

# REFLECTIONS

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SR. NO	TITLE OF PAPER	AUTHOR/S
1	Emerging Trends in Digital Marketing post Covid-19	Ms. Shruti Bhatnagar & Mr. Kartik Garg
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**Bharati Vidyapeeth (Deemed to be University), Pune (India)**  
**Institute of Management and Entrepreneurship Development**  
Erandwane Campus, Paud Road, Pune - 411 038,



**Hon'ble Dr. Patangrao Kadam**

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Dr. Sonali Khurjekar  
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Mr. Ketan Poojari  
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Published by:  
Dr. Sachin S. Vernekar (Dean FMS)  
Director, Bharati Vidyapeeth (Deemed to be University), Institute of Management and Entrepreneurship Development, Pune.  
More Vidyalay Campus, Erandwane, Paud Road, Pune - 411038.  
Tele No: (020) 25425517/ 25448005      Telefax: 020 - 24531060

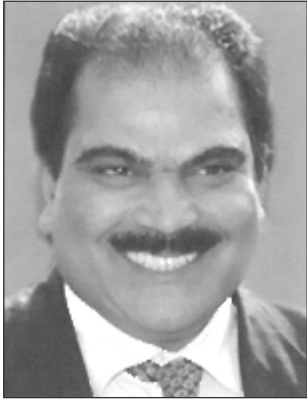
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# Content

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## Director Address

IMED stands strong with its ground rules of unmatched encouragement and force of courage for young minds to light up their imagination and portray their thoughts via means of research. The establishment of this journal provides them a podium to showcase their research and own their work. It is a great pleasure to publish a new issue of this multifaceted biannual journal “REFLECTIONS”. It is platform where students can freely publish their best research work. Reflections include research in fields of Finance, Marketing, Information Technology, Emerging technologies, International Business, Computer Applications, Art, Social Science, Social Welfare, etc.

Each and every discipline of student’s interest is clubbed in a common platform. Very few institutes in India can boast about a journal which enhances critical thinking of the students. We live in times where volatility is just a second away to destroy your normal flow of life. Hence, students should be encouraged to bring out their deepest thinking ability and perform a skeptical research and solve the problems in the process. A great responsibility lies with the institute to make students an asset in crisis to build the future of a nation. It can only be achieved through critical thinking and problem-solving capability. Hence, research provides it all.

The editorial advisory board comprises of the faculty members from IMED; Dr Sonali Khurjekar and Dr Ranpreet Kaur supported by an enthusiastic team of student editors too. Research papers from the diverse disciplines of management are invited for the forthcoming issues.

In order to maintain the standard of the journal, the papers received will be checked for plagiarism and notification of acceptance will be sent to the Authors thereafter.

Looking forward to receive a great response from our young researchers.

All the Best!

Dr. Sachin S. Vernekar  
Dean FMS, BVDU  
Director IMED

## From the Editor's Desk:

We, the millennials or zenial belong to a generation where everything is extreme. We believe that everything is achievable by just one idea and to execute that idea we need only data. Good riddance to "Money is power"; let's welcome "Data is power".

Namaste readers, with great pleasure we bring out the issue of biannual journal IMED REFLECTIONS. We promise you that this journal is bombarded with papers from fearless, hard working, smart and intellectual authors. These are only few words that define the students of IMED, who have typed these pages of study. We, the student editors just added a silver lining to make this reading experience a joyful ride. We thank the readers who appreciated the young thinkers and accepted their quirky yet unique ideology.

IMED REFLECTIONS has no boundaries to subjects of research. It consists papers of finance, marketing, human resource, information technology, internal affairs, external affairs, data driven topics, gig economy, social responsibility, social relations, legislation and many more.

One paper is focuses on influence of Artificial Intelligence on emerging business. Another paper stresses on Customer Perception and Investors preference in Insurance sector. One author has studied Emerging Trends in Digital Marketing post Covid-19. Multisourcing as new trend in business management is the topic of one of the researchers. There is one paper which is based on the theme -Study of Product Customization on E-Commerce Platforms. This shows the variety of topics handled by our young researchers.

Kudos to all the student authors and researchers who are fearless to explore unusual places. All the credit goes to them and the IMED management for giving this platform so that students can decorate it with their ideas. We can proudly say, "We are the future!"

Happy reading folks...

Mr. Ketan Poojari  
Mr. Vyshakh Thankappan  
Ms. Alka Pandey





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# EMERGING TRENDS IN DIGITAL MARKETING POST-COVID 19

Ms. Shruti Bhatnagar & Mr. Kartik Garg  
Student, MBA, Institute of Management and Entrepreneurship Development,  
Bharati Vidyapeeth (Deemed to be University), Pune

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## Abstract

The developments of an online economy will have a great impact on the economy of the country and also tells that how economic values will be initiated. So we have discussed the various characteristics of the digital economy.

There is a crucial time in India to acquire digital transactions for all economic activities in India 97% of economic activity that takes place is in pure Cash. The Government's planning to cancel 86% of high-value notes in 500 & 1000 on November 8 2016 has disturbed the rural economy where the banks have a rare presence. Six lakhs plus Indian villages haven't seen the new notes yet. India observed in the last two months of 2016 rural economy in confusion. Government wants to acquire digital transactions and to withdraw high-value currency notes to become a cashless economy.

Key words: digital marketing, trends, emerging, COVID-19, business, consumers

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## INTRODUCTION & BACKGROUND OF THE STUDY

As we all know the year 2020 was an outbreak, emotional and was full of tragedies. Many accidents took place this year across the world. And the major tragedy among them were COVID-19 VIRUS. This virus has changed the economy of the entire world and has taken many lives and still on the board many lives. Many small and medium scale businesses have to shut down because of the covid-19, the world has gone into a lockdown situation. So due to proper lockdown in the country India many vendors, daily wages workers etc has to quit their work so this was the turning point for the digital marketing post-covid-19, so that everyone could get back to their normal life. Although it's extremely difficult right now to

say anything about coming back to normal life. But there are ways to change this dull business world scenario into the blooming ones by using the potency of digital marketing. In a recent study, it has been observed that all the digital platforms are acting as an intermediate between the marketers and the consumers. And due to this, the attitude of the consumers are also changing with the emerging digital marketing trends. The risk of going to the market during current times has made even the technology unaware easy with online shopping. And only now are they realizing the sheer advantages of being able to order everything from a book to a water purifier from the safety of their homes. Also, it was stated that in 2018 the need for Digital Marketing was 56%, and post covid-19 it is arisen by 3 times of the actual.

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## OBJECTIVES

- To analyze the impact of Covid-19 on digital payments.
- To determine the most affected industrial sectors due to Covid-19.
- To analyze the transformation of small and medium-sized businesses into online business in 2020.
- To study the impact of Covid-19 on Indian Start-ups and SMEs.

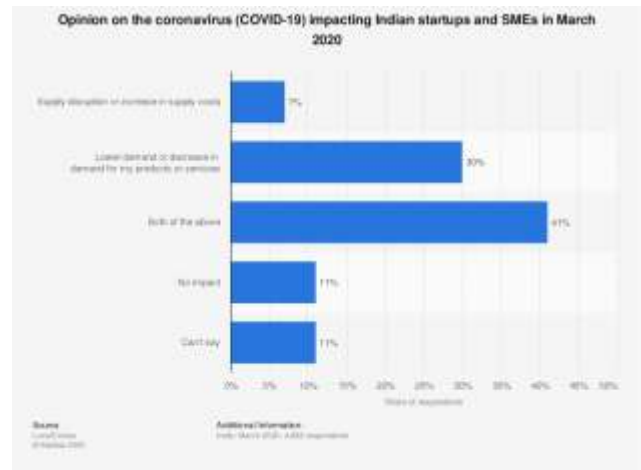
## RESEARCH METHODOLOGY

Research Methodology is said to be the guiding light or path by which researcher conduct their researches. It is the best way to solve a research problem systematically. It is a scientific way of studying how research should be done scientifically. It is a procedure by which the researchers go about their work of describing, evaluating, and predicting phenomena. It provides training in choosing methods, materials, scientific tools and techniques are relevant for the solution to the problem.

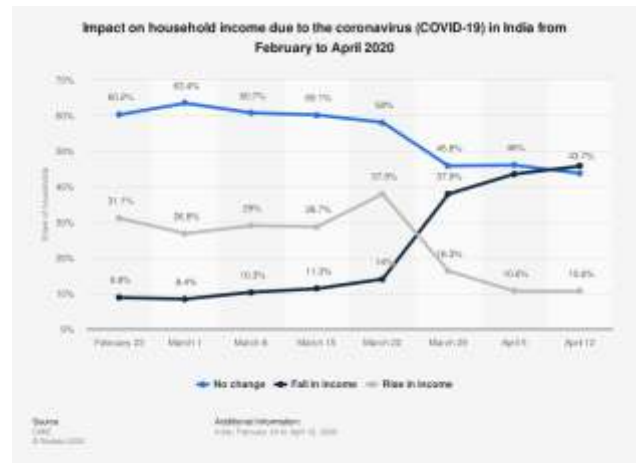
It is important because researchers should not only know about the problem but also the method of solving it. It helps in selecting the best way to solve the problem. It also tells us about the output of the selected method and its accuracy. It is useful in knowing the efficiency of the method.

The method we used in this research is based on secondary data, which we have collected from the Internet, Journals, and newspapers, etc. The data that we have collected and used only for study purposes.

## DATA ANALYSIS

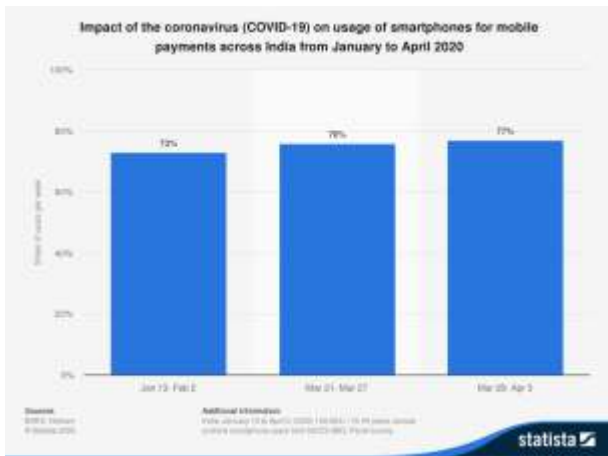


On the report of a survey which was conducted to study the impact of the Coronavirus Pandemic on the Indian start-ups and SME's stated that 30% of the respondents felt that there would be an increase in the demand for their products and services whereas on the other hand there are only 7% of respondents who felt that there would be a rise in their supply costs. Also in addition to this there 41% of them felt that there will be both that is a rise in supply costs as well as a fall in the demand for their products and services.

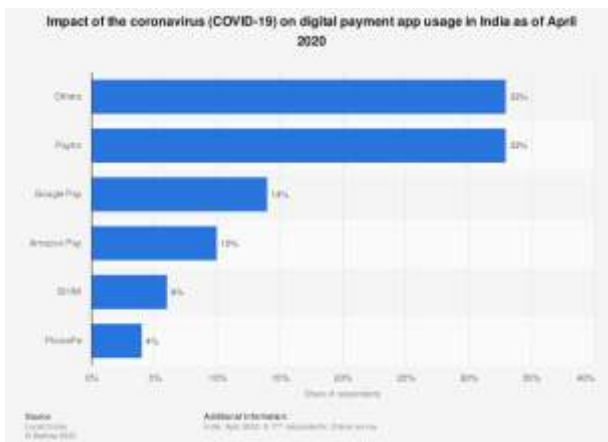


From the above chart, it was stated that during the time of Covid-19 in India the impact of household income from March to April 2020. On 23rd Feb, 2020 8.8% finds fall in their income,

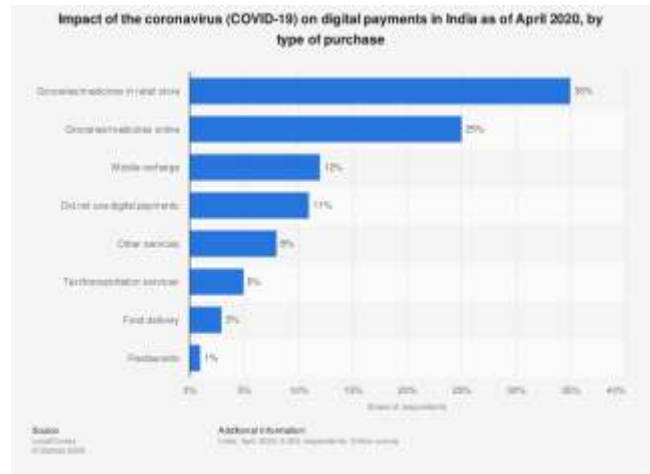
31.1% finds rise in their income and 60.2% finds No change in their income. So after the 3 weeks of complete lockdown that is on 12th April, 2020 10.6% finds rise in their income which is very less as compared to 23rd Feb ,2020 43.7% finds fall in their income which was only 8.8% in 23rd Feb, 2020 and 45.7% finds No change in their income which was 60.2% on 23rd Feb, 2020.



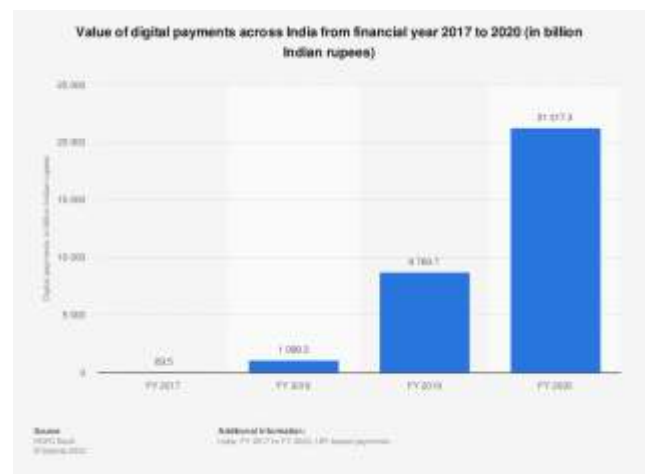
The above figure states that how the coronavirus pandemic has impacted the usage of smartphones for mobile payments across India from January to April 2020. From the above figure, we can say that yes it has impacted as we can see that before the period of the outbreak there are 73% of the respondents which used to operate smartphones for doing payments digitally which rise to 77% between 28th March 2020- 3rd April 2020 followed by 1% rise between 21st March-27th March.



From the above figure we can infer that 33% of the respondents use PayTM for doing their payments digitally which is relatively very higher as compared to the other apps. Which is followed by the Google Pay, Amazon pay and BHIM that is 14%, 10% & 6% respectively. On the other hand there are only 4% respondents who use PhonePe to do the same.



The above figure shows that the impact of the pandemic on digital payments in India as of April 2020, by type of purchase. A large chunk of the people which is around 35% use digital payment in India to purchase groceries, medicines, and other essentials in retail stores. Whereas on the other hand there are only 1% of the respondents who use digital payment at restaurants.



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According to the survey the figure states that in the financial year 2018 the value of digital payment was only 1098.3 billion rupees which rose to 8769 in the FY 2018 followed by an increase in the FY 2020 to 21317.3.

