implementation of a strategic plan. Organizations should focus on hiring competent and motivated employees who will be elevated to higher levels of the management hierarchy based on their achievements to implement the strategies effectively. The direction of an organization should be clear to both the leaders and all staff members. This will foster the development of a high-performance culture. On the other hand, greater financial independence would result in greater flexibility and capacity for plan implementation. When executing a

strategy, it must be successful and efficient. Strategies should be unique and innovative. The feedback that is given as soon as possible will improve monitoring and evaluation, accelerate plan execution, and prevent or reduce failure. To counter competition, organizations must be customer-oriented, leading to the development and execution of effective strategies. Based on organizational strengths, using opportunities, and removing or reducing company weaknesses and risks, an effective strategic plan should be developed. It should be underlined, nevertheless, that success is not always guaranteed by having a strategy. Instead, success will be ensured by a well-prepared, innovative, and creative plan that is effectively carried out.

## 3. CONCLUSION

Strategy planning is crucial in managing the organization since it helps the organization determine the strategic plan that will be employed by the company, as stated in the paper, ensuring that the organization has a competitive edge. plays a significant part in. an organization by concentrating on internal problems, analyzing how they affect the way the business runs, and coming up with new solutions and tactics. With all objectives in strategic planning affecting the performance of the organization, the relationship between strategic planning and business performance is also noteworthy.The mission, vision, strengths, weaknesses, core values, threats, opportunities, and strategies are used in this paper to analyze organizational performance along with the strategic planning process. Objectives and operational strategy are also included. The study shows that the strategic planning to achieve the objective strongly depends on the scrutinized strategic planning components. Components are necessary to align the organization with a particular organizational strategic planning procedure so that all stakeholders are absorbed in the same objective that regulates the success of the firm and also helps in the future growth of their organization.

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# CHAPTER 18

# A STUDY ON DYNAMIC FACTORS INFLUENCING
# MAKE-OR-BUY DECISIONS

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**ABSTRACT:**

The decision to make a product internally or to purchase it from a third-party provider is referred to as a decision to "make or buy". Manufacturing costs and quality problems are the two primary elements influencing production or procurement. The managerial decisions and ultimate business plan of an organization also have an impact on the existing pattern of operations. When determining whether to buy or make a product, organizational strategic planning or critical competencies must be taken into consideration. In this paper, the author also discusses the product manufacturing cost and cost decision-making of the product, and customer decision-making process to buy the product, and also the benefits of making or buying a product. This study aims to examine the factors that influence the process of making purchase decisions. The study's findings serve as a framework for buy-or-make decisions. The consequences can be used to build make-or-buy strategies and outsource strategic and operational decisions. This paper has been decided to make people aware of the manufacturing and purchasing costs of the product in the future.

**KEYWORDS:**

Consumer, Cost, Decision-Making, Make-Or-Buy, Product.

## 1. INTRODUCTION

A make-or-buy decision is a process of deciding strategically whether to manufacture an item domestically internally or to buy it from another company from an external supplier. Another word for the purchasing side of the choice is outsourcing. Make-or-buy decisions are frequently made after a business has manufactured or substantially altered a product or element. Decisions on whether to make or purchase are made both strategically and operationally [1], [2]. At both the operational and strategic levels, decisions are made that are buy-or-make or buy-or-make. The longer-term of the two is the operations strategy. Only at the strategic level are future and current environment evaluations taken into consideration. The strategic implications of governmental regulations, competing businesses, and market trends all affect whether to create or acquire a product. Of course, companies should provide things that complement or correspond to their core competencies. These are the areas where the firm shines and where it earns a competitive edge [3], [4]. Deciding to produce a product internally versus purchasing it from a third party is referred to as a "make-or-buy" decision. Cost and availability of production

capacity are the two most important factors to take into account when determining whether to produce or acquire [5], [6].

A company may decide to purchase a product rather than manufacture it if doing so is more cost-effective than doing it themselves or if they lack the necessary production capacity. Managers are frequently presented with the make-or-buy decision due to the extraordinary expansion of outsourcing in the world over the last few decades. The emergence of businesses utilizing the concept of lean manufacturing has contributed to an increase in outsourcing. More often than not, manufacturers purchase parts and components instead of individual pieces, or they outsource everything from shipping to office work. Supply Management of the highest caliber, released in 2003. All jobs that do not fit into one of the three categories below must be outsourced by the business. The item, in particular customer perception of important product attributes, is crucial to the success of the product. Figure 1 depicts the disparity between the price of producing goods and the price of purchasing production.

**Cost of Making Product**
Production costs
Monitoring Costs
Extra Labor Costs
Waste Product Disposal Cost
Storage Need Costs

**Cost of Buying Product**
Sales Tax Charge
Product Purchase Price
Inventory  Holding Costs
Shipping Cost
Ordering Costs
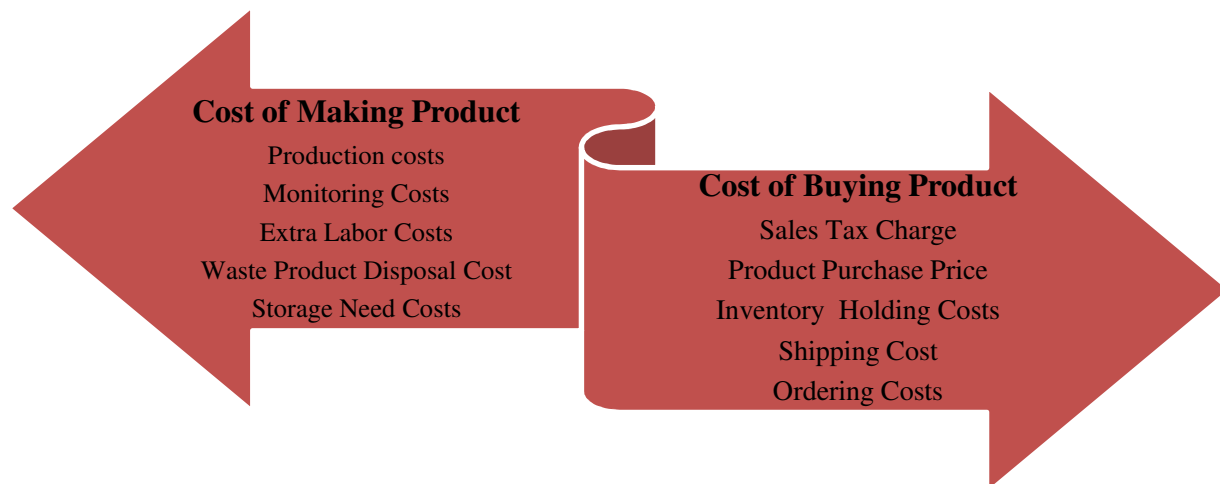
**Figure 1: Illustrate the Cost of Making Products and the Cost of Buying Products.**

### 1.1.    *Understanding a Buy-or-Selling Decision:*

When making products in-house, a business must take into consideration the expenses of acquiring and maintaining any production equipment in addition to the price of raw materials. Production expenses may also include any additional laborrequired to create the goods, including pay and benefits, in addition to the general holding costs, facility storage requirements, and the proper disposal of any leftovers or byproducts from the manufacturing process. When acquiring the items from a third party, the total cost must take into account import fees, shipping expenses, and any necessary sales taxes [7]. The cost of storing the incoming goods and the laborcosts involved in adding them to inventory are other factors that the firm must consider. It also entails concluding any contracts with suppliers that might obligate the business to commit to specific transactions for a specified amount of time.

### 1.2.    Customer Decision-Making Process:

Advertisers employ the customer and buyer decision-making strategy to accurately pinpoint and monitor the decision-making stages of the consumer experience from beginning to end. It comprises five unique phases, which people will highlight in our most recent decision-making process, shown in Figure 2, and centered on some hideous sneakers.

#### 1.2.1.   Problem Recognition:

The first stage in the procedure is to determine what the customer's or your particular requirements are. The consumer needs to deal with the perception that something is lacking to feel normal once again. Advertising to your target market will work best if you can anticipate when they will have these needs or wants. In our case, folks saw that our running shoes needed to be replaced as they were beginning to show signs of wear.

#### 1.2.2.   Search Information about the Product:

The search stage of the operation has just begun. Google is one that constantly changes from the old-fashioned storefront to the modern one other search engines are available apparently. Through ideas and possible prior interactions with other things, people may learn not just about things or things, but also people. A customer is starting to consider risk management at this phase. For decision-making, a customer can develop a list of advantages and disadvantages. People generally don't want to reflect on their decisions, therefore spending more time on risk management may be beneficial.

#### 1.2.3.   Assessment of Alternatives:

When questions begin to be posed, phase 3 to phase 2 transitions may take place more than once before stage 4 is reached. Stage 2 could resume if the responses are No, it's not right, and yes, and people need a different product. The customer will start looking for the best deal once they have decided what would suit their objective or demand. Cost, reliability, or other significant reasons could be the cause of this. Consumers thoroughly investigate products by reading a range of reviews and comparing prices before selecting the one that best meets their needs [8].

#### 1.2.4.   Buying a Trainer:

Using the information acquired, the customer has now determined what to buy or where to buy it. A customer has most likely done one of three things at this point: thought critically about all the facts at hand and draw a logical conclusion; made a decision based on emotional ties or impressions; or yielded to marketing or advertising strategies. There has probably been a synergistic impact between all three of these. People acquired some excellent Asics runners as part of our customer journey since people had a terrific experience with Asics in the past, they were cheaply priced on the market, or the advertising for Asics trainers has always tied them to be the best choice for "genuine athletic trainers". Based on the information gathered, the customer has now determined what to buy and where to buy it.
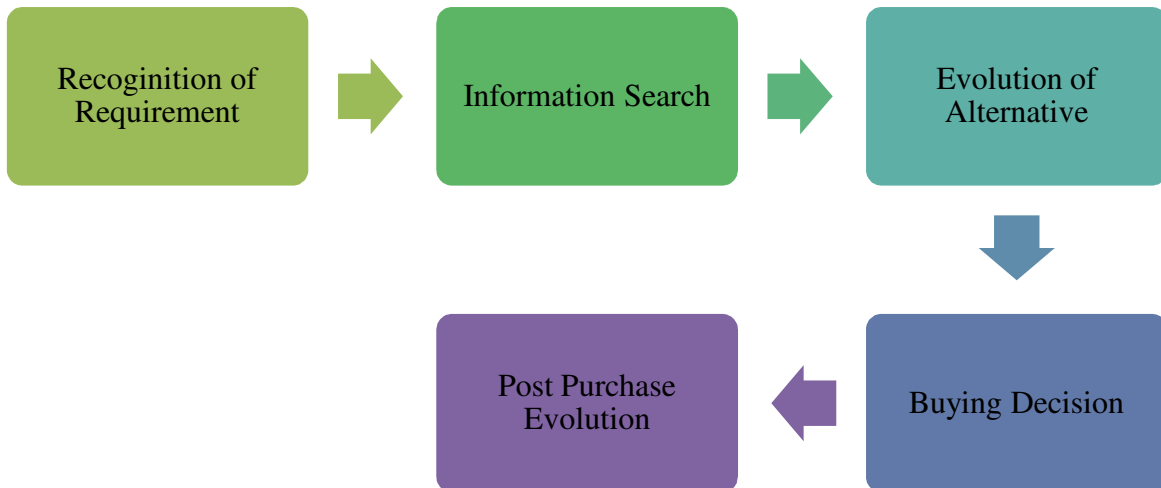
**Figure 2: Above Diagram Shows the Customer Decision-Making Process.**

### 1.2.5. After Purchase Dissatisfaction or Satisfaction:

The review phase is important for both the business and the customer. Was the product in line with the marketing and advertising efforts claimed? Has the product met or exceeded your expectations? Your product is more likely to be purchased again if the customer finds that the product has met or exceeded the promises made and their expectations. This customer may later become a brand ambassador in Phase 2 of the customer journey, influencing other potential customers. The same is true of bad reviews, which, if they are added in Phase 2, could block a potential customer's access to your stuff.

### 1.2.6. Choosing Whether to Make or Buy:

The quantitative analysis findings may be enough to justify a decision based on a more cost-effective course of action. Sometimes, through qualitative analysis, issues that a firm cannot precisely quantify are resolved. A firm may decide to acquire a product rather than make it for a variety of reasons, including a lack of internal knowledge, low-volume needs, the necessity for various suppliers, and the chance that the product might not even be crucial to the company's strategy. A corporation may pay greater attention to a business if it has the chance to collaborate with one that has successfully outsourced services or can maintain a long-term connection.

### 1.2.7. Understanding Purchase Decisions:

Managers must consider internal production expenses when determining whether to manufacture internally. It consists of every transaction expense made throughout the creation of the commodity or service. Additionally, it could pay for additional laborexpenses incurred throughout the production process, storage needs, monitoring expenses, and waste product disposal expenses [9]. Similar to this, when an organization considers outsourcing to outside vendors, it must take both production and transaction costs into account. For instance, it is necessary to consider the item's price, sales tax, and delivery costs. Businesses should include the costs associated with maintaining goods, such as handling, warehousing, and risk fees. It's occasionally thought of as a financial and accounting decision to make or acquire something. While choosing the least-priced option and doing an accounting analysis is vital, understanding

the selection criteria is even more crucial [10]. Make-or-buy decisions must thus be taken into account by organizations since they have an influence on the company's profitability and are essential to its capacity to maintain its financial stability. They might affect corporate strategy, crucial competencies, cost structure, customer service, or flexibility.

### 1.2.8. Triggers for Purchase Decisions:

The choice of whether a corporation will produce or acquire depends on its core strengths. Production costs or quality problems are the key factors influencing a make-or-buy decision. The long-term business plan of a corporation and managerial decisions are additional factors that affect the current operational pattern. A firm may also decide to choose in-sourcing or outsourcing as a result of prior policy decisions. Organizations may utilize such patterns to obtain some services from third-party suppliers, regardless of the firm's competence. The framework suggests that increased quality control, idle manufacturing capacity, or inadequate external supplier performance may be to blame for the move toward internal sourcing. The launch of a new product or service or the modification of an existing product or service, on the other hand, necessitates risk-reducing methods, such as the idea of outsourcing a portion to a firm rather than producing it. A business that has a track record of being effective at outsourcing services can be an excellent choice for a long-term contract.

