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FORWARD

It is Albert Szent-Gyorgyi, the Hungarian pharmacologist known for his work on vitamins and oxidation and who was awarded the Nobel Prize in Physiology or Medicine in 1937, who said “Research is seeing what everybody else has seen and thinking what nobody else has thought”. If we analyse this statement deeply, we will realize that every one of us see many things happen around us every day and have trained ourselves to discard them as a matter of inconsequence or something not worth bothering about.

But one individual amongst us would start wondering or worrying as to why such a thing happens, whether it could be improvised to get a socially beneficial outcome or if something could be done to tone down or remove the hazardous implications of it.

If such individuals become an integral part of the society, many things that happen around us would be watched with a clear intent, analyzed through a discerning and systematic approach, studied in depth to identify the benefits that could be derived from them and watched with caution to mitigate or nullify the negative consequences that might result from them.

Research ultimately is the triggering switch that energises the human mind and assigns an authentic reason for our inner desire to explore the unknown. While doing so, what is important is not the success or failure of our efforts. It is the joy of having explored matters which have been ignored by others and the small and large pieces of learning we could acquire during that journey - they are what really matter the most to an intellectual mind.

The outcome of any research is measured by the knowledge one obtains during the research process, the answers to many 'WHYs', 'WHATs', and 'HOWs' and above all, the sense of achievement one gets at the end of the long research process. For a true researcher, appreciation or awards do not matter as much as the personal satisfaction he or she derives by proving or disproving a self-stated hypothesis in a logical, rational and scientific manner.

Let the spirit of Research flourish ! Let our quest for Research lift us up from the mundane and rote mindset we have gradually built within ourselves in today's world of comfort and conflicts !

RAMANAND ARYA D.A.V. COLLEGE (AUTONOMOUS)

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1. To Study the Influence of Artificial Intelligence on the E-Commerce Sector

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Abstract

Artificial intelligence involves enabling a computer-controlled robot or software to emulate intelligent human thought processes. The paper centers on examining the influence of artificial intelligence within the realm of e-commerce. E-commerce, which involves leveraging technology to discern purchasing and selling trends over the internet, as well as facilitating secure money and data transfers for transactions, has evolved significantly. The findings and recommendations presented in this paper underscore the capacity of artificial intelligence applications to generate precise forecasts for the e-commerce sector. The research delves into the multifaceted impact of artificial intelligence across various facets of e-commerce. In conclusion, it demonstrates how artificial intelligence has significantly enhanced the user experience on e-commerce websites

Keywords: Machine Learning, E-commerce, Internet, Buying and selling of goods, AI-Artificial intelligence

Objectives

1. To gain insight into the current state of e-commerce.
2. To examine the influence of artificial intelligence on the e-commerce landscape.

Hypothesis

1. Artificial Intelligence has redefined the customers hoping experience and also helped sellers sell their product in interesting ways and to the right target customers
2. Artificial Intelligence is way too complicated for a market like India which still struggles to introduce one smartphone in every household of the country and hence hasn't influenced the new buyer seller system.

Introduction

Artificial Intelligence (AI) falls within the realm of computer science, focusing on the emulation of human-like intelligence in machines. An intelligent agent within AI is a system designed to take actions that optimize its likelihood of achieving goals. AI explores concepts that empower computers to perform tasks typically associated with human intelligence. Key principles at the core of AI encompass reasoning, knowledge, planning, learning, communication, perception, as well as the capacity to interact with and manipulate objects. It represents the scientific and engineering discipline dedicated to creating intelligent machines, particularly through the development of sophisticated computer programs.

Artificial Intelligence Methods

Knowledge-Based Systems (KBS)

A Knowledge Base System (KBS) can be described as a computer system with the ability to offer guidance within a specific domain, drawing upon knowledge contributed by a human expert. One notable characteristic of KBS is the distinction between the knowledge itself, which can be expressed in various forms like rules, frames, or cases, and the inference engine or algorithm responsible for utilising the knowledge base to reach conclusions.

Neural Networks

Neural Networks (NNs) are computational systems inspired by biology, comprised of interconnected "neurons" organized into layers. Through the adaptation of these network weights, NNs can be "taught" to approximate nearly any nonlinear function with a specified level of precision. Typically, NNs are furnished with a collection of input and output examples. A learning algorithm, like back propagation, is then employed to fine-tune the network weights, ensuring that the network produces the desired output. This learning process is commonly referred to as supervised learning

Machine Vision

Machines have the capability to acquire visual data and subsequently perform analysis on it. This process involves the utilization of cameras to capture visual information, followed by analog-to-digital conversion to convert the image into digital data. Digital signal processing is then applied to process this data, after which it is input into a computer. In the realm of machine vision, two critical factors come into play: sensitivity, which refers to the machine's capacity to detect faint signals, and resolution, which signifies the machine's ability to distinguish between objects at various levels of detail. Machine vision finds applications in diverse fields, including signature recognition, pattern identification, and medical image analysis, among others.

Automation & Robotics

The aim of automation is to delegate monotonous and repetitive tasks to machines, thereby enhancing productivity and achieving cost-effective, efficient outcomes. Numerous organisations employ machine learning, neural networks, and graphs as part of their automation strategies. This automation is particularly valuable in addressing online fraud during financial transactions through technologies like CAPTCHA. Robotic process automation is designed to execute high-volume, repetitive tasks and possesses the ability to adapt to varying circumstances.

Natural Language Processing (NLP)

It involves the interaction between computers and human language, with computers being programmed to process natural languages. Machine Learning stands out as a dependable technology for Natural Language Processing (NLP) as it helps derive meaning from human languages. In NLP, machines capture spoken human language and then convert it into text. Following this, the textual data is processed and transformed back into audio, enabling the machine to respond to human interactions. The applications of Natural Language Processing are diverse, including its use in IVR (Interactive Voice Response) systems in call centers, language translation applications like Google Translate, and word processors such as Microsoft Word, which use it to check grammar accuracy. Nevertheless, the intricacies of human languages make NLP challenging due to the complex rules inherent in language communication, which computers find difficult to comprehend. Hence, NLP employs algorithms to identify and abstract these language rules, allowing for the conversion of unstructured human language data into a format comprehensible to computers.

Machine Learning

It represents one of the AI applications where machines do not require explicit programming for specific tasks; instead, they autonomously learn and enhance their performance through experience. Deep Learning, a subset of machine learning, relies on artificial neural networks for predictive analysis. Machine learning encompasses various algorithms, including Unsupervised Learning, Supervised Learning, and Reinforcement Learning. Unsupervised Learning involves algorithms that make sense of unclassified data independently, without external guidance. Supervised Learning entails deriving a function from training data comprising input objects and corresponding desired outputs. Reinforcement learning is employed by machines to take actions aimed at maximising rewards, ultimately determining the most favourable course of action to pursue.

AI in E-commerce

The e-commerce sector is gaining a competitive advantage through AI integration, increasingly becoming a pivotal element of online business strategies. AI aids shoppers by suggesting related products, including size, color, and brand recommendations.

Data Collection

The objective of this study is to assess the role of artificial intelligence in the context of e-commerce.

Secondary data in research refers to data that has been collected and published or made available by someone else for a purpose other than your current research objectives. It is data that you did not collect yourself but rather obtained from existing sources.

Analysis method

1. Internal Secondary Data

This data was collected by an organisation or entity for its own purposes but was repurposed for research. For example, sales data, customer records, or employee performance data within a company.

2. External Secondary Data

This is data was collected by external sources, such as government agencies, research institutions, or publicly available datasets. Examples include census data, academic journals, market research reports, and social media posts.

Findings

Artificial Intelligence (AI) was already making significant inroads into the e-commerce industry in India, and it's likely that its impact has continued to grow since then. Here are several ways AI is being used in e-commerce in India:

1. Personalised Recommendations

AI algorithms analyse user behaviour, purchase history, and preferences to provide personalised product recommendations. This helps improve user experience and increases the chances of making a sale.

2. Chatbots and Virtual Assistants

Many e-commerce platforms in India use AI-powered chatbots and virtual assistants to provide customer support and answer frequently asked questions. These chatbots can offer real-time assistance, helping customers find products and resolve issues.

3. Visual Search

AI-driven visual search allows users to upload images or use their camera to search for products. This technology is helpful when customers have a specific item in mind but can't describe it in words.

4. Inventory Management

AI can optimise inventory management by predicting demand, suggesting reorder points, and minimising overstock or stock outs. This leads to improved efficiency and reduced costs.

5. Price Optimization

AI algorithms can analyze competitor pricing and market demand to optimize product pricing. This ensures that prices are competitive while maintaining profitability.

6. Fraud Detection and Prevention

AI is used to detect fraudulent transactions by analyzing patterns and anomalies in payment data. This helps protect both e-commerce companies and customers from fraud.

7. Supply Chain Optimization

AI can be used to optimize the supply chain, ensuring efficient logistics, inventory management, and timely deliveries. This is particularly important in a large and diverse market like India.

8. Customer Service

AI-powered chatbots and virtual assistants can handle routine customer service inquiries, freeing up human agents to focus on more complex issues.

9. Voice Commerce

With the increasing popularity of voice assistants like Amazon's Alexa and Google Assistant, AI is being used to enable voice-based shopping experiences in India.

10. Predictive Analytics

AI can analyse vast amounts of data to make predictions about customer behaviour, trends, and market dynamics, helping e-commerce companies make informed decisions.

11. Customer Segmentation

AI helps e-commerce businesses segment their customer base for targeted marketing campaigns, allowing them to tailor promotions and offers to specific groups.

12. Dynamic Pricing

AI algorithms can adjust prices in real-time based on various factors such as demand, competitor pricing, and inventory levels.

13. Search and Product Discovery

AI-driven search engines and product discovery tools enhance the customer's ability to find products quickly and accurately.

14. Recommendation Systems

AI algorithms power recommendation engines that suggest products to users, increasing the likelihood of conversions and upselling.

15. Predictive Maintenance

AI can be used to predict when e-commerce platforms' hardware or software systems may require maintenance or upgrades, minimizing downtime.

The adoption of AI in e-commerce in India is driven by the growing e-commerce market, the need for improved customer experiences, and the desire to stay competitive. It's likely that AI's role in the Indian e-commerce landscape has continued to evolve and expand since my last update, with businesses finding new ways to leverage AI to enhance their operations and meet customer demands.

Suggestions

Given its versatile features and wide-ranging applications, artificial intelligence (AI) is undoubtedly poised to play an increasingly central role in our lives. The trajectory of AI development suggests that the world is moving towards a more artificial future. Unlike biological intelligence, which is a well-established, mature concept, the newer paradigm of non-biological computation and intelligence is experiencing exponential growth.

The human brain's memory capacity is estimated to be in the order of ten thousand million binary digits, but a substantial portion of this capacity is likely devoted to storing visual impressions and other relatively inefficient forms of data retention. Consequently, we can surmise that, as natural intelligence is constrained and somewhat limited, our reliance on computers for streamlined operations is likely to intensify.

Artificial intelligence (AI) represents a groundbreaking achievement in computer science, destined to become an integral component of contemporary software in the years and decades ahead. This transformation presents both opportunities and challenges. AI will be employed to enhance defensive and offensive cyber operations, and novel cyber attack methods will likely emerge to exploit AI's unique vulnerabilities. Furthermore, the significance of data will be amplified by AI's insatiable appetite for extensive training data, necessitating a reevaluation of our approach to data protection.

Responsible global governance will be imperative to ensure that this era-defining technology contributes to widespread safety and prosperity for all.

Conclusions

In conclusion, this study demonstrates that artificial intelligence has played a pivotal role in enhancing the user experience on e-commerce websites. Hence, Hypothesis 1 is proved as correct.

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2. Impact of Indian Accounting Standards (IND AS) Adoption on Different Sectors

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Abstract

Indian Accounting Standards Known as IND AS were developed to harmonize standards related to international accounting and reporting globally known as International Financial Reporting Standard (IFRS). Accounting standards standardize the whole accounting procedure of the country. A good financial accounting system is the most important requirement to operate a business effectively that too globally. Every country stipulates a method for companies to report financial data based on rules called accounting standards. India has so far followed Indian Generally Acceptable Accounting Principle (IGAAP). In February 2015, the Ministry of Corporate Affairs notified a set of rules called Companies (Indian Accounting Standards) Rules 2015 w.e.f. 1st April 2015 introducing the Ind AS a step towards convergence with IFRS. This paper deals to know the impact of IND AS on various sectors.

Keywords :- Ind As, Ifrs, Igaap, Icai, Iasb, Mca.

Objectives

To study the impact on adoption of Ind AS on different sectors.

Hypothesis

As a result of globalisation and privatization, the level of international trade and investment has increased tremendously. A uniform accounting standard may improve the qualitative values of accounting in terms of transparency and harmonization. The Institute of Chartered Accountants of India (ICAI), in 2006, started the process of moving towards the IFRS issued by the International Accounting Standards Board (IASB) with a view to enhance acceptability and transparency of the financial information. This move towards IFRS was supported by the Government of India. The Ministry of Corporate affairs (MCA) of India in consultation with the ICAI decided to converge Indian Generally Accepted Accounting Principles (Indian GAAP or I-GAAP) as Indian Accounting Standards (Ind AS), which is at par with IFRS and not to adopt IFRS issued by the IASB.

Ind. AS stands for Indian Accounting Standard and are converged standards of IFRS. It is the accounting standard adopted by companies in India and issued under the supervision of Accounting Standard Board. Ind. AS govern the accounting and recording of financial transactions as well as the presentation of statements such as Profit & Loss A/c and Balance Sheet of a company. It was modelled on the IFRS which were different from the Indian Generally Acceptable Accounting Principles.

Some noteworthy features of IND AS are as follows:

- Ind. AS primarily focuses on classifying financial instruments based on the substance over legal form of the transactions. Further, Ind AS involves extensive use of fair valuation concepts in reporting which has not been the case in existing IGAAP.
- The new accounting standards will bring in increased transparency and disclosures which would enhance the quality of reporting.
- The adoption of Ind AS will not change the fundamentals of the company. Also, the company's cash flows are not expected to be affected, except for a change in tax outflows in specific instances.
- The benefits of transitioning to Ind AS are expected to be manifold and outweigh the challenges involved. Classification of instruments as per the substance, use of fair valuation and increased disclosures would bring the reported financials closer to economic reality and increase the quality of information to the users. Furthermore, adoption of the globally acceptable and easily understandable set of accounts would enhance the ability of the Indian companies to approach global markets and the international investor body would be able to make better and more informed decisions.
- The changes on account of adoption of Ind AS are expected to be transitionary in nature except for the expected volatility on account of year-on-year changes in valuations of financial instruments

Data Collection

The key accounting areas which have witnessed significant change in the accounting treatment under Ind AS are explained below-

i. Consolidation

- Ind. AS has introduced a concept of de-facto control, wherein consolidation could be done even without majority shareholding rights or not done if minority shareholders have veto rights.

- Accounting for joint ventures will be done via equity method.
- Minority interest will be recorded at fair value.
- Uniform accounting policies will be used among the consolidating entities else appropriate adjustments need to be made.

ii. Valuation of Financial Instruments

- All financial assets and financial liabilities will be initially recognised at fair value and difference from the transaction value will be recognised as profit/loss.
- Subsequently financial assets will be valued at amortised cost or fair value based on nature of asset and changes on account of recording at fair value to be passed either through profit and loss account (categorised as FVTPL) or through other comprehensive income (categorized as FVTOCI).
- For financial liabilities subsequent recording would be either at fair value with changes passed through Profit and Loss account or at amortised cost using the effective interest rate method.
- Classification of instruments into debt or equity would also depend on the structure and underlying substance of the instrument. Compound instruments will be separated into debt and equity component and recognised accordingly.
- All derivative instruments will also be measured at fair value.

iii. Service Concession Arrangement

- This applies to public to private service concession arrangements wherein grantor controls the asset, services rendered and pricing.
- The asset created will not be recognised as property, plant and equipment. Instead it will be recognised either as an intangible asset or a financial asset. Moreover, the revenue is recognised even during the construction phase.
- The operator shall recognise a financial asset to the extent that it has an unconditional contractual right to receive cash or another financial asset from or at the direction of the grantor for the services. Under the financial asset model, revenue is recognised during the operation phase as interest earned on financial asset basis effective interest rate method.
- The operator shall recognise an intangible asset to the extent that it receives a right (a licence) to charge users of the public service. A right to charge users of the public

service is not an unconditional right to receive cash because the amounts are contingent on the extent that the public uses the service

iv. Employee Benefits and ESOPs

- ESOPs can be valued only as per the fair value method under Ind AS.
- Actuarial gains or losses on defined benefit obligations are to be routed through the Statement of Other Comprehensive Income instead of Profit and Loss account.
- Subsidiary companies need to account for ESOP benefits provided to its employees by the parent entity on its books.