## FINDINGS

- According to the Indian startups and SME's, 30% respondents felt that demand for their products and services have declined in the period of March.
- During the period of May (pandemic) the impact of household income has been highly affected.
- During the pandemic people were compelled to go outside and due to this they have started operating smartphones for doing mobile payments across India (from January to April 2020)
- Impact of covid19 has forced us to use digital payment applications. And Paytm is one of them which is the most popular among all the other digital payment apps carrying a majority of 33% followed by other applications, like google pay, phonepe, etc.
- Majority of the people that is 35% of the total respondents, use digital payment

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applications to purchase groceries, medicines, and other essentials in retail stores in India.

- It was observed that in the FY 2018 the value of digital payment was only 1098.3 billion rupees which rose to 8769 in the FY 2018 followed by a boost in the FY 2020 to 21317.3.

## CONCLUSIONS

It was concluded that the risk of physically going to the market during current times has made even the technologically unaware familiar with online shopping. And only now are they realising the sheer advantages of being able to order everything from a book to a water purifier from the safety of their homes and also helps the people to go digital and also educate themselves digitally.

While the plan was there before, the moment to deliver has arrived now. That is because marketing trends at the moment are not just calling for a transformation but a digital revolution.

At the end, we would like to say that after the Covid-19 will pass there will be a drastic revolution in the entire world and people will go more for digitalisation.



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# INFLUENCE OF AI IN EMERGING BUSINESS: A BEGINNING TO UPCOMING CHANGE

Ms. Kriti Kapoor

Student, MBA, Institute of Management and Entrepreneurship Development,  
Bharati Vidyapeeth (Deemed to be University), Pune

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## Abstract

In present years, management of every field in organization of different sectors has become more reliable on IT tools to accomplish the business targets and achieve large sums of profit. The current world is very well said as “Modern World of Technology” and now traditional workspace is considered as a thing of the past. Business is moving with technology and so its functions. Introduction of IT tools in modern society has completely changed and revolutionized the scenario and processes of today’s running business techniques and now it has become improbable to run a business without the involvement of IT tools.

One of such IT tools that are being widely used in the organization is Artificial Intelligence. It holds significant potential and purpose in business and one of the most powerful tools of choice in modern business. Various applications are designed with the help of concepts of artificial intelligence and machine learning. It has various aspects and levels of learning which is helping the world to become a better and easier place for business as well as humanity. What till now technology hasn’t covered and served, AI is there to save the day and serve the required purpose as it also acts as a helping hand to embrace futuristic approaches and understand the shift in consumer demands that normal humans cannot.

Keywords: IT tools, business, technology, business development, Artificial Intelligence

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## INTRODUCTION

Business sector, the largest and the most economical sector that is responsible to maintain the economy as well as employment of the people all across the globe and is the source of bread and butter to the entire population of the people belongs to this very Earth. It can be defined as an organization or entity that is engaged in producing commodities or providing services and other activities in order to achieve profit and to fulfill its organizational mission and goals. To achieve these goals and mission, a proper strategic planning, thorough

research is required. On successful planning and strategic thinking or outlook leads its path to business development. This development brings light and life to the business that enhances its competency in the rat race in the corporate universe.

As competition is growing from root to the sky, organizations are coming up with new ideas and innovations to attract more and more customers and prove to be better in providing services or products better than any other organization of the similar respective field of area. The initiation of Information Technology and its tools have

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been nothing but a blessing in disguise to this growing competitive pressure and are now critical to business performances. No matter how much they would cut through all this red tape, but the current competitive business society has left no option but to tie hands on these IT tools.

IT is as important to the business as breathing to humans. Irrespective of the size of the business (small, medium or large scale), it has both tangible and intangible advantages that not only lend hands in making profit but also brings the results that the consumer demands. Information technology is derived from all forms of technology that is used in creating, storing, exchanging, communicating and utilizing information in the form of business data, images, multimedia presentations, and many more. It fosters innovation and ideas in business. Now, as the business is growing and running at a faster pace, so does the technology. Computers and other peripherals are constantly evolving and there is no going back.

From automobile industry to aviation industry, from schools and colleges to households, from marketing department to human resource department, technology has set foot in all different departments and different fields of area. During these recent years, globalization and computerization have redefined the processes in the industry, culture and politics. Now, consumers want things or services at a faster pace and cost effective what IT tools have by far served its purpose.

Companies like Amazon which is an e-commerce retailer which opened an opportunity to its consumers to buy all sorts of products online and gives the perk of home delivery. This idea and efficient usage of technology attracted the consumers that not only saved their valuable time but turned out to be cost efficient and effective as well. This made consumers purchase

more from online rather than visiting general stores for purchasing.

Social media sites are one of its examples. To reach out maximum no. of customers all across the globe, none the sites are better than social media websites such as Facebook, LinkedIn, Instagram, Twitter, to name a few. To generate leads and contacting for opportunities, social media serves all its purpose to grow business like a wildfire.

Business is all about understanding shifts in consumer behavior, satisfying consumers' needs as well as predicting future demands since every market needs to consider for the long run and remain in the competition. Business without long term approach and futuristic vision and mission are considered as weak as a baby. To satisfy this purpose, businesses have started leaning towards Artificial Intelligence.

Artificial Intelligence (AI) is a simulation or mock up of human intelligence in machines that are programmed to think, act and mimic like humans. It also possesses traits that are associated with human mind and problem solving. For the matter of fact, problem solving is faster, more accurate and reliable than normal humans. Business uses AI to achieve cost saving benefits, more efficient and effective communication, improves customer satisfaction, and provides insight into purchasing behavior of consumers. These high-speed machines are designed with certain algorithms that make them perform activities more rapidly than humans.

Many people carry these incorrect assumptions in their mind that Artificial Intelligence is all about robotics that is certainly created in the movies. But, it's not just about robotics. A calculator that can perform all sorts of calculations that human brains are capable of but performance is much faster than an average

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human being. The inception of AI has no doubt dramatically changed the business landscape. No business is complete without the involvement of AI. Further applications of AI in plethora of fields can be discussed as:

1. Alexa, Siri or Google Assistant- One amongst the best samples of AI are used today by almost everyone. Their familiar friendly voice is computerized. What does it do or what's the employment of it? Any information or direction or map, movies or shows we would like to go looking, typing consumes time over directly speaking. This very feature developed with the assistance of AI helps us get all the data we wish. These are a pseudo-intelligent digital personal assistant. Even chatting will be made possible with the assistance of them. They use machine-learning technology to urge smarter and better able to predict and understand our natural-language questions and requests.
2. MG cars- MG cars starrer Benedict Cumberbatch have added this feature that different companies are also giving a thought to add these in their upcoming car models. This feature states that even the slightest command one gives such as opening a bonnet, starting a car, opening windows etc are obeyed by the technology or AI. It also greets according to the period or time (Eg Good morning, Good evening).
3. e-Commerce- It has provided a competitive edge to most of the e-Commerce businesses and is becoming readily available to n no. of companies no matter the dimensions or budget of the organization. Exerting out machine learning, AI software automatically tags, organizes and visually searches content by labelling features of the image or video.

4. Defence Forces- Not only the AI doing wonders in the field of business, but it also has set its foot in the field of defence forces. No better example one could think of than the use of a robotic bird in the URI mission. The appearance of the bird looked so real, that enemies from the other side of the border couldn't figure it out and programmed in certain ways that helped the Indian Defence Forces to get the outside sensitive information.
5. Chatbots- Employees from help centers cannot help or solve queries of innumerable no. of users at same time. These functions are designed in a certain manner that can solve queries of many users at the same time. They deliver messages or solve queries through conversations on mobile devices using standard messaging tools and voice-activated interfaces.

Many online sites like Amazon, Flipkart, Myntra, Facebook, Instagram, to name a few ses these AI algorithms to make customers engaged with their shopping and satisfying other needs within their respective sites. For instance, Amazon throws an offer or sale in their products, with the help of algorithms, they read and understand the interests of the customers and make them aware about the same by either sending them an email or messaging them that pops up in the customer's notification bar which increases the chances of the customer to purchase things from that respective site.

#### History

The idea of inanimate objects coming to life with human intelligence and performance began in the first half of 20th century and the concept was sparked by a fiction character "Heartless" Tin man from the very infamous "The Wizard of Oz".

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The character inspired many scientists and mathematicians to build an object that can work and function like humans. By the 1950s, one such scientist named Alan Turing explored the mathematical possibility of AI. Turing believed that humans use available information as well as reason in order to solve problems and make decisions, so machines can do the same as well. Therefore, he explained this in his 1950 paper on Computing Machinery and Intelligence in which he explained how to build intelligent machines and how to test their intelligence. He came up with the Turing test and because of his intelligence and knowledge regarding Artificial intelligence, he managed to crack the German military codes that helped his country to win WWII.

Five to six years later, group of scientists Allen Newell, Cliff Shaw and Herbert Simon brought up the concept and named it Logic Theorist. It was a program which was designed to mimic the problem solving skills of humans. It was considered as the first Artificial Intelligence program by many. It was presented at the DSRPAI conference which was then hosted by John McCarthy and Marvin Minsky in 1956, later when McCarthy first coined the term "Artificial Intelligence". But, this conference didn't go as expected and failed to align thoughts of scientists with uses of AI together and thereby failed to undermine the very significance of this event.

During the period from 1957-1974, AI reached its peak and touched heights since the storage capacity increased, became much faster than before and was quite accessible to many. People got a better understanding of the AI concept that helped them align their problem solving with these machines. Improvement in machine learning algorithms was also observed that led to people applying their problems with these algorithms.

During the 1980s, Japan came up with the invention of the Fifth Generation Computer System project which was another feather in their cap in the world of advanced technology where USA and Germany were among the highest notch countries to air the list. This gave Japan a technological lead for years to return and described this leap as an 'epochal leap'. This new generation of machines wouldn't be built on standard microprocessors, but multiprocessor machines specializing in logic programming. The bet was that these high-power logic machines would catalyze the planet of data processing and realize computing.

During the period of 1990s and 2000s, algorithms took the form of gaming and chess games were programmed in such a way that they play games just like humans. In 1997, the world and reigning champion of chess Gary Kasparov tasted defeat by IBM's Deep Blue, a chess playing computer program. This defeat gained popularity because it was for the first time any world champion was defeated by a computer programmed game that made its footsteps towards an artificially intelligent decision making program.

Current Trends in business using AI technology

Use of IT tools and its emergence in society has been a good talk in the present technological world. Introduction of IT tools have helped organizations not only grow and survive the external market competition, but helped business better understand customer management relationships. Better customer relationship understanding, the more the business grows and achieves heights because business is not only about the profit earned, it's also about satisfying needs and demands of customers.

Majority of the population have this biggest



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myth in their mind that AI is all about computer systems and only used by computer engineers or software developers. They forget that we all are surrounded by technology and in some or the other way, we all use AI technologies for our work to get accomplished.

i) Mobile Phones - These are better called Smart Phones in today's generation. Exactly 25 years ago, when Union Telecom Minister Sukh Ram and Chief Minister of West Bengal Jyoti Basu changed the history in the world of technology by introducing the technology of phone call that was only possible with the wires attached to it in India that is very well known as Mobile phones. This has revolutionized the way we communicated in the past.

History of mobile phones is very interesting. Earlier when one needs to send letters to the respected person for important information to pass on, it would take days and consume time. Even when telephones were there, the sender had to pass on the information within one place only since the telephonic calls could be possible with wires connected to it. Wireless telephonic conversations were beyond the imagination of normal humans but technology made it possible. When the technology gave birth to mobile phones, the scenario completely changed. The transfer of information from one sender to another receiver could be done within one single day instead of taking days and can be possible anytime, anywhere. The company Nokia was said to be the mother of all phones because these were earlier the only phones that were connected through airwaves operated by Modi-Telstra.

So, what led to decline in the aura of Nokia which slayed during the 90's? Well, the answer is straight and simple. While other companies focused on introducing AI technology in mobile phones, Nokia resisted the upcoming changes

that were followed by a plethora of related companies. HTC introduced the first smartphone with Android features in India that changed the outlook of people. It was launched during 2009 and was the first linux based Android OS device running on Android 1.0. This surely raised the bar in the world of technology.

With this, many telecommunication companies began thinking with innovative ideas with so many features introduced that it could combinely perform the tasks of calculators, computers and photography. Earlier, when calculations were only possible either with brain or calculator, a smartphone can do that too. Emails, presentations, MS office, to name a few were only possible with the help of computers, now it can be possible via smartphones as well. It is very well versed "Work goes with your smartphones". Mobile with such features and performing related tasks are very well known as Mobile computing.

With increasing technology, people have now become paranoid regarding their phones. With internet services also introduced in the smartphones, from Emails to internet banking, people are worried regarding the safety of their phones because confidential information is saved in their mobile phones which on stealing could be hampered. For the safety purpose, smartphones have come up with security features such as fingerprint, face recognition, iris recognition, voice recognition etc to unlock the phone. What an owner needs to do is to save his/her fingerprint, face image, voice in the data of the system that fingerprint, or face or voice other than the owner would not be able to crash the phone system. This security feature is only possible with AI technology.

ii) Machine Learning (ML)- It is an application or branch of AI that gets computers

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to act or improve learning experience without being explicitly programmed. But why are more and businesses opting for this? Machine learning not only draws attention to the concept of automatic driving cars, but with the help of its algorithm, it has also lent hands towards vastly improved understanding of the human genome. Many researchers also believe that it is the best way to make progress towards human-level AI. It helps us to make better decisions and gives better understanding of future demands of customers. Machine learning is not only applicable in IT fields, but is also implemented in other areas of business as well. Business functions with amalgamation of marketing, finance, human resources, production, supply chain management and many others.

Raffaele Cioffi , Marta Travaglioni, Giuseppina Piscitelli, Antonella Petrillo and Fabio De Felice (2020), in their paper “Artificial Intelligence and Machine Learning Applications in Smart Production: Progress, Trends, and Directions” discussed main areas in sustainable manufacturing. In supply chain management, application of ML improves transparency, accelerates decision-making, and produces accurate demand forecasting. Application of ML in internal control, it improves the interval and allows eliminating possible failures. The paper also discussed the applying or use of ML in predictive maintenance and energy consumption. In predictive maintenance, it helps in creating accurate forecasts on when the machinery must be repaired and in energy consumption, it improves excessive use of certain materials, redundant production scrap waste, inefficient supply chain management, logistics, and unequal distribution of energy resources.

AI is affecting every single functional area of marketing especially in the area of digital marketing from social media to paid media with

the help of machine learning. The research report captures the insights of Alex Mari (2019). According to his research theory, the exogenous and endogenous forces are responsible for the shift in marketing paradigm that is due to the effect of AI. Xin (Shane) Wang, Joseph Ryoo and Neil Bendle (2019) in their paper “Predicting the Future: Machine Learning and Marketing” discussed investigating machine learning in market research. In this, they studied the current state of machine learning in top level marketing research. Combining ML insights with current scenario of marketing research open doors for ample of opportunities for future research and analysis to improve theoretical understanding to incorporate ML approaches into the marketing sector.

T.Thiraviyam (2018) studied Artificial Intelligence Marketing in which it was concluded that it is important to develop one to one relationships with the consumer. According to the study, Artificial Intelligence and Machine learning have brought the biggest changes in the marketing field and have created new opportunities.