### 1.2.9. Criteria for Making a Purchase:

Setting up a consistent make-or-buy approach that all firms can use is difficult. It is caused in part by the diverse corporate behavior patterns as well as the fact that each company operates in a setting that is unique to that business. Cost accounting is still the most crucial factor in the make-or-buy decision. Businesses examine outsourcing to see if they can cut current overhead costs and gain access to more resources. Even while the price is still the most crucial factor in every company decision, outsourcing decisions also take into account other factors including technological, strategic, risks, core competencies, or relationships, as well as factors involved in creating or presenting a new product [11]. Companies examine outsourcing to see whether they can access new resources while minimizing their present overhead expenditures [12]. While cost remains the decisive element in all company choices, outsourcing operations also take into account other variables like strategy, technology, risks, core competency, or linkages. Additionally, consideration should be given to variables involved in creating and introducing a new product [13].

This paper is divided into several sections in which the author talks about manufacturing and purchasing decisions. In this paper, the author discusses awareness of buying and selling decision, and also talk about the customer decision-making process. In the Literature review section, author discussed previous studies on making and buying decisions. In the discussion, section author talks about the benefits of making purchasing decisions, and in the conclusion, the author concludes the whole paper.

## 2. LITERATURE REVIEW

Katikar R S and Pawar M S studied the existing pattern of make-buy selections for component components and the link between these choices and profitability. Manufacturing sectors always strive to increase profitability-based metrics for manufacturing performance. Outsourcing certain portions or services is one choice to increase profitability. There has been some investigation

into how purchasing decisions affect business profitability. Nevertheless, further study and work are needed to demonstrate the link between outsourcing and also profitability. For sectors that produce goods in batches, a study is conducted to determine the make-buy trend and how it affects business performance. The results acquired and provided can help manufacturing industries become more profitable [14].

N. M. N. Muhammad studied the elements influencing a manufacturing company's choice to purchase industrial goods. Engineers with extensive purchasing experience make up the responders. "Statistical Package for Social Sciences" (SPSS) software is used to collect data based on a collection of self-reporting questionnaires. The analysis of variance (ANOVA) was done to examine if there was a significant difference between the variables and one sample T-Test was applied to complete mean score analyses for each variable. The study's findings show that product performance is the most important factor to consider when choosing a product in both the modified re-buy and new task purchasing scenarios, while product test run availability is the most important factor to consider when evaluating a supplier in both buying scenarios. The respondents appear to be very satisfied with the current goods they have purchased and their existing providers. There are therefore few intentions to replace the manufacturers of the currently used goods [15].

Wenny Pebrianti studied the relationship between web attractiveness, hedonic shopping value, and the performance of online businesses by including a new component called time-based value for customers. Structural Equation Modelling was employed in the data processing using 204 students as a sample. According to the study's findings, students, who serve as representations of hedonic consumers, are more focused on the web's beauty and time-based consumer satisfaction while making purchasing decisions online [16].

Sidik Budiono et al. studied using factors related to product purchase decisions for company strategic evaluation. In this study, researchers examine how Indonesian customers of the Apple brand behave. 195 Apple brand customers in Indonesia's capital city of Jakarta were sent research questionnaires online as part of the data-gathering process. The data is valid or reliable, according to the findings of the validity or reliability test. The econometrics model used in this study examines how consumer happiness, brand perception, and place of origin affect Indonesian consumers' decisions to purchase Apple products. The Robust Least Squares Model is the analytical technique used in this investigation. According to the analysis of this study's findings, improving brand perception, customer happiness, and place of origin can greatly influence Indonesian consumers' decisions to purchase Apple products [17].

## 3. DISCUSSION

A "make-and-buy" choice involves deciding whether to domestically create a product or acquire it from a third-party supplier. It takes place when a producing company notices changing demand, problems with its current suppliers, or declining capacity. A company's core planning must include make-or-buy decision analysis since it helps them to keep functioning successfully in the face of erratic market demand, declining organizational skills, and supplier concerns. "Make or buy" a chase from a third-party provider can always be made internally, and any item currently produced can be considered for purchase. Price is the primary factor in selecting whether to produce something or purchase something. However, this is simply one of the factors that should be considered while making this tactical choice. Long-term partnerships with

suppliers are supported by several non-cost considerations that encourage the investment in new ideas or resources as well as quality and productivity goals.

### 3.1. *Benefits of Making a Buy or Make Choice:*

In a make-or-buy choice framework, a company chooses from a wide range of innovative options to assess many outsourcing-related factors. Finding a manufacturer specializing in a specific product type is one of the main advantages of a buying strategy. These items can be produced by this firm for years, allowing for quick eradication of all pests. Additionally, you will benefit from the factory and staff that the manufacturer currently has, which will allow you to use those resources at no constant charge. It's important to run the statistics both ways when setting up your make-or-buy study. Don't automatically assume that buying something is more expensive per unit than doing it yourself.

### 3.1.1. *Reduced Expenses and Increased Capital Expenditures:*

The ability to reduce costs and raise capital investments regardless of whether a firm chooses to produce materials internally or subcontract with an outside vendor is one of the make-or-buy choice technique's most obvious benefits.

### 3.1.2. *Source of a Competitive Edge:*

Performing a comprehensive make-or-buy study may also provide a business with a competitive edge. A business, for example, may use its core competencies and services to maximize the value it provides to clients as well as shareholders. Additionally, by using a make-or-buy decision-making strategy, it may maintain its flexibility. A business like this is better equipped to withstand a market slump. Businesses must take into account both their internal and external working environments to reap the benefits. Decisions and their execution, as well as the sustainability of the policy, may be influenced by several factors, including the culture in which certain decisions are made and the goals of the people involved.

### 3.2. *Factors that Influence Make or Purchase Choices:*

Cost analysis, first: Cost analysis refers to figuring out how much something will cost to create vs buy. A product's cost should account for the approximate cost of raw materials, depreciation, direct labor, interest on investments, insurance, property taxes, additional fixed expenses, additional administrative costs (procurement or setup fees), as well as carrying costs for laborand raw materials. A part's purchase price, shipping charges, sales tax, excise tax, and any additional carrying and procurement expenses should all be factored into the price to obtain the item. Make-and-Buy Decisions are Typically Influenced by the Following Variables:

- *Capacity Available:* It makes sense to create goods in-house if the company has the capacity in terms of equipment, essential skills, or time, otherwise, consider outsourcing.
- *Expertise/Skill:* Purchasing may be a preferable option if the company has the necessary experience.
- *Taking into account quality*: Usually, specialized outside suppliers may provide goods of a higher caliber than what the company is capable of producing. However, a corporation may opt to make a change due to a specific quality need or the desire to carefully monitor the quality.

- *The nature of Demands:* When there is a strong and consistent demand for a product. Producing the product rather than purchasing it is better for the company. Alternatively, it is preferable to get the item from several vendors that are experts at handling fluctuations in demand and small purchases.
- Utilizing external resources, learning from others, broadening the range of available products, etc. Accessing other sources' expertise or technological benefits is difficult or expensive.

### 3.3.    Economic Model or Cost Analysis For Make-or-Buy Decisions:

Calculating the cost to create and purchase an item is referred to as cost analysis. To make wise financial judgments, each component of the cost must be accurately and completely assessed. Based on yearly component needs versus the following criteria, the analysis;

- *Raw materials:* The cost of raw materials is made up of their cost less any value that was recouped via the sale of scrap. The cost of the raw materials is factored into production costs. However, if the seller receives the raw material for free, the cost of those resources must also be factored into the purchase price.
- *Employment costs:*Laborcost refers to the salary and other benefits that must be paid to the workers who are doing the task.
- *Cost of overhead:* Cost of overhead comprises indirect labor, indirect material costs, and indirect expenses. Variable costs in the manufacturing sector may be roughly classified into three categories:
  - ➢ Production takes place in factories or workplaces.
  - ➢ Offices and administration, where decisions on routine and policy-related issues are made.
  - ➢ Distribution and selling, in which goods are distributed before being sold to customers.
- Set-up costs vary depending on how many manufacturing runs are carried out each year and the "setup costs" of the equipment.
- Cost of the procurement: The cost of creating a purchase order or handling deliveries from the vendor(s) varies according to how frequently the vendors must receive the items.
- *Purchase cost:* The price paid to the seller, packing and shipping expenses, excise and sales taxes, as well as the price of transportation and other fees, are all included in the purchase cost.
- *Cost of capacity:* This is the cost of capacity that would go unused if the number of items being produced were to be purchased. To determine whether to create or purchase, this expense must be added to the cost to buy.

### 3.4.    Strategic Options and Buy or Sell Decisions:

Individuals have up to this point tended to both interior and outer variables impacting endlessly purchasing choices according to an essential viewpoint. The decision to make or buy falls within the purview of senior management strategy planning, people argue in this last section by providing some illustrative strategic choices. Senior managers make strategic choices to achieve goals, which should result in increased performance for the company. Humans are focused here

on non-sustainability plans, i.e. those that require some change in strategy, whether from a growth or layoff point of view, as a make-or-buy decision point automatically predicts the currency of change.

### 3.4.1. *Development Strategies:*

These tactics suggest a shift in strategy including significant upward objective revisions over time or significant mission changes. Products/service line extensions, concentric mergers, or vertical integration will be covered in this paper. The addition of new items to an organization's portfolio is frequently a key growth strategy. The option to add items is similar to the choice to make and purchase in that some businesses may choose to complete a line by purchasing specialty products, while others choose to add the products themselves. Current news from Electronic News provides an intriguing illustration of how the strategy might be impacted by the make or purchase decision.

Nevertheless, others have chosen to acquire a captive supply through partnerships or on their own. The make-buy choice is crucial from a strategic standpoint for these businesses and has the potential to significantly alter the organization's goal. Curiously, government limits on the extraction and use of raw resources are the deciding factor for other businesses. It's interesting to note that in these companies, the CEO or a group he leads makes the final call. This is hardly surprising given the strategic relevance and financial commitments. However, it is interesting to note that other manufacture or purchase choices, as previously indicated, might be of some comparable strategic significance but are handled as procedural or technical choices.

### 3.4.2. *Reduction Techniques:*

These tactics aim to boost business performance through cost savings, function cuts, and product and market reductions including liquidation. Making or buying decisions can be a part of any of these techniques. Significant cost-cutting measures with a focus on performance enhancement come to mind first. Of course, the usual make-buy option based on cost tradeoffs applies in this circumstance. But there are also strategic problems involved. For instance, significant reductions in R & D might impede a "make" choice. A choice to purchase or make might change the result, or capacity reductions that will modify the product mix may be on the horizon. Deciding to liquidate a portion of a firm is a comparable matter. For example, it can free up production space for other items already ordered. Many businesses that sold their computer divisions for a loss used the free resources to produce other goods. Becoming a captive firm by selling all or most of its output to one or less number of customers is another layoff strategy. In these circumstances, the main customer may demand that the company produce its subgroups or may determine that it obtains components from specific vendors.

### 3.5. *Top Management and Make or Buy:*

Numerous of these instances persuade us that strategic choices and purchases are too important to be put in the hands of lower-level management. There is a potential that actions taken at lower executive levels to make or buy will restrict the possibilities available to top managers. Prior buying or making decisions may have limited top management's ability to consider particular strategic alternatives because they affected a competitive advantage, neglected to take into account an opportunity or threat from the environment, and influenced a strategic move that went against the intentions of the executive decision makers. Managers must thus take into account the

make-and-purchase implications of their strategic decisions as well as the strategic repercussions of their current judgments'. Technical and traditional purchase decisions should be subordinated to strategic factors. Cost-related make-or-buy considerations are not unimportant, but they are just one of many aspects that senior managers must consider when making strategic decisions. Tradeoffs or compromises are unavoidable in the decision to make or acquire systems.

## 4. CONCLUSION

In this study, a financial model has been developed to help executives choose a part for a product when the company ships new products, notices a demand for an expansion of an existing product, finds its ongoing merchants' displays to be subpar, or determines the cost of the ongoing act of purchasing or producing is high. The cost of a component in an item was calculated using the frequently discussed full expense technique. Through the use of a valve manufacturing firm as an example, the proposed technique is proven.

One of the fundamental management approaches is the make-or-buy choice. Making make-or-buy decisions has increased in popularity and frequency as a result of global outsourcing. There are many vendors selling goods and services for a small portion of the original cost due to the globalization of the manufacturing and services industries. Providing the customer the final edge has improved the marketplaces for goods and services across the world. Always follow a procedure when making a buy-or-make choice that has the potential to have a significant impact. When this procedure is used, operations are transparent and choices are made with the company's best interests in mind. The outcomes may be used to create buy-or-make plans and contract out strategic and operational choices. The purpose of this paper is to inform readers about the product's future production and acquisition expenses.

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# CHAPTER 19

# A STUDY ON EMPLOYING ERP IN BUSINESS ENTERPRISES FOR IMPROVED EFFICIENCY AND PRODUCTIVITY

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**ABSTRACT:**

Enterprise Resource Planning (ERP) has gained popularity over the past ten years as a result of its positive effects on an organization's growth and profitability. Once set, it enables data entry at a single point along the way or updating of a single, common database for all processes that either directly or indirectly depend on the data. It is a set of programs that integrates critical functions such as integrated sales, legislative compliance, logistics, human resources, etc., manufacturing, and finance. In a way, these integrate ERP systems with additional business needs, such as software solutions for employees, customers, and suppliers. ERP not only promotes corporate transparency and establishes the best global business solutions. In this paper, the author talks about the features of an ERP system, the need for ERP, the importance of an ERP system for business, and the benefits of an ERP system. In the future, this paper helps to make people aware of the importance of ERP systems or the benefits of ERP systems.

**KEYWORDS**:

Businesses, Customer, Enterprise Resource Planning (ERP), Management, Organization.

## 1. INTRODUCTION

The efficacy of a company has substantially risen thanks to "Enterprise Resource Planning" (ERP) technologies in the modern knowledge worker or fast-paced corporate environment. They have developed into a crucial tool in the modern corporate environment, one without which the majority of businesses would no longer be able to operate. ERPs are the main information system architecture that supports an organization's success in the current economic climate [1], [2]. Enterprise resource planning systems that are implemented successfully foster organizational synergy, which in turn stimulates the creation of highly effective organizational processes. As demonstrated by experience, the installation of an ERP typically falls short of expectations for an organization, costs much more than anticipated, and takes much longer than anticipated [3]. Before deploying ERP Systems, a company must conduct an analysis and determine the benefits of doing so. This article's objective is to demonstrate how ERP installation in a company may lead to business success. ERP implementation is a very complicated process that is driven not just by technological aspects but also by organizational and business performance, Figure 1, the working system of ERP[4].