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vi. Property, Plant and Equipment

- Ind. AS mandates component accounting. Items of a particular fixed asset that are significant in relation to the total cost of the asset will have to be depreciated separately.
- Under Ind AS, change in the depreciation method will be treated as a change in accounting estimate as opposed to a change in accounting policy. Consequently, change in the depreciation method will not require a retrospective adjustment.
- With respect to revaluation of assets, Ind AS requires the entire class of assets to be revalued. Further, increased charge in the form of depreciation arising on account of revaluation will have to be taken through the Profit and Loss Account (as opposed to an adjustment against the revaluation reserve done earlier).
- Companies will be required to carry out an annual year-end review of useful life, method of depreciation and residual values. If there is any change in useful life/ residual value, the same will be treated as change in estimates and accounting will be done prospectively.

vii. Foreign Currency Fluctuations

- Ind AS requires exchange differences arising on translation/settlement of all foreign monetary items, including long-term foreign currency monetary items, to be recognised as income or expense in Profit and Loss Account for the period in which they arise. It does not give the option to defer/capitalise exchange differences arising on long-term foreign currency monetary items.
- However, companies have an option to continue applying the IGAAP policy for the period ending immediately before the beginning of the first Ind AS financial reporting period. This option is not allowed for any new long-term foreign currency monetary item recognised after the implementation of Ind AS.

viii. Business Combinations

- This standard is applicable under Ind AS as long as in substance the acquisition results in an acquisition of a business.
- Only the purchase method of accounting is permitted. Consequently, assets and liabilities of the acquiree will have to be recorded at its fair value.
- Under Ind AS, the difference between the consideration paid and the value of net assets acquired will have to be suitably apportioned to a number of intangibles that may not have been recognised under IGAAP. The remaining amount will be classified under "goodwill."
- Under Ind AS, goodwill will not be amortised, and instead will have to be tested for impairment on an annual basis.

ix. Leases

- The application of Ind AS requires entities to examine the terms of an arrangement to determine whether it is, or it contains, a lease. This should be based on the substance of the arrangement and requires an assessment of whether: a) fulfilment of the arrangement is dependent on the use of a specific asset or assets (the asset); and b) the arrangement conveys a right to use the asset.
- A finance lease is defined as a lease that transfers substantially all the risks and rewards incidental to ownership of an asset. All other leases are operating leases.

Statistics

During approximately 9 weeks beginning from 1 April 2017, various companies released their Ind AS annual financial results.. Out of the 76 companies that have reported their results, 14 companies (18%) are from the pharmaceuticals, life sciences and healthcare sectors, 12 companies (17%) are from the retail and consumer sector and 9 companies (12%) are from the automotive sector,oil industry (11%),metals(9%),technology(8%). Telecom(4%), industry manufacturing(7%),capital projects(4%), other (3%).

While analysing the annual report of these 76 companies I noted that following had significant impact on these the accounting areas ,Revenue (93%) ,taxes(93%),financial instruments(89%),Retirement benefit obligations (76%), amortization and depreciation (42%),business combination and consolidation (38%).

Analysis Method

The data is extracted from the companies annual report who have adopted Ind AS in previous year.

Findings

While the adoption of Ind AS would impact the operating metrics of the companies, the extent of the impact is expected to vary for each sector. The accounting standards that would have a higher impact for some of the key sectors are given below.

Telecom

- Changes in revenue recognition principles,
- Capitalisation of forex gains/losses on loans,
- Fair valuation of financial instruments,
- Consolidation of joint ventures.

Pharma, Fast Moving Consumer Goods (FMCG) and IT

- Fair valuation of financial instruments,
- Change in accounting of esops and actuarial gains/losses,
- Increased amortisation post business combinations.

Automobile

- Changes in revenue recognition principles,
- Free transfer of property, plant and equipment to be treated as deemed sale,
- Fair valuation of financial instruments,

- Consolidation of joint ventures,
- Capitalisation of forex gains/losses on loans,
- Classification of take-or-pay contracts as deemed lease.

Infrastructure & On Real Estate Sector

- Arrangements with Government classified as service concession arrangements,
- Fair valuation of financial instruments,
- Capitalisation of forex gains/losses on loans.

Banking and Finance

- Expected credit loss framework to increase credit provisioning requirements,
- Fair valuation of esops,
- Fair valuation of financial instruments,
- Deferment in recognition of fee income,
- Actuarial losses/gains.

Suggestions

Though it was challenging for corporates to implement Ind AS ,but it will be boon to them . Due to globalisation, as whole world is now one market so adopting and reporting as per Ind AS will be easier for attracting foreign investment.

Conclusion

Indian Accounting Standards increase the reliability and transparency of accounting standards for all users. Indian Accounting Standards attempt to identify recognised assets and liabilities, and it also covers non-controlling interests for the person who acquires the liabilities. The Indian Accounting Standard's ultimate goal is to ensure that large-scale activities are properly accounted so that decision can be made easily related to financial statements. Ind AS increase confidence of investors on companies. Every financial as well as non financial items are covered while preparing financial statements while accounting through Ind AS.

3. Study of Social Presence in the Online Learning Environment

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Abstract

The purpose of this research was to study social presence in the online learning environment. Dimensions of social presence were examined using quantitative and qualitative methods. Three dimensions of social presence-social context, online communication, and interactivity-emerged as important elements in establishing a sense of community among online learners. The privacy factor was also an important element in the level of comfort for students online. An increase in the level of online interaction occurs with an improved level of social presence. This can be fostered by considering characteristics of the learners, by selecting the appropriate computer-mediated communication medium, and by applying appropriate instructional elements to course design. To analyze the positive and negative impacts of mobile phones among the respondents. The study uses the simple random sampling method. The samples were collected from the boys and girls of selected classes. The sample size of the study is 20 respondents.

Introduction

Social networking can connect strangers across the world. As the evolution of communication continues, technology progresses and social networking grows. Social networks like Instagram, Twitter, and Facebook have grown to have billions of users. In fact in today's society, it is necessary or nearly expected to use one if not all of these technological communication networks. The increasing use of social networking has had both a negative and positive effect on communication in relationships. The purpose of this literary analysis is to answer if social networks are helpful or harmful to relationships. As social networking evolves, different aspects of communication suffer. The impact of the mobile phone on school as an institution has not however, received as much research. Disruptions to lessons, incidences of cheating and bullying are some of the negative impacts, while texting parents of truants seems to be the only positive for the school. Further research is needed into the consequences of mobile phone use in schools. All these facts led the researcher to carry out a study on the impact of mobile phones on social relationships. The impact of the mobile phone on young people's peer groups has been extensive. Adolescence is a time of change and increasing influence of the peer group and thus communication amongst peer group members is central to the identity of the individual. The impact of mobile phone on peer relationships has transformed the peer group into a truly networked society. So the current study is intended to understand the various impacts of the mobile phone among the youth and social relationships.

Keywords: Networking sites, youth, media, mobile phones, social relation.

Objectives

1. To investigate the use of social networking sites by College students
2. To determine the amount of knowledge gained by social networking sites.
3. To understand the advantages and disadvantages of social networking sites known by the youth.
4. To study the influence of social networking sites on the personal and professional life of the youth.

Review of Literature

Today's mobile phones range widely in price and functions. Besides texting and voice capabilities, most phones offer tools such as an address book, a variety of ring tones, a camera, an alarm clock, a calendar, and perhaps an MP3 player or radio. Smart (3G or 4G) phones have Internet access and video capabilities. Mobile telephony has permeated across cultural groups, economic strata, and age cohorts

Young people and mobile phones

Mobiles have also helped aid the social emancipation of young people from parental authority11. If teenagers have mobile phones, their parents often feel more security when children travel independently outside the home. When looking at young people's use of mobile phones, it is important to consider the social development teenagers and young adults are experiencing. social connections, which used to be negotiated in person (and later on landline phones as well), are now commonly played out via mobile phones. Thus, for young people, the mobile phone is not simply an instrument for conveying information but a lifeline for managing social interaction.

Individual

The first level identifies biological and personal history factors that increase the likelihood of becoming a victim or perpetrator of violence. Some of these factors are age, education, income, substance use, or history of abuse. Prevention strategies at this level are often designed to promote attitudes, beliefs, and behaviours that ultimately prevent violence. Specific approaches may include education and life skills training.

Relationship

The second level examines close relationships that may increase the risk of experiencing violence as a victim or perpetrator. A person's closest social circle peers, partners and family members-influences their behaviour and contributes to their range of experience. Prevention strategies at this level may include mentoring and peer programs designed to reduce conflict, foster problem solving skills, and promote healthy relationships.

Methodology

Observational Study

Such a study involves making opinions based on observations from natural resources and previous researches. This is not very accurate data collection method.

Surveys/Questionnaires : Surveys or questionnaires are the methods that collect data from a sample of population whereas sample refers to the subjects under study that are. The answers given by the sample population are evaluated and analysed. It is a very effective process since it gives clear decision-making ability. Besides, it is a cost-effective data collection method.

Chosen Data Collection Method : For this project, the chosen data collection method is questionnaire. Since the social media network environment cannot be controlled unless otherwise designed, the most suitable and cost effective method is conducting surveys through questionnaire to different students and collecting their opinions on various impacts.

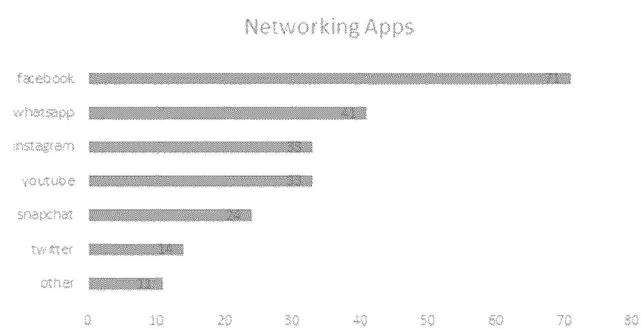
Questions

1. Are you a member of multiple social networking sites?
2. Do you visit your social networking sites with no goal or specific purpose in mind?
3. Are you usually surprised by how much time you spend on a social networking site?
4. Have you ever said no to an activity with your family or friends because of social networking sites?

5. Have you ever ignored a responsibility like homework because of social networking sites?
6. Do you ever stay up late or get up early to spend more time on social networking sites?
7. Have you ever hidden your time on social networking sites from family or friends?
8. Have you ever used social networking sites when a parent or teacher has told you not to?
9. Do you prefer to interact with people on social networking sites rather than face to face?
10. Has anyone ever commented on how much time you spend on social networking sites?
11. Do you have more friends on your social networking sites than you do in your real life?
12. Do you become frustrated or angry when a social networking site goes down or is unavailable?

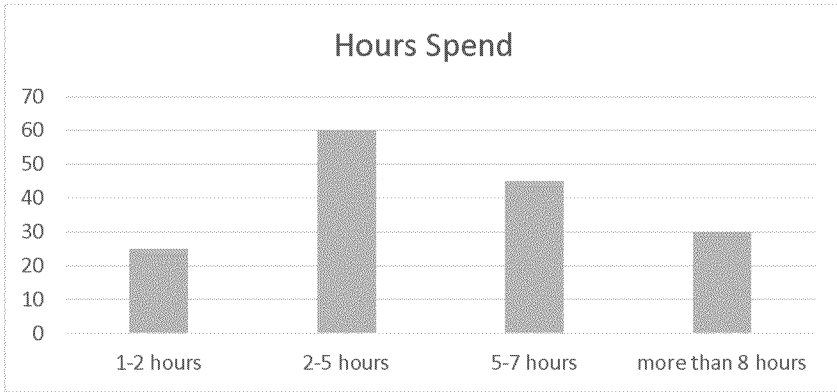
Popular networking apps

According to the graph, the highest among all is Facebook with over 71%active user followed by WhatsApp over 41%.youtube and Instagram competing with one another with over 33% users .later on the charts there are snapchat and twitter with 24% and 14% users respectively and 11% to those which are not so popular among youth.



Hours spend

The following graph explains that how and average student spends time on social media .As we see look 25%of students spend minimum time on social media i.e is 1-2 hours .There are 60% of students which uses 2-5 hours on daily basis which is the highest amoung all followed by 45% which uses 5-7 hours and 30% for more than 8 hours respectively.



Findings on the Positive Impact of mobile phones on the respondents

The rise of mobile phones helped connecting people in a new way. The major findings

i. Our time is being stretched thinner and thinner by work and family commitments, but social networking sites offer a chance to communicate in speedy and efficient manner
ii. Social networking sites like mobile phones allow one person to live a life unhindered by small talk
iii. In touch with the world: It isn't just your inner circle of close friends and even closer family members that social networking sites allow one person to communicate easily and effectively

"THE LADDER WHICH HELPS US TO GO UP
THE SAME LADDER BRINGS US DOWN"

Findings on the Negative Impact of mobile phones on the respondents

In considering the disadvantages, respondents identified a number of negative aspects of online social networking including:

i. The time-consuming nature of online social networking sites, Indian youth admitting that they waste a lot of time on these sites
ii. Concern about access to personal information by others, with almost half of the youth worried that 'non-friends may see their personal information'
iii. Another concern among the respondents presented in the findings are the information posted in the social networking sites may be used against them.

Conclusion

As per the information provided by the given charts and survey we can conclude that there has been a rapid growth in the popularity of social networking sites because the facility that it provides of connecting with many people at a simple click. The highest among all is Facebook with over 71% active users. Hours an average student spends on a particular site is about 2-5 hours. To overcome this time management should be done. To divide the amount of time, spend on social media and interaction with others. The social media network is increasing day by day and they have number of advantages as well as disadvantages but it is on us which path we are choosing. The future of the nation is in our hands we have to decide whether we want to use it well or misuse it.

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4. Impact of Reality shows on Teenagers

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Abstract

Reality-based television programming has become a dominant force in television over the past seven years. This relatively quick change in the television landscape and the sudden increase in viewers' consumption of reality television necessitate an investigation into the impact these shows are having on their viewers. This proposal attempts to explore and understand the opinion of the students, particularly teenagers regarding their consumption patterns of reality Even though the star quotient is important as it attracts viewers instantly, reality shows keep viewers glued to TV monitor even when the presence of stars is less relevant. These programmes are bound to have positive or negative impact on society. Thus, it is of great importance that the impact of reality shows on teenagers is assessed. An attempt has been made to explore opinion of the students regarding their consumption patterns of reality television, their rationale for watching reality shows, their perceptions of the situations portrayed on these shows. The impact of these shows on teenagers was also studied on the basis of the responses received from a sample of 125 respondents. Results reveal interesting information on the typed of television programmes viewed, the ratings of the most watched reality shows and their impact on teenager's life.

Keywords: Reality show, unscripted drams, youth, mass media, small screen.

Introduction

The media put our environment in perspective by giving several aspects, meaning and explanations relating to it. They help establish our agendas by giving us things to think and talk about; they help us become socialized into our communities and political system and to participate in change when necessary; and they help us cope with or escape from life's realities in a variety of ways. In short, the greater our need to belong, to understand, to cope with several situations and the greater our reliance on the mass media. Hence the media must have some pervasive influence on our thoughts, beliefs, values, and even our behaviour. Television is a popular and powerful medium that both imitates and influences culture. For many people, television is a primary source of information and entertainment. It is a window into a different world an opportunity to view people, place, and things that we may not have experienced first-hand. In an increasingly global society, television shapes society's perception of the world. Reality television, they say, breaks the monotony by creating interesting concepts and innovative ideas that made them stand out from the regular shows. With the worldwide small screen sector coming up with new concepts for reality shows, India too is in the race to project good and original concepts. Every day on television, some new reality shows are being introduced, enabling the viewers to choose from a large menu of many shows. Reality television is a genre of television programming that presents purportedly unscripted dramatic or humorous situations, documents actual events, and usually features ordinary people instead of professional actors, sometimes in a contest or other situation where a prize is awarded. Reality shows have become the order of the day, attracting and wooing the audiences in all age-group. With the advent of shows like Antakshari and Sa Re Ga Ma Pa, the music reality shows, Indian television industry saw a new wave generated in the genre of Reality Television shows back in early 1990s and since then there has been all kinds of reality shows and perspectives like MTV Roadies, Koffee with Karan, Kaun Banega Corporate, Big Boss Indian idol etc.

Objective

1. To identify the various types of reality shows watched by the college students.
2. To determine the popularity of various reality shows.
3. To determine the amount of knowledge gained by these reality shows.
4. To understand the advantages and disadvantages of reality shows known by the youth.
5. To study the influence of reality shows on the personal and professional life of the youth.

Hypothesis

1. Reality shows are more of a demerit as compared to merit if both the parameters are evaluated.
2. The youth is more inclined towards fields of entertainment other than relevant information derived sources.
3. The participation of youth is invisible in social gatherings due to overutilization of reality shows.

4. Casually viewers watched because they were bored or because that they enjoyed watching another's life.

Review of Literature

It is probably impossible to find a person living in a developed country that would not have heard about reality shows. A relatively new genre of entertaining production, reality television quickly gained popularity among all audiences, becoming one of the most demanded in mass media. It creates extremely appealing, sometimes even addictive content. This would be fine if its audience consisted entirely of adults: grown-up people usually have established behavioural models, shaped outlooks, and tend to view reality TV content as mere entertainment.

Reality television is a category which includes all types of entertainment programmes about real people. Reality television offers real, unedited, unrehearsed and non-scripted programming which shows ordinary people or participants in situations encountered by human beings in the course of their lives. The producer's claim that the content is being shown as it is happening, i.e. it offers real time programming.

Implication of genre specific content on cultivation

The amount of knowledge that may be transferred from the television world to the real knowledge varies on the individual's perception of reality and also differs from genre to genre. A positive relationship between television world and the real world, beliefs about the real world. This indicates that learning from television may impact attitudes. Another factor which determines the effects of cultivation is the Intelligence quotient (IQ) among the children. In children with low IQ levels the cultivation effects were stronger, since they had lower capacities of drawing inferences from the televised content. Thus the impact of genre specific content would be higher among children with lower inference and IQ levels the role of viewer involvement and says that viewers may forget the source of information but retain the information conveyed in the programme. Less involved viewers who may be light or heavy viewers, but are generally passive may use television information to construct their judgments.

Methodology

Research is important to arouse awareness among people especially among youth as they are the most vulnerable groups in society. The youth have to understand that their obsession with reality shows can bring disaster for them instead of fame to their life. Moreover, this study can bring out some unexpected and serious fact of reality shows which will make people realize the significance of the practice of television viewing, especially the true meaning of reality show in their life.