Anupam Jauhari (2017) in his paper titled “How AI and machine learning will impact HR practices”, he studied the importance of AI tools in the field of HR and how much it is applicable in the respective area. Since, human resource management is one of those major fields in the organization that keeps reshaping or remoulding itself according to the changes in the external as well as internal environment, evolution and advancement in the technologies have reshaped its method of practices. Recruitment like practices in the very field have found comfort to the practitioners because of the introduction of machine learning that makes the use of chatbots and proceeds with all the activities.

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iii) Deep Learning (DL)- Just like machine learning, deep learning is also referred to as a function of AI. So, what is the difference between the two that makes them separate functions of AI? The answer to this question lies straight and simple. AI, as it is mentioned above, encompasses machine learning that performs tasks and learns skills by experience without any involvement of humans. Deep learning on the other hand is considered as a subset of machine learning that apes or imitates the functioning and workings of human brains in processing data and creating patterns for use in decision making. This functions helps in processing data in detecting objects, recognizing language and speech and making decisions. It's algorithm is designed in such a way that it performs repeated tasks with little improvement in each run.

Deep learning algorithms also allow machines to solve complex problems even with diverse and unstructured data. Successful DL-powered companies make high end use of deep learning algorithms in order to have futuristic vision. The algorithm is also used in fraud detection and money laundering and the technique also includes time, geographic location, IP address, and many more. Companies use this DL algorithm for commercial apps and these apps require image recognition, image colorization, translation, virtual assistants like siri, google assistant etc, to name a few.

Ben-Bright Benuwa, Yongzhao Zhan, Benjamin Ghansah, Dickson Keddy Wornyo and Frank Banaseka Kataka (2016) in their review of deep machine learning divided their paper into 3 sections- fundamental concept of DL, Architectures of DL and applications of DL. Fundamental concept includes The Universal Approximation theorem which is a theoretical concept of how and why neural networks work. Architectures of DL are further categorized into

branches of some original parent architecture and they are: Deep neural networks, Deep belief networks, Convolutional Neural Networks (CNN) and Convolutional Deep Belief Networks. Applications of DL include face detection, speech detection and recognition, general object recognition, natural language processing and robotics. It is concluded that deep learning platforms can also benefit from engineered features while learning more complex representations which engineered systems typically lack.

iv) Cognitive Computing (CC)- Cognitive Computing is another form of AI system that aims to simulate human thought processes in a computerized model involving self-learning systems that use data mining, pattern recognition and natural language processing to mimic the way the human brain works. It also helps in assisting humans in their decision making process. As machine learning and deep learning involves and relies on algorithms for problem solving, on the other side, cognitive computing creates that mimics the human brain's functioning and reasoning process to solve an array of problems and helps in decision making. With insights of K J Sarma and Vijayalakshmi Ramamohan (2016) on "Prospects of Cognitive Computing Research", it discussed its application in the areas of mathematics. Its algorithm helps in solving complex calculus, data analytical and statistical problems and probability theory. It was concluded that application must have intent, memory, foreknowledge and cognitive reasoning for a domain of variable situations. It is an emerging model of computing methodologies that are intelligent in nature and systems that implements computational intelligence by autonomous inferences and perceptions that imitates the mechanisms of the

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brain. It also shares its area in neuroscience, supercomputing and nanotechnology for its research purpose and progress through computing systems design, information management, programming and machine learning and interfaces between machines and humans.

v) Natural Language Processing (NLP)-Systems or softwares use binary language to implement any tasks, but this language is not readable by humans and vice versa. System cannot interpret the language of what humans communicate in normal days. It needs a medium or a platform to make the human language understandable to the system. That platform is very well called Natural Language Processing. It is the AI method that allows machines to break down and interpret human language. Its core tools that one uses everyday in their lives such as spam filters, chatbots, search engines, grammar correction, voice assistants etc. For the matter of fact, NLP is considered as the most difficult problem in the field of computer science. It is because of the nature of human language that makes it complicated for the NLP to convert human form of language into binary language (computer's understandable language). The field of NLP involves making computers to perform useful tasks with the natural languages humans use. The NLP system gives input and output in the form of written text and speech.

#### Working of NLP

A translator is often needed when one kind of a language is converted to another and NLP performs the exact same. Ever wonder how it works? How does NLP convert our normal human language to a computer understandable language i.e. binary? Here's why. It is a necessity for NLP to apply algorithms in order to examine

and extract the human language data that are stored such that the human language data is converted into a form that computers can understand i.e. binary form. So, when a user gives data to the computer system in the form of written texts, the computer will make use of the algorithms to extract meaning associated with every sentence and collect the essential data from them. But not every time a computer understands the language, therefore gives uncertain output in the end. This happens because that particular language is not in the database of the computer system.

Authors Diksha Khurana, Aditya Koli, Kiran Khatter and Sukhdev Singh (2017) in their paper "Natural Language Processing: State of The Art, Current Trends and Challenges" studied NLP application and future use of BI space in NLP. It discussed application of NLP in a plethora of areas such as machine translation, text categorization, spam filtration, information extraction, summarization, medicine and dialogue system. According to the paper, The Columbia university of New York has developed NLP system that is very well called as MEDLEE (MEDical Language Extraction and Encoding System). It pin downs clinical information in reports and converts the information in written texts into a structured representation.

#### Emerging Trends in business using AI technology

i) Intelligent Process Automation (IPA) or Intelligent Automation in Business Process (IABP) - Creating pathways for IPA is expected to be the one as emerging trends in AI technology in redefining businesses and enhancing customer experiences. It is one of the aspects that has a broader shift in technology. It is the application of Artificial Intelligence and collection of technologies that come together to

manage, automate and integrate digital processes. Primary techniques that are used in IPA are Robotic Process Automation(RPA) and Artificial Intelligence (AI). When both are combined together, it takes automation of business processes to the next level.

#### Benefits of IPA/IABP

- It has the potential of transformational technology.
- It offers possibilities to enhance and change in improvements in customer relationship or experience, productivity and efficiency.
- It possesses a longer term approach as it benefits organization to perform complex tasks and more adaptable workflows.
- It can perform better than Robotic Process Automation as it involves many exceptions or draws on unstructured data.

- With the help of IPA, humans can make their human relationships as center of attention rather than process work.

What exactly does IPA or IABP do? Companies like Wipro and Cognizant use this technology. According to the Wipro report, combination of RPA and AI and use of advanced analytics helps buyers attain these benefits: higher speed, improved accuracy, enhanced customer experience and reduced cost.

According to the report released by Everest group named “Intelligent Automation in Business Processes (IABP)-Solution Provider Landscape with Solutions Peak Matrix Assessment 2020” (2020) of Wipro analyzed the changes in IABP dynamics and how much it has changed the overall dynamics of the company. It was analyzed that Wipro emerged as a leader and it’s IABP experience and capabilities provided relative strengths and opportunities.

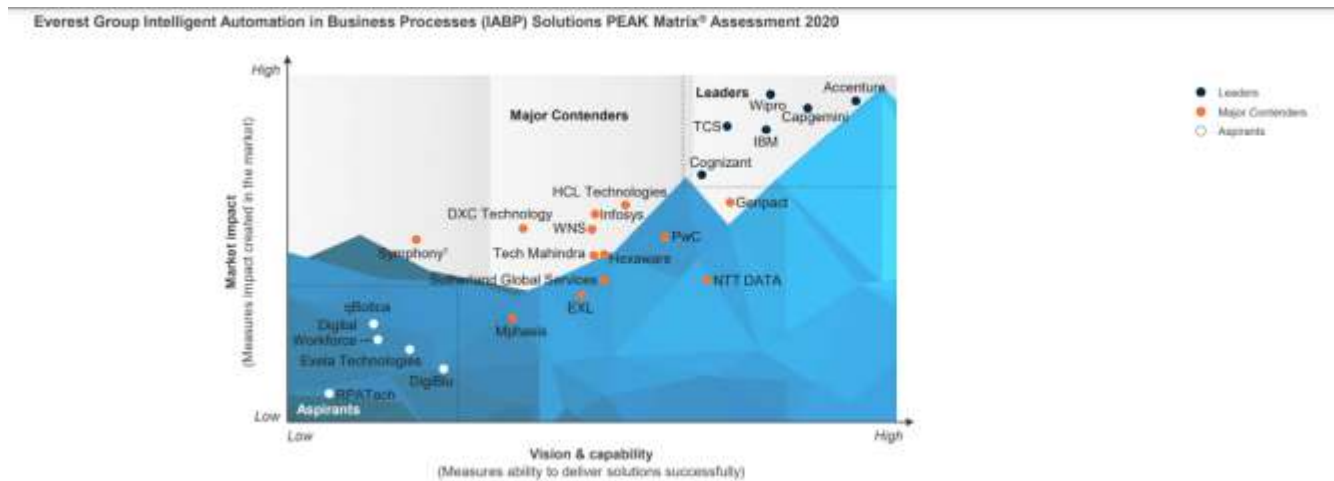


Fig1: Everest Group PEAK Matrix showing Wipro position as a leader

The position of Wipro as a leader as shown in the above figure, shows the enhancement of vision and capability with increasing market impact with the help of use of IABP/IPA. Other related

companies like TCS, Cognizant, Accenture etc have observed similar growth with this emerging trend of IPA/IABP while other companies like Infosys, EXL, HCL Technologies

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and many other observed relative decline in vision and capability with decrease in market impact.

ii) AI enabled chips- With day by day, year by year- change in the technology is being witnessed every now and then and this change in technology brings new hope and light to the organization in terms of growth and development. Such changes take time in adoption and application in the real world and one could think no other better example in adoption with changing technology than smartphones.

Smartphones have developed themselves in ways that no normal people even in their wildest of imagination could believe. Cameras with highly professional quality as much as quality in DSLR have set their foot in the market and the revolution of such kinds of cameras are brought by Apple Inc. Camera quality and other features such as face recognition, fingerprint for security purposes are the major reasons and the first thing customers' look for when they purchase a new smartphone. Smartphones with high definition cameras, applying filters, photography with professional angle etc is made possible by adopting technologies and AI. With the adoption and introduction of AI chips, the mentioned things could be done better, faster and with less consumption of energy and power.

The new introduction of technology brings new innovations and capabilities that make things easier for people to perform their tasks at ease, faster and better. The newly launched AI microchip called Eyeriss is far better, faster, reliable and versatile that may be used with adaptive applications. So, what's unique in this? It can perform predictive analysis that previous AI microchip couldn't, can process and equip heavy and huge data and process queries at faster

rate. This chip is based on the application-specific integrated circuit (ASIC) and field-programmable gate arrays (FPGA) and is designed to perform error-free computing tasks.

Leading AI chip manufacturers such as Intel, NVIDIA, Qualcomm and AMD shipped specialized chips in 2019 in order to overshadow GPU chips and are good at handling various difficult and complex computations. Many leading infrastructure companies like Microsoft, Google, Amazon and Facebook have invested more than \$200 billion on FPGA.

#### Benefits of AI enabled chips

Highly successful leading companies have fostered the upcoming technology coming in their path for its further growth and development and for better understanding the future demands. Developers are leaving no stones unturned in order to access the capabilities of the chip.

Edge AI chips are considered a boon for the enterprises. With the ability to navigate and avoid any obstacle/challenges with no or low network connectivity, AI Edge chips were developed. It addresses high computational power, flexibility, and less power consumption because of which it is creating its path to meet the enterprises' needs and many successful companies are marking collaboration or deal with developers.

iii) Automated Machine Learning- Introduction of machine learning in the world of technology has completely revolutionized the business operations and today, efficient functioning of any business without application of these AI tools is near to impossible.

More advanced technology that has arrived in the market is Automated Machine Learning (AutoML) which is considered as better than

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machine learning. What exactly is Automated Machine Learning and why is it considered better than traditional machine learning?

What happens when approaches of machine learning and knowledge of automation or data science combines together and forms a complete different model? Automation means machines that mimic or replicate human tasks. What AI does here is it makes machines to mimic or replicate human thinking and behavior. It is a set of algorithms or programming that can reflect its own procedures and makes decisions on the basis of and out of the scope of programming. It represents a paradigm shift in ways organizations of all sizes approach machine learning and data science.

Data science is a discipline of science and mathematics and also involves other areas of discipline such as data engineering, domain expertise, scientific method, advanced computing, statistics etc. that involves process of prediction, visualization, analysis and pre-processing of data by using plethora of statistical tools such as linear regression, correlation, linear discriminant analysis, to name a few that data scientists use in their regular researches. Many companies apply the concept of data science in their business and mainly used in the field of search engines like Google, Yahoo, Facebook. It is even used in banking, advertising and marketing fields where big and huge data are involved. Automated machine learning deals with series of steps that helps organization choose their business target and resolves business problem-



Fig 2: Steps of Automated Machine Learning

Traditional machine learning techniques take a prolonged time when applied in business. Not only it takes a prolonged time, but an extensive amount of resources is required in order to work with more challenging aspect. Therefore, Automated machine learning is considered better than traditional machine learning methods. It is applied in almost every field-financial services, marketing area, banking, healthcare, sports, manufacturing and many others. Complex models are hard to interpret and decipher if a model is introducing bias. AutoML converts these complex models to simpler models that are easier to interpret. Therefore, organizations are more shifting towards AutoML that even non-professionals are allowed to use and learn machine learning techniques and tools. Tools like Google Cloud AutoML are making ways for data scientists and have possibilities to become more popular in future. It would help data-driven enterprises to enable customization as required without needing to use the complex workflow of Machine Learning in detail. Many such

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businesses are looking forward to investing and implementing real life experiments in business processes to cloud services.

iv) Quantum AI- It is a very wide range of disciplinary functional areas of AI with amalgamation of quantum computing with AI technology that focuses on building quantum algorithms for improving computational tasks and functions within AI. It is 10 times more capable and has the capacity to perform algorithmic programming than any other traditional computing capability. With the help of quantum mechanics, it has made computer science enter a new era in terms of technological skills, security and algorithm execution speed.

Search engine companies like Google have come up with the advanced technology called Google AI Quantum which is advancing quantum computing by developing quantum processors and quantum algorithms to help researchers and developers solve problems that can be both theoretical and practical. Quantum computing is a new model that is expected to play a bigger role in hasten tasks and performance for AI. Google strongly believes that this will help them to develop the innovations of tomorrow, including AI. Just last year, Google announced that it could solve a complex algorithmic problem that would take the traditional method of machine learning 10,000 years to solve what quantum AI will take minutes.

But, why did scientists and researchers merge AI, machine learning with quantum mechanics? They did so to attain the quantum advantage, where complex algorithms can be calculated at a faster pace with more accuracy and reliability than any other classical and traditional computers. With the assistance of those algorithmic calculations, it may lead to drug discoveries, advances in chemistry, data science, weather predictions and natural-language processing.

Space agencies like NASA are making use of Quantum AI as NASA Quantum Artificial Intelligence Laboratory (QuAIL). It is the space agency's hub for assessing the potential of quantum computers to impact computational challenges faced by the agency within the decades to come back. NASA's QuAIL strongly believes that someday that all issues occurring in NASA's aeronautics, Earth, space sciences and its exploration missions could be improved with the help of application of quantum computing and algorithms.

#### OBJECTIVES:

- To understand the concept of AI.
- To understand the applications of AI in different areas.
- To study the current and upcoming trends in AI.
- To know the benefits of AI and its other derivatives.

#### RESEARCH METHODOLOGY

As change in technology has impacted the business area with emerging trends in AI application, the aim of this paper is to understand the application as well as the most used AI technique in the business and how much influence it has on business. To satisfy the objective and to understand the concept even better, authors also took guidance from the secondary resources as well (i.e. from published research papers and related websites).