### 1.1. Feature of ERP systems:

Although ERP systems' functionality and breadth might vary, they generally include the following characteristics:

### 1.1.1. Integration:

ERP systems are different from those other tools due to integration. It's difficult to envision operating alone in a firm nowadays without assistance from other divisions. ERP systems' enterprise-wide data integration gathers, saves, and analyses data from every department. This has been of great benefit in building an organization that minimizes variation across your teams and, as a result, reduces the chances of expense and errors[5].

### 1.1.2. Automation

ERP solutions eliminate hours of time-consuming desk labordealing with payroll, order entry, accounting, reporting, invoicing, and other tasks so you can concentrate on what's more crucial to your business. Additionally, automation minimizes human mistakes.

### 1.1.3. Real-Time Operations:

It is simple for the entire system to respond quickly to the change in order, product availability, shipping, as well as other factors since all the data is maintained in a single database or automation streamlines operations or procedures. Although it's not always true in real-time, it comes pretty close.

### 1.1.4. Tracking and Visibility:

It is feasible to keep track of everything from raw materials to finished items through manufacturing to distribution because of the highly linked structure of ERP systems. A firm has great visibility as a consequence, allowing it to foresee problems like a delayed time to market and supply shortages[6].
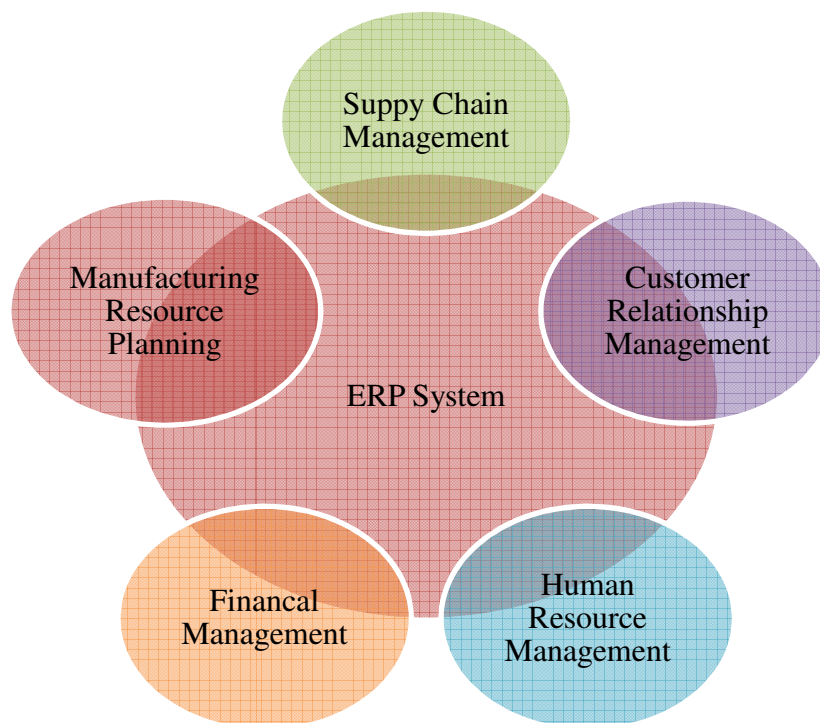


**Figure 1: Illustrate the Enterprise Resources Planning System.**

### 1.2.    *Requirement of ERP System and its Concepts:*

An ERP system is an effort to combine various corporate operations into a single computer system that can accommodate each function's unique requirements. Integration is a key concept in ERP deployment. An industry-wide information software called ERP was created to coordinate all the resources, information, or activities required to finish commercial operations like order fulfillment or billing. An ERP system keeps the data required for several company tasks, including manufacturing and supply chain management, in a single database and supports the majority of business systems. Project management, talent management, organizational learning, and financial management are all examples of management. Moreover, it could influence key customers and suppliers in how the company operates. It offers an integrated database or technologies for creating personalized reports. With the installation of ERP Systems, many firms are being compelled to change their organizational structures, business processes, or even corporate strategy. These ERP systems provide various benefits, including the ability to:

i.    Business Procedure Re-engineering,
ii.   Enterprise Integration,
iii.  Across the company, standardizing systems or processes.
iv.   Business network.
v.    Transparency.
vi.   Industry-leading management techniques.
vii.  The development of a global information system infrastructure will help businesses implement ERP Systems or fulfill consumer and market demand.

### 1.3. *Requirement of ERP System:*

In other words, how would the ERP system assist your company? Just to mention a few, however:

i.    Boost productivity employees can organize and complete daily duties more easily when they can access the data from a single spot.
ii.   Cut back on operating expenses Operational expenses of a device, piece of equipment, component, or facility can be decreased to a lower level with more simplified and specified business procedures.
iii.  With improved cooperation in ERP systems, business personnel may exchange contacts, requests, or purchase orders. This makes it easier for them to find the materials they need to complete the tasks at hand.
iv.   To do their job, many departments, including finance and sales, relied on a variety of systems. Especially if your firm is really big, this can be quite dangerous. ERP solutions go a long way in avoiding this.

ERPs are very useful for business, this gives users a greater understanding of how to deploy ERP, which they can use to work around any operational issues. In this paper, the author discussed the use of the ERP system, the benefits of the ERP system, the importance of the ERP system, Growth of business performance using the ERP system.

## 2. LITERATURE REVIEW

Elisabeth JUmble et al. studied the Implementation process and critical success factors of ERP systems. In this paper, the author discusses the steps involved in choosing the necessary software, success criteria, and implementation procedures for a successful application. Information systems known as ERP systems are quite complex. Deployment of these systems is a challenging and costly undertaking that places enormous demands on the company's time and resources. The company has successfully handled record expansion, implementation, and consolidation. It can now develop new methods and business plans because of its access to a formidable but mostly untapped tool[7].

Bang Nguyen Dilip S. studied difficulties in ERP systems, in this paper author talks about the critical factors that cause ERP implementation failures. In this paper, the author discusses the phases involved in choosing software, success criteria, and implementation procedures that are essential for a successful application. Information systems known as ERP systems are quite complicated. The company has successfully handled record expansion, consolidation, and implementation. Instead of providing key success elements, the ERP domain emphasizes ERP implementation issues from a critical failure perspective as well as the percentage of failures. Failure factors with examples make it easier to see the expensive harm that may be done to organizations if these failures are disregarded.

Ainin Sulaiman and Shahin Dezdar studied the taxonomy of critical factors successfully, In this study, the author reviews the existing literature on "Critical Success Factors" (CSFs) for ERP system installations, systematically compiles those CSFs, and presents a brand-new complete taxonomy of CSFs. "Content analysis" is employed in this work to acquire a depth of knowledge of the many CSFs that have previously been found by other studies. To gather and analyze the literature, four steps of content analysis are used: data collection, axial coding, open coding, or selective coding. A taxonomy for the application of ERP CSFs was developed by examining all CFSs described in the literature throughout the previous ten years (1999 to 2008). A total of 17 CSFs were found, and these were subsequently divided into five groups.

## 3. DISCUSSION

Industries or organizations work with several divisions to promptly satisfy the demands of their customers. As a result, the software program they employ is combined into a single package called enterprise resource planning management software. They become business people thanks to the enterprise resource planning system. Simply because of Enterprise Resources Planning and Management (ERPM), achieving accountability, responsibility, and communication may be assessed and displayed for their customer service. The ERPs system will be able to give their working executives or staff real-time information for prompt execution of activities that will lead to profitability. Customization following needs will progressively lead to modifications in strategic planning as they collaborate with team members to accomplish their objectives.

### 3.1. *Development of Business Performance Using ERP Systems:*

The order fulfillment process, which entails receiving a customer's order, sending it, and charging for it, is one example of how ERP automates the steps required to finish a business process. When customer service representatives receive an order from a client using ERP, they already have all the information needed to complete a transaction. The client's new order and all

of the other customer databases are shown on the same computer screen that any employee of the firm has access to. The ERP system rapidly transfers the order to the following department when one department completes it. To find out which one it is right now, all one needs to do is log into the ERP system or follow the attempt. Due to the company's lightning-fast order processing, customers are now receiving their goods quicker and with fewer errors than in the past. Similar ERP magic might help other important organizational functions, such as employee Advantage or financial reporting.

### 3.2. The scope of the ERP Systems:

ERP enables a company-wide integrated information system that includes functional areas including production, sales or distribution, payables, accounts, as well as receivables, inventories, and human resources, as well as talent management, customer relationship management, or knowledge management, which is Figure 2.

i. The majority of business operations are integrated, automated, and shared enterprise-wide in real-time via ERP, enhancing customer service and company image.

ii. Enterprise resource planning (ERP) provides complete system integration, not just both between departments and businesses operated by different people.

iii. ERP closes information gaps within a business and focuses on key issues including increasing productivity, enhancing customer service, controlling cash flow, maintaining quality, controlling inventory, and on-time delivery, among others.

iv. Executive information systems, reporting, data mining, decision support systems, as well as early warning systems, are just a few of the business intelligence features that ERP provides, allowing people to improve choices and business operations.

v. ERP gives the corporation the chance to continuously enhance and fine-tune its business operations while also addressing the company's immediate needs.
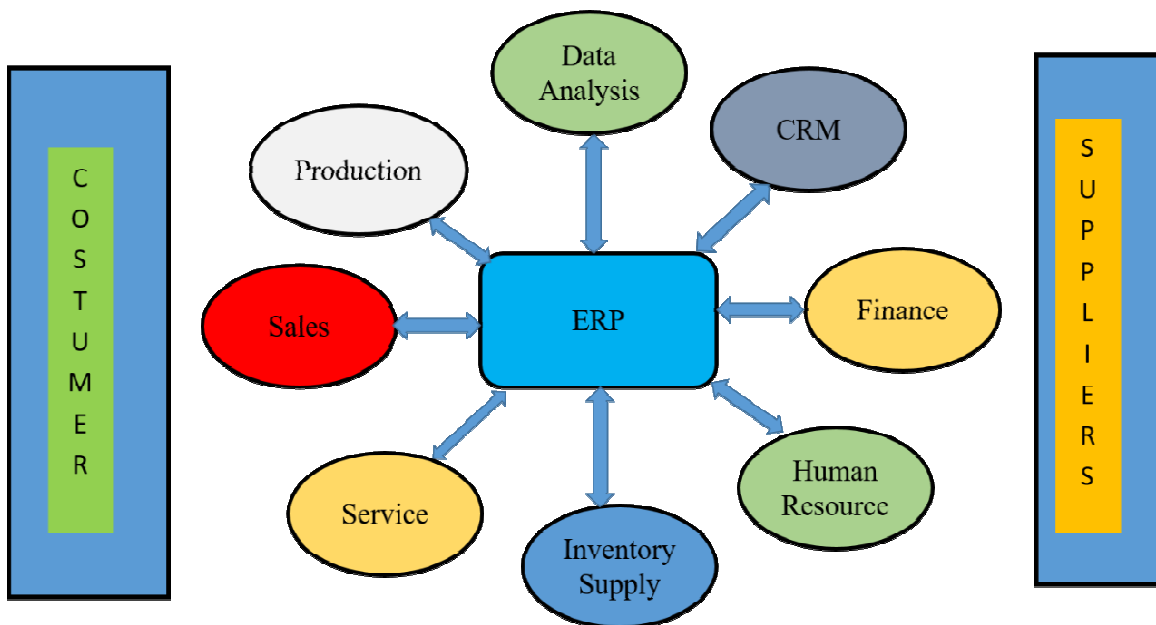


**Figure 2: Illustrate the model of the Enterprise Resources Planning System.**

The effect of ERP systems on corporate performance is demonstrated in this paper, and it also examined how the adoption of ERP systems relates to business advantages. It was discovered that greater operational level activity and seamless operating may be accomplished using ERP architecture. Requirements for enterprise resource planning (ERP), business justifications for ERP system acquisitions, and the ERP paradigm were all thoroughly discussed. Thus, the significance and impact of ERP systems or their implementation in organizations are known to ERP buyers, management experts, corporate titans, and a host of other stakeholders who are working to implement an ERP system for gaining a competitive edge as well as better performance in a variety of organizational functions. A great ERP system also eliminates any communication obstacles for a flexible business. Therefore, the main objective of ERP systems is to deliver sales or profits together with pertinent data to help managers and employees comprehend business performance or plan the future course of the organization. Additionally, these tools help organizations promptly address troublesome circumstances and minimize losses. ERP systems enable companies to operate profitably and globally.

### 3.3. Enterprise Resources Planning Advantages:

Businesses utilize ERP for a range of objectives, such as expansion, cost reductions, and enhanced operations. While any business may have different objectives and results, there are a few that stand out. By integrating and automating corporate activities, redundant tasks are removed, accuracy is improved, and productivity is raised. Due to the integration of their processes, departments may now coordinate their efforts to deliver faster outcomes. For certain businesses, improved real-time reporting from a data source system is beneficial. When reporting is accurate and thorough, businesses may more effectively plan, budget, anticipate, and convey the state of operations to the organization and interested parties, such as shareholders. ERPs make it simple for businesses to quickly access the data they want about clients, suppliers, and business associates. This improves accuracy levels, response times, and worker and customer satisfaction. Associated costs often decrease when the organization performs better. A newly synergized workforce may increase output or morale among employees since they are better equipped to support the goals and objectives of each functional group. Communication and information exchange across departments are strengthened. The lack of taxing physical activities also frees up staff to focus on other important responsibilities. Modern ERP solutions' extensive feature sets provide firms with a variety of advantages. Here are a few noteworthy, universal benefits that ERP offers, even if each company may place a different focus on these benefits:

### 3.3.1. Financial savings:

One of the main benefits of ERP systems is that they may enable your company to save money in many different ways. People may reduce mistakes and the requirement for new workers at the same rate as business development by automating many straightforward, repetitive tasks. Cross-company information enables better resource allocation of all resources, including inventory, personnel, and equipment, and makes it simpler to identify inefficiencies that raise costs. Businesses using cloud ERP may perhaps soon see benefits above and above what they are already paying for.

### 3.3.2. Workflow transparency:

Thanks to the consolidation of all workflows and information, staff members with access to a system may assess the status of projects as well as the conclusion of various business processes

that are relevant to their jobs. For managers and other leaders, this visibility may be quite helpful, and it is far quicker or simpler than searching for the appropriate papers and repeatedly asking coworkers for updates.