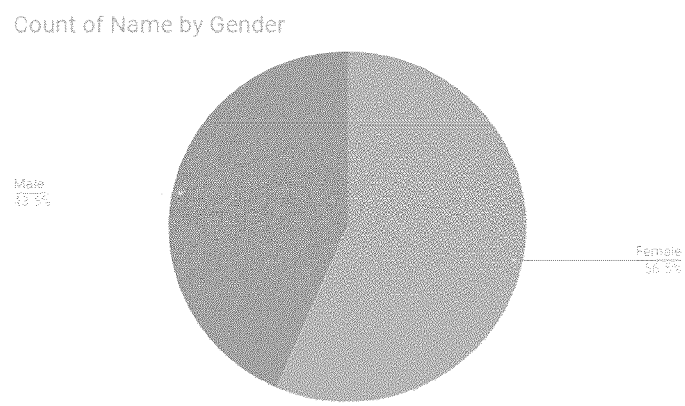
Surveys/Questionnaires

Surveys or questionnaires are the methods that collect data from a sample of population whereas sample refers to the subjects under study that are. The answers given by the sample population are evaluated and analysed. It is a very effective process since it gives clear decision-making ability. Besides, it is a cost-effective data collection method.

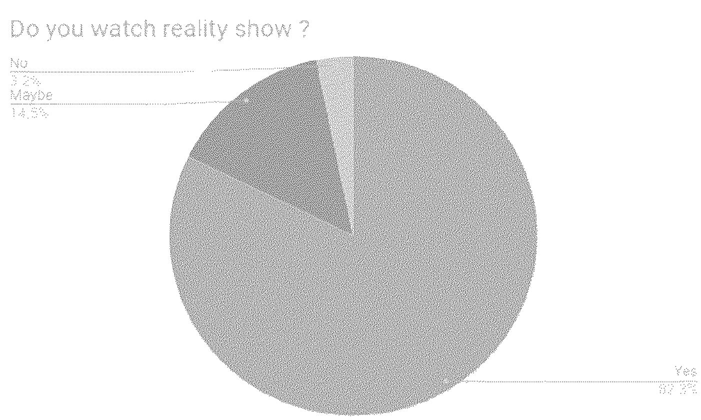
Chosen Data Collection Method

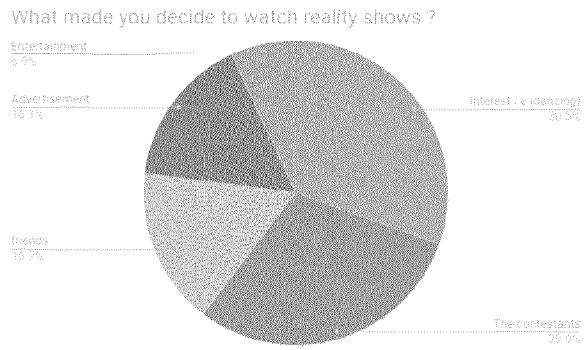
For this project, the chosen data collection method is questionnaire. Since the social media network environment cannot be controlled unless otherwise designed, the most suitable and cost-effective method is conducting surveys through questionnaire to different students and collecting their opinions on various impacts.

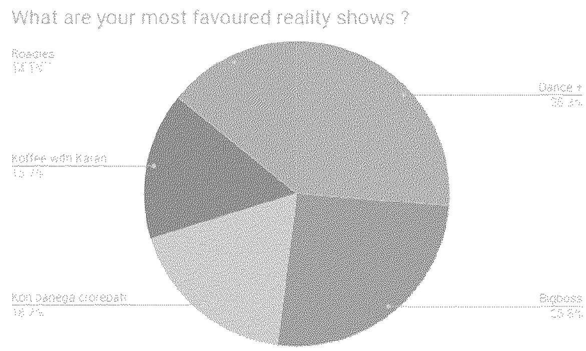
Findings

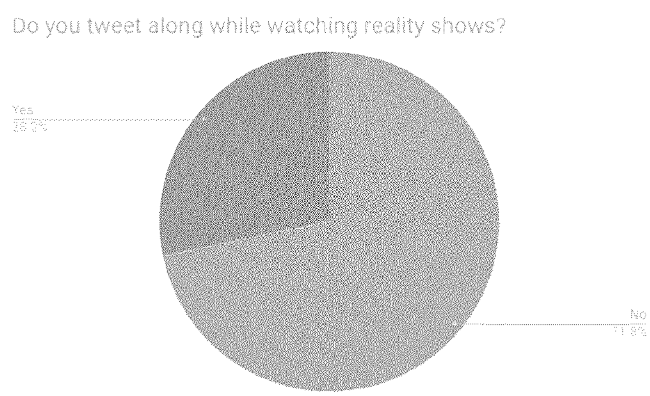


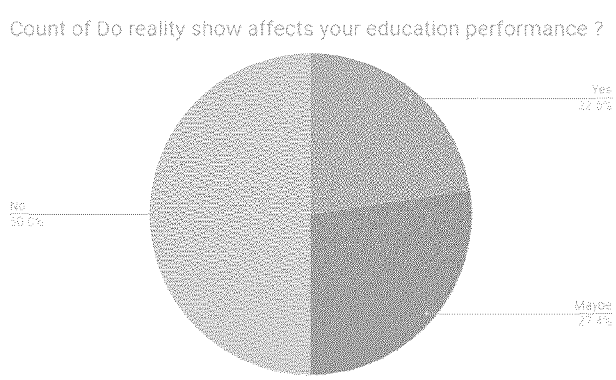
Questions and their responses



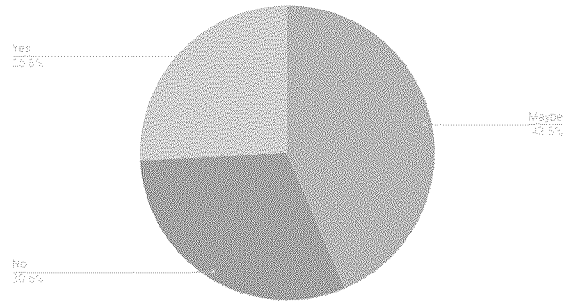

What made you decide to watch reality shows ?
Entertainment
Advertisement
Interest i.e (dancing)
friends
16.7%
The contestants


What are your most favoured reality shows ?
Roadies
Dance +
Koffee with Karan
Kon banega crorepati
Bigboss

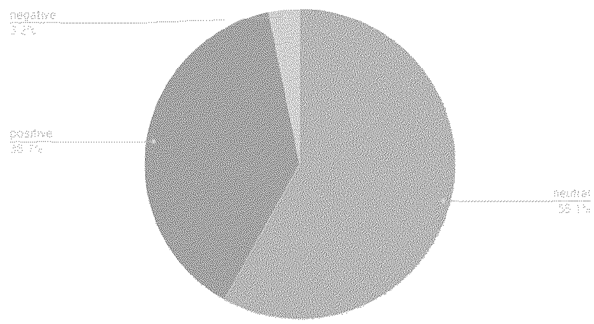

Do you tweet along while watching reality shows?
Yes
No


Count of Do reality show affects your education performance ?
Yes
No
50.0%
Maybe

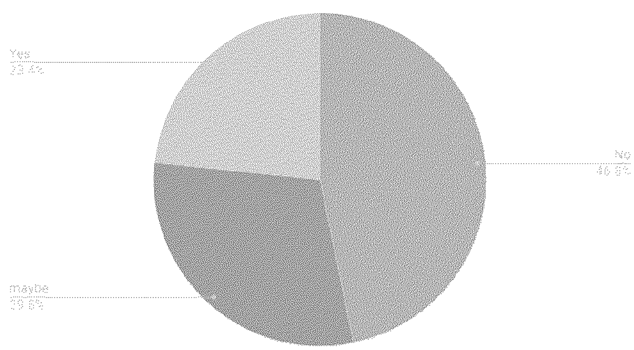
Do reality show ideas help you to solve your problems ?



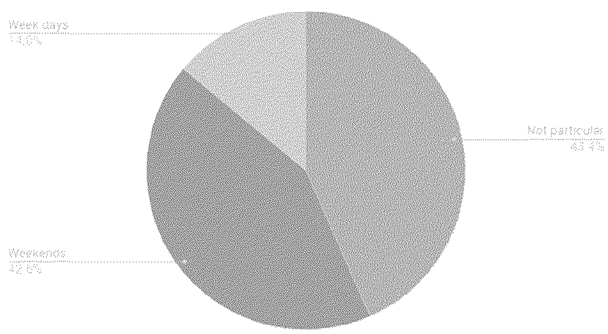
What influence do you feel reality shows have on you ?

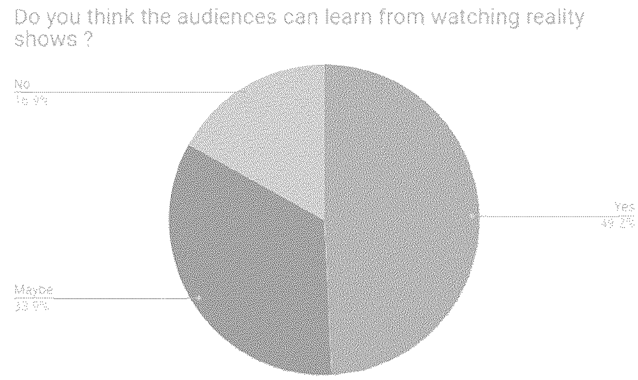


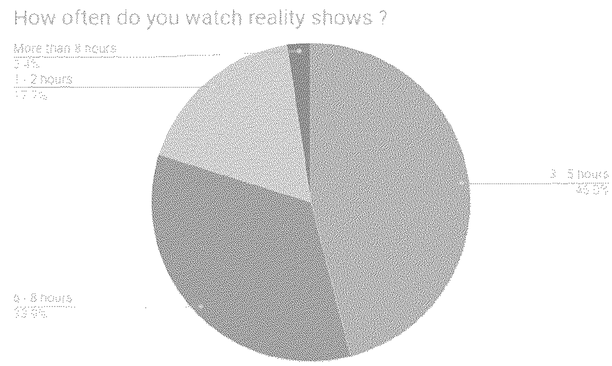
Do you consider reality show being "real" ?

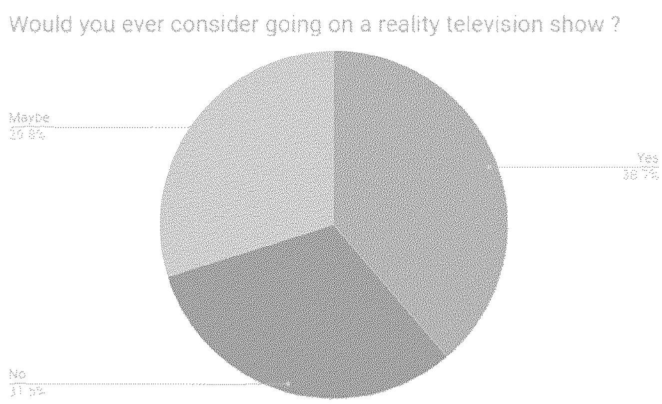


What day do you watch reality programs ?









Indian television industry is now full of reality shows and most of the shows have become controversial due to some scenes or episodes which abuses the traditional and cultural values of the country. Different people have different viewpoints on this but the impact of these reality shows can be seen today. Reality programmes revolve around competitions or celebrities' lives. They seek to create entertainment from the uncertainty of "unscripted" moments or events.

Positive Impacts

- Television is a learning tool for children, youth and adults.
- It helps people to learn about other cultures.
- It gives privilege of family members to spend time together while watching it.
- Parents and children can talk about knowledgeable television programmes.
- Documentary movie can create a picture of the world in youths' minds.
- Cultural programs showcase good inventions

Negative Impacts

- The youth are watching too much television that leads to obesity and other risky behaviour in them.
- The youth that spend a lot of time in watching television do not spend enough time being physically active.
- Television itself also promotes risky behaviours in youth to react upon.
- On Television shows, Youth are often portrayed doing drugs, smoking, drinking.
- Since Reality TV is believed to be true life, people come to expect that the things that they watch on the shows will happen in real life and people start acting negatively towards others.
- Many of them get cosmetic surgery done because that's what the girls do on the shows.
- Reality TV shows have adverse influence on the minds of the youth, as they project that it is fine to behaviours like being aggressive, using abusive language, jealousy and have provocation dressing.
- It can create disturbance in youths' life and make one life stressful.

Conclusion

With the increase in number of reality shows, its impact is also increasing. Effect of these shows is more on children than the religious programmes as it interprets the real-life situation. Reality is made basically for adults and without proper knowledge and understanding, children can be misled by it. Children who are left to watch these shows on television can often be baffled at the display and can take them as behaviour expected out everyone, especially themselves and their peers Even children notice how people do planning and plotting against each other to win the prize. And they have the habit of imitating, especially adults. Watching these shows might have a negative impact on them and they can pick up acts of violence, false identifications, lying, cheating, abusing, and ditching their own family and friends. It is useless to say, focusing on limiting the exposure on kids of television is good start to prevent reality TV from “taking over” in our house. We need to make our children understand that reality shows are decidedly not reality. Reality shows to find the best singers, best dancers, best comedians, best quizzers and even shows to find the luck of a person have captured the minds of persons. Almost all the languages in India and almost every channel in the country will have their own reality shows.

In Big Boss, or an adventurous reality television show like Roadies, the one common fact that it affects and influences on society, positively and negatively. In the Roadies, there is adventure and excitement almost at every turn and in nearly every aspect of the show, because it has travel, adventure, drama and excitement for the ordinary man. This brings in an edge to the show because of the varied and sometimes, creepy adventures the contestants go through in the show.

In dance + and Indian idol are talent hunt show their normal people get a chance to show case their talent and it helps to boost their confidence level. shows like koffee with karan is a chat show their stars come and share the interest this helps their fans to know them more.

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5. Beyond Boundaries: Navigating Neuralink's Brain Implants for Enhanced Human Potential

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Abstract

Neuralink brain implants represents a pioneering advancement at intersection of neuroscience and technology I t is a unique way to connect our brain directly to machines. Neuralink sought the address, the limitation of human computer interaction by creating a direct connection between the brain and external devices. The neuralink's implants are designed using ultrathin, tiny flexible threads, and the high density electrode arrays. The core of neuralink's brain implant is a small, coin sized chip that houses the processing unit, memory, and communication components. These threads are like super small wires that can listen and even talk to our brain cells called neurons. The brain chip has successfully implanted these threads into brain of animals. This allows scientists to understand better how the brain works with the help of this neuralink brain chip, is there any side effects or not, so that's why it was tested in animals first to see how the implantation will work.

In the future, Neuralink's technology could facilitate activities like telepathy or interactions between the brain and AI. this phase allows researchers to gather valuable data on brain activity and interactions, paving the way for potential applications in medical treatments and cognitive enhancements. This implants have the potential to redefine human capabilities and new horizons in medicine and human interaction. therefore these implants are safe.

Keywords: Neuralink Technology; Neural Implants; Neuronal connectivity; Human Machine Interaction; Neural signals; Direct Brain Communication.

1. Introduction

Neuralink corporation was founded in 2016 by entrepreneur Elon Musk, has rapidly emerged as a pioneering force in the realm of neurotechnology. Musk's vision to address the growing disparity between human cognitive abilities and capabilities of AI, Neuralink aims to develop advanced brain machine interface technology that can augment human intelligence, treat neurological disorders and potentially revolutionize the way interact with the technology.

In recent times, the intersection of science and technology has given rise to innovative ideas that challenge the way we perceive the possibilities of the human mind. One such remarkable concept is Neuralink brain implants. These implants propose a unique connection between our brains and external devices, offering potential advancements in medical treatments, cognitive enhancements, and human machine interaction.

At its core, Neuralink brain implants involve embedding tiny, flexible threads into the brain tissue. These threads, akin to ultra small wires, have the remarkable ability to communicate with our brain's neurons, the cells responsible for our thoughts and actions. This seamless connection holds promise for addressing various neurological disorders.

2. Overview of Brain-Machine Interfaces and Neuralink

BMIs have been around for a long time, Musk's Neuralink project intends to bring BMIs to another level and narrow the gap between man and machine, possibly dramatically.

3. Brain Machine Interfaces

The historical trajectory of brain computer interface(BMIs) and the broader landscape of neurotechnology has been marked by a profound evolution. Commencing with EGG based experiments during 1960s, BCIs have transcended their origins to encompass increasingly sophisticated methodologies, encompassing both invasive implants and non-invasive techniques such as fNIRS and fMRI.

4. Nueralink Technology

Neuralink aims to establish a bridge that enables direct communication between our brains and the digital world. Neuralink's brain chip technology involves the development of implantable devices, it is a system that involves ultra-thin probes being inserted into the brain, a neurosurgical robot to perform the operations and a high-density electronic system capable of processing information from neurons. It is based on technology developed at UCSF and UC BERKELY. Neuralink brain chip is a small chip about the size of a coin. a neurosurgical robot is created that can implant 6 threads (192electrodes) each minute with a millimetre spatial accuracy, avoiding surgical restrictions, surface vasculature and targeting particular brain regions.

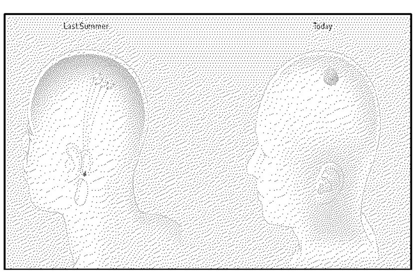


Figure 1: Neuralink Architecture Before And After.

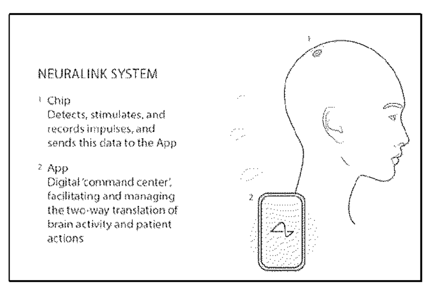


Figure 2: Neuralink System.