#### CONCLUSION

There's no surprise that Artificial Intelligence has completely turned around a business's table to 180 degrees and has left it's print on its



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pavement permanently. When we talk about the current scenario of business of any field of area, it seems next to impossible for them to bring innovation in their products and services without making efficient use of AI.

Current trends in AI include Smartphones, Machine Learning, Cognitive Computing and Natural Language Processing (NLP) which have advanced themselves in ways which have been nothing but boon to business as well as to society. Hours of calculations, analysis and related programming could be done minutes with the help of these AI tools. It has become foremost for the high end successful companies like Google, Amazon, Facebook, to name a few, to introduce AI technology into the business to stay in the run because these technologies lend hands towards innovation and creativity which

leads to better performance than the traditional methods and tools.

Emerging trends in AI include Intelligent Process Automation (IPA) or Intelligent Automation in Business Process (IABP), AI enabled chips, Automated Machine Learning and Quantum AI which have taken technology to the next level. These are those derivatives of AI that are going to be a bonanza in the business industry and will be 10 times better than any other derivative of current technologies. With focus on emerging trends, business will shoot up to the skies and will turn out to be a rainbow as an outcome. Thereby, it is concluded that AI and its tools have been nothing but a helping hand to the business which has guided them towards growth and development.

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# A STUDY OF PRODUCT CUSTOMIZATION ON E-COMMERCE PLATFORMS

Ms Apoorva Singh

Student, BBA, Institute of Management and Entrepreneurship Development, Pune  
Bharati Vidyapeeth (Deemed to be University), Pune

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## Abstract

Product personalization, which allows customers to tailor products according to their own preference, has become increasingly important to many companies. Although prior studies have investigated service personalization (e.g., offer personalization and web personalization), few studies have comprehensively explored why people are willing to purchase personalized products online. This study uses a qualitative approach with the research that states that tailor made products accounts over \$20.4 billion in the industry and the prices are set to rise by \$31.6 billion (about the value of the gross domestic product (GDP) of Jamaica) in the coming years. The results reveal that people purchase personalized products online primarily due to the following reasons: uniqueness seeking, emotional attachment, identity expression, enjoyment, vanity, innovation, ownership, and perceived control. These factors are interpreted based on uniqueness theory and the theory of planned behavior. In addition, other factors (specifically trust, price, and recommendation) pertaining to the website also explains why customers choose a particular website instead of other websites to purchase personalized products.

Keywords: personalized products, uniqueness, emotional attachment, vanity, innovation, control

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## INTRODUCTION

Companies worldwide are using the web to interact with their customers for brand promotion, product marketing, order fulfillment and after-sales support. As the competition is keen among online merchants, companies have been adopting innovative strategies to attract and retain customers. A common effective strategy is to tailor products to better satisfy each customer's needs. For example, Flipkart offers products such as cups, jewelries, and T-shirts onto which customers can print their favorite photos. In addition, Apple online store provides personal engraving service through which customers can add a free

laser-engraved message to a new iPod or iPad. Cosmetics brands like SkinKraft and Function of Beauty also allow their customers to not only customize the body of the product but as well as the product itself according to the skin type and hair textures of the customer. Right now, Nike is dominating product customization and personalization. The brand constantly runs experiments with digital in their flagship stores and partner retailers, with a bent toward in-store or online product customization. In these examples, customers can incorporate their own ideas into the design of the product's appearance and content in it to personalize it and make it different from ordinary products. An interesting question then arises: why do

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people like to purchase such personalized products online? The answer to this question will help online marketers better understand and serve customers' needs, and help companies increase their profits by selling more personalized products to customers.

Prior studies have investigated personalization, including service personalization and product personalization. In service personalization, the service to each customer is personalized to fulfill each customer's particular needs. Prior studies on service personalization have investigated offer personalization and web personalization. Offer personalization can be done by product recommendation agents to provide a small set of products that potentially match a particular customer's preference. Web personalization leverages personalization technologies to provide a specific content in a specific format for a particular web user.

As shown in above examples of product personalization, a customer can incorporate his/her own creative ideas into the product appearance or design to create a personalized and unique version. Product personalization and product customization are interrelated terms, but are viewed from different perspectives, the vendor's, and the customers.' Customization views the process from a vendor's perspective, that is, whether the vendor authorizes the customer to decide certain features of the product. In contrast, personalization looks at the phenomenon from the perspective of a customer (who is an individual) based on whether the product can distinguish this individual (customer) from other ordinary individuals (who are customers owning ordinary products). For example, Akshay can personalize a T-shirt by printing his own photo onto it; this T-shirt then differs from ordinary T-shirts that other customers have.

Given the purpose of differentiation, as shown in the above examples, product personalization focuses on incorporating a customer's own ideas into the design of the product's appearance to personalize it, whereas product customization focuses on customizing the functionality of the product to better serve a customer's needs for functionalities. The reason that customers customize a product's functionalities looks straightforward; that is, they do so to enhance their use of its functionalities. For example, companies like SkinKraft allow their customers to customize the skin care products according to their skin preference. However, the reasons why people would like to incorporate their own ideas into the design of the product's appearance to make it personalized and different from ordinary products seem more complicated. The present study seeks to investigate the reasons behind customers' desire to purchase personalized products online.

## LITERATURE REVIEW

As shown in the above examples, a customer can personalize a product by engraving his/her photo onto it. In so doing, the personalized product differs from other ordinary products, thereby becoming special. The reason an individual wants to own such a special, personalized item may be explained by uniqueness theory and theory of planned behavior.

### 1.1 UNIQUENESS THEORY

Some people have a need to be distinctive and special; they do not want to be submerged in the masses. When people see themselves as highly as others, they may feel their self-perception is threatened. There are diverse ways through which an individual can stand out from others.

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For example, an individual can behave strangely in a group (e.g., talking loudly when having dinner with a group of people). However, being highly dissimilar to other people can arouse negative emotions and social penalties. For instance, there are norms for one's appearance in an educational institute. If a male sales representative dyed his hair green to make himself distinctive, he may be judged as less professional and hence be rejected by customers. Therefore, an individual may seek to be moderately different from others; in this way, this individual not only fulfills his/her needs to be unique but also avoids exclusion by others due to being highly dissimilar. Material possession is regarded as an extension of the self because personal possession can be used to define the self. Hence, uniqueness can be achieved by owning a special object (such as a personalized product) that is not available to the masses. Such a special product then conveys a signal that the owner of this product differs from others. For an individual, therefore, purchasing a special product is an effective way to differentiate himself/herself from others.

## 1.2 THEORY OF PLANNED BEHAVIOUR

Compared to traditional, physical shops, online product personalization websites make it much easier and more convenient for customers to personalize a product. The web has provided an efficient and effective way for an individual to obtain a special item based on his/her preference. An individual customer can easily incorporate his/her idea into the features of the product to make it special. That is, by controlling the features of a product, the customer feels that he/she can easily express his/her preference in the product design. In addition, an individual's intention to purchase a personalized product is

also influenced by the opinion and behavior of his/her close friends or family members, referred to as subjective norms. Perceived control and subjective norms are important aspects of the theory of planned behavior (TPB). Hence, TPB may be used to understand why individuals are willing to purchase personalized products online. TPB suggests that an individual's intention to perform a behavior can be predicted by his/her attitude toward the behavior, subjective norms, and perceived behavioral control. Perceived behavioral control is specifically determined by control beliefs, which are the individual's beliefs about the presence of factors that may facilitate or impede performance of the behavior. Viewed in this light, online product personalization has provided the opportunities and resources for customers to make a special product. Customers can thus personalize products on a website easily.

## METHODOLOGY

To explore why individuals would like to purchase personalized products on e-commerce platforms, a qualitative methodology was adopted to obtain naturalistic data. The qualitative research approach is suitable to explore and understand the complexity of individuals' behaviors in real-life contexts. Especially, a qualitative method is an effective way to investigate fast-moving phenomena and research topics in information systems. In addition, a qualitative study method is particularly appropriate when answering research questions such as "what," "how" or "why" in situations where little is known. Surveys are a common way to collect qualitative data in case studies about human behaviors and perceptions. In this study one survey was

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conducted as the primary method of data collection via google forms.

Each participant was asked to answer the question why he or she would purchase a personalized product online. In total, we received 71 responses. Their age ranged from 17 years to 47 years old; the average age was 22.3 years old. The participants had different educational backgrounds, varying from middle school graduates to those holding a doctoral degree.

## DATA ANALYSIS AND RESULTS

The sentence(s) that expressed the same idea (a theme) were analyzed and were coded as a unit. The following are two examples illustrating how the data were analyzed and coded.

For example,

The first response: “Owning a personalized item makes me feel I am different from other people” was labeled as uniqueness seeking because the main idea here was that personalized products were different from standard products; or personalized products provided a means of expressing one’s uniqueness.

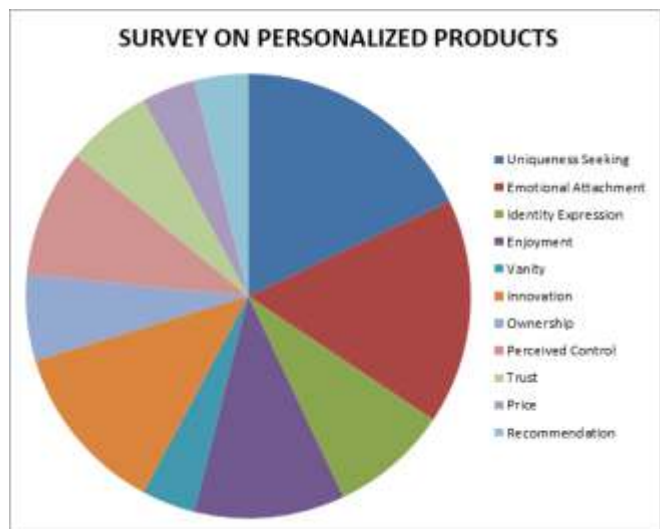
The second response: “There are some small details that I can feel and remember when using the personalized item” was labeled as “emotional attachment” because the main idea here was that personalized product had an emotional bond with the customer.

In total, eleven high-level categories:

- Uniqueness seeking,
- Emotional attachment,
- Identity expression,
- Enjoyment,
- Vanity,

- Innovation,
- Ownership,
- Perceived control,
- Trust,
- Price and
- Recommendation

were generated based on the qualitative data from the survey. Each higher-level category revealed in the content analysis was a factor that could explain why individuals would like to purchase personalized products online. In what follows, each of the factors is presented and discussed individually.



### 1.1 UNIQUENESS SEEKING

As shown in the above graph, 23 respondents selected “Owning a personalized product makes me feel I am different from other people.” I categorized these responses as “uniqueness seeking,” which is defined as an individual’s pursuit of differentness relative to others through the possession of personalized products.

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## 1.2 EMOTIONAL ATTACHMENT

In total, 21 participants indicated that a special emotional bond motivated them to purchase a personalized product by selecting “There are some small details that I can feel and remember when using the personalized product.” These responses were categorized as emotional attachment, which is the emotional bond between an individual and a personalized product.

## 1.3 IDENTITY EXPRESSION

Eleven respondents selected that “owning a personalized product is almost perfect for my style because it expresses who I am.” I categorized these responses as identity expression, defined as the expression of the different facets of the self that relate to customers’ consumption and choice of personalized products.

## 1.4 ENJOYMENT

Fourteen respondents selected that “Using a personalized bottle makes me feel joyful.” I categorized these responses as “enjoyment” because the most salient element here is customers’ feeling of happiness by purchasing/owing personalized product

## 1.5 VANITY

Five participants selected “It will help me to impress others and have visual depiction of my successful and wealthy life.” I categorized these responses as vanity, which is defined as an individual’s excessive concern with personal achievements and wealth.

## 1.6 INNOVATION

Sixteen participants selected “I am allowed to design the product based on my idea.” These responses were categorized as innovation, which is defined as “an iterative process initiated by the perception of a new idea and/or opportunity for technology-based invention.”

## 1.7 OWNERSHIP

Eight respondents “I feel a very high degree of personal ownership when using it.” We categorized these responses as ownership, which is defined as an individual’s perception that the personalized product is his/hers rather than anybody else’s.

## 1.8 PERCEIVED CONTROL

Twelve participants selected that “it would be really easy for me to personalize this bottle on the website.” The customers’ perceived ease or difficulty of performing the activity (I.e., the extent to which the performance of the behavior is perceived to be under their control and within their abilities) reveals their perception of how much they can control the activity. Thus, we categorized these responses as perceived control. Furthermore, customers’ involvement in the designing process also indicates the perceived control of the final product’s attributes. These responses typically explained that involvement in product development provided them the opportunity to personalize a product. Customer get involved in the design process to control the attributes of the product. Therefore, we also put them in the “perceived control” category.

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## 1.9 OTHER FACTORS (TRUST, PRICE & RECOMMENDATION)

As mentioned above, the qualitative data from the survey revealed three other factors: trust, price, and recommendation. All these three factors are related to personalization on e-commerce. Specifically,

1. Eight participants selected “I bought it because I trusted the ecommerce platform”
2. Five participants selected “I bought it because it was at a reasonable price”
3. Five participants selected “I bought it because it was recommended by a friend “

As shown above, these three factors (i.e., trust, price, and recommendation) are intricately linked to the e-commerce platform providing with personalized goods, revealing why customers purchase personalized products on a particular e-commerce platform.

## INTERPRETATION OF DATA BASED ON THEORIES

### UNIQUENESS THEORY

According to uniqueness theory, individuals have needs to be distinctive and special. If they are highly like the rest, they will feel their self-perception is threatened. That is, individuals often attempt to build and maintain their self-perception through self-distinguishing behaviors. Their expressions of uniqueness can be achieved in different forms and outlets. In what follows, seven factors that motivate an individual to purchase a personalized product online are interpreted based on uniqueness theory.

Uniqueness seeking: For individuals who are eager to differentiate themselves from others,

possessing a personalized item that no one else has is feasible. Personalized products enable a customer to demonstrate his/her unique tastes via modifying the appearances of target goods. Sometimes, a customer can even transform the object completely according to their special needs and expectations. Thus, owning a personalized product is an effective method that an individual can differentiate himself/herself from others.

Emotional attachment: By receiving a special product such as a personalized gift, an individual can easily develop an emotional bond with it. For example, after a boy gives a personalized gift (e.g., engraving a girl’s name onto it) to a girl, the girl intuitively knows the giver has spent time and effort personalizing it. So, the girl sees it more valuable and memorable than a regular gift, thereby quickly developing an emotional attachment to the gift. If the girl has received the other gift that is just the ordinary product, the ordinary product cannot attract this girl’s attention and emotional attachment. In addition, a personalized product can remind the owner of memories of a specific event.

Innovation: When an individual innovates by creating or designing a special product, such a product differs from regular products, thereby differentiating the person who designed it (i.e., the owner of this product) from other customers. In addition, customers can also share their creative ideas with online vendors in the hope of having them provide completely new products. For example, an online vendor who offers personalized T-shirts can totally rely on the contribution of customers in the product design process. In short, when an individual creates and designs more self-related products to meet his/her new requirements, it also fulfils his/her need for uniqueness. This result is in accordance with previous studies, which stated that



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designing/creating new products before others do is one way to satisfy a person's need for uniqueness.