### 3.3.3. Analysis and Reporting:

Data must be analyzed and understood by businesses for them to be useful, and an ERP makes this process easier. Leading systems have great reporting and analytics tools that enable users to track "key performance indicators" (KPIs) as well as any metrics or comparisons they might imagine. An ERP's comprehensive nature may help a business comprehend how a modification to or problem with a process in one department affects the business as a whole.

### 3.3.4. Business Intelligence or Insights:

ERPs may access real-time data from several corporate departments, enabling these systems to spot significant trends and provide thorough business insights. Organizational leaders make better judgments because they can easily access all relevant information.

### 3.3.5. Data Security and Compliance With Regulations:

Your business may benefit from using an ERP to maintain security and compliance with growing financial reporting requirements, federal data security legislation, and industry-specific rules. An ERP provides an audit trail by documenting the whole life of each transaction, such as the observance of required approval requirements. Automation can assist firms in reducing their risk of errors and related legal issues. SaaS apps are ideally suited to assist firms with "Payment Cards Industry Data Security Standard" (PCI-DSS) compliance, while ERP software offers financial reporting that meets with standards and laws.

### 3.3.6. Risk control:

There are several ways that ERP technology may minimize risk. To improve financial controls and lower fraud, use granular access control and the most well-defined approval procedures. More precise data also avoids errors that might result in lost sales or fines. Third, personnel can promptly control hazards brought on by activity disruptions by being aware of the operation's state.

### 3.3.7. Data Protection:

Since they are aware that your system includes sensitive and significant data, ERP vendors take the necessary security procedures to safeguard its security. The frequency and size of cyber-attacks make due diligence more important than ever. Cloud ERP software, in particular, employs contemporary security measures to safeguard your company from damaging intrusions.

### 3.3.8. Cooperation:

When workers collaborate, they are most productive. Teams can easily communicate data like purchase orders, contracts, or customer service records because of ERP solutions. Giving employees enough access to updated information on connected business processes helps to overcome departmental boundaries.

### 3.3.9. Scalability:

The ideal ERP system would be adaptable and scalable to satisfy both the present and long-term needs of your business. Cloud solutions in particular adapt to both small and significant operational changes regardless of how much data the company gathers or how much access is required.

### 3.3.10. Adaptability:

ERP software gives the flexibility to accommodate specialized procedures and goals while also assisting firms in adhering to best practices. Administrators can design company-specific procedures and generate automatic reports that are crucial to various departments or executives using the system. An ERP fosters creativity and innovation inside your company.

### 3.3.11. Customization:

Even though the majority of companies think that current ERPs can support their operations right out of the box, some companies still need to add additional functionality to the feature-rich integrated systems. An extensible system will allow your integrator or "information technology" (IT) team to write code to connect with specialized or out-of-date solutions or to provide the fundamental capabilities if you have a lot of customized procedures. The prebuilt features or settings that current ERP systems give are based on best practices accumulated from hundreds of firms, so take a thorough look at your operations before going the bespoke way. An ERP may enhance partnerships and customer relationships. Information exchange is enhanced and made more useful with the aid of the cloud. It could include information about suppliers, shipping businesses, and service providers. For the company to track customer satisfaction levels, the system may capture customer survey responses, support queries, refund requests, and more.

### 3.4. Importance of the ERP for Business:

ERP systems are increasingly required technology for businesses who wish to manage resources effectively. They can help with resource reallocation, the establishment of core business practices that are more "cost-effective without sacrificing quality or performance", or both.

An ERP is beneficial for teamwork and planning as well. The data that is now available to employees include the inventory that is on hand, client orders, supplier purchase orders, and anticipated future demand. If modifications are required, they can be done to avoid problems. By allowing personnel to check on the status of other departments to influence their own decisions, ERP software improves cooperation and communication. An ERP system offers several reports or analyses as a thorough source of data that might have significant business repercussions. The ability to convert large amounts of data into visualizations or charts that sufficiently depict trends and support outcome prediction.

ERP gives businesses the ability to pinpoint prospective areas for expansion or operational improvement. User adoption is crucial because when more employees have access, teams are more likely to spot issues like a spike in product demand, delayed supplier shipments, or a looming cash flow crisis. Workers might then take preemptive action to minimize the issue as much as feasible. Executives frequently have a results-driven mindset and utilize data to accomplish goals like improving productivity, cutting costs, or adapting to shifting customer and market conditions. ERP software for business units may automate a range of labor-intensive,

error-prone operations, including account reconciliations, client billing, and order processing, in addition to providing teams with the data they need to operate more productively. ERP's true value, however, comes from its capacity to offer both a broad overview of the organization's state and in-depth insights into a specific process, as opposed to merely gathering and organizing data and KPIs by also spotting patterns and alerting users of anomalies that require more investigation.

### 3.5.    Other Business Upsides:

Employees no longer need to comb through a desktop's worth of documents or files because they can access data from anywhere. Thanks to cloud-based ERP, a warehouse manager may log in while on the production line using a mobile device, as well as a salesperson can check inventory while visiting a customer. When the product is recovered, payments are made, or communications are delivered to clients, the ERP system can quickly update since it is always collecting information from many departments. This has a significant advantage since it allows decision-makers to base their decisions on the most recent facts. A common database keeps everyone who makes decisions informed. Companies can automatically design and produce dynamic reports, or there aren't any duplicate or conflicting information sources.

### 3.6.    Roles and Users:
### 3.6.1.  Supply chain:

The ERP system is relied upon by employees whose primary responsibility is operations, such as inventory planners, buyers, warehouse managers, or senior supply chain executives, to guarantee that commodities are carried from the point of origin to the client effectively and continuously. They rely on the system's exact, complete information to manage inventory levels, prioritize orders, maximize on-time delivery, eliminate supply chain interruptions, and identify ineffective or manual operations.

### 3.6.2.  Sales and Marketing:

The ERP system is relied upon by employees whose primary responsibility is operations, such as inventory planners, buyers, warehouse managers, or senior supply chain executives, to guarantee that commodities are carried from the point of origin to the client effectively and continuously. They rely on the system's exact, complete information to manage inventory levels, prioritize orders, maximize on-time delivery, eliminate supply chain interruptions, and identify ineffective or manual operations.

### 3.6.3.  Human resources:

Using the ERP, the Human resource (HR) division monitors all employee information as well as broad patterns in the workforce. It can quickly find each employee's contact details, details about their salary and benefits, and other documents. To assist line-of-business managers in effectively allocating their staff, HR may additionally monitor variables like employee retention by department, average compensation by title, promotions rate, and other analytics.

## 4.  CONCLUSION

A system called Enterprise Resources Planning (ERP) links company activities by managing and organizing corporate data or information. The most dependable ERP data management system ensures data dependability, transparency, uniformity, or visibility throughout the organization. It

ensures that all of an organization's workers have access to comprehensive, practical business information and makes it simple for businesses to retain their company data. ERP software properly manages crucial data, avoids duplication, or authenticates the entire procedure. The firm may increase productivity and cut expenses with effective information management. Additionally, it aids in the integration of organizational components, encouraging cooperation and rapid information exchange. The author covers the advantages of ERP systems, their specifications, their significance to organizations, and their traits in this paper. The information in this paper will assist individuals to understand the value and benefits of an ERP system in the future.

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# CHAPTER 20

# DISTRIBUTION REQUIREMENTS PLANNING (DRP): AN EMPHASIS ON PROCESS AND ITS DYNAMIC ROLE

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**ABSTRACT:**

A company is considered a distributor if it purchases and resells other people's products instead of producing its own. A systematic process known as distribution requirement planning (DRP) identifies the quantities, items, or locations that will be required to meet the expected demand. The goal of DRP is to reduce the shortfall as well as the cost of purchasing, delivering, and storing goods. DRP often referred to as a distribution replenishment plan is a time-based strategy that forecasts inventory replenishment to prevent shortages. Prerequisites for Delivery Its planning method guarantees the most effective delivery of products. This involves taking into account the number of various resources required for manufacturing and the exact area where it must reach in a given time. In this paper, the author also discussed the process of the distribution system, the role of the distribution function, distribution planning or distribution network, and the benefits of the DRP system along with various software tools used for DRP. In the future, through this letter, people are made aware of the distribution requirement scheme and its benefits.

**KEYWORDS:**

Consumer, Distributor, Distribution Requirements Planning (DRP), Material Requirement Planning (MRP), Supply Chain.

## 1. INTRODUCTION

The distribution portion of the supply chain is indeed the focus of distribution needs planning. This covers everything, from either the supply chain or manufacturing schedules through the distribution center and consumer demand. A good distribution needs plan has several components, and getting them all precisely right could be difficult [1], [2]. A more comprehensive strategy that takes into account several distribution phases and the traits of each level is called distribution requirements planning (DRP). Although there is one key distinction between it and Material Requirement Planning (MRP), it is a natural extension of MRP [3], [4].

A production schedule that is established and managed by the company determines MRP. Contrarily, DRP is driven by client demand, which is beyond the company's control. Therefore, although DRP functions in an independent setting where unpredictable consumer demand dictates inventory requirement, MRP often performs in a dependent demand condition. Coordinating the scheduling and incorporation of materials into final items is the responsibility of the manufacturing needs planning component [5]. MRP manages inventory up until production

or assembly is finished. The DRP subsequently charges the coordination fee after the receipt of the finished goods at the plant warehouse, which is shown in Figure 1. A supply channel consists of three different parts. The producer is located place at a single end of the channel. The distribution procedure starts with the manufacturer, who concentrates on product creation and manufacturing. The merchant that sells products or services directly to clients for their own, non-commercial usage is the terminal point inside the channel. Distribution, which is more challenging to define, sits between the two. A person who participates in distribution is known as a distributor.
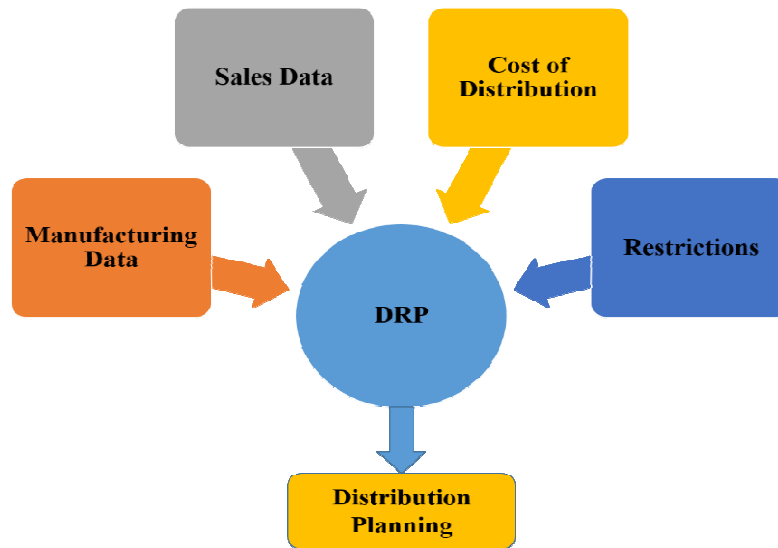
Figure 1:  **Illustrate the Process of the Distribution Requirement Planning System.**

A distributor is defined as a firm that does not create its product but buys and resells these items [6], [7]. Such a company often keeps an inventory of finished items. It is becoming more challenging to define the distribution process as well as the term distributor due to the emergence of alternative distribution methods such as warehouse clubs, marketing channel experts, catalog sales, or mail orders [8], [9]. In the end, one may argue that distributors are any businesses that sell goods to retailers as well as other merchants, as well as to institutional, industrial, and commercial customers, but do not make a major percentage of their sales directly to the final consumer. By this definition, the majority of businesses engaged in the distribution of completed goods and raw materials fall under the purview of the distribution business. A variety of tasks related to the physical flow of information or things make up distribution. The word distribution used to exclusively refer to the outgoing aspect of supply chain management, but it is now used to refer to both inbound and outbound activities.

These components are involved in controlling the incoming flow:

    i.  Control and planning for materials
    ii.  Purchasing
    iii.  Receiving
    iv.  Management of commodities physically through warehousing or storage
    v.  Managing materials

Following are the components involved in managing the outgoing flow:

    i.   Ordering procedures
   ii.  Storing and warehousing
  iii.  Manage finished items
  iv.  Packaging or material handling
   v.  Shipping
  vi.  Transportation

Three crucial distribution issues functional performance decreased complexity or specialization are addressed by the formation of distribution channels. Increasing the usefulness of time, location, and delivery is the main goal of distribution. When demand or product supply are simultaneous, the producer may handle exchange as well as delivery tasks on their own [9], [10]. The demand for internal and external intermediaries who can assist the movement of goods, and services, including information through a distribution process, however, intensifies as the number of manufacturers rises and the geographical dispersal of the consumer base widens. Through sorting or support with reutilization, distribution management may also reduce the complexity of the entire channel. Sorting is a series of processes involved in arranging items obtained from producers into the varieties and numbers required in the market [11]. Routine refers to the rules and practices that set out shared objectives, channel configurations, expectations, and processes to promote effective transactions:

    i.   The act of physically dividing a diverse set of things into homogenous groupings is known as sorting. This comprises classifying and assembling distinct things into inventory lots according to quality or removing defective items from the lot.
   ii.  Accumulating is the process of consolidating uniform product supplies into bigger supply groupings.
  iii.  Allocation is the process of dividing big batches of goods into more manageable, marketable portions.
  iv.  Assorting is the process of combining related or similarly functional goods into assortments to satisfy client demand. Putting components into kit form, as an illustration.

With a more complex supply chain, costs or inefficiencies in the channel rise. In response, several channels now either incorporate or already do so with partners that are professionals in one or even more aspects of distribution, such as trading or warehousing. Then, by increasing the flow of goods or value-added services as well as lowering selling costs, specialization enhances the channel.

### *1.1.    Distribution Function's Purpose:*

The channel distributor carries out several essential tasks. Transportation, transporting merchandise, storage, order processing, or credit are some of these duties, according to Ross.

    i.   *Procurement of Goods:* This entails buying goods from a manufacturer or another distributor who is farther along in the supply chain in a finished and semi-finished condition. Independent channel intermediaries or the distribution centers of manufacturing firms can carry out these duties.
   ii.  *Product relocating:* This suggests that a lot of work was put into moving the goods up and down the supply chain.
  iii.  *Product exchange*: Distributors are those who sell goods in large numbers only for resale.

iv. *Commercial usage:* The items will subsequently be sold by downstream companies to further distributors, merchants, or manufacturers who would use the raw materials or elements in their manufacturing processes or sell them straight to consumers.