Ultra-Fine Polymer Probes

The nueral probes employ a variety of polyimide, a biocompatible thin film materials with a thin gold or platinum conductor, are inserted into the brain through an automated process performed by a surgical robot. Each probe consists of an area of wires that contains electrodes capable of locating electrical signals in the brain, and a sensory area where the wire interacts with an electronic system that allows amplification and acquisition of the brain signal. A thin film array has up to 96 threads each containing 32 independent electrodes, for a total of 3072 electrode contacts. Thread thickness is nominally 4-6µm, which includes insulation and conductor layers, while thread length is about 20mm. surface modifications are used to lower the impedence of electrophysiology and increase the effective charge carrying capacity of interface.

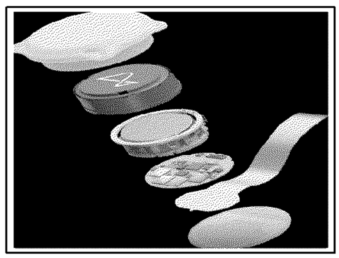


Figure 3: Neuralink Brain Chip

Neurosurgical Robots

The low bending stiffness of electrode probes complicates insertions. Neuralink has developed a surgical robot capable of rapidly inserting many flexible probes into the brain, which may avoid the problems of tissue damage and longevity issues associated with larger and more rigid probes. The robot's insertion head holds a quick-swappable"needle-pincher"assembly. The pincher acts as a support for the probes during transport and as a guide to ensure that the threads are inserted along the needle's path. This surgical robot has an insertion head with a 40µm diameter needle made of tungsten-rhenium designed to attach to the insertion loops, inject individual probes, and penetrate the meninges and cerebral tissue, it is capable of inserting up to six wires(192electrodes)per minute. Robotic insertion is an efficient and scalable approach.

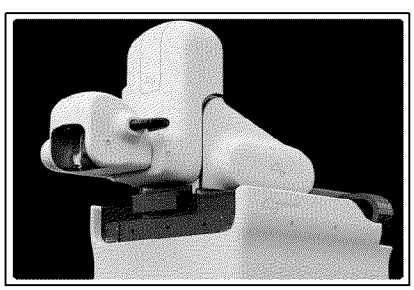


Figure 4: Neurosurgical Robot

Base Structure

The base structure and motion stage provide the structural platform for the robot head and the primary 3 axis linear motion used to position the robot head and needle.

Robot Head

The robot head contains the optics and sensors of 5 camera systems and the optics for an OCT system.

Needle

The needle, which is thinner than a human hair, grasps, inserts and releases threads.

High Density Electronics

Neuralink has developed an application specific integrated circuit to create a 1,536channel recording system. This system consists of 256amplifiers capable of being individually programmed, analog to digital converters within the chip and a peripheral circuit control to serialize the digitized information obtained. It aims to convert information obtained from neurons into an understandable binary code in order to achieve greater understanding of brain function and the ability to stimulate these neurons back. the density of recording channels necessitates placing the signal amplification and digitization stack within the array assembly. Neuralink has built a custom application specific integrated circuit(ASIC),which consists of amplifiers on chip analog to digital converters(ADCs),and control circuity for serializing the digitized outputs. An ethernet connected base station converts the data streams, allowing to visualize the data in real time.

Electrophysiology

Digitized signals are processed in real time to identify action potential(spikes). Neuralink uses custom online spike-detection software. The spike detection parameters have to maximize decoding efficacy.

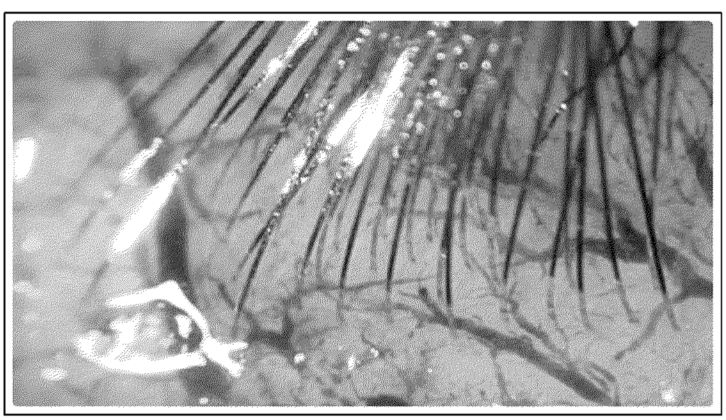


Figure 5 : Cortical Surface With Implanted Threads.

5. Applications of Neuralink Brain Chip

Advancements in Medicine

Neuralink's brain implants hold the potential to revolutionize medical treatments for individuals with neuorological disorders and injuries. They could restore lost sensory and motor functions, offering hope to people with conditions like paralysis or spinal cord injuries, blindness, deafness or the inability to speak.

For Visual Prosthesis

The people with blindness or retinal damage might benefit from Neuralink's visual prosthesis. Visual prostheses are medically implanted devices that can restore vision to people who are blind.

Disease Prediction

Neuralink claimed to be able to detect chemical signals in the brain and thereby prevent the illness bereforehand.

Eliminate Pain

There are several disorders that might cause a great deal of pain. Neuralink device can play crucial role in eliminating pain.

Neuroprosthesis

The Neuralink device has the ability to control the movement of an exoskeleton or other robotics with the mind, as well as to assist people with medical limitations such as locked in syndrome and loss of neuronal connection to communicate. Neuralink device also monitors and train human physiological states and cognitive abilities and help to get rid of seizures for drug resistant epileptic patients.

Neurological Disorders

The brain chip could help treat neurological conditions like parkinson's disease, epilepsy, and spinal cord injuries by modulating neural activity and restoring lost functionalities.

Brain Injuries

it might aid in recovery and rehabilition of individuals with traumatic brain injuries, potentially improving cognitive and motor function.

Merging Humans with AI and AI Symbiosis

Elon Musk's vision of merging humans with AI through Neuralink is an attempt to address the potential risks posed by AI while harnessing its potential benefits. By creating a direct link between the human brain and AI systems he evisions a future where individuals could access AI computational power directly, enhancing their cognitive abilities, memory and learning capabilities. Neuralink aspires to fill the void left by AI's ability to activate all of our brain's functions, allowing the human brain to cope with AI.

Cognitive Enhancement

The ability to directly interface with the brain opens the door to cognitive enhancements, potentially boosting memory, learning speed and problemsolving abilities. This technology could reshape education, research and professional fields.

Understanding Brain Functions

Neuralink's technology offers insights into brain function and neural pathways, enhancing our understanding of cognition and behaviour.this knowledge could lead to breakthoughs in neuroscience and psycology.

Ethical and Social Considerations

The integration of technology into brain function and neural pathways, enhancing questions about privacy, autonomy, consent and identity. Studying neuralink's societal impact guide responsible development and regulation.

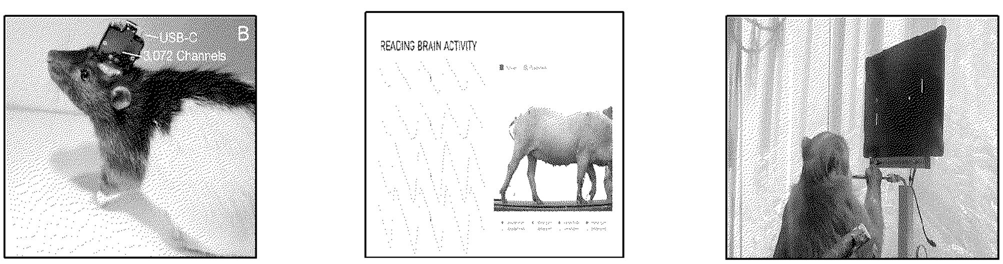
Influence on Policy and Regulation

Research into Neuralink can contribute to informed policy decisions and regulatory frameworks, ensuring the technology's safe and ethical integration into society.

6. Animal Testing

Neuralink tests their devices by surgically implanting them in the brains of live monkeys, pigs and rats.

Figure Animal Testing



a) RAT b) PIG c) MONKEY

Rat

On rat, Neuralink's sensor chip is connected to the outside with a USB-C port. Researcher have implanted electrode arrays into rat's brain to record neural activity and investigate how the technology interfaces with neural circuits.

Pig

The pig demo was a notable event where a pig named Gertrude was implanted the implants helped gather information about brain activity related the pig's sense of smell. Neuralink demonstrated the real time monitoring of Gertrude's neural activity and how it could be correlated with her behaviours.

Monkey

When the chip was inserted into the brain of a monkey, he claimed that the Neuralink brain computer has connected up a monkey to play video games with its mind. In some experiments, monkeys were able to control computer cursors and robotic arms using their brain activity.

Significance

These animal testing studies serve multiple purposes in Neuralink's research journey. They help validate the safety and efficacy of the brain chip technology, demonstrate its potential application, and provide a basis for moving toward human trials. The results from animal experiments inform the development process, refine implant designs, and offer insights into how neural circuits respond to external stimuli.

7. Human Testing and Clinical Trials

FDA approval and safety

In may 2023, Neuralink secured approval from the US Food and Drug Administration(FDA)to initiate human trials. This regulatory milestone attests to the safety measures taken in the technology's development and its potential benefits for human recipients. Participants in these trials could include individuals with certain medical conditions, such as paralysis or neurological disorders, that align with the technology's potential applications. Selecting appropriate participants is crucial for assessing the technology's efficacy and its impact on diverse neural profiles.

8. Conclusion

In the evolving landscape of neuroscience and technology, Neuralink's brain implants emerge as a groundbreaking innovation with transformative implications. Neuralink's approach, rooted in the integration of ultra-thin threads, high-density electrodes, and sophisticated processing units, ushers in a new era of possibilities. The journey from animal testing have served as valuable models to the landmark of human trials signifies Neuralink's commitment to ethical and rigorous exploration. As the technology advances from theory to reality, the importance of stringent safety protocols and responsible integration into medical practice becomes paramount. Neuralink's trailblazing strides extend beyond technological marvels,they beckon a broader dialogue encompassing ethics, privacy, identity, and the fundamental nature of consciousness.The implications ripple across medicine, communication, education, and even our philosophical understanding of what it means to be human. In this pivotal juncture of innovation, Neuralink sparks a symphony of possibilities where human minds entwine with digital realms, yielding insights that propel us toward an age of symbiosis between biology and technology. With this fusion, we are poised to redefine the horizons of our potential, embarking on a journey that extends beyond boundaries, navigating the intricate paths that Neuralink's brain implants have unveiled.

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6. Study on Customer Satisfaction on Perception of Responsiveness & Empathy Post-Merger of Allahabad Bank with Indian Bank

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Abstract

M&A in the banking industry has become a global trend. In recent times, several banks in India have merged, including Allahabad Bank and Indian Bank. In this study, we will look at the impact of the merger on Allahabad Bank's customers. We conducted a survey among Allahabad Bank customers from Mumbai to understand their satisfaction level based on bank's responsiveness and empathy towards their customers post-merger. According to the results of the survey, the customers' satisfaction with the merged bank did not feel much change or improvement after the merger.

Key Words : Banks, Amalgamation, Merger, Public Sector Bank (PSB), Customer satisfaction, Allahabad Bank, Empathy, responsiveness.

Introduction

India's banking sector has been witnessing significant changes and transformations in recent years. One such transformation is the merger between Indian Bank and Allahabad Bank. The merger of Indian Bank and Allahabad Bank is part of the Indian government's efforts to reduce the number of government-owned banks and strengthen public sector banks.

The Government of India has already merged several banks like Dena Bank with Vijaya Bank and Bank of Baroda, and Allahabad Bank with Indian Bank.

This consolidation in the banking sector is in line with the concept of universal banking, where development financial institutions merge with their commercial banking subsidiaries or vice versa. Purpose of the Study The purpose of this study is to examine the impact of the merger between Indian Bank and Allahabad Bank on customers' satisfaction level post-merger specifically to check perception on responsiveness and empathy. The merger was successful and came into effect on 1st April 2020. Post-Merger Indian Bank became the 7th Largest Public Sector Bank in the Country.

The RATER frame of reference grew out of SERVQUAL, a 1988 study by psychologists A Parasurman, (author of The Psychology of Service Expectations) and Valeria Zeithaml (author of The Evaluation of Service Expectations), with the aim of measuring the difference between how customers perceived a service at the time it was provided and how they perceived the service after it was completed. The RATER model focuses on five service attributes: reliability, assurance, tangibles, empathy, and responsiveness.

Empathy is related to the employee's aptitude in understanding customer perspective and feelings during service interactions resulting in positive customer emotions toward the service brand. Whereas, Responsiveness governs how quickly, how well, and where you respond to your customers. Good responsiveness involves being available for customers during the times and channels that they prefer.

Review of Literature

The research was conducted to capture data from a group of Piraeus Bank customers, and the measurements used depend on the widely used SERVQUAL approach, as suggested by the authors Parasuraman et al. (1988). in which the five components of excellent service intersect: reliability, timeliness, empathy, confidence, and tangible objects. All the quality-of-service dimensions are directly related to consumer satisfaction, according to the findings, - these variables have not just influenced the use of online banking but additionally the overall contentment of internet users. Results also indicate that employees, businesspeople, and professionals are more satisfied overall with online banking assistance; this indicates that other users are dissatisfied with the web banking services; and therefore, the financial institution should identify the obstacles and work to eliminate them to improve the overall satisfaction of the remaining customers.

The researcher studied banking industry mergers and acquisitions that occurred in India shortly after separation. Acquisitions and mergers are acknowledged as crucial to the success of a business. The benefits of mergers and acquisitions significantly enhance and support strategies for long-term expansion. A descriptive research approach was used to determine the influence of buying and selling on client satisfaction of public sector banks. Shanti M Rashinkar (2018) To determine the effects of mergers and acquisitions and how satisfied customers are due to the combination of the two factors have been examined.

Alliances and Controlling have become the most prevalent business strategy for reorganizing and fortifying banks to achieve strength. Salauddeen Shaik, (2019) This paper will investigate the effect of public sector institutions' mergers and acquisitions (takeovers) on customer satisfaction. This investigation also verifies that customers cannot choose the type of administrator of an account after their present financial institution is consolidated. Kumar, Dalvin Vinod, in 2019. Consolidation via mergers or acquisitions is one of the actual results of the fiscal shift method and current trends in the Indian economic sector.

Research Gap

The purpose of this study is to examine the impact of the merger between Indian Bank and Allahabad Bank and the impact on customers of Allahabad Bank post merger. While there have been studies on mergers and acquisitions in the Indian Banking sector, no specific study has been conducted to understand the impact of bank mergers on customers' satisfaction level in terms of their emotions. This study aims to fill this gap in the literature and provide insights into the effects of bank mergers on customers by evaluating their satisfaction level on perception towards Empathy and responsiveness.

Research Methodology

The methodology used for the research includes both primary and secondary sources.

Secondary data for the study is collected from reliable sources, such as stock market records and financial statements of the two banks.

Customers' of Allahabad Bank were surveyed to understand the impact of merger. The study included questions on customer satisfaction in the area of empathy and responsiveness. 200 customers of Allahabad Bank were interviewed using questionnaire method.

Objectives of the Study

1. To analyze Perception of Responsiveness of customers of Indian Bank post-merger of banks.
2. To analyze Perception of Empathy of customers of Indian Bank post-merger of banks.

Hypothesis

H1: Significant variations exist on Perception of Responsiveness of customers of Indian Bank post-merger of banks.

H1: Significant variations exist on Perception of Empathy of customers of Indian Bank post-merger of banks.

Data Analysis

Collecting data for research on the degree of satisfaction of Allahabad Bank clients because of a merger entails a number of stages and concerns.

Data gathering Method: In this research, there are two major data gathering methods: quantitative and qualitative. With a sample size of 200.

To analyses quantitative data and establish satisfaction levels, statistical approaches such as descriptive statistics and ANOVA may be used. Thematic or content analysis may be applied to qualitative data to find common themes and patterns in consumer reactions.

Perception of responsiveness and empathy

Perception on responsiveness	Perception on responsiveness post-merger of Banks [Employees tell the time required to perform the service]	2.86	200	1.438
	Perception on responsiveness post-merger of Banks [Employees provide timely services to customers]	3.17	200	1.422
	Perception on responsiveness post-merger of Banks [Employees show a willingness to help customers]	2.95	200	1.447
	Perception on responsiveness post-merger of Banks [Employees answer customer's enquiry without making them wait unnecessarily]	2.88	200	1.378
	Perception on responsiveness post-merger of Banks [Bank is promoted in resolving customer grievances]	3.28	200	1.411
Perceptions on empathy	Perceptions on empathy post-merger of Banks [Bank attends to specific problems of customers]	2.78	200	1.364
	Perceptions on empathy post-merger of Banks [Bank takes care to prevent service failure]	3.08	200	1.354
	Perceptions on empathy post-merger of Banks [Bank arranges convenient operation hours for customers]	2.95	200	1.348
	Perceptions on empathy post-merger of Banks [Bank location is convenient to customers]	2.87	200	1.425
	Perceptions on empathy post-merger of Banks [Waiting time to receive service is not extensive]	3.07	200	1.313
	Perceptions on empathy post-merger of Banks [Bank provides a wide range of access to account info]	3.01	200	1.38
	Perceptions on empathy post-merger of Banks [Bank understand the specific needs of customers]	3.07	200	1.38

The table presents the mean, sample size (N), and standard deviation for various dimensions related to customer perceptions. These dimensions are categorized into four categories: Quality perceptions, Perceptions regarding Reliability and Assurance

Interpretation:

Perception of Responsiveness

- The perception of responsiveness after the merger of banks shows mean scores ranging from 2.86 to 3.28. The standard deviations suggest some variation in responses within each dimension.