**Enjoyment:** According to uniqueness theory, people are happy when they feel moderately different from others. The process experience of designing a personalized product and the effort involved can offer people enjoyment and a sense of playfulness. Customers can also feel joyful when using the personalized product because the unique appearance and distinctive features of the item are tailored according to their preferences and needs.

**Identity expression:** One's possessions are a vital component of the sense of self. Hence, customers would like to use key possessions to extend, expand, and strengthen their sense of self. Since a personalized product is assembled based on an individual's preference, an individual can make his/her identity tangible by associating himself/herself with the unique products. For example, a guitar player can embed his/her own style into a personalized guitar. In so doing, he/she can make sure that the guitar is consistent with his/her visual style. As a result, an individual benefits from a personalized product because it can express his/her identity.

**Ownership:** As mentioned above, online product personalization allows customers to modify product features (i.e., customers can control the outcomes). In doing so, an individual expends time and mental energy in designing the product (i.e., self-investment). As a result, an individual may feel ownership about this unique product due to self-investment and control over product outcomes. The feeling that this item is only mine rather than anyone else's denotes psychological ownership. When customers possess a personalized product, they feel like they are using only their own product,

which might generate a feeling of superiority due to psychological ownership.

**Vanity:** Personalized products with a unique appearance, such as cosmetics and clothing, are important for an individual who wants to be attractive in the group. That is, an individual may be considered physically attractive by displaying the personalized item. Some individuals also use consumption of personalized products to convey their individual achievement and personal success. For example, an individual can demonstrate how different he/she is by showing off the unique personalized item in public. In doing so, he/she successfully informs other people of his/her achievement. An individual can thus directly satisfy his/her vanity by purchasing a personalized product.

## THEORY OF PLANNED BEHAVIOUR

According to TPB, an individual's intention to perform a behavior is predicted by his/her attitude toward the behavior, subjective norms, and perceived behavioral control. Attitude toward the behavior is predicted by behavioral beliefs, which are an individual's beliefs about consequences of the behavior. The above-mentioned factors (i.e., uniqueness seeking, emotional attachment, identity expression, enjoyment, vanity, innovation, ownership) act as behavioral beliefs that affect an individual's attitude toward purchasing personalized products online. The factor "recommendation" is akin to subjective norms, which refer to the perceived social influence to perform a behavior. Additionally, a person's perceived behavioral control influences behavioral intention, which in turn determines his/her behavior. Perceived behavior control relates to an individual's perception of the availability of

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opportunities and resources required to perform the behavior. Consistent with this view, perceived control is interpreted below based on TPB.

Perceived control: Many companies have served customers on e-commerce platforms that enable customers to personalize their own products. The toolkits of these e-commerce platforms dramatically reduce the level of skill necessary to design a product oneself. Designing a product online merely requires clicking the mouse; the websites then quickly provide the user with simulated feedback on the screen. The design process is so easy that even a novice designer only needs a few minutes to create a personalized product. Furthermore, online product personalization engenders a high degree of customer involvement. Customers can tailor the product due to their control over product performance. Customers can thus enjoy an elevated level of perceived control when personalizing a product online.

#### CONTRIBUTIONS, LIMITATIONS AND FUTURE RESEARCH

Using a qualitative study approach, the current study reveals that individuals would like to purchase personalized products online due to uniqueness seeking, emotional attachment, identity expression, enjoyment, vanity, innovation, ownership, and perceived control.

➤ **Implications:**

The findings of this study have several practical implications for companies that have not offered a product personalization service to customers, as well as for companies that are already operating product personalization on e-commerce platforms. For the companies that have not offered a product personalization service,

the factors identified in the current research provide them with a guide to efficiently attract and retain customers. For companies that are operating product personalization e-commerce platforms, each factor identified in this study has offered a theoretical insight that can help them to better fulfill individuals' needs and improve the sustainability of personalized products in the future.

➤ **Limitations and Future Research:**

As a qualitative study, this research has a limitation inherent in all studies employing a qualitative method. The case study and interviews limit the generalization of the results. I tried to eradicate this limitation by increasing the number of participants. For a qualitative study, 71 participants are not a small number, thereby mitigating this limitation to some extent. The objective of the current study is to explore and understand the reasons why customers would like to buy personalized products online; therefore, a qualitative method was an appropriate method and thus adopted. Future research could employ quantitative methods to study why people would like to purchase personalized products. Specifically, the factors identified in the current study could be used in a questionnaire, and a large-scale survey could attempt to measure the influence of the factors in product personalization situations.

#### CONCLUSION

This study has explored why individuals would like to purchase personalized products online. The results suggest that customers buy

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personalized products online primarily due to the following reasons: uniqueness seeking, emotional attachment, identity expression, enjoyment, vanity, innovation, ownership, and perceived control. These factors are interpreted based on uniqueness theory and TPB. In addition, other factors (specifically trust, price, and recommendation) pertaining to the e-commerce platforms also help explain why customers choose a particular e-commerce website instead of other websites to purchase personalized products. This study has offered a systematic explanation and understanding of the reasons why customers are willing to purchase personalized products online. Accordingly, this research provides some important guidelines for companies that serve customers personalized products on their websites. Each factor offers a theoretical insight that can help online vendors better provide personalized products to customers, which can improve their profits.

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# EMERGING TECHNOLOGY TRENDS IN BUSINESS MANAGEMENT

Ms. Tina Tomar & Ms. Shruti Bhatnagar  
Student, MBA, Institute of Management and Entrepreneurship Development,  
Bharati Vidyapeeth (Deemed to be University), Pune

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## Abstract

Technology has totally transformed the business world. It is one of the most important parts of every business, which provides incredible benefits to businesses worldwide. Through Technology one can also improve his business. Technology is becoming the main source to learn more about businesses.

This paper studies top emerging technology trends in business management in the coming future (AI, Cloud Computing, Internet of Things, Virtualization, Marketing Technology) The new technology trends are changing the way we work, the way we do business, the way we produce goods and services, and the way we search for free possibilities for ourselves. This paper analyzes the growth of the top emerging technology trends in business management.

Key words: technology, business management, emerging, advancement, trends

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## Introduction

Technology is the series of knowledge, skills, trip, and strategies via which human beings change, convert and use our surroundings in order to create tools, machines, merchandise, and offerings that meet our desires and desires. The variety of existence we are presently playing due to the fact of technological know-how developments. Technology increased our lives and the existing matters are now better, faster, easier, and extra convenient. The market is buzzing with multiple types of merchandise, services, and an enormous variety of firms providing them. Frequent formation of the latest firms, growth of the present ones, start-ups, and dynamic business has created the market an extremely attention-grabbing place. Technology has taken a dominant role in transfer concerning these dynamic market

changes. The assorted trends in technology have led to the increase and evolution of a horde of industries, and businesses.

Emerging technologies as well as other young technologies have led the way businesses have taken to advance and implement their digital transformation throughout the decades. The ones that follow, are some of the trends that will shape the way we work and live next year and beyond

## OBJECTIVES

- To study the top emerging technology trends in business management.
- To analyze the advancement in new technological platforms.

## Top Emerging Technology Trends

Following are the technology trends that are changing the way we trade, how we get our work done, how we produce goods and services, how we seek medical help, and how we look for entertainment opportunities for ourselves.

- Artificial Intelligence (AI)
- Cloud Computing
- Internet Of Things (IoT)
- Virtualisation
- Digital Transformation
- Digital Payments
- Marketing Technology
- Voice Recognition

## Research methodology

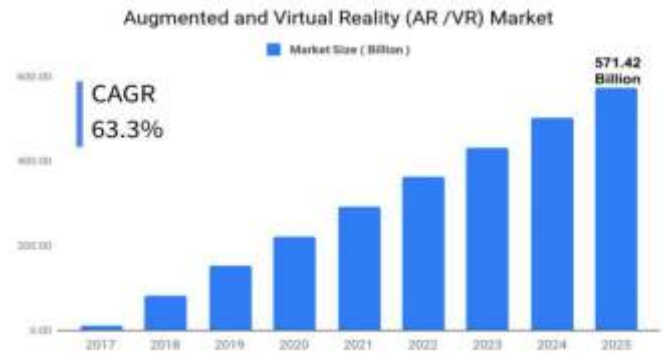
The research methodology is the specific procedures or techniques used to identify, select, process, and analyze information about a topic. In short, the process indulging in the collection of data and information in order to take some fruitful decision of business is known as “Research Methodology” The method we have used in this research is based on secondary data, which have collected from the Internet, Journals, and newspapers, etc. In this paper, we will be discussing the emerging technology trends in business management in and after 2020.

## Data Analysis

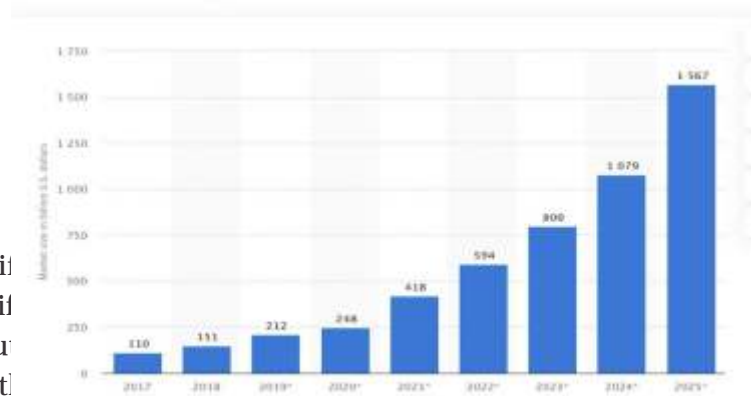
### Augmented And Virtual Reality

The report of a survey which was conducted to examine the market size of AR & VR globally stated that in 2017 the market size was only 11.35 billion which is to be increased to 571.42 billion

by 2025, and the compound annual growth rate is 63.3% (2018-2025).

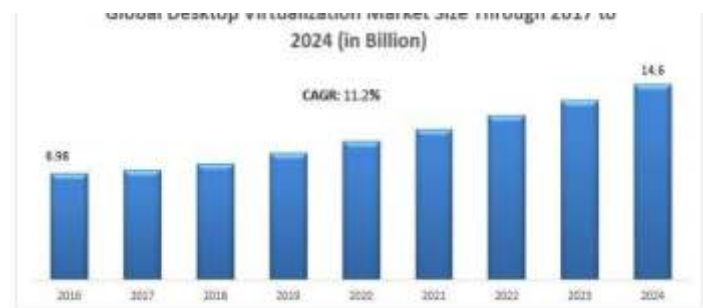


### Forecast End User Spending On IOT Solutions Worldwide From 2017 To 2025



From the above chart, it is stated that the global market for end-user solutions is to rise to 212 billion USD in size by the end of the year 2019 followed by a great bounce in 2025 viz 1567 billion USD.

### Global Desktop Virtualization Market Size from 2017 to 2024



Source: Maximize Market Research

From the above figure, we can infer that in 2016 the global market size of desktop virtualization was only 6.98 billion USD which is projected to heighten to 14.6 billion USD by the end of 2024.

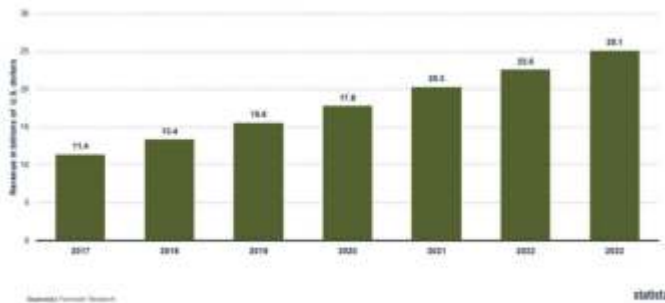
## GROWTH OF BLOCKCHAIN TECHNOLOGY



above figure illustrates that the global market size for blockchain technology in 2020 is 3 billion USD which is predicted to surge in the future to 39.7 billion USD by the end of 2025 at an astonishing compound annual growth rate of 67.3%.

## MARKET AUTOMATION TECHNOLOGY MARKET SIZE WORLDWIDE

2017-2023



forecast, it was concluded that the worldwide marketing automation technology marketplace length is expected to thrive from 15.6 billion USD to 25.1 billion USD, engaging in a compound annual boom fee of 9.9%.

## Findings

- In 2017 the market size of AR & VR globally was only 11.35 billion USD which is predicted to reach 571.42 billion USD by the end of 2025 at a CAGR of 63.3%.
- In 2019 the global market for end-user solutions was 212 billion USD and it is predicted to reach 1567 billion USD by the end of 2025.
- In 2016 the global market size of desktop virtualization was 6.98 billion USD which is projected to rise by 7.62 billion USD viz 14.6 billion USD by the end of 2024.
- The global market size for blockchain technology in 2020 is 3 billion USD which is foreseen to stream in the future to 39.7 billion USD by the end of 2025 at an astonishing compound annual growth rate of 67.3%.
- The worldwide marketing automation technology marketplace length is foreseen to intensify from 15.6 billion USD to 25.1 billion USD, engaging in a compound annual increase price of 9.9%.

## Conclusion

We all are between the 4th Industrial Revolution, and technology is unfurling in a fast manner. Companies and people that don't cherish a number of exceptional tech predilections run the threat of being left behind. Recognizing the significant aspect of inclinations will allow human beings and institutions to put together and take hold of chances. The commercial industry and future generation, it's leagues and the substantial task to appearance forth and sights the most influential and integral tendencies. The ever-converting area of statistics

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generation has visible splendid betterment and modifications within the lingering decade, from the increasing trend, it may be assumed; its aftermath on the commercial enterprise is ever-growing, and it's going to improve corporations to boost their clients within side the fine plausible manner.

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# MULTISOURCING: A NEW TREND IN BUSINESS MANAGEMENT

Ms. Ria Kapoor

Student, BBA, Institute of Management and Entrepreneurship Development,  
Bharati Vidyapeeth (Deemed to be University), Pune

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## INTRODUCTION:

In the contemporary world many multinational enterprises apply multi sourcing approaches. No successful businessperson can deny its need to survive in a market driven economy. Multi sourcing is described as the blending of services from multiple “company-internal” and “company-external” suppliers. It is not only vital, but an integral part of every lucrative operation today. With multi sourcing a company can choose the best vendor for a given Information Technology (IT) task. IT is one of the preponderant features of any business and hence needs to be evolved for the upturn of the dealings and trades with potential customers. Multi sourcing has been identified as an emerging key strategy in today’s IT outsourcing endeavours by both practitioner as well as scholarly. There has been a wave of trends in IT and business management wherein multi sourcing has emerged as the most viable and salutary options for improving services. Though it can raise a concern about security of data and increased dependence on the supplier, yet it is renowned and acclaimed by all.

## RISE OF MULTISOURCING

Unlike traditional outsourcing, where a single vendor handles IT responsibilities, multi sourcing consists of many such vendors, making it efficient and effective. Outsourcing of

noncore functions has become well established in recent years, and partly because mega deals are becoming less common. Our world is changing, more businesses are seeking technology solutions to solve their problems. The trend is now towards multi sourcing using multiple vendors who provide specialised services rather than large vendors acting as prime contractors. The use of this strategy is accelerating, an average enterprise has approximately 23 external IT providers equating to a five time increase in the past seven years. It protects the company’s risk of demand variability and lowers the risks of supply disruption.