The following are the individual components that make up the three crucial roles of distribution:

### 1.1.1. *Marketing or Selling:*

Any use of distribution networks to carry out the duties of product deployment is one approach that manufacturers utilize to carry out this function, which is highly essential to them. Distribution companies often have direct-selling teams, in-depth knowledge of their clients, and marketing specialists in their field. These resources can then be used by the maker via this distributor. Additionally, by housing inventories closer to the market, the distributing business may considerably increase the place, time, or possession utilities due to the size of its operations as well as its particular ability in channel management. These benefits allow the manufacturer to concentrate its budget on product development as well as its essential manufacturing procedures while yet being able to serve a large number of tiny, distant clients at a low cost.

### 1.1.2. *Purchasing or Creating Product Ranges:*

In contrast to several suppliers with such a small selection of items, several retailers prefer working with a small number of suppliers that can offer a large range of goods that meet their merchandising approach. Naturally, this reduces the expenses associated with purchasing, shipping, and marketing. Distribution companies can combine similar items from many producers and put them together in the proper proportions and quantities to satisfy the retailer's needs economically.

### 1.1.3. *Bulk fracturing:*

A small number of products are typically produced in large quantities by manufacturers. Retailers, however, typically need fewer units of various products. The manufacturer is spared from breaking bulk or repackaging their goods to match individual requirements whenever the distribution function takes care of this need. The goal of reducing lot sizes is something that lean production or Just in Time (JIT) approaches are always pursuing, so this function furthers that objective.

### 1.1.4. *Added-value processing:*

Postponement stipulates that items should be retained as close to the real end sale as feasible, at the highest level in the pipeline, in huge, generic quantities that may be tailored into their final form. By carrying out sorting, labeling, blending, kitting, packing, or light assembly processes at one or more sites within the supply route, the distributor can streamline this procedure. By doing this, end product obsolescence is greatly reduced, and the risk associated with maintaining completed product inventory is reduced.

### 1.1.5. *Transportation:*

One of the most important functions of distribution is the flow of goods from the manufacturer to the merchant. Delivery includes all of the tasks required to guarantee that the consumer receives the appropriate goods at the appropriate time and location. This typically implies that to provide the best possible customer service, a network of central, branch, or field warehouses that are

strategically located is required. Transport aims to guarantee that items are delivered quickly, cheaply, and consistently in the channel.

### *1.1.6. Warehousing:*

Warehousing serves as a safety net against supply or demand fluctuations and gives access to enough inventory to meet expected client demands. Storage can open up a variety of markets that businesses working alone could not access since demand is frequently spread out from the source maker.

### *1.1.7. Information for marketing:*

Additionally, the distribution route can quickly give information about the product, market problems, and rivals' activity. The 1970s saw the rise of distribution requirement planning (DRP), which was prompted by the need for more thorough distribution planning. DRP is a popular and possibly effective method for assisting outbound logistics systems in controlling and reducing inbound stocks [12]. This idea expanded the material requirement planning (MRP) logic's time-phased order point to encompass channel inventory control. By the 1980s, DRP had developed into distribution resources development and had become the norm for organizing and managing distribution logistics activities. The idea is now known as DRP II and encompasses all business operations in the supply channel, not simply inventory or logistics.

Even though most DRP models are more complete than standalone MRP models and can arrange transportation, DRP is often used in conjunction with an MRP system. The fundamental idea behind DRP is to more precisely estimate demand and utilize that data to create supply plans. Distribution companies may reduce inbound inventory in this way by utilizing MRP in conjunction with the other schedules. The DRP table, which consists of the following components, is one of the DRP's major components:

    i.   Demand projections for each stock-keeping unit
    ii.  Current Stock Keeping Unit (SKU) inventory level,
    iii. Target Safety Stock,
    iv.  Recommended Resupply Quantity,
    v.   Lead Time for Resupply

The theory behind DRP closely resembles that of MRP. Gross requirements, like MRP, are made up of actual customer orders, anticipated demand, or some combined effect of both; planned schedule receipts are the products the distributor anticipates receiving from orders which have already been released; the inventory balance is made up of products that have already been received as well as entered into inventory. Net requirements are obtained by deducting scheduled revenues and on-hand inventories from gross requirements. Planned order receipts are prepared based on the distributor's lot-sizing policy and reception habits. Only that which is required for the upcoming planning session or a specific period may be ordered by businesses.

"Economic order quantity" (EOQ) is the term for a lot size determined by a costing model. As an alternative, businesses may be restricted to lots in multiples merely because the providing company palletizes or packages its products in regular amounts. Additionally, certain distributors might need some time to pass between the time that products arrive on their docks and the time that they are entered into the inventory system [13]. For instance, a company may have a staging area where items are kept while they wait for quality or quantity verification for an average

amount of time. Therefore, scheduled order reception might occur during the planning period when the items are needed, or it could be earlier depending on the amount of time needed. The projected order reception is then divided by the lead time of the supplier to calculate the order release. In this paper, the author discussed the DRP system, the process of DRP, the need for the DRP system, and the benefits of the DRP system.

## 2. LITERATURE REVIEW

Joseph D. Blackburn and Robert A. Millen studied Most of the previous investigations on heuristic lot-sizing methods for multi-stage material need planning systems have focused on a single step. The multi-scale problem has previously been analyzed analytically in this study to show the potential drawbacks of often advocating single-pass, step-by-step methods (eg, Wagner–Within). After that, several direct cost transformations are recommended to increase the overall optimality of these methods. Through a series of simulation studies, the effectiveness of different adjustments is examined. It is determined that many of these changes routinely increase the effectiveness of the step-by-step methods [14].

T. S. Lee and E. E. Adam studied evolution in material needs planning production inventory systems, in this paper, the author examines the effects of predicted demand and forecast inaccuracy on MRP systems that are implemented in the master production schedule. It was discovered that the overall inventory costs, as well as shortages in the MRP system, are also influenced by the lot-sizing rules or product structure. The divergence between lot-sizing rules is higher and the economic effect of forecast inaccuracies is bigger the more complex the MRP structure is. The period order quantity rule seems to be a reasonable lot-sizing rule. The manufacturing manager, notably the inventory production control manager, is given recommendations based on this study [15].

P. L. Goethals et al. studied the application of a dynamic requirement planning model to supply chain optimization. To examine needs planning in multiple-stage production technologies, this research creates a novel model. To represent some of the main aspects of the planning process, they first create a mathematical model after characterizing how the majority of industrial planning systems operate. Our strategy is to model a network of stages by starting with a model for a single manufacturing step. They demonstrate how to examine the single-stage model to ascertain the inventory needs as well as the production stage's stability or smoothness. They also demonstrate how to achieve the best possible balance between inventory and network connection for a single stage. Then, using the single stage as a necessary component, we can simulate the multistage supply chain.

Baker, Kenneth R. studied horizon planning of optimal distribution system. This study is the first of a two-part series on planning an ideal distribution system. The formulation of the ideal distribution system model and the horizon distribution planning issue are both presented. By choosing the best design parameters given future assumptions, the goal of horizon planning is to reduce future expenses. Planning for short-term and long-term extension of subsets and combinations of design characteristics was covered in earlier work. The suggested model, as well as optimization formulation, presents a fully functional complete horizon planning model employing a viewpoint that includes all relevant characteristics or constraints, as well as a generalized horizon planning technique. Determined are the ideal design voltage drops as well as reliability indices. The next companion paper describes and resolves the "horizon planning

optimizations" application utilizing continuous constrained nonlinear programming techniques [16].

## 3. DISCUSSION

Distribution needs planning is a methodical procedure that determines which commodities, in what quantities, at whatever locations are needed to satisfy projected demand. The purpose is to cut back on shortages as well as the expense of ordering, shipping, and storing products. DRP often referred to as distribution replenishment planning, is a time-based method to forecast when inventory is likely to run low and to schedule replacement to prevent shortages. A central facility, including a warehouse, serves regional facilities, which in turn supply additional facilities in the tree using the DRP's tree-like structure. There could be any number of layers in this construction. The final goods are received, stored, and delivered to retailers and other businesses in the distribution center (DC). The logistics network must have one or more delivery hubs since they serve as the foundation for effective customer service. Several factors are taken into account while choosing the optimal locations for centers and among the most important components are:

i.   The distribution centers, suppliers, and purchasers are all shown on the distribution network map. As a result, it should be simple to determine the locations and connections of each object.
ii.  Where the majority of your clients are located must be taken into account when considering your customer base. This would enable you to decide how many storage facilities you want and their ideal spacing.
iii. In the topology of the distribution networks, there are three basic topologies: radial, star, or mesh, and that's how the locations are linked.
iv.  The number of items, their weight and size, and the turnaround time are all part of the distribution criteria.
v.   The distance among warehouses, the delivery schedule, and the means of transportation (road, rail, road, water, or air) are all included in the transportation network.
vi.  It is important to ensure that sufficient workers are available when allocation centers open, which is known as laborproductivity.
vii. The warehouse needs to be situated where prices are the most affordable.

### 3.1.  *Distribution Planning or Distribution Network:*

DRP is essential for ensuring that businesses can fulfill consumer orders. Making sure the distribution network has enough distribution centers, transportation systems, and manpower is part of distribution resource planning. Maximizing product availability at a lesser cost is also crucial. To service customers, a distribution network assembles disbursement centers and other partnerships. Companies must thus carefully organize their distribution networks to get finished items to customer's b on schedule.

i.   Supply chain management or DRP success tactics
ii.  Effective planning and optimization techniques for the supply chain may assure DRP success.
iii. One is to have current, reliable data about market demands. The distribution strategy is built using this information, thus it has to be as accurate as possible.

iv. Getting goods to customers swiftly and effectively also depends on a strong distribution center (DC) network.
v. Lastly, maintaining an effective inventory management system is essential for guaranteeing that goods are offered when customers need them and preventing shortages.

### 3.2. *Software Tools for Distribution Requirements Planning:*

Several software programs that support DRP which is shown in Figure 2.

i. Dynamics X by Microsoft
ii. Oracle EBS implementation
iii. Planning for Distribution
iv. JDA Managing Distributed Orders
v. Manhattan SCALE SAP

The following are some advantages of utilizing this software:

i. Better network architecture.
ii. Better data quality.
iii. Improving timeliness Inventory control.
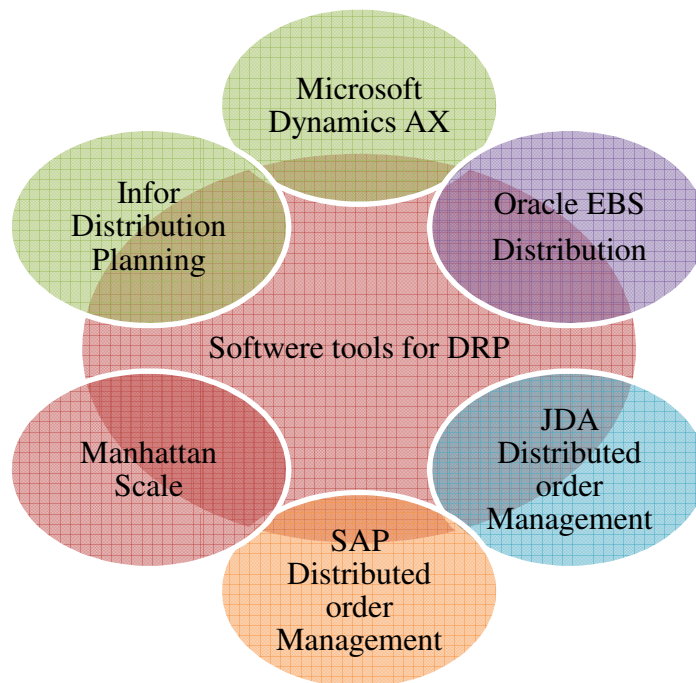**iv.** Easy compliance with legal requirements.



**Figure 2: Illustrate the software tools for Distribution Requirements Planning.**

### 3.3. *Benefits of the DRP system:*

i. Increasing dependencies
ii. It is possible to fill truckloads from future orders to fulfill orders.
iii. It adapts to the anticipated demand at the store level.
iv. DRP is also able to foresee the upcoming demands in the industry.

v. Better customer service.
vi. Cost-awareness.

## 4. CONCLUSION

Planning for distribution requirements is a challenging procedure that can be challenging to get properly. To achieve optimal effectiveness, it is crucial to improve your distribution network. It is crucial to take into account every component while distributing and building your disbursement network. Some of the most crucial elements of preparing for logistics requirements have been covered in this blog paper. These pointers will help you improve your company. To avoid occurrences that significantly harm the business or consumers, firms must proactively address the quality concerns of suppliers across the distribution chain. A strategic need is the idea of governmental control as well as customer demand for high-quality products. A reliable product supply is the responsibility of quality management; doing so helps businesses remain competitive and reduce risk. Businesses that do not integrate quality management into their production and value chain activities ultimately lose market share and run a high risk of damaging their brands. In addition to discussing the benefits of the DRP system and various software tools used for DRP, the author of this paper also covered the distribution system procedure, the function of the distribution function, distribution planning, andthe distribution network. People will be informed in the future about the distribution requirement system and its advantages through this letter.

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# CHAPTER 21

# AN ANALYSIS OF BUSINESS TOOLS
# IN RISK MANAGEMENT STRATEGY

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**ABSTRACT:**

Over the past few decades, risk management has emerged as a crucial subject in both practice and academics. The majority of business intelligence tools have been employed to improve risk management, and business intelligence techniques have benefited risk management tools. In this paper, the author discussed the most recent developments in business intelligence for risk management is given in this study. The results show information on effective risk management strategies that reduce the likelihood of error. The author concludes that in this work, risk identification and measurement with appropriate solutions are put into practice. The chances of inaccuracy in risk management will be addressed and destroyed with the aid of this study. Consistency in the description and analysis findings is a quality of this study's possible future value in the setting of a company. On the other hand, putting more of an emphasis on safety issues may help you win future exploration permits.

**KEYWORDS:**

Business, Company, Hazards, Management, Risk Management.