Perceptions of Empathy

- Among the perceptions of empathy post-merger, the mean scores range from 2.78 to 3.07. The standard deviations indicate some variability in responses within each dimension.

The average scores represent the average customer perception across each dimension, with standard deviations highlighting the level of variability or variation in responses. These results can be used as a proxy for customer satisfaction or perceptions across different service dimensions post-merger.

Perception on Responsiveness

		Sum of Squares	df	Mean Square	F	Sig.
People can achieve goals if they do not give up in spite of difficulties.	Between Groups	8.748	2	4.374	3.202	.043
	Within Groups	269.127	197	1.366		
	Total	277.875	199			
They are able to shape things according to their ideas if they decide to accomplish the goals.	Between Groups	11.504	2	5.752	3.952	.061
	Within Groups	286.716	197	1.455		
	Total	298.220	199			
They are competent to develop themselves.	Between Groups	8.748	2	4.374	3.202	.828
	Within Groups	269.127	197	1.366		
	Total	277.875	199			
They do not give up until they succeed.	Between Groups	8.602	2	4.301	3.262	.104
	Within Groups	259.718	197	1.318		
	Total	268.320	199			
Failures do not distract them from their goals.	Between Groups	4.448	2	2.224	2.451	.089
	Within Groups	178.747	197	.907		
	Total	183.195	199			

Based on the ANOVA results for perception of responsiveness

For the 5 statements tested related to responsiveness, the p-values range from 0.043 to 0. 104.Since all p-values are greater 0.05, we're unable to reject a null hypothesis in every instance.

This suggests that consumers' perceptions of responsiveness after the merger are not statistically different.

Perceptions on Empathy

		Sum of Squares	df	Mean Square	F	Sig.
They have ability to progress.	Between Groups	5.261	2	2.630	2.488	.086
	Within Groups	208.239	197	1.057		
	Total	213.500	199			
They have the ability to work hard to achieve results.	Between Groups	3.966	2	1.983	1.927	.148
	Within Groups	202.754	197	1.029		
	Total	206.720	199			
They do not shy away from making efforts to overcome the hurdles in goal accomplishment.	Between Groups	3.745	2	1.873	2.206	.113
	Within Groups	167.210	197	.849		
	Total	170.955	199			
People can stretch their abilities as per need.	Between Groups	3.486	2	1.743	2.108	.124
	Within Groups	162.909	197	.827		
	Total	166.395	199			
When people fail, they re-evaluate their strategy.	Between Groups	10.093	2	5.047	3.565	.090
	Within Groups	278.862	197	1.416		
	Total	288.955	199			
People are competent to focus on desired outcomes.	Between Groups	3.718	2	1.859	2.603	.077
	Within Groups	140.677	197	.714		
	Total	144.395	199			
They are able to dispel their ignorance about the subject with which they are not familiar.	Between Groups	8.460	2	4.230	3.092	.076
	Within Groups	269.520	197	1.368		
	Total	277.980	199			

Based on the ANOVA results for perceptions of empathy

For all the statements tested related to empathy, the p-values range from 0.077 to 0. 148. Since all p-values are greater than 0.05, we are unable to rule out the value of zero in every scenario. This indicates after the amalgamation, there will be no substantial change in how consumers see sympathy. The results show no significant variations in empathy perceptions post-merger. The null hypothesis is retained.

Findings

Empathy

Mean scores ranged 2.78-3.07 indicating average satisfaction with attending to needs, preventing failures, operation hours etc.

Responsiveness

Mean scores ranged 2.86-3.28 indicating average to good satisfaction with timeliness, willingness to help, grievance resolution etc.

Statistical Analysis

ANOVA results showed no statistically significant difference in customer perceptions post-merger across quality, reliability, assurance, empathy and responsiveness dimensions.

All p-values were >0.05 leading to retention of null hypothesis of no significant difference in each service aspect.

Qualitative Feedback

Open-ended feedback indicated customers appreciate the increased network and better digital services after merger. Qualitative feedback aligned with quantitative data showing no major impact on service quality perceptions. The merger has maintained customer satisfaction levels across key service aspects without negatively impacting perceptions. But banks should monitor feedback to address specific concerns.

Conclusion

According to the ANOVA test results, the merger of banks did not have a significant effect on customers' impressions of Empathy and Responsiveness. The F-value and significance thresholds indicate that any differences in perceptions are more likely due to random chance than to the merger itself. While the bank may have undergone operational changes after the merger, this data suggests that consumers' impressions of the bank's services have remained relatively stable post-merger. It is important for bank management to continuously monitor client feedback and levels of satisfaction in order to identify potential issues and create a seamless customer experience. Further research and feedback collection may be needed to identify factors that influence consumer perceptions and to implement targeted changes in areas that matter most to customers.

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7. A Study on Evaluating the Role of Corporate Social Responsibility in the Overall Development of Banking Sector

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Abstract

CSR is a strategy that encourages businesses to elevate the social and environmental conditions of the community. The Purpose of conducting this research is to evaluate the role of CSR in the overall development of the banking sector. The technique used for the current study is a parametric one-sample t-test. The outcome of the study indicated that Enhancing reputation, Risk management, Stakeholder and Employee engagement, Regulatory compliance, Long term sustainability, Social and environmental impact, supporting financial inclusion, strengthening customer relationships, Attracting and retaining talent and Financial inclusion are the significant role of CSR in the overall development of banking sector. Studies can be conducted by applying principal component analysis

Keywords: Banking, Corporate social responsibility, Sustainability

Introduction

One of the rising businesses, the banking industry, is crucial to a country's entire growth. Banks are often renowned for providing basic services like deposits and customer support, but they are rapidly incorporating a new idea called corporate social responsibility (CSR) into their business practices. CSR has become essential for banks to maintain their place in the market and have a good effect on society in today's competitive climate. CSR goes beyond the core functions of banks and entails undertaking initiatives for the benefit of society. In the banking industry, priority sectors for CSR initiatives include education, environmental issues, community development, rural development, microfinancing, and women's empowerment. For this study, “State Bank of India”, “Punjab National Bank” and “ICICI Bank” have been selected as prominent examples. SBI, as one of the largest public sector banks, contributes a significant portion (around 1% of net profit) towards CSR activities aimed at national development. (Singh, N et al 2015)

"ICICI Bank", the most significant bank in India's private sector, has established its non-profit group called ICICI Bank's Social Initiative Group (SIG). The SIG focuses on primary healthcare, elementary education, and increasing access to finance. Through its CSR initiatives, ICICI Bank aims to make a positive impact in these areas and contribute to the overall well being of society. HDFC and Punjab National Bank are also actively involved in CSR activities. They recognize the importance of education in spreading awareness and enlightenment among the masses. Consequently, they allocate funds towards opening primary schools, providing scholarships, distributing free books, and engaging in various practices that contribute to their CSR efforts. The significance of CSR in the banking industry lies in its ability to illuminate the path forward and remove societal darkness. Banks, through their CSR initiatives, strive to make a difference in the lives of individuals and communities. By promoting education, supporting environmental causes, empowering marginalized groups, and contributing to rural development, banks play a pivotal role in addressing social challenges and fostering sustainable growth.

Source: https://www.linkedin.com/pulse/corporate-social-responsibility-banks-what-does mean-abou-el-fotouh

At the beginning of the 21st century in India, CSR, has become a hot subject in debates about development. It demonstrates the understanding of how corporations affect society in the larger picture of sustainable development. Instead of focusing simply on maximizing profits for shareholders, the current view on CSR emphasizes the duty that companies have towards every party involved, especially employees, shareholders, creditors, suppliers, the government, and the community. CSR includes both voluntary initiatives to solve environmental and social concerns in a way that benefits society as well as compliance with business requirements. An efficient financial system, which consists of numerous financial organizations, markets for financial goods, and financial instruments, is crucial to the growth and advancement of the Indian economy. By offering a variety of financial services to the Indian people, financial institutions and markets both play crucial roles within this system. In this environment, CSR has grown significantly in significance throughout the business, particularly in the banking industry. (Mohrana. 2013).

The purpose of conducting this research is to evaluate the role of CSR in the overall development of the Banking sector, with a focus on understanding it and providing insight to future researchers and policymakers.

Review of Literature

1. Mehta, M & Chaugule, K. (2014) The paper examined the CSR efforts of ICICI Bank in the banking sector, focusing on its initiatives for societal and environmental development. The bank has invested in areas like healthcare at birth, primary education, and microfinancing, conducting various programs such as blood donation drives, nutrition and English language programs, health training, outpatient healthcare, and rural self-employment training institutes. The authors concluded that incorporating sustainability practices through CSR initiatives raises company goodwill, benefiting stakeholders and customers, while also facilitating customer and employee retention and overall company growth.
2. Pratihari, S. K., & Uzma, S. H. (2018). The study investigates the impact of CSR on corporate branding and brand loyalty in the Indian banking industry. It is concluded that CSR has a significant influence on CB and enhances consumer BL due to its economic, legal, moral, and philanthropic components. The study emphasizes the significance of CSR integration into CB for more effective BL improvement. The correlation between "legal responsibility to CB" and "philanthropic responsibility to BL" is, nevertheless, negative. In general, the study sheds light on how CSR, CB, and BL interact in Indian banks.
3. Sharma, E., & Mani, M. (2013). This study focuses on the corporate responsibility activities of Indian commercial banks, which provide financial support for various

socio-economic initiatives in the country. These activities include poverty alleviation, medical aid, rural development, skill-based training for self-employment, education, and overall development. Data from the annual reports of thirty chosen banks, including ten private banks, fifteen public sector banks, and five international banks, were used to perform the survey for this study. Although Indian banks are working on CSR activities, the authors argue that they should prioritize these efforts more.

4. Singh, N. et al. (2015). The authors of this study focused on examining the role of the Indian banking sector in CSR and its contribution to development goals. They emphasize that the banking sector is a crucial and rapidly growing part of the economy, making significant contributions to various aspects of national development, particularly in the field of education. Many banks have taken the initiative to support education by providing free books, establishing primary schools, and offering scholarships to children in rural areas. The paper highlights the substantial contribution made by ICICI, one of the largest private banks, towards the improvement of elementary education. Additionally, both private and public banks are actively funding CSR initiatives for various worthy causes, with a notable focus on education. The authors conclude by stating that the banking sector plays a vital role in contributing to the economy, and every bank needs to undertake CSR initiatives to attract customers and foster their growth.
5. Tripathi, M. M., & Rana, K. (2017). In their study, the authors focused on analyzing the impact of CSR on the performance of both public and private sector banks in India. The main objective was to understand the relationship between different dimensions of CSR and bank performance. The findings of the study revealed a significant positive effect of CSR on bank performance. However, the authors noted the importance of raising awareness among employees regarding their responsibility towards the environment and society. They suggested the need for institutions to organize conferences and seminars to enlighten employees about the significance of addressing social needs and environmental concerns beyond profit-making and organizational growth. By doing so, banks can become more socially responsible and contribute positively to the community and the environment.

6. Veerabrahmam, B., & Ramesh, S. (2020). The author of the paper has emphasized the importance of CSR expenditure as a percentage of operating profit within the banking industry, which holds significant importance for the overall economy of the country. Banks globally are involved in CSR activities aimed at supporting education, culture, finance, healthcare, and even non-profit organizations, ultimately contributing to the welfare of humanity. Such initiatives have a notable impact on the operating profit of banks. The nature and scope of CSR activities may vary across different areas, businesses, and industries. However, engaging in CSR can enhance the credibility of banks and attract customers who value socially responsible practices.

Objective of the Study

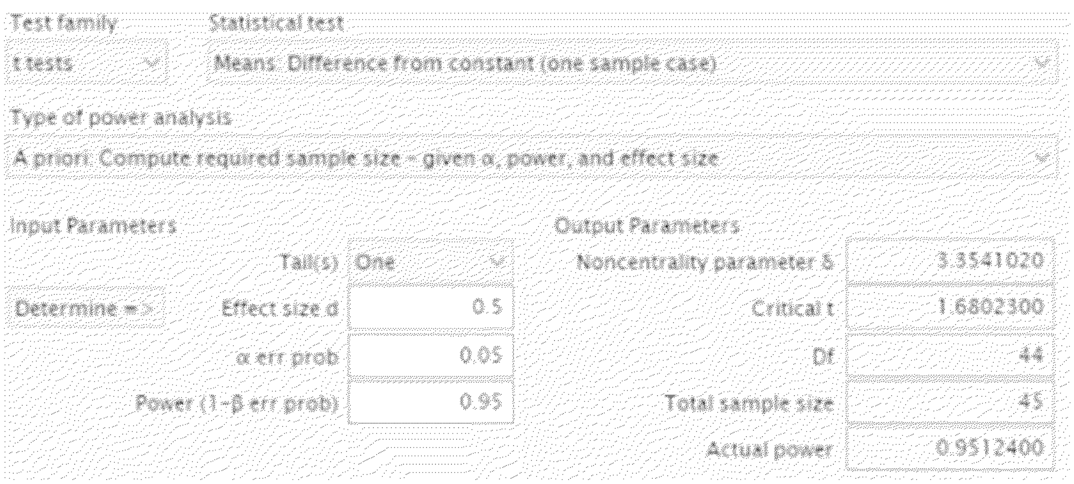
To evaluate the role of CSR in the overall development of the Banking Sector.

Hypothesis

Ho: The role of CSR in the overall development of the banking sector is insignificant. (Mean score <3)

H1: The role of CSR in the overall development of the banking sector is significant (Mean score > 3)

Research Methodology



For this study, a descriptive research design is employed. 80 top bank managers were chosen as the study's sample size. Non-probability purposive sampling is the sampling method employed in the current investigation. There have been Both primary and secondary data gathering sources employed. R studio program has been unutilized in the parametric one sample test. (According to Faul et al., the minimal sample size for a one-sample, one-tailed t test is 45.)

Data Analysis and Interpretation

Table No: 1 - One sample t-test

Items t – statistics P – value Ha: mean score of study on the role of CSR in the overall development of the banking sector > 3

Enhance reputation 20.77 0.000 Significant Risk management 19.88 0.000 Significant Stakeholder engagement 18.01 0.000 Significant

Employee engagement and retention

Innovation and product development

21.32 0.000 Significant 21.65 0.000 Significant

Regulatory compliance 20.11 0.000 Significant

Long term sustainability 19.34 0.000 Significant

Social and environmental impact 19.78 0.000 Significant

Supporting financial inclusion 20.90 0.000 Significant

Strengthening customer relationship 18.72 0.000 Significant

Managing social risk 18.43 0.000 Significant Attracting and retaining talent 20.99 0.000 Significant

Financial inclusion 21.68 0.000 Significant

A parametric one-sample t-test (one-tailed) is applied to examine the significant role extracted through the exploratory research. It is seen that p (value) < 0.05, Enhances reputation, Risk management, Stakeholder engagement, Employee engagement, and retention, Innovation and product development, Regulatory compliance, Long term sustainability, Social and environmental impact, supporting financial inclusion, strengthening customer relationships, managing social risk, Attracting and retaining talent and Financial inclusion are the significant role of CSR in the overall development of banking sector

Conclusion

In conclusion, the study examining the role of CSR in the overall development of the banking sector reveals a multitude of significant factors. CSR plays a pivotal role in enhancing the reputation of banks by demonstrating their commitment to social and environmental responsibility. It also contributes to effective risk management, enabling banks to identify and address potential risks associated with their operations. Moreover, CSR facilitates stakeholder engagement, fostering positive relationships and mutual understanding with customers, employees, communities, and regulators. By promoting employee engagement and retention, CSR initiatives create a motivated workforce aligned with the bank's values. Additionally, CSR drives innovation and product development, leading to the creation of sustainable solutions that address societal and environmental challenges. Compliance with CSR standards ensures regulatory compliance and supports responsible business practices. Furthermore, CSR aligns banks with long-term sustainability goals, enabling them to contribute to the well-being of society while ensuring their success. The social and environmental impact of CSR initiatives extends beyond core banking functions, benefiting communities and the environment. By supporting financial inclusion, banks can provide access to financial services for underserved populations, fostering inclusive growth. CSR also strengthens customer relationships, as customers increasingly value socially responsible practices. Effective CSR management helps banks mitigate social risks and attract and retain top talent seeking purpose-driven work. Overall, CSR is an integral component of the banking sector's development, driving positive impacts on various fronts and ensuring a sustainable and inclusive future.

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8. Role of Data Science in Business Management

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Abstract

The use of the term "Data Science" is becoming increasingly common along with "Big Data." What does Data Science mean? Is there something unique about it? What skills should a "data scientist" possess to be productive in the emerging digital age characterized by a deluge of data? What are the implications for business and for scientific inquiry? In this brief monograph I address these questions from a predictive modeling perspective.

Introduction

The use of the term "Data Science" is becoming increasingly common along with "Big Data." What does Data Science mean? Is there something unique about it? What skills should a "data scientist" possess to be productive in the emerging digital age characterized by a deluge of data? What are the implications for scientific inquiry? The term "Science" implies knowledge gained by systematic study. According to one definition, it is a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the universe. 10 Data Science might therefore imply a focus around data and by extension, Statistics, which is a systematic study about the organization, properties, and analysis of data and their role in inference, including our confidence in such inference. Why then do we need a new term, when Statistics has been around for centuries? The fact that we now have huge amounts of data should not in and of itself justify the need for a new term. The short answer is that it is different in several ways. First, the raw material, the "data" part of Data Science, is increasingly heterogeneous and unstructured – text, images, and video, often emanating from networks with complex relationships among its entities. Figure 1 shows the relative expected volumes of unstructured and structured data between 2008 and 2015, projecting a difference of almost 200 pedabytes in 2015 compared to a difference of 50 pedabytes in 2012. Analysis, including the combination of the two types of data with requires integration, interpretation, and sense making, increasingly based on tools from linguistics, sociology, and other disciplines.