“This is not a supply chain opportunity to delegate or dump costs. It is a chance to use partnerships to augment skills, to scale a fast-growing business, or to provide capabilities for competitive advantages” says Dick LeFave, CIO of Nextel. Multi sourcing is favoured as, it lowers the cost of operations, has a better way of delivering IT, provides a greater control over the supply chain, and delivers projects efficiently as it is carried out by the “best of breed” professionals. Using this strategy, no extra time and cost goes into the training and development of employees. New skills and technology are introduced into the firm through multi sourcing.

It is taking the place of outsourcing as it avoids the company being fully reliant on only one



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vendor. No CEO or manager can deny its importance as it allows the enterprise to focus on its core competencies by looking after IT operations. “The reason we’ve been able to manage such change while delivering effective services and cutting costs is that we have invested heavily in governance and management capabilities internally, while integrating our service providers seamlessly into those processes” says Claire White, Global VP of Business Studies. From a service catalogue delivered through a single governance model, IT strategies support business goals in delivering projects, management of service, and governance of contracts with automation as its goal. It improves the relations of management with the stakeholders. It is also playing a great role in providing employment to IT professionals by giving them a platform to innovate and collaborate with potential customers.

Risk assessment and analysis is one of the most crucial factors of any project and by multi sourcing, certain processes are done by professionals in their respective fields, thus mitigating potential risks. Multisourcing reduces the risk of opportunistic behaviour. It increases the competition among suppliers which leads to the betterment of quality, price, delivery, buyer’s negotiation power and the innovation of the vendors in order to get employment. A large number of suppliers are willing to invest into new technologies and facilities in order to grow their supplier chain.

“we have to maintain positive partnerships with our service providers, and they have to work well with each other, so that we can all jointly meet changing needs” says Linda Cohen, author of ‘multi sourcing: moving beyond outsourcing to achieve growth and agility’.

In the end, choosing to work with a reliable

individual can give you peace of mind as knowing that most of your work is being handled professionally and efficiently by a reliable individual or agency is one of the biggest perks of multi sourcing.

#### TRENDING CAREFULLY

No matter how efficient, we can’t consider any business strategy to be utopian. Similarly, multi sourcing can be precarious and demands a lot of surveillance by the enterprises. Involving various vendors can disrupt the managerial setup and may create havoc. It can create complexities which can move up the operational costs and take time to resolve issues. Multi sourcing requires huge effort for tracking the service providers to make sure they are providing their best possible service. It is more time and money consuming to deal with multiple suppliers in terms of contract negotiation, management as well as process execution.

Multi sourcing can be complex as it deals with variations in quality and dimensions. Integrating new partners for different systems every time can be confusing resulting into slower implementation, higher support costs, poor visibility and service bottlenecks. It can also cause snags in setting peer relations as there is a continuous change in the service providers which increases the management complications. “As more and more functions are being multi sourced, integrating and managing a portfolio of service providers is becoming more difficult and causing service disruptions in many organisations” says Linda Cohen author of ‘multi sourcing: moving beyond outsourcing to achieve growth and agility’. A large workforce has to be assigned to manage and monitor the service providers which acts as a liability on the

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management. Multi sourcing involves manual interaction which can prove to be time consuming and inefficient, for which developing customer-built point to point connection becomes crucial for resolving customer queries. Orientation and induction of new service providers take away quality time.

Sometimes it becomes difficult to map the data and information to track glitches and loopholes through which sensitive data and confidentiality of the enterprise could be lost or misused. The salient information of the enterprise should be protected from being plagiarized and misused by the vendors. "Today's global supply chains are leaner and more dispersed than ever before, leaving them extremely vulnerable to operational risks and unpredictable disasters, both manmade and natural,"

As multi sourcing makes a company cost efficient and coherent, it may increase the dependency of the firm on the vendor and makes his services a compulsion. For employing multi sourcing an organisation needs to avail different procurement tools like strong monitoring, effectual communication, ITSM, integration, strict reporting and well-built contract management. It is very unlikely that every service provider will use the same tools while working, hence it cannot be managed by every enterprise. Being an intricate strategy, multi sourcing should be used only by the firms who are equipped with the necessary arrangements to avoid chaos.

Since the outsourcing provider may work with other customers, they might not give 100% time and attention to a single company. This may result in delays and inaccuracies in the work output. Hidden costs and legal problems are common if the terms and conditions are not properly defined for the service providers. It is

apparent that multi sourcing furnishes companies with greater profits and in coming years companies tend to rely and depend on it completely. If the company starts outsourcing the intricate functions, the organisation becomes mightily dependent on the service provider because of which risks like bankruptcy and financial losses cannot be controlled.

#### ANTICIPATING FUTURE PROSPECTS

Information technology has ushered flexibility, automations and mobility to businesses. Human resources, communications, sales and all other departments depend on the information systems to run. With growing dependence of businesses on information technology, multi sourcing has become the need of the hour.

In any enterprise multi sourcing needs many tools to function properly such as effective monitoring, good communication, integration and strong reporting, etc, which is not possible for every firm to avail. Hence, to make it more viable many service agencies are being developed which are easy to handle for most firms. One such platform is 'Cisco Service Grid'. It is being made as an integration platform on Cloud that seamlessly connects enterprise IT and service providers to enable "automated multiparty service collaborations". It eliminated point to point connections with the power of "connect once connect all" approach. It integrates all customers, partners and providers to the platform at once enabling them to collaborate seamlessly. With the upcoming improvements, firms would be able to connect with partners in days instead of months, resolve support issues faster, increase customer satisfaction, and improve service while saving time and money.

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Many organisations are committed in inventing automated and transparent service processes, better information technology governance and vendor management in order to uplift and encourage the use of multi sourcing in the coming times. For the use of multi sourcing one of the most crucial tool, “governance model” is also being improved and many advance versions of the same are expected in near future. A number of companies are emerging with ready roadmaps and plans to deal, improve and involve multi sourcing in their working process.

It is but obvious that multi sourcing is destined to flourish and emerge as a critical component of corporate strategy. A strategy like multi sourcing attracts almost every business project and therefore a huge amount of money is being invested in improving data information exchange standards, technical interlinks and business interchanges which are the roots of a successful multi sourcing strategy.

In recent times surveys have been conducted and results show decreasing services run rates, shorter contract lengths, an increasing number of concurrent service providers per client, and a distribution of the total number of contracts to a larger set of vendors, all pointing towards an increasing popularity of multisourcing. It will prove to be the key of successful and efficient business strategies in the coming years because of its amplifying prosperity traits.

#### CONCLUSION

In the light of the above discussion, the author would like to conclude that there are enormous opportunities in the concept of Multi Sourcing IT as a business strategy provided the shortfalls are resolved through tailormade solutions and proper automation.

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# A STUDY TO UNDERSTAND PRODUCT, AUDIENCE AND MARKET COMPETITIVE ANALYSIS WITH REFERENCE TO SUNEDISON INFRASTRUCTURE LIMITED

Ms. Sweety Dumbre  
Student, MBA, Institute of Management and Entrepreneurship Development,  
Bharati Vidyapeeth (Deemed to be University), Pune

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## INTRODUCTION

SunEdison Infrastructure Limited is a leading renewable energy promoting and development company. It provides innovative and personalized solar energy solutions provider along with a Complete Energy Ecosystem which focuses urban dwellers, commercial complexes and small businesses in urban areas, tier two and tier three cities create an uninterrupted, cheaper supply of power through harnessing solar energy. It Has over 60+ Year on experience in Solar PV Industries with pre-defined Mission and Vision to Walk on. Also, it has Defined Values as Sustainability, Quality, Adaptability and Affordability which helps them to be a strong foundation and grow exponentially.

SunEdison has Built a strong presence across 15 states with a very efficient network of vendor partners and installation contractors. It has successfully completed over 25000+ installation of Distributed solar system and 50+ micro grid project. SunEdison believes in constantly upgrading, innovating and focuses on Emerging technologies so that they can put in a great deal of effort to reduce the cost and fetch the best possible outcome of energy with an optimum return on investment to customer.

An innovative and personalized solar energy solutions provider along with a Complete Energy Ecosystem, SunEdison is a step towards promoting renewable energy that generates a greater return on investment and a firm power at the lowest cost for the next 25+ years. Our main focus is to help urban dwellers, commercial complexes and small businesses in urban areas, tier two and tier three cities create an uninterrupted, cheaper supply of power through harnessing solar energy.

With our state-of-the-art Solar Power system and advanced integration technology, we provide solar power to residential complexes as well as commercial complexes and small businesses in urban areas, tier two and tier three cities.

## LITERATURE REVIEW

Sagar Patel, K.V.S Rao (2016) with paper title “Social Acceptance of solar energy technology in India” stated that Social acceptance is important for large scale implementation of new technologies such as renewable energy technology. Positive public opinion /participation is a must for adoption of technology such as solar energy technology and

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implementation of government policies. In this paper the public opinion of the people of three villages (Gajner, Kolayat and Nokha) on solar energy technology is discussed. The three villages are situated near Bikaner town of Rajasthan, India. These villages are in the proximity of number of solar power plants. The survey is based on “Qualitative and Quantitative” methodology to explore public opinion and impact of technology on their day to day life. The study concerned is about survey of 172 persons, who are residing near solar PV power plants in these villages. The questionnaire contains 14 questions to every person and answers have been obtained after interviewing them personally. This sample study shows that about 91.27% residents are in favour of establishment of new solar power plant near their agriculture fields and 91% respondents would like to install roof top solar panels for their domestic power needs. 89% respondents of these villages believed that this power plant provides electricity and job opportunities. However 7% opined that solar power plant is not beneficial for them.

Ehsanul Kabir, Pawan Kumar, Sandeep Kumar with paper title “Solar energy: Potential and future prospects” stated that The development of novel solar power technologies is considered to be one of many key solutions toward fulfilling a worldwide increasing demand for energy. Rapid growth within the field of solar technologies is nonetheless facing various technical barriers, such as low solar cell efficiencies, low performing balance-of-systems (BOS), economic hindrances (e.g., high upfront costs and a lack of financing mechanisms), and institutional obstacles (e.g., inadequate infrastructure and a shortage of skilled manpower). The merits and de-merits of solar energy technologies are both discussed in this

article. A number of technical problems affecting renewable energy research are also highlighted, along with beneficial interactions between regulation policy frameworks and their future prospects. In order to help open novel routes with regard to solar energy research and practices, a future roadmap for the field of solar research is discussed.

Anu Singla, Vinod Kumar Yadav, kanwardeep Singh, NP Padhy With Paper Title “Development of distributed solar photovoltaic energy market in India” Stated that India has gargantuan renewable energy sources. The ministry of new and renewable energy, Government of India has adopted rigorous process of implementation of number of encouraging renewable energy programs. A road map has been provided in various policies to shore up the deployment of renewable energy across the country. The distributed solar photovoltaic (SPV) power plants are envisaged to have record growth in India owing to due technology diligence, reducing costs and supportive government policies in renewable rich states. Distributed SPV will gradually become a vital component of energy mix of country. The small gestation period of these plants would help to meet power shortages and improve the grid situation. The issues and challenges of connectivity of distributed energy sources into grid are being addressed by adopting suitable technologies and policies framework. The paper provides the comprehensive study of development of SPV power plants in India.

#### PROBLEM STATEMENT

This study is carried out to study Product’s market scenario, Identify target Audience to be focused on for launching a product, Study the

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customer to understand how they approach, their experience, outcomes and feedback and perform a detail research of market competitors of specific area to understand how market operated, their services provided SWOT analysis, etc. so as to plan efficient launch event for the product.

## OBJECTIVES OF STUDY

- To identify the target audience.
- To study the market scenario.
- To understand the customer behavior.
- To identify the competitors of particular State.
- To perform a competitive analysis: understand the major existing EPC players.
- To devise efficient marketing strategies.

## RESEARCH METHODOLOGY

### Method of Research:

The Research is performed on secondary data. This research is of Descriptive and Exploratory in nature.

### Techniques of Data Analysis:

Here, Secondary data is used for analysis and techniques and tool used are MS-Excel, MS-PowerPoint, MS-Word to perform and present data analysis done.

### Secondary Research and Data Analysis:

1. Understanding of product:  
Product: - Rooftop Solar.  
Sector: - Residential Sector and SME's.  
Product details:

Types: On-grid system, Off-grid system, hybrid system.

### Market study for Maharashtra:

The Maharashtra Electricity Regulatory Commission (MERC) has approved the revised retail electricity tariffs for the Maharashtra State Electricity Distribution Company Limited (MSEDCL) for the fourth control period from the financial year 2020-21 to financial year 2024-25, focusing on mitigating the difficulties faced by electricity consumers in the states due to the Coronavirus pandemic. The revised tariffs are effective from April 1, 2020. The state electricity commission also put a moratorium on the payment of electricity bill fixed charges by industrial and commercial customers for three billing cycles effective from the lockdown date, March 25, 2020.

The commission approved average tariff reductions of 7 per cent for the financial year 2020-21 and an almost flat tariff for most of the categories. The tariffs are stated below for Maharashtra: -

-Industrial and commercial sectors were also reduced by 10 per cent to 15 per cent.

-Retail electricity tariffs for residential sectors consumers were reduced by 5 per cent.

-No changes were made to agricultural sectors tariffs, with the current 50 per cent of cross-subsidies continued to be extended for consumers in the category.

### 2. Study of Customer:

Name: Mr. Jana Rama Rao

Place: Hyderabad Lat, Lon: 17.38oN, 78.480E

System he opted: 15 KW

Mr. Jana Rama Rao is one of Solar Town's the clients based out at Hyderabad. Mr. Jana Rama

Rao was paying an average of 15,000 Rupees per month on electricity bills, having a Residence with load of 15 KW. He was in need of a solution to reduce his electricity bills and wanted to explore Solar as an option.

System was commissioned with Jinko Solar PV Module of 15 KW and Zever Solar Inverter and the customer also received net-meter in time to

get benefits from utility. The Overall System cost was High because of High Raise Structure. Also, Customer didn't come across any major issues except some minor issues and the Installed System is Operation Completely good.

Hence, Customer is Happy & experiencing savings in electricity bills up to approximate 80-90%.

#### Energy Generation Calculation:

Energy Generation from Solar (Units, Bi-monthly)	Pre-Solar Energy Consumption from Grid (Units, Bi monthly)	Post-solar Energy Consumption from Grid (Units, Bi-monthly)
= (22907/12) X 2 = 3818	1500-on avg	Almost 0 consumption.