## 1. INTRODUCTION

The practice of dealing with the unpredictability that accompanies a danger is known as risk management. Reinsurance frequently concentrates on legal risks such as fires, disasters, tragedies, and prosecution. Risk management includes dealing with risks that can be managed via traded investment funds. The most contemporary idea, corporate governance, is a tool for boosting the usefulness of institutions from a logical position, both financially and publicly.Figure 1 embellishes the different "steps of the Risk management process".

### 1.1.SWOT Evaluation:

A project's "strengths, weaknesses, opportunities, and threats (SWOT)" analysis evaluates it. This approach may also be used to identify risks. The benefits of the development come initially as the first phase. The team's next task is to put together a list of the errors and other issues that might require correction. The risks associated with the proposition will now become clear. Threats may be used to differentiate between enjoyable and unpleasant concerns [1]–[3].

### 1.2.Brainstorming:

The first stage in each endeavor is to identify the best way. To do this, the team meets with the product owner for brainstorming. All the "hazards that can affect the project's success and finishing must be considered" during this brainstorming session.

i. Going over all the proposal docs
ii. Monitoring all historical information and evidence on hazards from past projects that are comparable here to the current one
iii. Reading a story about the dangers present
iv. Recognizing all resources used in organizational processes
v. Every piece of evidence that is accessible provides an understanding of potential risks that may arise during the undertaking.

```
Steps of Risk Management Process
    ┌─ Assess probable hazards.
    │
    ├─ Determine the frequency and
    │   intensity of occurrences
    │
    ├─ Investigate other solutions
    │
    ├─ Choose a solution and put it
    │   into action.
    │
    └─ Examine the outcomes
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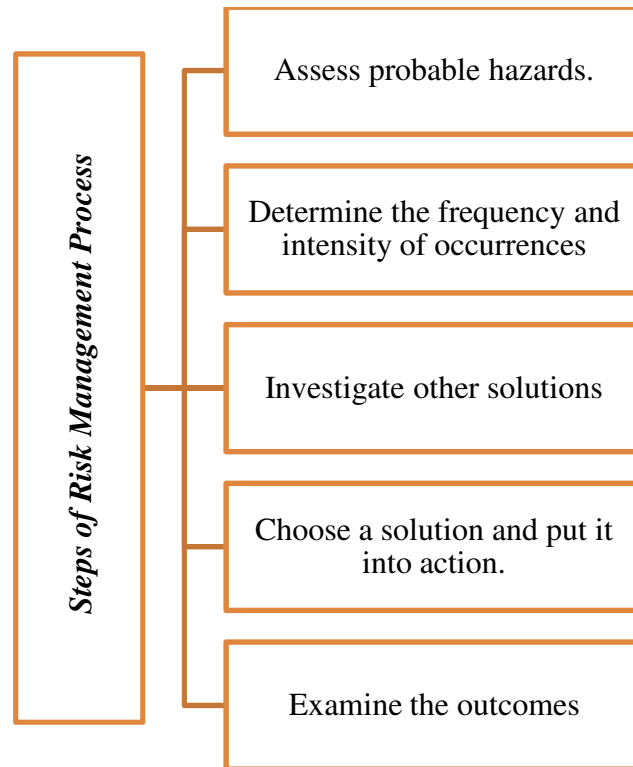
**Figure 1: Embellishes the different steps of the Risk management process.**

### 1.3. Root Cause Evaluation

The purpose of this technique is to help contractors discover any inherent project-related weaknesses. Arranging reveals the participants of the group's attitude to budgeting. It is often employed when a problem emerges so that the contract administrator may deal with the problem's fundamental cause and fix it rather than just dealing with its symptoms [4]–[6].

### 1.4. Risk Assessment:

A hazard analysis "template can be used for any project inside the firm, although it is typically created for IT" procedures in an organization. "An organized list of risks is provided in this examination. It represents a place where every threat may be found in one place". This is advantageous for operational risks that turn into breakdowns and contract management hazards. The danger estimate report contains data on the likelihood that each "risk will materialize, as well as information on how it will affect the project. By doing this, the manager and or the squad members" are fully informed of any risks' potential dangers and possibilities of happening.

*1.5.Impact and Probability Matrix:*

The probabilities and mitigation steps can be utilized by final choice to rank dangers based on the probable harm they might cause. It helps with available resources for portfolio management. In this procedure, the probability and consequence ratings of likelihood and ramifications have been merged. All "computations are finished, and then the hazards are ranked in order of severity. This technique helps to reduce the danger as a result of the undertaking and aids in the development" of approaches for minimizing it.

*1.6.Risk Data Quality Evaluation:*

Project managers that use the risk formative assessment technique might get some insight into the unknowns that can affect the project by using all the data acquired for recognized risks. Teammates and project teams may then understand the accuracy and level of the issue based only on the intelligence gathered. The project leadership uses the methodological quality of personal information to better identify possible problems the company could encounter and gather all available information on prospective effects. By considering each of these factors, they may get an accurate risk assessment.

*1.7.Analysis of Variance and Trend:*

Like other project control methods, it is beneficial for construction companies to search for differences seen between the project's schedule and budget and match them only with genuine results to determine whether or not they are in line. Uncertainty and risk increase in tandem as variations increase. It is a useful technique for keeping an eye on risks as the design continues. If project participants frequently monitor trends to check for deviations, fixing things became simple.Figure 2 embellishes the different countries that use risk management for their uses.
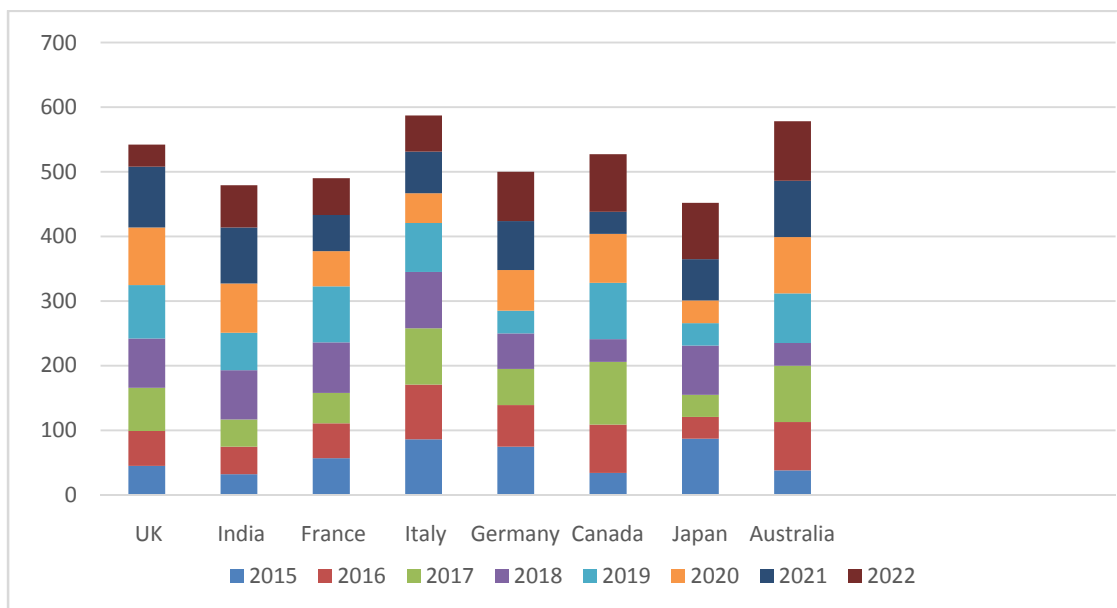


**Figure 2: Embellishes the different countries that use risk management for their uses.**

Difficulty and danger are inherent in all human labor in the field of food production, research has achieved significant advances in biological administration. However, any of the tactics entailed having raised questions, with differing viewpoints dominating throughout the world. Evolutionary administration is often seen in us as a technique to produce better and more productive food and supplies more dependably. Figure 3 illustrates the different techniques of risk management for industries.



**Figure 3: Illustrates the different techniques of risk management for industries.**

Recombinant food is met with vehement criticism in East Asia, meanwhile. Animal diseases, for example, which are very challenging to treat, are examples of new natural ailments. Sometimes, it's questionable how much dominance was attained in the management. Despite strong bioengineering laws in Europe, there was a pig breeding disaster involving hazardous feedstock and illegal medicines. In the food sector, hybridization concerns are major considerations. Eukaryotic cell division holds great promise for research, but when applied to human resources, it creates political issues. When using the management system to engage and manage risks associated with healthcare delivery, there are still dangers. Although it hasn't always worked, autopilots have been used to pilot aircraft.

## 2. LITERATURE REVIEW

Maryam et al. in their study embellish that the strengthening of economic interdependence, the quick expansion of all fields, the huge and significant rise in the dissemination of information, and thus the advancement of software development are all highlighted in this study. The author applied a methodology in which they stated that Risk analysis, corporate governance, and finance upheaval measures to avoid or decrease hazards. the results show Managing insurance is a vital ingredient of the bad qualities of an unfortunate incident and malfunction to surface structures that are unable to resolve cases that result in financial losses within one kind. The

author concludes that something else requires the mobility of the proper tools and therefore that healthcare could even play a role. There are many ideas and proposals after the essay [7].

Gurtu et al. in their study illustrate that project management is essential for running a supplier base successfully in the face of something a range of risks. The author applied a methodology in which they stated that many scholars have contributed to production lines risk assessment throughout the generations by helping to define, operationalize, and mitigate hazards. The results show that in this study, the author conducts a complete review and analysis of the previous studies during the last decade. The goal of this paper is to accomplish three things. The author concludes by presenting and categorizing literature years between 2015 and 2021. Second, we provide a thorough examination of the latest findings in vulnerability definitions, risk categories, risk factors, and asset management techniques. Finally, we look at the Secure software development literature to see if there are any gaps [8].

Domańska-Szaruga and Beata in their study embellish that they provide a novel technique for determining the risk-mitigation benefit of corporate citizenship (CSR). Available choice turbulence reflects the rating agencies' perceptions of a company`s risk, therefore if CSR is linked to contingency advantages, it should also be linked to reduced betas. The author applied a methodology in which they stated that CSR is greater for companies with higher leverage, growth potential, or uncertainty. CSR, on the other hand, is less effective as a reinsurance method for companies that are already profitable the findings show the "terms" of a corporate governance contract, indicate that CSR provides vulnerability advantages, and imply that stock market prices benefit in monetarily meaningful ways. The results show management may, for example, look at how a company's expected volatility varies when its Social bills are passed. Alternatively, the management may analyze estimated exogenous variables of a business and its similar companies to see how financial markets view the firm's CSR. The author concludes that Option assumed volatilities might help a company discover appropriate Customer service personnel operational risks since they are the purpose of this discussion, real-time, and directly observable market reports in assessing the risk impact of CSR. Our findings also show how a financial specialist may evaluate future instruments using a useful understanding of strategy literature on Customer services [9].

These studies discussed that risk management plays a vital role in day-to-day life in an effective manner it helps the different sections of society in management and also on a daily basis. Managing risk and effectively reconstructing its outcome. Humans are excited to have this new section on Research and development field data Analytics in Risk Management come to a close. Issues happen throughout each aspect of daily life, and although they might mean something to different persons because also have the potential to introduce significant harm as well as annoyance to the shareholders. Over the next several hundred years, strategic planning has been a hot issue for both academicians and practitioners. Interacting approaches are necessary for risk management, and effective risk-taking strategies may involve developing business ideas like

internal surveillance systems. The majority of data science has been utilized to improve knowledge management, and advanced analytics techniques boost mitigation solutions.

## 3. DISCUSSION

Risk management is the process of coping with the uncertainty that comes with danger. Reinsurance tends to focus and legal hazards such as natural catastrophes like fires, disasters, fatalities, and litigation. Risks that can be addressed by employing traded investment funds are dealt with in managing the risk. Corporate governance, the most modern notion, is a tool for increasing the value of institutions, both commercially and public, from a rational standpoint.

Risk management begins with a thorough analysis of all pertinent information, with the information above, the focus is on how risk affects operations, how to evaluate its economic costs, and how to identify emotional signals that could point to a risk's potential causes using natural science. This information is the foundation for analyzing, comparing, and choosing risk management options together with the judgments made during the making and assessment phase. Abhorrent circumstances the involved source in a tolerable situation within the boundaries of range expenditure, the risks must be mitigated or dealt with in some other manner. Private Citizens or standing ovation (such as regulatory agencies) may accomplish this, and both (public-private partnership). Appropriate position the hazards are so little possibly even insignificant that any risk mitigation attempt is pointless [10]–[12].

The company works to remove a certain risk by eliminating its root cause. Mitigation reduces the likelihood that a risk will materialize in order to reduce the predicted financial value attached to the risk. Acceptance, a company could sometimes be required to take a risk. If a company entity creates contingencies to lessen the potential adverse effects, should it materialize, then this alternative is Viable. When creating backup plans, a company should use a challenging approach. The "ultimate result is a comprehensive plan that may be implemented as soon as the need" arises. Because it can manage risks as they materialize, such a strategy will help a corporate organization tackle obstacles or blockages to its success [13]–[15].

### 3.1. Risk Averse:

The quality or attribute of being risk averse is choosing to prevent loss above achieving a gain. This "trait is often associated with investors or market players who choose activities with better yields and moderately popular dangers over those with possibly better returns but also increased uncertainty" and greater risk. The idea of beta, which relates the relative risk of a particular investor or asset allocation to that same general risk level of the share prices, is a frequent notion related to risk [16]–[18].Figure 4 discloses the consequences of the risk management structure.
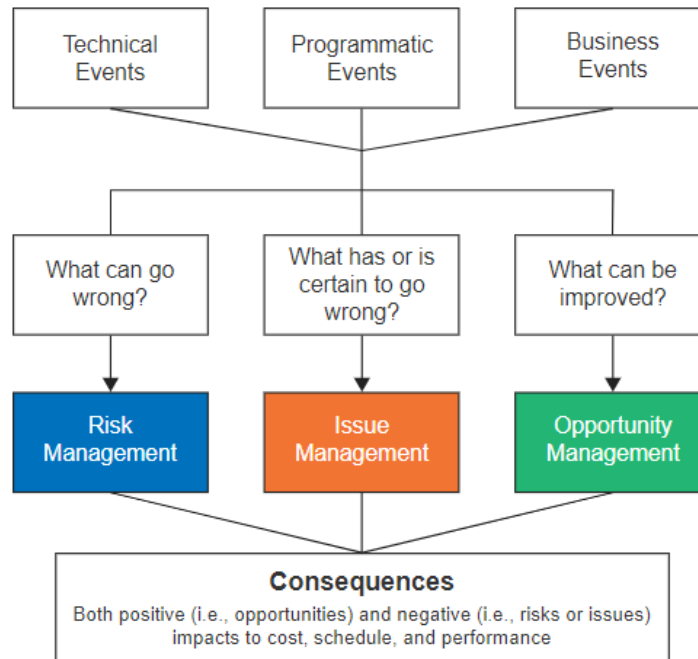
**Figure 4: Discloses the consequences of the risk management structure** [19]**.**

Transaction exposure is the portion of overall risk that is brought on by variables further than influence over a certain company or person. Systemic risk is caused by variables that are external to the same organization. All transactions and investments are subject to the non - diversifiable known as systematic risk. Systemic risk can all be eliminated by diversifying one's stock holdings [20].



**Figure 5: Illustrates the communication and feedback of risk management** [21]**.**

*3.2.Market Danger:*

This same group thinks of participants, commodity risk is caused by either these factors or by their inclination to follow the market. Thus, market risk is the likelihood for asset prices to fluctuate together. When such a market is struggling, share prices even of profitable companies fall. Market risk makes up two approximately one-third of all default risk. Transaction exposure is therefore another term for systematic risk. The fluctuation in spot pricing is the main danger factor for products.

*3.3.Rate of Interest Risk:*