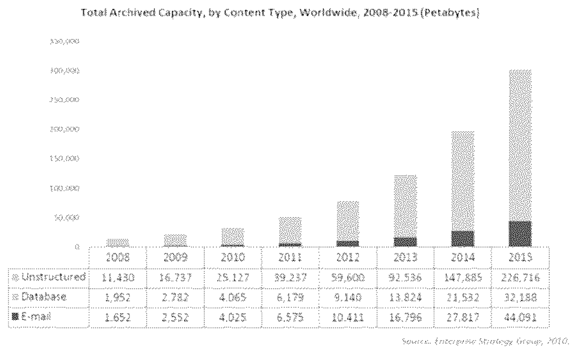


Figure 1: Projected Growth in Unstructured and Structured Data

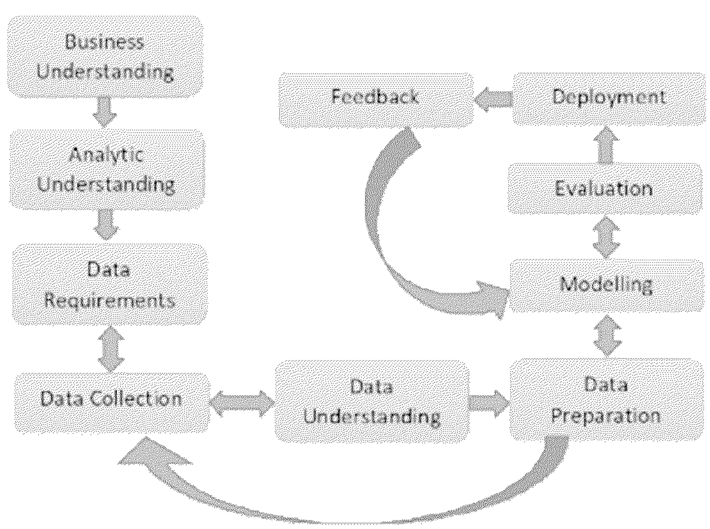
Objectives

In business management, data science aims to enable data-driven decision-making, optimize operations, and enhance strategic planning. Its objectives include improving efficiency, understanding customers, and mitigating risks, making it an essential tool for modern organizations to achieve their goals and stay competitive.

Hypothesis

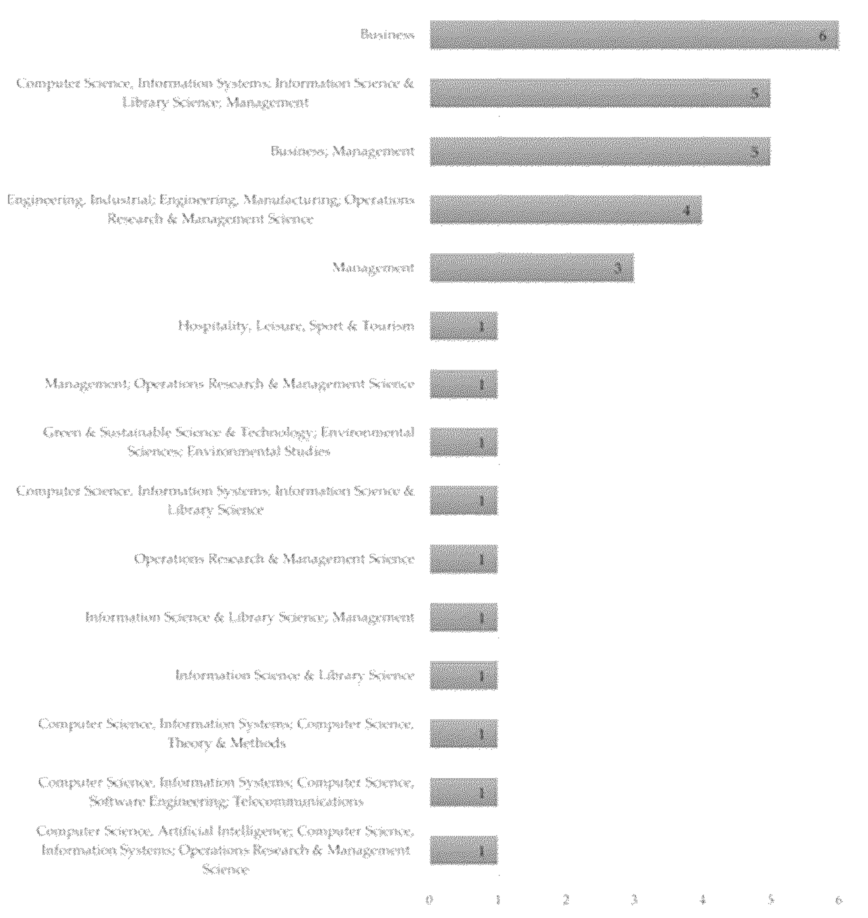
A well-formed and tested hypothesis determines the focus of the business problem. It decides the direction of the data science project by informing crucial decisions such as what data needs to be collected from what sources, what statistical process must be employed for the analysis, and so on.

Data Collection



Implications for Business Knowledge Discovery

Statistics



Analysis methods

Some professionals use the terms "data analysis methods" and "data analysis techniques" interchangeably. To further complicate matters, sometimes people throw in the previously discussed "data analysis types" into the fray as well! Our hope here is to establish a distinction between what kinds of data analysis exist, and the various ways it's used. Although there are many data analysis methods available, they all fall into one of two primary types: qualitative analysis and quantitative analysis.

Findings

Data-driven decision-making allows businesses to utilize data science findings to make more informed business decisions. These decisions can range from customer segmentation strategies to optimizing manufacturing processes, all supported by the critical data collected and analyzed by data scientists.

Suggestions

Data science entrepreneur ideas can also be used to improve operations by an entrepreneur running a startup. For example, by analyzing data on past customer behavior, businesses can develop better models for predicting future demand, which can be used to optimize stock levels, staffing levels, and production schedules.

Methodology

The data science methodology involves four key steps. First, it begins with the collection and preparation of data from various sources, ensuring its quality and consistency. Second, data scientists analyze and build models using statistical and machine learning techniques to address specific business objectives. Third, they interpret the results and insights gained from the models, translating them into actionable recommendations that optimize decision-making or operational processes. Finally, the process emphasizes continuous improvement by implementing data-driven solutions, monitoring their effectiveness, and maintaining a feedback loop to adapt to changing conditions while adhering to data governance and ethical standards throughout.

Implications for Business

According to recent report by McKinsey and Company12, the volume of data is growing at a rate of roughly 50% per year. This translates into a roughly 40-fold increase in ten years. Hundreds of billions of messages are transmitted on social media daily and millions of videos are uploaded daily across the Internet. As storage becomes virtually costless, most of this information is stored because businesses generally associate a positive option value with data. In other words, since it may turn to be useful in ways not yet foreseen, why not just keep it? (An indicator of how cheap storage has become is the fact that it is possible to store the world's current stock of music on a $500 device!) The viability of using large amounts of data for decision making became practical in the 80s. The field of "Data Mining" started to burgeon in the early 90s as relational database technology matured and business processes became increasingly automated. Early books on Data Mining5 6 11 from the 90s described how various methods from Machine Learning could be applied to a variety of business problems. There was a corresponding explosion in the available software tools geared towards leveraging transactional and behavioural data for purposes of explanation and prediction.

The advent of machine learning in the 1990s brought a crucial revelation: it has the capacity to unveil intricate patterns within data without imposing rigid assumptions about the relationships between variables.

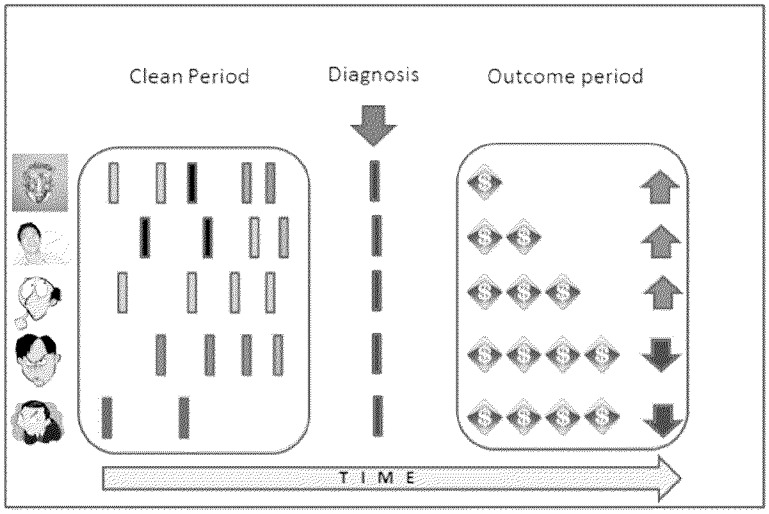


Figure 2: Healthcare Use Database Snippet

It is non-trivial to extract the interesting patterns from a large temporal database of the type above. For starters, the raw data across individuals typically needs to be aggregated into some sort of canonical form before useful patterns can be discovered. For example, suppose we count the number of prescriptions an individual is on at every point in time without regard to the specifics of each prescription as one approximation of the "health" of an individual prior to diagnosis.

Patient	Age	#Medications	Complication
1	52	7	Yes
2	57	9	Yes
3	43	6	Yes
4	33	6	No
5	35	8	No
6	49	8	Yes
7	58	4	No
8	62	3	No
9	48	0	No
10	37	6	Yes

Age >= 37
AND
#Medications >= 6
→
Complication = Yes (100% confidence)

Figure 3: Extracting Interesting Patterns of Health Outcomes From Healthcare System Use

The pattern on the right side becomes interesting because it exhibits a complication rate significantly higher than the population average, suggesting a potential relationship between specific conditions (age over 36 and taking more than five medications) and complications in Type 2 diabetes. Determining whether this pattern is robust and predictive is crucial for its actionability. Machine learning methods can help identify such patterns in large and multidimensional datasets, but the emphasis is often on simplicity and predictability, favouring Occam's razor principle, which suggests that simpler models are more likely to hold up on future observations compared to complex ones.

Knowledge Discovery

In his provocative article titled "The End of Theory: The Data Deluge Makes the Scientific Method Obsolete1 ," Chris Anderson drew on the famous quote by George Box that "All models are wrong, but some are useful," arguing that with the huge amounts of data now available, we don't need to settle for wrong models or any models for that matter. Anderson pointed out that prediction is of paramount importance to businesses, and that data can be used to let such models emerge using machine learning algorithms, largely unaided by humans. Anderson points to companies such as Google as symbolizing the triumph of machine learning over top-down theory development. Google's language translator doesn't "understand" language, nor do its algorithms know the contents on webpages. Nor does IBM's Watson "understand" the question it is asked. There are dozens of lesser known companies that likewise are able to predict the odds of someone responding to a display ad, etc., without any solid theory, but rather, based on gobs of data about behaviours of individuals and the similarities and differences among these behaviours.

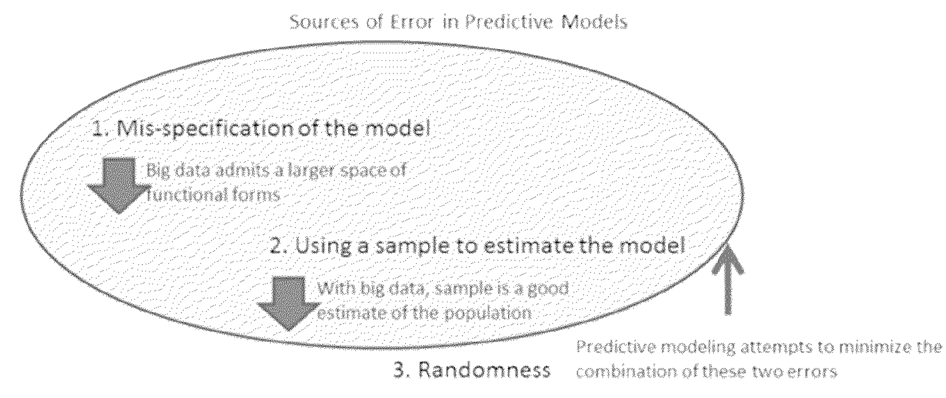


Figure 4: Sources of Error in Predictive Models and Their Mitigation

Big data helps reduce errors in analysis by providing more data for testing complex models, and it makes sample estimates more reliable. However, observational data, even if large, has limitations because it lacks the controlled conditions of experiments. Yet, modern large-scale experiments on internet behaviour, like the one on Facebook by Aral and Walker, offer insights into complex human interactions online. This shift to big data and machine learning can greatly enhance social science theory building, offering unprecedented levels of detail in understanding human behaviour, complementing traditional scientific methods in today's digital age.

Conclusion

Large observational data offers powerful opportunities for predictive modelling, but it has limitations. We can't run controlled experiments, limiting our ability to understand causation and intervene effectively. Additionally, different models might represent the same causal structure, making it challenging to discern. Still, the size of the data allows for diverse analyses and conditional relationships examination. Machines are increasingly contributing to creative inquiry, not just hypothesis-driven analysis, and can interpret unstructured data alongside numbers, paving the way for real-time knowledge extraction and action.

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9. Security Threats in Cloud Computing for Business

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Abstract

Users are deterred from moving to the cloud by cyberattacks against it. Data security is currently a shortcoming of cloud computing. Cloud computing exhibits a remarkable potential to offer cost-effective and more flexible services on-demand to the customers over the network. It dynamically increases the capabilities of the organization without training new people, investment in new infrastructure or licensing new software. Cloud computing has grown dramatically in the last few years due to the scalability of resources and appear as a fast-growing segment of the IT industry. The dynamic and scalable nature of cloud computing creates security challenges in their management by examining policy failure or malicious activity.

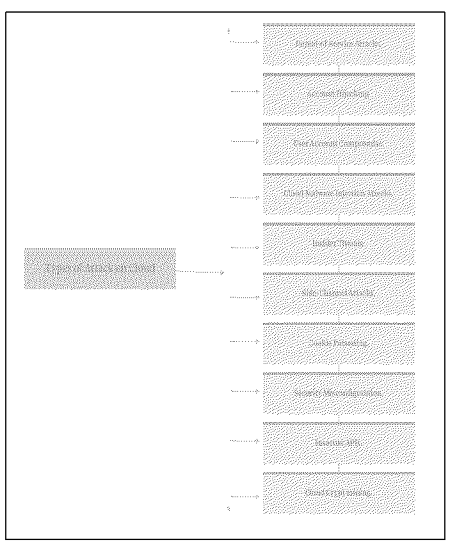
Objective

This study defines cloud computing and investigates cyber-attacks on infrastructure. It highlights risks to servers and services, including cryptography, distributed denial of service, and flooding attacks, and seeks remedies for identified security issues.

Hypothesis

In this paper, we examine the detailed design of cloud computing architecture in which deployment models, service models, cloud components, and cloud security are explored.

Data



1. Denial-of-Service Attacks

A denial-of-service (DoS) attack is a kind of cyber-attack that seeks to prevent its intended users from using a computer or network resource. is an attempt to bring down a computer or network so that its intended users are unable to access it. DoS attacks often include saturating a cloud service with a lot of traffic, which can overwhelm the system and prevent it from handling valid requests.

DoS assaults frequently target the web servers of well-known corporations, including media, financial, and commercial companies, as well as governmental and commercial organizations. DoS attacks can have negative effects that are detrimental to an organization's reputation, the availability of essential services, and financial loss. DoS attacks can cost the victim a lot of time and money to cope with, even while they normally do not lead to the theft or loss of important information or other assets.

The breadth and complexity of cloud infrastructures can make it difficult to detect and neutralize cloud-based DoS assaults.

A common flood assault is:

Buffer Overflow Attacks: The most typical DoS attack. The idea is to transmit more traffic to a network address than the system's design allows for. It comprises the following attacks in addition to those that aim to take advantage of flaws unique to certain networks or applications.

ICMP Flood : Leverages misconfigured network devices by sending spoofed packets that ping every computer on the targeted network, instead of just one specific machine. The network is then triggered to amplify the traffic. This attack is also known as the smurf attack or ping of death.

SYN Flood: Makes a connection request but never completes the handshake with the server. continues until all open ports are fully used by requests and none are accessible to authorized users.

DDoS attacks involve coordinated attacks from multiple systems on a single target, resulting in simultaneous attacks from multiple locations. This spread of hosts allows attackers to leverage the machine's volume for disruptive attacks.

- The location of the attack is difficult to detect due to the random distribution of attacking systems (often worldwide).
- It is more difficult to shut down multiple machines than one.

The true attacking party is very difficult to identify, as they are disguised behind many (mostly compromised) systems

2. Account Hijacking

In a user account compromise, an attacker often gains access to an account by the user's activities, such as by deceiving the user into disclosing their login credentials or by taking advantage of a flaw in a system or program the user is using.

This differs from account hijacking, which involves an attacker gaining unauthorized access to an account through means such as password cracking or exploiting vulnerabilities in the cloud infrastructure.

Hijacking of cloud accounts is a significant issue for businesses across all industries. 86% of IT executives reported that this type of cybercrime cost them more than $500,000 in the previous year, according to study.

How does cloud hijacking happen?

It's clear that cloud hijacking is a real risk for businesses with grave consequences if a hacker manages to steal sensitive data.

There are many ways for a cloud hijacking attack to happen, including:

- Phishing attacks.
- Brute force password attacks, in which a cybercriminal uses trial and error to guess an employee's password
- Using stolen password and login data up for grabs on the Dark Web
- Server-side request forgery (SSRF) attacks
- Manipulation of insecure web and mobile applications
- Credential-stealing malware

Hackers can access employees' cloud accounts remotely, making it challenging to determine trustworthiness without proper security tools.