#### Saving Calculation:

Pre-Solar Electricity Bill (INR), Bi-monthly	Post-solar Electricity Bill (INR), Bi-monthly	Savings in Electricity Bill (Post-Solar, Bi-monthly)
14752	195	=(14752-195)/14752= 98.6%

### 3. Identifying Target audience:

#### State-wise Economic Analysis: Residential

Sl No	Name of the State/ UT	With Subsidy Savings as % of Pre-Solar EB	With-out Subsidy Savings as % of Pre-Solar EB	GDP (Lakh Crore)- Trillion INR	GDP Per Capita (INR)	Urban Total Electricity Consumption (MUs)	Highest Slab	Per Unit Price Range (INR/KWh)	Cities More than 5 lac Population (Nos)	Cities More Than 50 Lac Population	Rank (Based on with subsidy savings)
1	Punjab	62.57%	38.70%	6.44	2,04,197	9,103	Above 500	4.99-7.41	3	-	1
2	Maharashtra	59.48%	33.42%	32.24	2,47,859	28,224	Above 500	4.91-13.16	11	Mumbai, Pune	2
3	Uttar Pradesh	57.57%	-6.88%	17.91	74,459	23,355	Above 600	3.35-6.00	15	-	3
4	Karnataka	48.93%	-16.08%	18.05	2,55,988	16,813	Above 200	3.75-7.80	5	Bangalore	4
5	Gujarat	47.08%	13.01%	18.85	2,62,113	12,692	Above 250	3.05-5.20	5	Ahmedabad.	5
6	Rajasthan	44.75%	9.11%	11.33	1,36,487	10,886	Above 500	4.75-7.95	5	-	6
7	Delhi	37.82%	-1.85%	8.56	4,25,337	11,396	Above 1200	3.00-8.00	1	Delhi	7
8	Chhattisgarh	37.58%	-45.07%	3.62	1,15,583	4,876	Above 600	3.4-7.3	2	-	8
9	West Bengal	35.87%	-5.37%	14.70	1,42,120	15,133	Above 900	5.30-8.99	3	Kolkata	9
10	Bihar	29.00%	-16.72%	6.86	52,422	8,291	Above 300	6.05-8.5	1	-	10

Analyzing from the above table, we then came up with 4 states considering following aspects:

high population, high GDP per capita, states having more cities which have more than 5 lac population, have more electricity consumption and considering subsidy provided by the state government for Solar Installation.

The states shortlisted were: -

- Maharashtra
- Karnataka
- Gujarat
- Delhi

#### 4. Competitive Analysis:

First the Different competitors were researched and their basic information was collected. The one who have a good presence in market considering the following points: -

- no. project completed.
- Having its own website.
- Providing EPC solution.
- operating in Residential sector.

The Research was performed on the allotted state as Maharashtra i.e. the companies were in accordance with considering Maharashtra state only.

Top 5 Companies were Shortlisted for detail competitive analysis which are as follows: -

1. Insolergy Technologies
2. ZTRIC
3. Spark Solar
4. RelyOn Solar's
5. Tata Power solar

Details Competitive Analysis was as follows:

### Competitive Market Analysis

Competitiveness Factors	Insolergy Technologies	ZTRIC	Spark Solar	RelyOn Solars	Tata Power solar
Type of Competitor	Direct competitor	Direct competitor	Direct competitor	Direct competitor	Direct competitor
Positioning	B2C	B2C & B2B	B2B & B2C	B2B	B2B & B2C
Company Margin	On entire Project	On entire Project	On entire Project	On entire Project	On entire Project
Target Audience	Residential, Commercial	Residential / Commercial / Industrial / SME's / Institutes / Hospitals	Commercial & SME's Education, Residential Sector	all	Residential / Commercial / Industrial / Institution / SME's & MSMEs
Operating Segment	1 KW-(n)MW	30 kW to 1 MW	36/18-120 Cell series	1 kW to 30 MW	1KW- MW Scale
Offering	On-grid, off-grid rooftop solar system	On-grid, Off-grid	On-grid, offgrid, BIPV, Ground mounted	On-grid & Off-grid & solar power plant Application	On-grid & Off-grid Rooftop Solar System
Key Competitive Advantage	-	Monitoring App, Remote monitoring, proactive Service	Covers All market segment	Strong global Presence, technology excellence, expertise in integrating solars(advanced storage)	Trusted Brand, 15000+ residential systems commissioned, Rank 1 Rooftop Solar EPC company for 6 years



This analysis shows top 5 competitors market analysis with respect to different competitiveness Factor as Type of competitor,

Positioning, Company margin, Target audience, Operating Segment, its Offering, Key Competitive Advantage.

Competitiveness Factors	Insolergy Technologies	ZTRIC	Spark Solar	RelyOn Solars	Tata Power solar
Sales channels/where they sell	-	Exclusive Franchises	Distributor & Channel Partner & Direct customer	Franchises, End to End communication	Dealers/Distributors/ Channel Partners
Marketing strategy	Marketing done directly to consumers	Social Work-GreenKarma Project & direct to customer	Marketing done through channel & to direct customer	Marketing done directly to consumers	Marketing done through channel & to direct customer
Products	Rooftop Solars	prefixed plans solutions- 1. BuyZTRIC 2. MyZTRIC 3. ZTRICppa	Spark 120 Cells rapid series, spark 72 Cells series, spark 60 Cells series, Spark 36/18 Cells series	ALL	Ongrid and offgrid solutions according to areas (sq. ft)
Strengths	End to End Residential and Commercial solar power solutions, partnership with US based Revo energy INC.	Fully integrated energy solutions, proactive service, remote monitoring Green Karma project	Rigid internal testing, third party quality check incorporates innovative and unique features	Almost operating in all segments, operates in Capex and Opex models, global presence	Brand presence, customized solutions, global presence,
Weaknesses	No global presence, focus on only rooftop	Has prefixed plans instead of having customized solutions.	-	Less experienced in small scaled solars	-
Opportunities	Wide scope in urban residencies	To grow in remote villages and region due to GreenKarma project	Due to headquarter in Mumbai-Wide scope	Wide scope due to providing all types of solutions	Marketing advantage due to popularity
Threats	Has presence in developed region(Mumbai)	Have Presence in Villages & Known residential dealers, has Z-EIP team for study the place	E-commerce presence(unconfirmed)	Has global presence, technology excellence, handles complex projects	Dominant brand, tough competitor



This analysis shows top 5 competitors market analysis with respect to different competitiveness Factor as Sales Channel/where

they sell, Marketing Strategy, products, SWOT analysis.

### Contd..

Competitiveness Factors	Insolergy Technologies	ZTRIC	Spark Solar	RelyOn Solars	Tata Power solar
Operating Geographies	Mumbai, pune, Aurangabad	Pune, Mumbai, kolhapur Maharashtra	All over Maharashtra	Maharashtra, Rajasthan, Tamil Nadu, Chattisgarh, etc.	Almost whole India
Billing/Invoicing	Invoicing can be done either from Insolergy or through Distributors	Invoicing is done directly from ZTRIC	Invoicing can be done either from Spark or Channel Partners or Dealers/Distributors	Invoicing is done directly from Relyon solar	Invoicing is done directly from Tata
Customer Acquisition Strategy	Distributors and dealer	By Franchise	Distributor and dealer of Spark Solar	By Franchise	By Channel Partner split according to territory, as well as through TATA's channel
Total market share in Business	-	0.28%	-	0.52%	5.6%
Installation Done	-	681 project installed	Not specified	+2000 project installed	1500 GW
Team Size	11-50	11-50	100-500	51-200	700

This analysis shows top 5 competitors market analysis with respect to different competitiveness Factor as Operating Segment,

Billing and Invoicing, Customer Acquisition, total market shares in Business, Installation done i.e project Completed, Team Size.

## Contd..

Competitiveness Factors	Insolergy Technologies	ZTRIC	Spark Solar	RelyOn Solars	Tata Power solar
App	No App	<a href="https://play.google.com/store/apps/details?id=com.ionicframework.k.greenkarma&amp;hl=en">https://play.google.com/store/apps/details?id=com.ionicframework.k.greenkarma&amp;hl=en</a>	No App	No App	<a href="https://play.google.com/store/apps/details?id=com.tatapower.cp.flori">https://play.google.com/store/apps/details?id=com.tatapower.cp.flori</a>
Website	<a href="http://www.insolergy.com/">http://www.insolergy.com/</a>	<a href="http://ztric.com/">http://ztric.com/</a>	<a href="http://www.spark solar.in">www.spark solar.in</a>	<a href="http://www.relyonsolar.com/">http://www.relyonsolar.com/</a>	<a href="https://www.tatapowersolar.com">https://www.tatapowersolar.com</a>
Business Model	B2B, B2C	B2B, B2C	B2C	B2B, B2C	B2B, B2C, C2C

This analysis shows top 5 competitors market analysis with respect to different competitiveness Factor as it contains App of its own, Website link, Business Model such as B2B, B2C, C2B, C2C, etc.

Some Analysis on Recommendations on Customer Acquisition Strategy was done which is as follows:

## Recommendations on Customer Acquisition Strategy

Factors	Existing Channel Partners in Solar	Channel Partners new to Solar	SunEdison Outbound Marketing & Sales team
Time to close a deal	Maximum, because of negotiations on customer acquisition commission and margins	Somewhere in between	Very less, because of in-house sales and marketing team
Training Bandwidth	Not required	Heavily required	Required based on case to case
SunEdison Margin	Minimum, because of negotiations	Decent margin could be expected	Maximum
Pipeline Strength	Maximum, because of existing pipeline of leads	Has to build	Has to build

The above states Customer Acquisition Strategy of SunEdison which was discussed with SunEdison Team Considering the factors as SunEdison Margin, Pipeline Strength, Training Bandwidth, cancellation if some deals with respect to existing channel partners, new channel partner and SunEdison outbound marketing and sales team.

### FINDINGS

The Competitive analysis stated that we can consider the SWOT Analysis of competitors in order to build good marketing strategy and to create a good market presence in different state.

As Insolergy Technology has only local presence and only provides rooftop solution, ZTRIC

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provides prefixed solution and not the customized one which is again not a good strategy to get the customers, Spark solar has no good presence over internet the website is not user friendly which may cause bad impression for the customer, RelyOn Solar are good at large project and have less experience in small residential sector where our company can be on advantage, Tata Motors is a known brand and has global presence but with this its products and solution are costly as compare to others. By considering this SWOT analysis and other details we can build a good marketing strategy considering the weakness mainly so as to create a good presence over the market.

The Rooftop solar Product Study stated that what type of product can be offered, its feasibility of installing, market scenario i.e. Subsidy provided, Average pricing, etc.

## SUGGESTIONS

SunEdison should expand its presence in India to grab the market. Along with this it should moreover focus making of application which would provide the buyers the details of units utilized, power backup percentage, maintenance update or notification, rainy

## REFERENCE

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<https://www.businesswire.com/news/home/20200221005357/en/Insights-Solar-Rooftop-Market-India-2019-2024>
- For company details following sites were used:
- <https://mercomindia.com/>
  - <https://www.zaubacorp.com/>
  - <https://www.geojit.com/>

season alert and switching to normal electricity usage, etc. as most of the people nowadays are technology driven. Conducting Promotional activity would be good to create awareness among different sectors.

As the Different technology are now a days used to draw attention of customer and provide good service, SunEdison can also take advantage of such Technologies like chatbots over website, Digital Marketing etc.

## CONCLUSION

This project is designed to study Product, identifying Target audience and Performed competitive analysis through research. Hence, I would like to conclude that marketing and marketing research analysis plays a very important role in building go to marketing strategy. Through this project research I got to know many things related to marketing and how to practically apply the same and work on the same. Also got to explore about different tools like MS-Office, Roadmunk, Asana. As I was a part of Marketing team in SunEdison with a role of marketing research Analyst, I also learn working culture of an organization, how to communicate in professional setting and good team work.

- <https://economictimes.indiatimes.com/>  
and the company's respective website to know more.
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<https://www.moneycontrol.com/india/stockpricequote>  
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<https://youtu.be/DObNc715bnI>



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# CUSTOMER PERCEPTION AND INVESTORS PREFERENCE IN INSURANCE

Ms. Nikita Kalra

Student, MBA, Institute of Management and Entrepreneurship Development,  
Bharati Vidyapeeth (Deemed to be University), Pune

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## Abstract

In this era of fast changing world, mere class room teaching is not sufficient to attain maturity and perfection for application of theory into practice. The dynamic economy, political and technological environment in which we live continually place demand on us to change, improve and learn more about jobs, superiors and subordinates. Two years of continuous classroom teaching is sufficient for students to implement directly their knowledge in the market. A practical approach is needed.

The knowledge through project report is an essential requirement for M.B.A student. The purpose of this project report is to study the Customer Perception and Investors Preference in Insurance. I have tried my level best to do justice to the project. And I hope the study which was conducted will help not only the organization but also me and the society too.

Key Words: customers, perception, insurance, preference

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## INTRODUCTION

Types of Investment Avenues available in India:

- 1) Bank Savings or FD - This way is the most secured investment avenue available in India. One thing should be clear to you that the more you are able to take the risk, the more return you will be able to get. Risk and return factor always go in the same direction in the financial market. Here, investors can choose your duration and amount according to your capability. Here, investors only look for the financial ability of the selected bank, otherwise, this investment holds near about zero risk ratio.
- 2) Bonds and Debentures - Bonds and Debentures are the most well-known

security options in India. They are issued by corporations and institutions. Generally, bonds are issued by PSU. Hence, the risk is quite low here in comparison to other options. Though most of the time, both bonds and debentures use almost in the same way, they don't include the same features. Bonds is like a loan, secured by specific assets while debenture is not secured by an asset.

- 3) Mutual Funds - This investment alternative carries medium risk and moderately high return with it. Field of the mutual fund is quite vast. According to the risk and return factors, there are thousands of plans or schemes under it. For example, SIP (Systematic Investment Plan), SWP (Systematic Withdrawal Plan),
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MIP (Monthly Income Plan) etc. Broadly we can categorize the mutual fund into two section, Open-ended (can enter-exit any time), Close-ended (can exit at maturity period).

- 4) Equity - It is the most volatile and risky market of all but with highest profitable return capacity. Like mutual funds, equity field also the biggest one. There are the variety of options available in the equity market. Aggressive investors who have knowledge and experience in the stock market may earn millions of money from it. Here, in this field, the more knowledgeable you are, the more successful you will be. There is no maturity period at all. Investors can trade on the one-day basis or long-term as per their wish.
- 5) Commodity - Equity and commodity trade happen through a demat account. Just like equity investors can invest for commodity also. The risk factor and return are the same as equity. There is also no maturity period. You can trade as per your own choice able duration.
- 6) Small Govt Investment Schemes - People with low-income rate and lowest risk bearer may apply for small Govt investment schemes. If you update the proper record of Govt policies and schemes, you can notice there are several small Govt investments schemes. Some of them are Employees Provident Fund, Sukanya Samriddhi Schemes, National Pension Schemes etc.
- 7) Gold - Investment in gold is an ancient avenue of investment. Gold price is gradually increasing day by day. Therefore, some investors choose gold as

their investment alternative. With the increasing value of gold, investors take profit from it.

- 8) Real Estate - Real estate is property made up of land and the buildings on it, as well as the natural resources of the land including uncultivated flora and fauna, farmed crops and livestock, water, and any additional mineral deposits.

- RESEARCH METHODOLOGY

- 1.1 Statement of the Problem

This Study helps me to identify the Customer perception in the word of insurance by which the company can further improve its performance to enjoy reputation among the various clients.

This study also helps in making necessary changes in the attributes of the insurance cover offered by the company so that the customers can enjoy the benefits of the insurance cover.

The need for the study arises to identify what customers think about insurance before buying it.

- 1.2 Research Objectives

- To study consumer awareness towards insurance products
- To know about the various investment alternatives that is mostly preferred by the people
- To find out important criteria that people think about before investing in an insurance policy
- To know Investors Behavior
- To know Preference of Investors

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### 1.3 Scope of the Study

This study has a wider scope in the word of insurance sector. This study focus on various aspects such as competitive position of The Leading Solution company, Strength, Weakness of the insurance covers, customer perception etc. The outcome of the study, which are based on the above aspects can be utilized by the marketing department of both life and non-life insurance companies.