Changing market mortgage interest rates is a result of rates this mostly affects fixed interest assets in the financial sector since equity markets and rate of interest have an inversely proportional relationship. Interest rate dangers have two opposing facets: Chronological Cost and Restructuring Risk. These two threats work on opposed axes. Price risk concerns changes in a currency pair brought on by changes in interest rates. Loss is possible while reinvesting earnings or dividend income. If price risk had been negative, reconstruction risk would've been favorable. Changes in interest rates are the main cause of uncertainty for fixed-income instruments like bonds and debentures [22].

*3.4.Purchase Power Peril:*

Inflation creates a danger to purchasing power. The overall "price level rising steadily and consistently over time is referred to as inflation". The buying power of money is reduced by inflation; when prices rise, a certain amount of money may now purchase fewer products and services.  As a consequence, if an investor's compensation does not increase during times of rising inflation, they will potentially get fewer dollars in real terms. Additionally, there is a large element of purchasing power risk connected to fixed-income assets since their income is calculated in nominal terms. Equity shares are believed to be efficient inflation hedges, exposing them to less danger of losing buying power [23], [24].

3.5.*Foreign Exchange Risk*:

 In a globalized economy, the majority of firms deal with foreign currencies. Currency depreciation is the unpredictability caused by changes in the prices of different currencies. As a consequence, only companies with exposure to or transactions in foreign currencies, such as exporters, international organizations, or companies that rely on essential raw materials or products, are affected by this specific risk.

## 4.  CONCLUSION

In this paper the author discussed the risk identification method helps the organization function effectively. Based on how their users can help the business, they will need to prioritize risk management initiatives. In light of the methods used, it is required to assess the results of an additional expense estimate and an anticipated utility analysis. The results need to be assessed before any decisions are taken. The foundation for the remaining portions of the risk assessment is thus formed. It involves the process of risk management, including the purpose statement of operations, as well as the establishment of fundamental assumptions for the environment in which the organization operates. Part of the procedure involves making an assessment that takes

factors outside the model's parameters into account. In addition to formal analysis, an accident could happen in the decision scenario given above. A company's conduct may be investigated by the general public, the government, or laborgroups. In this case, the public's awareness of dangers and negative attention may influence the decision-maker, regardless of the circumstances. The future potential of this study is consistency in the description and analysis findings is a positive feature in the context of an oil firm. On the other hand, concentrating on safety issues can be advantageous for obtaining future exploration permissions. Such Political topics could be challenging to send with a strict method, but they were crucial to the selection process.

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# CHAPTER 22

# IMPROVING THE PROCESS OF NEW PRODUCT DEVELOPMENT WITH THE USE OF SWOT ANALYSIS

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**ABSTRACT:**

The process of introducing a new product to the market is known as new product development (NPD). Because of shifting client preferences, fierce rivalry, technological advancements, or a desire to seize an opportunity, your company may be required to take part in this process. Before placing your items on the market, be sure there is a demand for them, they are of the greatest quality, and your potential buyers will find them worthwhile. The four pillars of SWOT analysis, a strategic planning technique, are Strengths, Weaknesses, Opportunities, and Threats. SWOT analysis is a useful technique for enhancing a company's or product's management going forward. This paper's major goal is to learn more about new product creation using SWOT analysis. In this paper, the author discussed the requirement of product development and the various step of the product development process. In the future, this paper going to help to understand the new product development process by using SWOT analysis.

**KEYWORDS:**

Business, Marketing, Opportunities, Product Development Process, Strengths, Threats, Weaknesses.

## 1. INTRODUCTION

Teams may create new products and improve existing ones using the product development process. Although the phases involved in the product development process might vary, they frequently assume the following four forms: Identify a market opportunity, generate some ideas, produce the product, and spread the word about it [1], [2].

### 1.1. Requirement of Team for Product Development:

Processes for product development aid teams in avoiding costly mistakes. Although not everything can follow a process, for instance, some things are found by chance or by fortunate errors processes make ensuring teams spend as little time as possible [3]. Teams can avoid creating items by following a method:

i. Consumers do not desire
ii. Resolve a client issue partially
iii. Are not successful

iv. Perform worse than the opposition

The approach is to "empathize, define, generate ideas, prototype, or test," according to the creative thinking framework made known by the design company Innovation Design Engineering Organization (IDEO). It involves understanding, recognizing, reporting, listing, evaluating, and summarizing information using the circle's Technique. The majority of product design teams build their models off of them as a starting point [4], [5]. Without a step-by-step procedure, it may be simple for businesses to make unwise decisions like jumping to conclusions. Consider a software products team that detects a large number of users leaving and spends months improving the user experience before discovering that the issue would be that the software itself isn't really helpful. They may have used their time more effectively if they had followed a method. An effective product development process filters ideas [6]. New concepts are evaluated for feasibility after a genuine consumer issue has been located. Only good concepts that have been sorted out through an efficient procedure are allowed to go into production. Additionally, a procedure facilitates communication inside the organization. It communicates to every department when and where to contribute to the final output. For example, the sales team may ensure that all teams are included in the idea generation process to prevent waiting until the very last minute before the launch to point out a severe flaw. Great products must be created by diverse teams. However, more problems are addressed, user viewpoints are better understood, and more products are delivered by teams that are aware of how the world will react to them when different identities, backgrounds, and experiences are represented among creators. Businesses that follow a tight approach and employ a range of ideas usually outperform their competitors [7], [8].

### *1.2. Process Steps for Product Development:*

Product development, put simply, is the process of actually bringing a product concept or thought to life, along with all of the stages that go along with it. It begins as soon as a member of your ideation team has a flash of inspiration for a new product. And includes all the steps up till your marketing manager wipes the perspiration from his or her brow after the aforementioned lights have been transformed into a concrete product that can begin vying for users' attention in your target audience [9], [10]. Let's take an example where someone on your team believes that it would be a good idea for your company to create an application that could educate users to use intriguing phrases in casual conversation or assist users to expand their vocabulary of uncommon terms [11]. What does the product do? What role does it play in the contemporary economy? Will customers accept this as one of their own after it launches? If not, what marketing tactics can you employ to make your product more visible on the market? The processes for product development would now be discussed. It's crucial to comprehend all 7 phases of the product design process, specifically is shown n Figure 1:

  i. Ideation
  ii. Study of Feasibility
  iii. Development or Design
  iv. Verification or Testing
  v. Validation and documentation
  vi. Products Launch or Marketing
  vii. Products evolution

The extensive variety of actions that a company completes to create and manufacture a new product is known as the product development process. A product concept may begin in a lab, an office, the market, or the so-called fuzzy front end. Client demands are another source of ideas. A company commonly develops a new product idea, then tests it or conducts research on it before planning, designing, prototyping, or distributing it to the public. This process is made up of stages, phases, or steps. This paper covers the processes of creating a new product as well as some instances of product development.
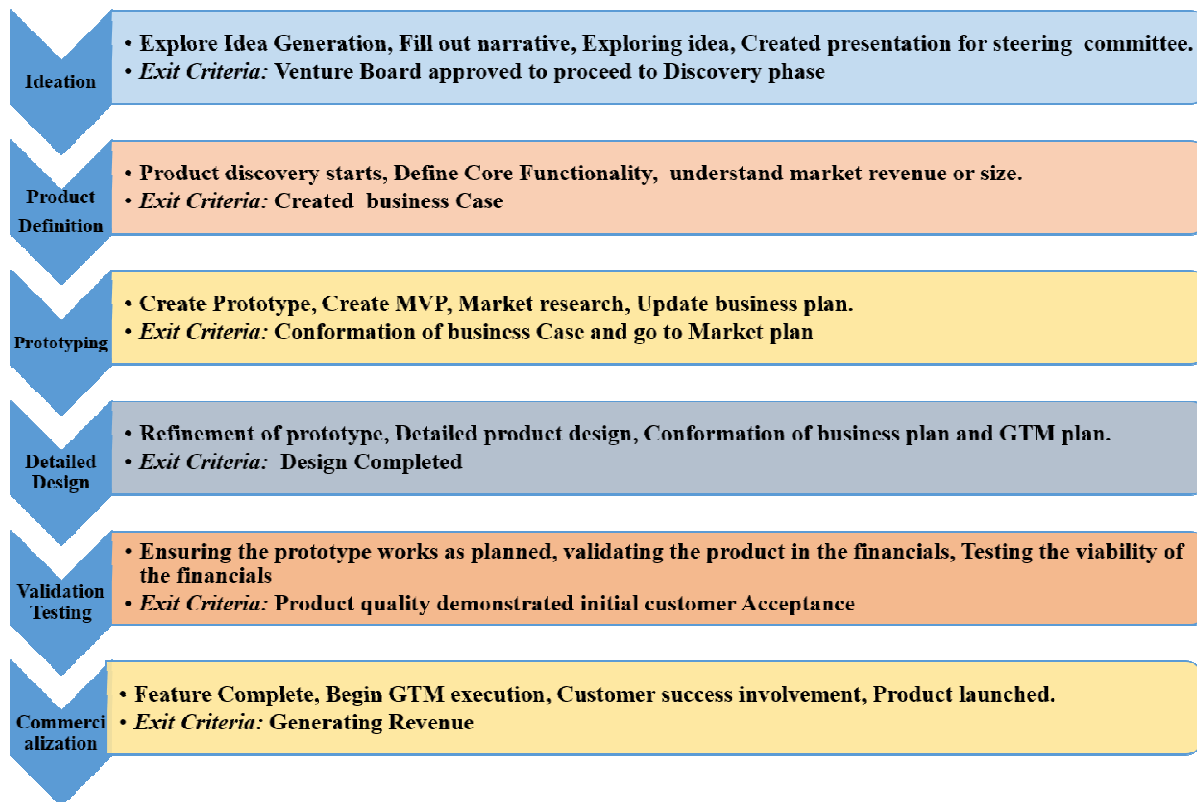
**Ideation**
- Explore Idea Generation, Fill out narrative, Exploring idea, Created presentation for steering committee.
- *Exit Criteria:* Venture Board approved to proceed to Discovery phase

**Product Definition**
- Product discovery starts, Define Core Functionality, understand market revenue or size.
- *Exit Criteria:* Created business Case

**Prototyping**
- Create Prototype, Create MVP, Market research, Update business plan.
- *Exit Criteria:* Conformation of business Case and go to Market plan

**Detailed Design**
- Refinement of prototype, Detailed product design, Conformation of business plan and GTM plan.
- *Exit Criteria:* Design Completed

**Validation Testing**
- Ensuring the prototype works as planned, validating the product in the financials, Testing the viability of the financials
- *Exit Criteria:* Product quality demonstrated initial customer Acceptance

**Commercialization**
- Feature Complete, Begin GTM execution, Customer success involvement, Product launched.
- *Exit Criteria:* Generating Revenue

**Figure 1:  Illustrate the six Different Steps for Product Development Process.**

The process through which a company develops new items to meet consumer demand is referred to as the product development cycle. Although almost every business creates new goods or services, the methods used by specific businesses to do so vary greatly depending on the sector, the nature of the goods, and whether the products are incremental advancements or paradigm-shifting innovations. This is perhaps the most important kind of process management a company can do, outside of managing the product life cycle itself. Businesses seldom focus on this, especially if the benefits are at the front end of development, thus an engagement in product strategy consulting or a design and development consulting engagement may frequently provide the right sort of outside assistance. For a complete grasp of the product development cycle in just about any service sector organization, Let's look more closely at each of these six procedures [12], [13].

### 1.2.1. Ideation:

Essentially, the first and most important stage in the product development cycle is the idea. Ideation is the process through which new product ideas are first developed and then shared. Ideation is the process of expressing a concept orally or in writing, from beginning to realization. In this specific example, recalling the example seen by humans, the idea would be whenever a member of your team had an idea to spice up everyone else's dry vocabulary. He begins to have a clearer understanding of the limits of his concept as he considers more and more to determine whether it can be a product. The ideation team steps in at this point with creative suggestions and brainstormed ideas to refine the original product concept into a more streamlined one that is tested for commercial viability. It is the responsibility of the ideation team to stay current on customer and business trends to comprehend the direction wherein the original concept should be developed to realize its full potential once this enters the market and begins competing for customers with similar goods or services.

### 1.2.2. Study of Feasibility:

You believe your concept may be worth a million dollars, so that's what you're doing. Additionally, you have already given it the green light after running it via your ideation team to get their ideas, who have concurred that the concept is fantastic and has great potential. Discovering the potential of your concept as a finished product would be the next stage. You should do a SWOT analysis, a strategic planning approach used to uncover important elements while developing a business or strategizing, to determine whether your idea can be translated into a minimal viable product. The four parts of any research are Strengths, Weaknesses, Opportunities, and Threats, or SWOT. A comprehensive SWOT analysis is essential. SWOT, which stands for Strengths, Weaknesses, Opportunities, and Threats, serves as the essential framework for any new product.

SWOT analysis studies assist you with many project-related tasks and provide you with a general idea of how the product may perform in the market. Finding your product's advantages can help you comprehend its qualities more thoroughly, which will help you improve your product concept. Finding the flaws in your proposed product will enable you to address these issues at the source before they become more serious in the middle of the product design process. You'll be able to comprehend your product's target consumers by realizing the chances for your product to succeed in a cutthroat market. Additionally, by analyzing the threats, you can put risk management strategies in place to lessen any potential future difficulties.

### 1.2.3. Development and Design:

The next phase is product design and the subsequent creation of the product prototype when the product idea passes the SWOT analysis. The design process comprises multiple iterations as your design team considers creative solutions to the challenges of your users and refines the product concept to its greatest potential. In light of our hypothetical situation, this is the point at which someone would likely recommend integrating a chatbot to enhance the user experience or justify the need for evaluation instruments, such as examinations and quizzes, to be included after each learning module. The end-user is given careful attention throughout the product's design stage to ascertain what makes them tick, in addition to market criteria and the unique customer wants. In