How to prevent cloud hijacking?

Enable MFA: Multi-factor Authentication (MFA) is a mechanism for authentication that requires users to confirm their identity using two or more ways in order to access corporate resources like cloud apps. MFA is a quick and easy approach to prevent brute force assaults, a popular cloud hijacking technique. Combining MFA with strict password rules, such as requiring employees to update their passwords every six weeks, is recommended. On a related point, if implementing MFA across your cloud apps proves challenging, establish business policy encouraging staff to call the individual who requested a wire transfer to verify the request is authentic.

Implement the principles of least privilege and zero trust

Zero Trust requires networks, devices, and users to be treated as untrusted, requiring identity authentication before accessing corporate files and resources. The principle of least privilege restricts employees' access to sensitive files, preventing cybercriminals from stealing data.

Invest in SaaS DLP: While Identity and Access Management (IAM) While principles are crucial, IAM cannot be the exclusive source of them. A stricter approach to cloud security management should focus on data-level access rather than application level. A good cloud DLP system provides real-time insight into user activity and data flow, using automation and pattern recognition to identify and stop suspicious conduct. DLP categorizes and protects unstructured data across cloud apps, ensuring only authorized, verified users can access sensitive information.

3. User Account Compromise

According to **Verizon's 2022 Data Breach Investigations Report**. User credentials also comprise **63% of stolen data** clearly showing that your organization isn't the only one that understands its value.

How do Accounts become Compromised?

- Easy-to-guess username and password.
- Sharing account information with friends who then may share your account with their friends.
- Social engineering.
- Site or database storing usernames and passwords in plain text (not encrypted) is hacked.
- Ransomware.
- Malware.
- Data was intercepted over a non-secure Wi-Fi network.

What happens if an Account is Compromised?

- Change the password to something only they know, locking you out of your account.
- Change the e-mail address and address on your account, then purchase products using a credit card that's on file in your account without you knowing.
- Access sensitive or private information stored on your account.
- Send messages or distribute spam.

- Use your account for identity theft or social engineering to trick others into thinking they're you.
- Delete your account.

How do I know if my account is compromised?

Unfortunately, if you aren't an expert in computer security, it might be challenging to determine whether your account has been compromised. Therefore, it may be advantageous to take precautions. If you're worried, consider the following ideas:

- Change your password to a unique password that you've never used.
- Enable 2FA (two-factor authentication), if available.
- If you are using the same password with any other online accounts, change the password on those other accounts.
- Make sure your e-mail is secure with a strong password and 2FA enabled.
- Scan your computer for malware.

4. Cloud Malware Injection Attacks

Cloud malware injection attacks are a type of cyberattack that involves introducing harmful software, such as viruses or ransomware, into cloud computing infrastructure or services. These attacks can impact **Software as a Service (SaaS), Platform as a Service (PaaS)**, or **Infrastructure as a Service (IaaS)** environments, with one notable example being the 2008 **attack on the Sony PlayStation website**.

Hackers injected malicious code onto pages on the **PlayStation** website using **JavaScript** to target unprotected coding. When users navigated to the compromised pages to view promoted game products, cybercriminals would run a "fake anti-virus scan and displayed a bogus message that their computer was infected with a variety of different viruses and Trojan horses" (Sophos, 2008). The fake security dialogue box prompted the user to click on a link that would redirect them to a fake security product that would "fix" the issue due to insufficient protection and get them to enter their credit card information.

5. Insider Threats

Insider threats in critical infrastructure sectors are a complex and dynamic danger that impact both public and private domains. To address them, it's crucial to define these threats and develop mitigation programs. The Cyber security and Infrastructure Security Agency (CISA) defines insider threats as individuals with authorized access potentially causing harm to an organization's mission, resources, and more. Insider threats can take forms like violence, espionage, sabotage, theft, and cyberattacks.

What is an Insider Threat?

Insider threat is the potential for an insider to use their authorized access or understanding of an organization to harm that organization.

This harm can include malicious, complacent, or unintentional acts that negatively affect the integrity, confidentiality, and availability of the organization, its data, personnel, or facilities. External stakeholders and customers of the **Cybersecurity and Infrastructure Security Agency (CISA)** may find this generic definition better suited and adaptable for their organization's use.

The following insider activities may cause harm to the department as a result of this threat:

- Terrorism
- Unauthorized disclosure of information
- Corruption, including participation in transnational organized crime
- Sabotage
- Workplace violence
- Intentional or unintentional loss or degradation of departmental resources or capabilities

6. Side-Channel Attacks

Attackers can also go after high-value targets, such as secure processors, **Trusted Platform Module (TPM)** chips and cryptographic keys. Even having only partial information can assist a traditional attack vector, such as a brute-force attack, to have a greater chance of success.

Side-channel attacks are challenging to defend against, often undetectable, and can be effective against physically segregated systems. Additionally, they may also be used against virtual machines (VMs) and in cloud computing environments where an attacker and target share the same physical hardware.

7. Cookie Poisoning

Cookie poisoning refers to various techniques for stealing data from legitimate cookies or modified ones, allowing attackers to manipulate user experiences and access extra user data. This term is misleading as it often includes harmful uses of cookies.

8. Security Misconfiguration

Computing systems and applications often experience security misconfigurations that can potentially expose them to cyber criminals. According to a Threat Stack report, over 73% of companies experience at least one critical security misconfiguration. The Open Web Application

Security Project (OWASP) updated its famous list of top 10 vulnerabilities in 2021, with security misconfiguration ranking as the 5th most dangerous risk.

A. Unpatched systems : Cybercriminals exploit unpatched bugs to execute malicious programs, illegally accessing applications and scanning environments.

B. Default account settings : You might set up a few trust configurations to streamline access between systems.

C. Unencrypted files : Unencrypted or poorly encrypted files give hackers ample opportunity to illegally access your system, steal data or modify it with false information.

D. Unsecured devices : Using compromised devices or credentials or reusing the same passwords for different systems could make your environment insecure.

E. Web application and cloud misconfiguration : Cyber Attackers could detect misconfiguration vulnerabilities in your system and exploit the same, causing severe harm directly or indirectly.

F. Insufficient firewall protection : If you leave services running on a firewall, it could expose a window for attackers to exploit vulnerabilities and disrupt your system.

9. Insecure APIs

1. An API is a set of programming code that enables data transmission between one software product and another. It also contains the terms of this data exchange.
2. APIs simplify software development by enabling third-party functionality and application creation, serving as abstraction layers.
3. Many of the security issues surrounding APIs have to do with the shift away from early SOAP messaging protocol-based APIs to today's REST APIs.

SOAP APIs are secure for VPNs or two-way encrypted connections, while REST APIs are designed for browsers and mobile apps. Cyber criminals exploit REST APIs using tools similar to web app disruptions. Security best practices, like least-privilege data access and server-side validation, are crucial for APIs as well.

10. Cloud Crypto mining

Crypto mining is essential for creating new **cryptocurrencies** and **functioning blockchain** networks. However, the increased complexity of crypto mining drives the need for specialized, cost-effective infrastructure to mine cryptocurrencies.

Cloud computing is crucial for crypto mining, with various varieties and advantages, risks, and monitoring essential for successful mining:

- Eliminate cyberattacks.

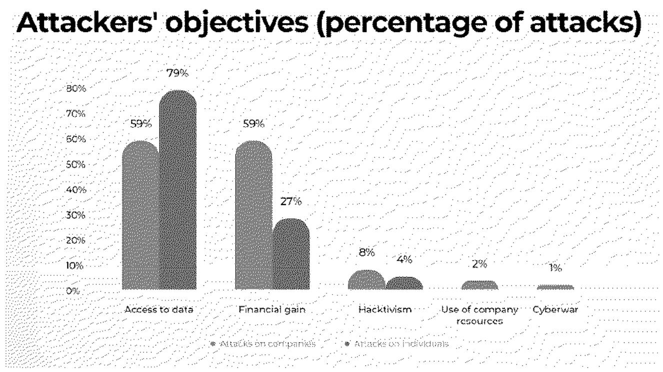
- Manage costs.
- Increase crypto mining performance.

Why did cloud crypto mining become popular?

With the introduction of Bitcoin in 2009, crypto mining, which was initially carried out using standard desktop computers, started to gain popularity. When the competition for crypto mining became more intense and difficult, special tailor-made hardware like ASICs (application-specific integrated circuits) and GPUs (graphics processing units) were used to improve the efficiency of mining.

Long-term investment in gear, software, and power for crypto mining required significant investment for companies and individuals.

Statistics



Analysis Method

We can deduce from this graph that the main motivation for attacks is to access data. Cyberwar is another uncommon reason; its likelihood is 1%.

Finding

To keep yourself safe you need to follow These Steps:

1. Understand cloud service models.
2. Choose a reputable cloud provider.
3. Focus on network security.
4. Keep systems updated and patched.
5. Develop an incident response plan.
6. Regularly back up data.
7. Provide employee security training.
8. Assess third-party security.
9. Conduct regular security audits.

10. Utilize cloud-native security services.
11. Consider hiring security experts.
12. Continuously improve security measures

Conclusion

Corporations and organizations are impacted by denial-of-service (DoS) attacks, which restrict users from accessing computer or network resources. They may harm their reputation and disrupt service, while also costing money. Stricter security management measures that ensure only authorized users may access sensitive data should be used to defend against cloud hijacking. While insider threats employ authorized access to harm an organization's resources, workers, facilities, information, equipment, networks, or systems, cloud malware injection assaults introduce destructive software.

APIs require cookies, information particular to a website and user session, and security best practices including least-privilege data access and server-side validation.

Suggestion

Suggestions to enhance cloud security for your business:

1. Implement Web Application Firewalls (WAFs) for web app protection.
2. Regularly review and rotate access credentials.
3. Employ Cloud Access Security Brokers (CASBs) for cloud monitoring.
4. Perform vulnerability scanning and penetration testing.
5. Segment your network to isolate sensitive data.
6. Consider Data Loss Prevention (DLP) solutions.
7. Apply Zero Trust security principles.
8. Plan for business continuity and disaster recovery.
9. Regularly review third-party service security.
10. Stay informed about cloud security threats.

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10. House Hold Waste Management-Perceptions, Measures and Challenges

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Abstract

The household wastes' journey begins at each doorstep, the UNEP reports that "increasing volume and complexity of waste associated with the modern economy is posing a serious risk to ecosystems and human health. An estimated 11.2 billion tonnes of solid waste collected worldwide yearly and decay of the organic proportion is contributing about 5 per cent of global greenhouse gas emissions, e-wastes, and the fastest-growing challenge". This paper intends to assess the efficient and conscious measures taken to reduce household solid wastes segregated, the challenges, and hindrance towards effective management in recycling, the consequences, contributing to contamination of various environment resources, and posing a hazardous threat to all the living organisms in this universe.

Methodology: A random sample of 120 respondent's data was collected through questionnaire in Google Form.

Null Hypothesis: H01:There is no significant difference in the willingness to make changes in the lifestyle between Male and Female Respondents.

H02: There is no significant difference between the frequency of recycling and the rate of commitment.

Key words: House Hold waste, Measures, Challenges, Environmental Hazards, Landfill

1.1 Introduction

The human perception is that majority of the solid waste is comprised of plastic which is very hazardous to the environment and difficult to dispose. But reports show that the problem lies in the segregation of different waste materials, unproductive recycling and poor management of waste.

According to the news release by The Times of India "Brihanmumbai Municipal Corporation's (BMC) report for 2022 reveals that the city generates about 6,400 tonnes of solid waste daily, where 73% is 'wet' or food waste– 27% remaining , roughly 6. 3 lakh tonnes every year – comprises all kinds of dry waste, including 3. 2% plastic.The actual problem is low recycling rate as last year only 47,000 tonnes of dry waste including 12,402 tonnes of plastic was recycled."

The UNEP further reports that "Poor waste management - ranging from non-existing collection systems to ineffective disposal-causes air pollution, water and soil contamination. Open and unsanitary landfills contaminates drinking water causing infection and transmit diseases, electronic waste or industrial garbage adversely effects health of urban dwellers and the environment. The UNEP International Environmental Technology Centre (IETC) in Japan aims to optimize the management of solid waste by involving all stakeholders in the process through pilot projects at local level.

1.2 Literature Review

(Sankari, 2018) investigates the practices in the disposal of household waste, problems and challenges of improper disposal and measures for effective household waste management. The paper also highlights suggestions for proper disposal of household waste, people in urban spend large amount of their income on goods and this has resulted in mounting solid waste and landfills, which results in air pollution, depletion of soil fertility and pollutes underground water.

Stewart Barr 2007 Three waste management behaviors (waste reduction, reuse, and recycling) were examined with the use of a conceptual framework developed by the author. It was posited that environmental values, situational characteristics, and psychological factors all play a significant role in the prediction of waste management behavior.

1.3 Research Design

1.3.1 Objective

The objective of the research was to explore the perceptions of people regarding waste, assess the measures and challenges faced in carrying out the solid waste management effectively.

1.3.2 Null Hypotheses

H01:There is no significant difference in the willingness to make changes in the lifestyle between Male and Female Respondents

H02: There is no significant difference between the frequency of recycling and the rate of commitment.

1.3.3 Sampling Design and Data Collection

A cross-sectional study design was used and the data was collected by means of a questionnaire through Google Form.

1.3.4 Statistical Analysis

SPSS software was used to assess the measures taken and the challenges faced in household waste management.

4.1 Analysis and Interpretation

Table No. 1.4.1: Statistical Analysis on the measures taken in household waste Management

	N		Mean	Median	Mode	Standard Deviation
	Valid	Missing				
How frequently do you recycle your household waste?	120	0	2.73	3.00	3	1.389
Do you separately dispose hazardous waste (batteries, electronics, expired medicines and cosmetics).)?]"	120	0	3.09	3.00	5	1.624
Do you separate wet waste(recyclable materials) from dry waste(non-recyclable materials)?"	120	0	3.21	3.00	5	1.593
How often do you educate yourself about new recycling practices and techniques?	120	0	3.21	3.00	3	1.236
Do you encourage others to recycle household waste?	120	0	3.43	3.00	5	1.510

- The above analysis shows that the mean value for the frequency of recycling is 2.73 which is a low value and the mean values for other measure is not greater than 3 and the median for each measure is 3.Analysis also reveals the separation of wet waste and dry waste is not done in every household diligently.
- A statistical analysis on the satisfactory level of the people regarding the recycling facilities and the resources available in their area of residence shows that the facilities available are not that satisfactory.

Table 1.4.2 : How satisfied are you with the recycling facilities and resources available in your area?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	11.7	11.7	11.7
	2	24	20.0	20.0	31.7
	3	27	22.5	22.5	54.2
	4	24	20.0	20.0	74.2
	5	31	25.8	25.8	100.0
	Total	120	100.0	100.0	
N	Valid	120			
	Missing	0			
Mean		3.28			
Median		3.00			
Mode		5			
Std. Deviation		1.355			

Table 1.4.3 Analysis on Knowledge, Willingness and Commitment

	N		Mean	Median	Mode	Standard Deviation
	Valid	Missing				
How knowledgeable are you about the different types of recyclable materials?	120	0	3.28	3.00	3	1.159
How willing are you to make changes in your lifestyle to reduce your household waste?	120	0	3.88	4.00	5	1.039
How would you rate your commitment to recycling household waste?	120	0	3.55	4.00	4	1.011

- Analysis reveals that there is moderate knowledge about the different types of recyclable materials and the people are willing to make changes in the lifestyle to reduce household waste and also be committed in doing so.

Table 1.4.4: Analysis on the willingness to make changes in the lifestyle between Male and Female Respondents

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
How willing are you to make changes in your lifestyle to reduce your household waste?	Male	43	3.84	1.022	.156
	Female	77	3.91	1.054	.120

Independent Samples Test										
How willing are you to make changes in your lifestyle to reduce your household waste?										
Levene's Test for Equality of Variances			t-test for Equality of Means							
	F	sig	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					One-Sided p	Two-Sided p			Lower	Upper
Equal variances assumed	.063	.803	-.362	118	.359	.718	-.072	.198	-.465	.321
Equal variances not assumed			-.365	89.277	.358	.716	-.072	.197	-.463	.319

- As the p value in both the cases(one-sided and Two-sided) is greater than 0.05,the null hypothesis is accepted i.e., there is no significant difference between the male and female respondents in the willingness to make changes in their lifestyle to reduce house hold waste.

Table 1.4.5 Analysis of frequency of recycling and the rate of commitment

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	How frequently do you recycle your household waste?	2.73	120	1.389	.127
	How would you rate your commitment to recycling household waste?	3.55	120	1.011	.092

Table 1.4.6 Paired Samples Correlations

		N	Correlation	Significance	
				One-Sided p	Two-Sided p
Pair 1	How frequently do you recycle your household waste? & How would you rate your commitment to recycling household waste?	120	.039	.334	.668

Table 1.4.7: Paired Samples Test

How frequently do you recycle your household waste? - How would you rate your commitment to recycling household waste?								
Paired Differences					t	df	Significance	
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
			Lower	Upper				
-.817	1.685	.154	-1.121	-.512	-5.309	119	<.001	<.001

As the p-value is < .05, the null hypothesis is rejected i.e., there is significant difference in the frequency of recycling and the rate of commitment. Respondents have given high rate of commitment but statistical analysis reveals that they have failed to execute it in action.

Table 1.4.8 Analysis of Challenges faced

Challenges	Number of respondents
Disposable products are more convenient	15
Emotional attachment to things which contributes to clutter	24
Lack of recycling and composting facilities	44
Many products come with excess packaging	57
Eco-friendly products are costly	39
Time and Effort required for activities like composting, recycling	57

The primary challenges faced by the respondents are the excess packaging of the products and the time and effort required for activities like recycling and composting. The next in row is the lack facilities for recycling and composting.