- The result of this research would help the company to have a better understanding about the consumer`s perception towards Insurance
- The study helps the company by creating awareness about the consumers of different ages and at different income levels
- The study also enables the company to focus on the consumer`s preferences and expectations on the product which they offer.

### 1.4 Research Design:

A Research Design is the methodology for an investigation and the arrangement by which the procedure is to be completed. It determines the techniques and systems for the assortment, estimation and examination of information. The current examination comprises of each one of those individuals who contribute and the individuals who plan to put resources into investment avenues in not so distant future. This examination depends on sample survey method. This examination primarily surveys the degree of awareness, to know the apparent sentiment. The investigation of research technique gives you the information and aptitudes you have to tackle the issue and address the difficulties of the quick based choice.

### 1.4 Sample Technique:

Convenience sampling technique has used for collecting the data from different investors. The investors are selected by the convenience sampling method. The selection of units from the population based on their easy availability and accessibility to the researcher is known as convenience sampling. Convenience sampling is at its best in surveys dealing with an exploratory purpose for generating ideas and hypothesis. The survey was conducted through online in various colleges, corporate, offices, respondent`s home etc.

### 1.5 Sample Size:

The sample size was 90. These contain students, salaried representatives, Business individuals, Home Maker, Professionals, Retired people and other financial specialist.

### 1.6 Data Collection:

Data was collected from both primary and secondary sources. Data was collected by a questionnaire which constitute primary data source for this research. The questionnaire is well structured and starts from collecting the user`s demographics, then user usage and perception on Insurance. The questionnaire was devised after working out the various surveys and literary contents.

- DATA ANALYSIS

1. Gender Profile

The male population of the present study exceeds to female population. The following table illustrates the gender distribution of the respondents of the study.

Gender	No.of Respondents	Percentage of Respondents
Male	57	57%
Female	42	42%
Total	90	90%

The above table shows gender wise distribution. Out of 90 sample investors 57% males and 42% are females. Generally, males bear the financial responsibility in Indian society, and therefore they have to make investment (and other) decisions to fulfill the financial obligations.

#### 2. Age group profile of sample investor

Information was collected from all age group of investor. The age group of investor is also major factor which influence investment decision. The following table illustrates the age profile of the respondents of the study. The age group profile of investor. 5% of investor are less than 20 years' age and majority of investors (82%) are between 20-30 years' age group. 11% of investors are between 30-50 years and there are no respondents from above 50 years.

#### 3. Occupation

Here, occupation means a position of the investor in the society. It may be students, home maker, self-employed or business people and other occupation. The following pie chart shows the occupation of sample investors collected through survey. Occupation also influences investment decisions of individual investor. The preferred investment avenues of students are differing from home maker and preferred investment avenues self-employed persons differ from retired persons. The above pie chart

shows the occupation of sample investor. 51.1% are Students as it was important to study the data of students that how much students invest their pocket money in investment. 43% people were employee as they are the on who have the income to invest and have the power to take insurance and others were either home maker, self-employed etc.

#### 4. Marital Status

The below chart shows that 82% people are Unmarried and 17% people are Married. The marital status of individual influences the perception of individual investor. We might observe that married people have more responsibility than non-married people. So their investment pattern also differs from the unmarried.

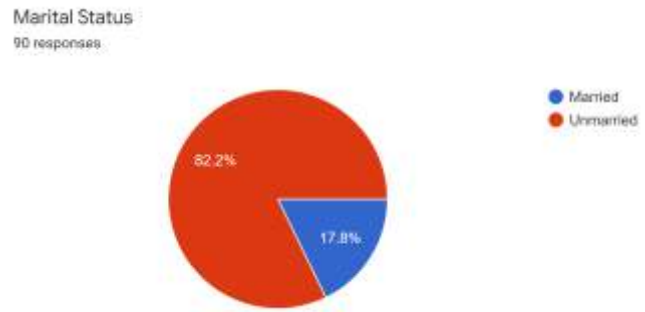


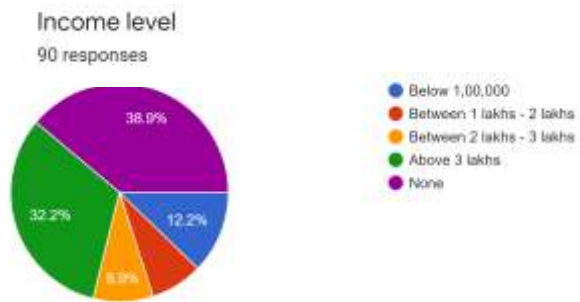
Figure: - Status of sample investor

Purpose of investment	No. of respondents	Percentage of respondents
Education	41	45%
Home purchase	24	26%
Healthcare	31	31%
Marriage	12	12%
Retirement planning	12	12%
<b>Total</b>	<b>110</b>	<b>120%</b>



5. Income Level

The important factor which influences the whole investment decisions and attitude of individual investor is income level of investor. When level of income increases the risk tolerance level of the investor also increases. The following chart shows the interesting income distribution among the sample investor.



The above table shows that 12.2% of investors are below 1,00,000 income level, 9% people are between 2 lakhs and 3 lakhs and 32% of people were above 3 lakhs and there were

6. Purpose of Investment

There is some specific purpose to investor to invest their savings. There are many purposes to investor to invest their savings like education purpose, home purchase, healthcare, marriage and retirement planning etc. For this purpose, investigator asked to specify their main purpose of their investment.

Purpose of investment	No. of respondents	Percentage of respondents
Education	41	45%
Home purchase	24	26%
Healthcare	31	31%
Marriage	12	12%
Retirement planning	12	12%
<b>Total</b>	<b>110</b>	<b>120%</b>

From the above table we can analyze that 41% of respondents invested for the purpose of education either for themselves or for their children or other family member. 24% of investor invested their savings for the purpose of house and 31% of respondents invest their savings for the purpose of healthcare that is to insure their health. 12% of respondents invested for the purpose of getting the money at the time of marriage and 12% of respondents invested for the purpose of retirement planning and rest 38% were from other categories. In the above table the respondents were not above 90 multiple options was given to the respondents for the brief study so the total increased the given sample size, actual sample size was 90

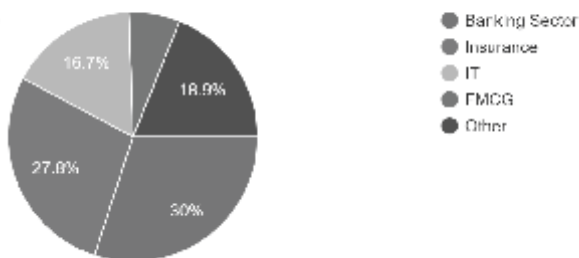
7. Preferable Investment Sector

Generally, investors are very much concerned about in which sector should invest their funds. In market there are many sectors are there for investment like banking sector, Insurance sector, IT sector and FMCG sector and other sector. Investors invested their fund by considering trend in different sector.

The graph shows the preferable investment sector; investors were given more than one option to select. First rank given to banking sector because majority investor opinions that investment in banking sector is safer. The second preference is given by the investor is given to insurance sector. Investor may be planning for life insurance and health insurance therefore their second preference is given to insurance sector. IT sector and FMCG sector are occupied third and fourth ranks in the minds of sample investor.

Preferable Investment Sector

90 responses



8. Parameters looked at the time of insurance policy

As when buying a particular insurance, people have different expectation from the insurance policy company like premium, charges, policy term, rider benefits, bonus and interest, pre and post service, accessibility, company image. These were all the parameters I mention in the survey and got an interesting response. As company image is highly important to the respondents and then premium being highly important. Rider benefit being the important aspect among all the parameters.

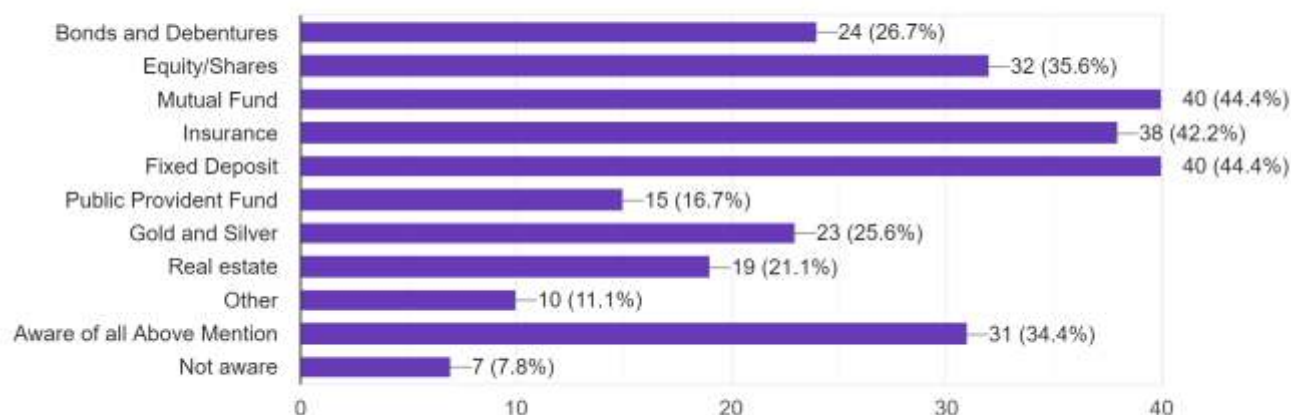
9. Awareness about different investment avenues available in the market among the sample investor.

In market there are number of investment avenues are available. So in order to know the awareness of investment avenues investigator asked about their knowledge or awareness of some particular investment avenues. The following table shows the investors' awareness about different investment avenues.

Investment Avenues	No. of respondents	Percentage of respondents
Safe/Low risk Investment Avenues:		
i Bank fixed Deposit	40	40%
ii Public Provident fund	15	16%
Moderate Risk Investment Avenues:		
i Mutual Fund	40	40%
ii Insurance	38	38%
iii Bonds/Debentures	24	24%
High Risk Investment Avenues:		
i Equity Market	32	32%
Traditional investment Avenues:		
I. Real Estate	19	21%
II. Gold/Silver	23	25%

Awareness about the different avenues available in the market.

90 responses



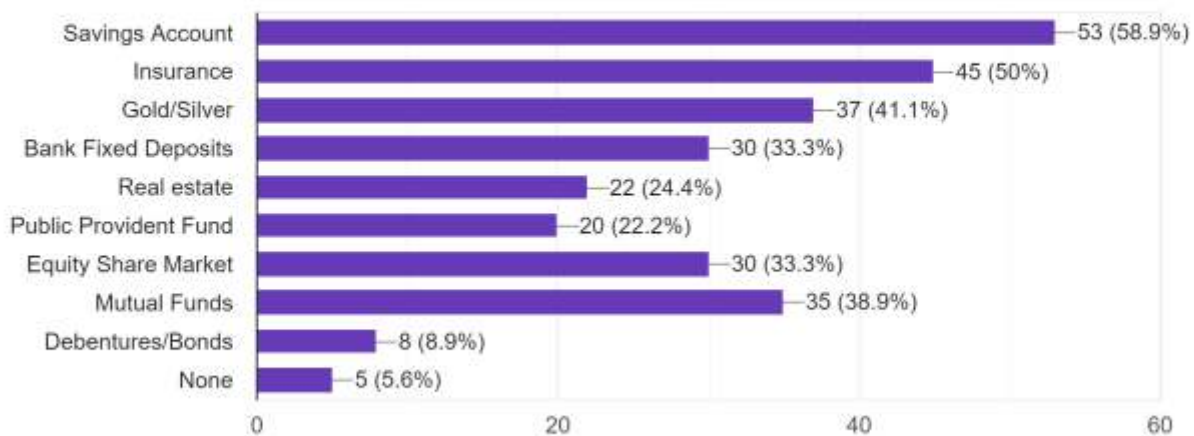
10. Preferred Investment Avenue overall

Investment avenues	Votes
Life insurance	45
Saving Account	53
Gold/Silver	37
Bank fixed deposits	30
Real estate	22
Public Provident Fund	20
Equity Share Market	30
Mutual Funds	35
Debenture/Bonds	8

While considering overall votes of sample investor the preferable investment avenues were as the above. Interestingly the first rank is given to the life insurance because everybody much cares about their life. The second preference was given to the saving account. Even though real estate is traditional investment avenues it positioned fifth rank in preferable investment avenues. Majority of sample investor were below income level so debenture positioned thirteenth rank in preferable investment avenues. Public

Preferred Investment Avenue overall

90 responses



11. Sources of Investment Advice

With a bit of information, you can gather a wealth of knowledge. So it is necessary to investor to have the knowledge about investment avenues before investing particular investment avenue. For this purpose, investor goes for various sources in order get best investment advice. So in order to know the sources of investment advice investigator asked about their sources of investment advice.

Sources of Investment advice	No of respondents	Percentage of respondent
Media	5	5%
Advisor	16	16%
Family/Friend	38	38%
Internet	14	14%
Financial Planners	16	16%

Sources of investment advice.

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Investors have to get information or advice in order to survive in the market; therefore, they get advice from various sources. 16% of investors were getting the advice from financial planners because they don't want take any risk therefore they go for financial experts. 16% of investors were getting the investment advice from the advisor. 38% of investors are getting investment advice from their family or friends because of easy availability. 5% of investors are getting investment advice from the media. 14% of investors were getting advice from internet.

- FINDINGS, CONCLUSION AND SUGGESTION

- FINDINGS

- Most Investors prefer to park their funds in avenues like Savings account, Life insurance, FD, Gold and Real Estate.
- Percentage of investment done from their income depends on the amount they get annually, more the income more is the investment.
- Investment preference of married people different from investment preference of unmarried people. Married people invest on low and moderate risk avenues but unmarried people invest on high and moderate risk avenues.
- Most of the people look at the premium amount and rider benefits before buying an insurance policy.
- Most preferable investment sector analyze from the study was banking sector (30%) than insurance sector (27%)
- People who belong to different age group have different perception regarding the most important criteria before taking the insurance policy.

## CONCLUSION

Insurance can never be a tool of investment, it is to secure yourself, family, Future Uncertainties etc. It is Making a good of a loss. Life or property of an individual is surrounded by lots of risk life risk of death, disability etc. These risk may cause a financial loss to you and your family so, Insurance is a way to transfer your risk to a company whereby you pay the premium and your future loss can be cover according to the amount of premium you pay to the company.

Thus the study also comprise company image is highly important criteria that consumers consider before taking up any insurance policy. This is mainly because people expect safety and security for their money which they invest in any form either mutual fund, bonds, equity, real estate etc. Followed by the factor Premium which we have also studied that most respondents think premium being highly important than any parameter which is being payed and then bonus and interest paid by the company, services etc.

## SUGGESTION

1. Consumer should be aware of company's profile and returns associated with insurance.
2. The financial advisor should be right enough to serve the consumers. The consumer should also be aware of the advisor or others who is looking after their investments.
3. Company should publish their performance by comparing it with their competitors.
4. Company should adopt strategies to explore that private insurance companies are safer and secure than public insurance

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company LIC.

5. Middle income people suggest that premium can be collected on monthly high instead of twice a year.
6. Company`s reputation is more important because bas impression image or brand name is considered while decision making among consumers.

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1. Adams, W.G., The Bakerian Lecture on the Forms of Equipotential Curves and Surfaces and Lines of Electric Force, Transactions of the Royal Society of London, 24, 1876, pp. 1–32

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