the end, your goal is to produce something that will help and simplify the lives of your end customer. The early iterations will assist you in establishing the final specs for your product, and the next step is the production of a prototype, which is a beta version of your product made for testing.

### 1.2.4.  *Verification and Testing:*

Verification and testing are two of the most important steps in the creation of a product. You'll finally know at this point how well your product turned out and whether it is prepared to dominate the market. In this stage, you may evaluate if you constructed your product following the established product standards and test it to determine whether all of its capabilities work as intended. By doing so, you may launch your product with confidence and eliminate any potential for complaints from your end consumers. People will find all the issues and fixes which need to be made by your development team when you test the performance of your product prototype. Additionally, you'll be able to fully comprehend how your product works in a real-world setting and propose adjustments for improvement. As each product component is rigorously tested under stringent criteria, your team's attention to detail would be put to the test at this step, ensuring that your completed product would only serve to satisfy clients rather than disappoint them.

### 1.2.5.  *Validation and Documentation:*

The bugs were then fixed by you, and your development team is getting ready for their upcoming vacation as you get set to move on to the validation and documentation phase of your product development process. Documentation is essential for any product development since it enables you to track the project's progress from inception to conclusion. Any new development, no matter how little or significant, must be adequately documented in chronological sequence to ensure that any information on the product is always accessible in the future. Documentation is important in a dynamic work environment where ideas change and even team members are involved and left at various points in the process of designing the product. Imagine that you painstakingly collected and saved every piece of data on your product for future reference. If so, your product will not be completely dependent on any one person or group as other team members will be able to easily take steps after studying the documentation that defines the life cycle of the product. Make it a point to record every bit of information as there is little to nothing to do.

### 1.2.6.  *Product Launch or Marketing:*

Let's assume that your product has made it through all the rigorous testing phases and that you are ready to introduce it to your target market. How do you start the launch process for your completed product? You must take into account several things, including your target market, the needs of your industry, and your competitors. This will assist you in developing a product launch strategy, which is necessary for an effective launch. Remember that every company's product launch strategy is different, so you'll need to put in some effort to develop a launch strategy that fits well with your organization's objectives.  People may start working on the marketing phase of their product cycle once people have defined their product launch path and made their product available to the public. You must advertise your goods to reach your intended market. Let them know that you have something that will simplify their life and, in this example, expand their vocabulary by introducing them to new words. To reach the ideal audience and sell your product concept, you must promote your product properly. For instance, promoting your vocabulary app

to mathematicians would be of little to no use; instead, you could target English professors' lounges with effective advertising that highlights your product's unique selling characteristics.

In-depth market research as well as competitive analysis to determine whether to stand out from the competition or where to market it to broaden your reach to ensure the success of your marketing strategy should do. Essentially, here is where your product visibility matters. No matter how great your product is, it will be difficult to market if it is not well known. Additionally, it's important to keep testing your product for flaws and keep a comprehensive record of results long after it's launched and brought to market. You have almost completed your product development journey and are well on your way to taking your business to the pinnacle of your industry.

### *1.2.7. Product evolution:*

If you want your creation to remain current over the years and stay in people's thoughts, you should never consider your work finished. Keep up with the most recent changes in your business and its related verticals to stay relevant in a market that is always changing. This will allow you to consider all possible updates and improvements to your product when new needs or possibilities arise. Only if your workforce is kept alert and creativity is exercised will real product progress be made. Additionally, you need the motivation to take your item to new heights and maintain a significant edge over your competitors. To encourage such unconventional thinking, you need to be well-versed in the specifics of your product. You should encourage open communication between your team as well as your end users about the current state of the product and the potential for improvement through continuous feedback loop methods as the product progresses. In this paper,the author talks about the new product development process and various steps by using product development with the help of SWOT analysis.

## 2. LITERATURE REVIEW

Sari Pratiwi and Budi Winarni studied gap analysis and SWOT for new product development, in this study, the author discusses PT. Bars and headrests for the Avanza and Xenia automobiles built by PT. Astra International, Tbk. are provided by Duta Karya Mandiri (PT. DKM). The negotiation position of PT. DKM is weak since there is no formal cooperation agreement that would enable it to stop PT. Astra International, by ordering these items. This research study employed an in-depth interview strategy in the form of semi-structured interviewing to collect data for its qualitative analysis. According to the SWOT or Gap analyses, it was established that the creation of new products is required to make the best use of the factory, make use of leftover materials, and attract new clients in order to increase their revenue stream. Caps tock hangers, which may be offered to the general supplier of apartment developments, are one example of such a product.

C. Namugenyi et al. studied the analysis of SWOT, where the author provides a qualitative or descriptive analysis of SWOT. The study examined SWOT analysis from a theoretical, chronological, and historical perspective. It is a useful tool for scenario analysis in the disciplines of marketing, public relations, and advertising as well as in any other business needing strategic planning. The "strengths, weaknesses, opportunities, or threats" associated with a company, strategy, project, person, or business activity are evaluated using a technique called SWOT analysis. First, the purpose of SWOT analysis in strategic management is defined by this

qualitative or descriptive study. The components of the SWOT Analysis are next examined. Issues and challenges with SWOT components of different public or private sector organizations are investigated, documented, and modeled in order to analyze unified metadata reflecting varied industrial views, their visualization, as well as interpretation inside new knowledge domains.

Jyrki Kangas et al. studied Including SWOT Analysis in the AHP, Adopting the hybrid approach aims to strengthen the quantitative information base of strategic planning processes. It is commonly intended to develop and implement a strategy that results in a good match between these various components when utilizing SWOT analysis in a strategic plan. However, SWOT does not provide any tools for quantitatively evaluating a factor's significance or how well it aligns with the options that might be used to make judgments. As a result, SWOT offers the fundamental framework for analyzing the decision scenario, and the AHP helps to further analyze and elaborate SWOT such that alternative strategic options may be selected.

Hsu-HsiChang and Wen-ChihHuang studied the implication of the quantification SWOT method, in this paper, the authors introduce a quantitative SWOT (Strengths, Weaknesses, Opportunities, and Threats) analytical approach that offers more thorough and quantifiable information for SWOT analysis. The Several-Attribute Decision Making (MADM) idea, which employs a multi-layer strategy to simplify complex issues, is one that the Quantified SWOT analytical approach utilizes. It may thus do a SWOT analysis on several companies at once. East Asian cargo ports are presented as a case study in this piece. Each port's competitive strength is examined using the quantitative SWOT approach, and each is then given a flexible competitive plan.

## 3. DISCUSSION

### 3.1. SWOT Analysis:

The Strength, Weakness, Opportunity, or Threat (SWOT) analysis is a method for assessing a company's advantages, disadvantages, market opportunities, and external threats. Strengths, Weaknesses, Opportunities, and Threats are referred to as SWOT. Figure 2 illustrates a way for assessing a company's whole external environment, including prospective opportunities and dangers, as well as its internal factors, including strengths and weaknesses. Gap analysis is a necessary examination to determine the size of the gap between the actual and desired circumstances potential and conditions, where MSMEs would be more useful if issues can be reduced or even fixed.

### 3.2. Business to Business:

Business-to-business (B2B) marketing refers to the sale of products and services between businesses rather than between businesses and end users. Businesses, governments, or institutions make up business-to-business clients. Industrial products are bought by business customers to start or facilitate manufacturing processes or to utilize as parts for other services and goods, such as manufacturing, services, or transportation. While public and private organizations purchase industrial products to coordinate and offer services to their target markets, mainly the general public. When introducing a new product it is necessary to deal with the four marketing pillars of pricing, product, promotion, and place of sale. When users run their first ad or host your first promotion, evaluate your strengths, weaknesses, opportunities as well as threats to help you reduce your risks and optimize your resources.
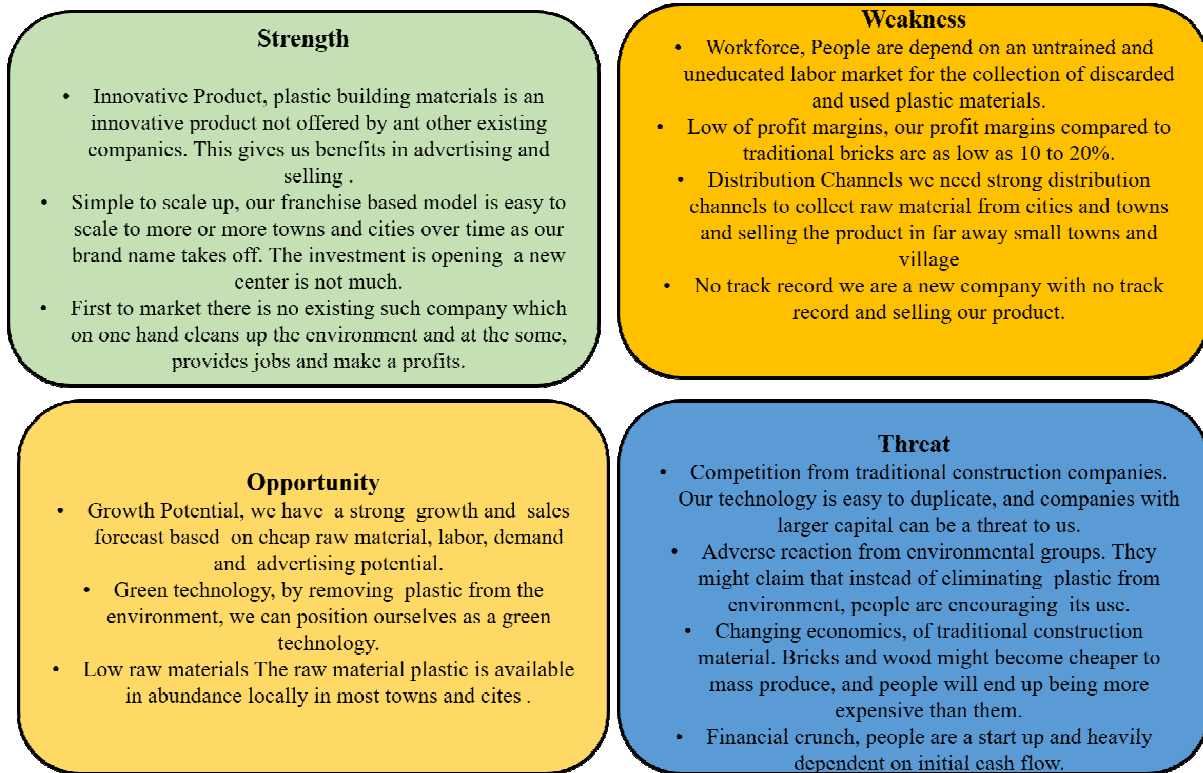
**Figure 2: Illustrate the SWOT Analysis for the New Product Development.**

### 3.3. *Assess your strengths:*

Every new product should be designed around two ideas: to meet the need or desire of a specific target audience as well as to do it with an exceptional selling point. Focus groups, surveys, and a thorough investigation of your competition are all required to do this. A few examples of your abilities include their pricing, stated value, customer service, unique features, availability in online or physical stores, and warranties. Marketing communications should convey your unique value rather than focusing solely on your qualities. People may increase your profitability by effectively managing your production expenses and utilizing distribution channels that provide you with the biggest sales volume at the lowest prices.

### 3.4. *Recognize Your Areas of Weakness:*

A shortcoming associated with the launch of a new product may be simply a hint that you need to outperform your rivals rather than an indication that you've done anything wrong. As an illustration, you could need to increase your marketing budget and provide more free samples till you win market share. For a while, you might need to introduce yourself to clients by selling your product at break-even or a loss. Your position will be further weakened if your rivals have reached exclusive endorsement as well as distribution agreements. Consumer brand loyalty is difficult to break, although if your product is equally as excellent as or better than the competitors and reasonably priced. Utilize free samples and the recommendations of reliable people or organizations to overcome this obstacle.

### 3.5. *Recognize Your Opportunities:*

Because your item is new, you already have a few options. Powerhouses and early adopters like utilizing cutting-edge technologies quickly and sharing their expertise with those who follow their lead. This might be used to succinctly support your evaluation, provided there is no competition. People could charge you more fairly if your overhead expenses are lower than those of a solid competitor. Utilize the interest the media has in fresh goods by launching a vigorous PR campaign to alert news outlets to your item.

### 3.6. *Analyze the Dangers:*

Once you enter the market, your rivals will undoubtedly respond. The biggest challenge you may encounter is your adversaries shifting the front lines after your speech. Have fallbacks at your expense, advancement, or distribution procedures so you may adapt to modifications produced by rivals. Consider testing things out in a few test areas before launching your complete distribution and marketing campaigns to see how your competitors will react.

## 4. CONCLUSION

The complex and subtle process of product development will ultimately decide the fate of your product on the market. Each step in this process can be done on its own, but they must collaborate to create the final product and continually improve it over time to remain relevant. People The entire team must actively participate in every step of the product development process, even if they are not directly contributing. Make sure the information you receive will help you accomplish your goals more quickly and effectively. The product development cycle is not for the faint of heart and should be closely monitored at all times, but if done correctly, it can be quite rewarding in the end. It's not just about the satisfaction of making a great product that will make people's lives simpler or more productive, it's also about the time and effort it takes to make the ideal final product down to the last detail. This paper's major goal is to use SWOT analysis to gain additional knowledge about the creation of the new product. The author of this paper examined the requirements for product development as well as the many steps in the process. Through the use of SWOT analysis, this article will eventually aid in the understanding of the new product development process.

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