Table 1.4.9 Analysis of knowledge and educating self about new recycling practices

Paired Samples Test										
		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
					Lower	Upper				
Pair 1	How often do you educate yourself about new recycling practices and techniques? - How knowledgeable are you about the different types of recyclable materials?	-.067	1.510	.138	-.340	.206	-.484	119	.315	.630

As the p-value=0.315 is greater than 0.05, the null hypothesis is accepted, That is there is no significant difference between educating themselves on new recycling techniques and the rate of knowledge about different types of recyclable materials.

Conclusion

Other than the three Rs-Reduce, Reuse, Recycle we should selflessly try to follow the others R's like Rethink, Refuse, Reflect, Regrow, Regift and Rot(Compost).The initiative taken by Kochi in embracing the idea of a decentralized waste management system is an exemplary and worth following. In Kochi a bio waste treatment plant, yielding manure and a vegetable garden near the plant was set up.

Government should initiate the implementation of Reverse Vending Machine, Composter and monetary gains for recycling to motivate and increase the rate of effective waste management.

Education regarding different recyclable materials is essential and awareness to change the lifestyle with willingness and commitment, as an effective contribution to an eco-friendly environment is the need of the hour.

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11. Geospatial Big Data: New Paradigm of Remote Sensing Applications

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Abstract

The rapid development of information technology and location techniques not only leads to an increasing growth of massive geospatial big data but also raises the attention of using these data to complement with remote sensing images. Many efforts have been made to utilize geospatial big data to identify human activity patterns and carry out urban and environmental researches, integrating with remote sensing images. Nonetheless, there are still many issues, including the representativeness and locality of geospatial big data, as well as the fusion methods, remain to be further explored. In this article, we first reviewed the innovation and proceedings of data mining and analyzing techniques, as well as remote sensing applications driven by geospatial big data. Besides, two popular concepts, namely, “Social Sensing” and “Urban Computing,” were briefly introduced. Then, we highlighted the role of geospatial big data in mining human activity dynamics and socioeconomic characteristics, and the feasibility of combining with remote sensing data for various studies. Lastly, we presented some empirical case studies on the confluence of remote sensing and geospatial big data in land use extraction, environmental and disaster monitoring, as well as socioeconomic dynamics sensing. The provided examples and discussion demonstrated the high efficiency and complementarity of the integration of remote sensing and geospatial big data, which benefits decision making from multiple perspectives and scales.

Keywords: IEEE, Big Data, Geospatial analysis, Remote sensing, Sensors, Data mining, Social networking (online), Monitoring

1. Introduction

The urbanization process has important and far-reaching significance for the transformation and development of China [1]. With the increasing scale and complexity of Chinese cities, various negative effects and “urban diseases” emerge in large numbers [2]. China’s extensive growth pattern of high consumption and high emissions not only intensifies theurban greenhouse effect but also causes an uneven quality of urbanization. Some regions attach importance to economic growth instead of the quality of development, resulting in cities lacking in necessary vitality [3]. Facing the problems of economic decline, scale contraction, and environmental protection in the process of urbanization, deepening the understanding of urban vitality, while exploring the contact between urban vitality and urban carbon emissions, is crucial to building a vibrant and sustainable city.

The concept of urban vitality that evolved from the term street life was first proposed by Jacobs, which includes human activities and urban space as well as the interactions between them [4]. To some extent, urban vitality represents the potential of a city's internal survival, growth, and development, which is stimulated by good urban form [5]. Wu et al. demonstrated the correlation between urban form and neighborhood vitality through a series of urban form measures (circulation system, external transportation system, density, land use mix, and accessibility) [6].

2. Study Area and Datasets

2.1. Study Area

As the core city of the Huaihai Economic Zone, Xuzhou (33◦430–34◦580N, 116◦22◦–118◦400E) is an interprovincial border city of Jiangsu, Shandong, Henan, and Anhui provinces.

Xuzhou is the only national-level resource-based city in Jiangsu, with a total land area of 11,765 km2 and a resident population of 902.85 million [26]. With a history of more than 130 years of coal mining, Xuzhou is an industrial city with the highest carbon emission intensity in northern Jiangsu. As a result of long-term energy exploitation, Xuzhou City faces urgent tasks such as energy conversation and emission reduction, ecological restoration and environmental protection, and is now entering a period of resource depletion.

In recent years, Xuzhou has experienced rapid economic development, accompanied by the rapid expansion of urban space. Its current urbanization level is higher than that of the country but lower than that of the province. However, due to its unreasonable urban pattern, the quality of urbanization in Xuzhou is generally not high, while the development of urbanization is uneven, with large spatial differences in urbanization levels between urban areas and counties, and between individual counties and districts.

2.2. Datasets

2.2.1. Geographic Data : The administrative division vector in this study was obtained from Local Space Viewer (available from http://www.tuxingis.com/, accessed on 9 October 2022). Road data and land use data were extracted from the vector dataset of the Open Street Map (available from https://www.openstreetmap.org/, accessed on 15 September 2022). Then, primary roads, secondary roads, tertiary roads, and highways were extracted for the study.

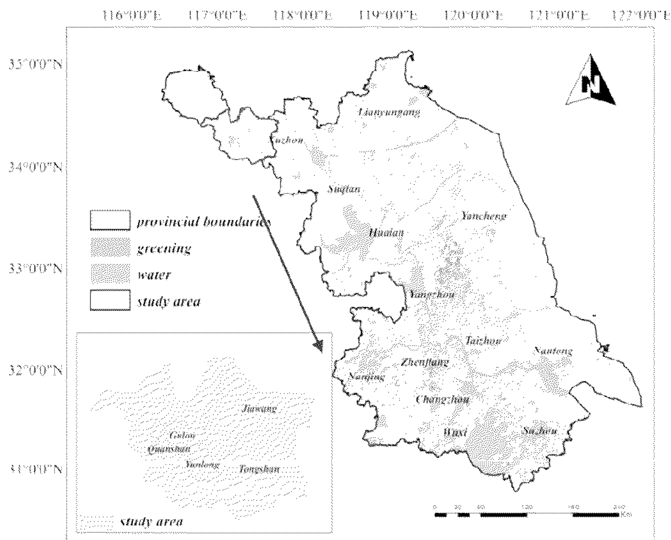
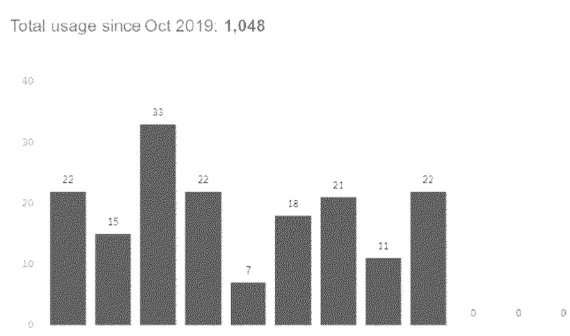


Figure 1. The main urban area of Xuzhou.

Total usage since Oct 2019: **1,048**

Jan	Feb	Mar	Apr	May	Jun
22	15	33	22	7	18
Jul	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
21	11	22	-	-	-



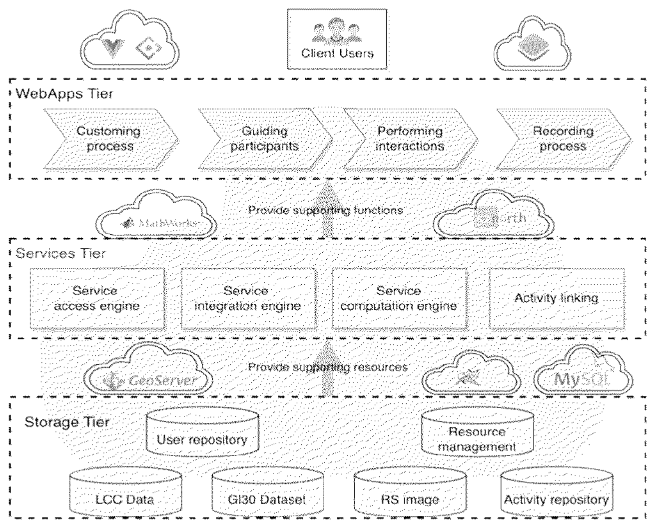
2. Prototype Implementation and Analysis

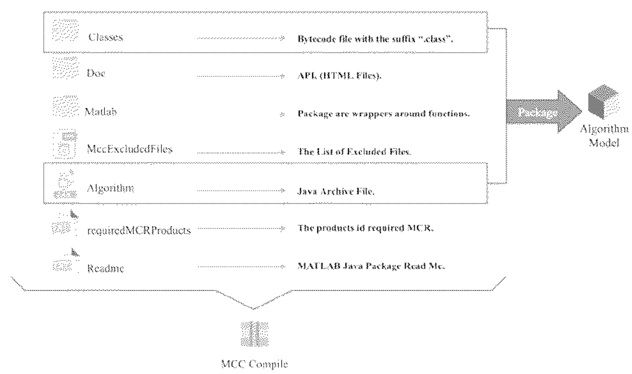
In order to evaluate the validity and feasibility of the proposed DSCM, a web-based land cover change detection system was developed. In this system, end-users could easily obtain the LCC information according to their different requirements.

Architecture : The DSCM prototype system was designed and developed based on SOA and SOC standards and principles. Its primary function is to perform service-oriented dynamic monitoring and visualization for LCC without relying on desktop software. The architecture of the prototype system mainly includes the following three parts, i.e., WebApp Tier, Services Tier, and Storage Tier, which is shown in Figure 5.

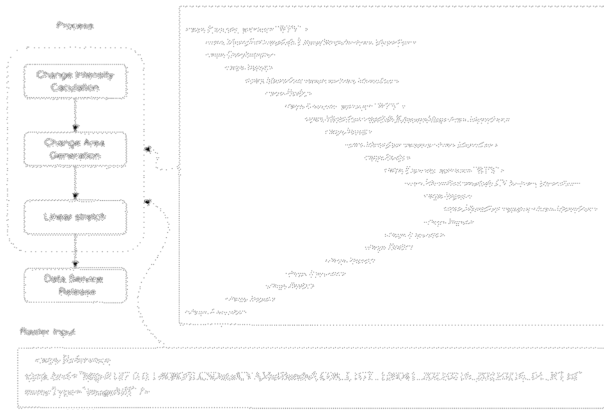
Users could understand from the preceding explanation that the configuration file contains information about the process description. In the configuration file, there is also an execution operation. The execution operation allows the WPS client to run a process implementation specified by the server and supports returning output results. Direct input can include executing a request (by value) or referencing a web-accessible resource (by reference). In addition, the output can immediately embed and save a resource that is available via the web, as depicted in Figure 7, or it can return a response document in the form of XML [36].

```
@Algorithm(version = "1.0.0",
         title = "Demo process",
         abstrakt = "A simple demo process for complex and literal data - get what you give.")
         ......
         }
public class ProcessDemo extends AbstractAnnotatedAlgorithm {
    ......
    private List<XmlObject> complexInput;
    private List<String> literalInput;
    private XmlObject complexOutput;
    private String literalOutput;

    @ComplexDataOutput(identifier = "complexOutput", binding = GenericXMLDataBinding.class)
    public XmlObject getComplexOutput() {
        return complexOutput;
    }

    @LiteralDataOutput(identifier = "literalOutput")
    public String getLiteralOutput() {
        return literalOutput;
    }

    @ComplexDataInput(binding = GenericXMLDataBinding.class, identifier = "complexInput", minOccurs = 0, maxOccurs = 1)
    public void setComplexInput(List<XmlObject> complexInput) {
        this.complexInput = complexInput;
    }

    @LiteralDataInput(identifier = "literalInput", minOccurs = 0, maxOccurs = 1)
    public void setLiteralInput(List<String> literalInput) {
        this.literalInput = literalInput;
    }

    @Execute
    public void run() {
        ......
        /**"Running demo process"**/
    }
```

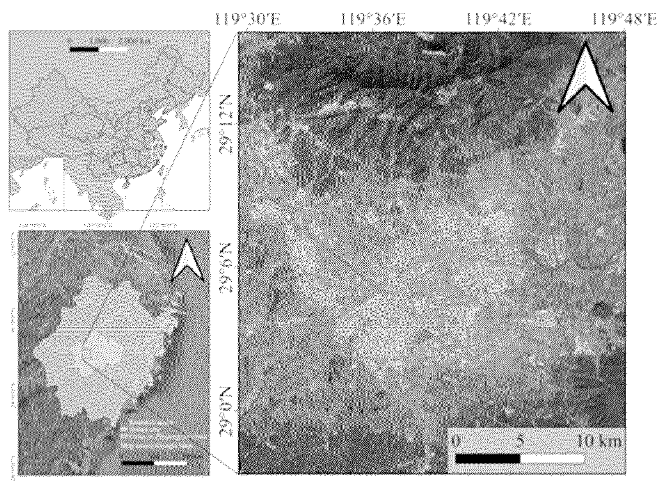


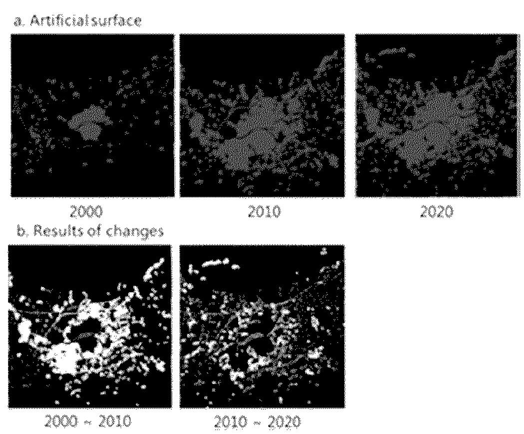


We utilized the XML description language to represent the two scenarios that make up the service composition when a client requests a service. The first step is to construct a general plan to achieve the goal, starting from the initial situation and the desired goal. The second is to select a generic plan, identify the necessary services, and create a workflow in which the generic plan node enables the dynamic selection of various services [40]. Plans for the aforementioned two situations can be used for scenario 2 and scenario 3 of the DSCM, respectively. To accomplish the desired result in DSCM, we must maintain the data in a certain reference format during data transfer from one service to another. For instance, data services, which take the form of network resource references, are required to implement data interchange across services (by Reference). The example fragment of the description template is shown in Figure.



3. Walk-Through Examples





4. Discussion

Experimental results demonstrate the feasibility of geoprocessing models and work-flows in land cover monitoring. The DSCM includes several change monitoring methods, combines them into a service chain structure, and then generates the dynamic land cover change monitoring application program. This method breaks the constraints of traditional change monitoring. The prototype system accomplishes the deployment of algorithm models and the integration of target resources. Users are no longer dependent on numerous data sets, high-performance computation, or even professional background knowledge.

5. Conclusions

This paper proposed an online interoperable dynamic service computing model, and developed a prototype system based on the model, which demonstrates and validates the online land cover change monitoring. We achieved web service posting and visualization of processing jobs for processing results, using the black box theory to encapsulate the processing services. Using the GlobeLand30 data sets and Landsat imagery, the system is being built and tested concurrently. Additionally, the system integrates service chain generation under the constraints of rules, which is an efficient approach to build models with web services.

Two walk-through examples were used to evaluate the efficiency and operability of the proposed model and system. The model and system can assist researchers in obtaining the desired results for land change dynamically in near real-time away. The ability of the geoprocessing engine depends on the amount of computer cores, and all processing is implemented on the server side, which can significantly lessen the strain on local computing resources. The DSCM prototype system can provide great convenience for ordinary users, which allows for easy access to and processing of LCC data

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12. Consumers' Perception of Online Marketing

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Abstract

Over the last decade, the Internet has assumed the role of being the most influencial organisations to conduct their business. Likewise, the innovation of technological platform such as the web and social media platforms, has transformed the way in which markets communicate and interact. The increase in the use of the Internet among the youth, has also resulted in the increased reputation of online as a marketing platform. The youth, especially students, have embraced the Internet to a point that they have and use it as part of their daily activities and hence live actively through it. This has made them become market influencers and have also created new opportunities for organisations to market their products and services. The growing use of the Internet presents a rich interactive stage for marketers to capitalize on, in order to become relevant, become industry leaders, and influence consumers' buying decisions. The understanding of consumers' perception of online marketing is thus believed to enable marketers to make use of the Internet as a means for persuading the marketing behaviour of consumers. This study therefore aimed at understanding consumers' perception of online marketing.

Introduction

ONLINE marketing is the component of marketing that uses the Internet and online-based digital technologies such as desktop computers, mobile phones and other digital media and platforms to promote products and services. Its development during the 1990s and 2000s changed the way brands and businesses use technology for marketing. As digital platforms became increasingly incorporated into marketing plans and everyday life, and as people increasingly used digital devices instead of visiting physical shops, digital marketing campaigns have become prevalent, employing combinations of search engine optimization (SEO), search engine marketing (SEM), content marketing, influencer marketing, content automation, campaign marketing, data-driven marketing, e-commerce marketing, social media marketing, social media optimization, e-mail direct marketing, display advertising, e-books, and optical disks and games have become commonplace. Digital marketing extends to non-Internet channels that provide digital media, such as television, mobile phones (SMS and MMS), Call backs, and on-hold mobile ring tones. The extension to non-Internet channels differentiates digital marketing from online marketing

Objective

The objective of the study is to study the theoretical framework of consumer perception towards online marketing, analyses the effectiveness of online marketing among the rural consumers of Karnataka and analyses the performance of online market and examine the various opportunities and threats. Customer perception is the opinions, feelings, and beliefs customers have about your brand. It plays an important role in building customer loyalty and retention as well as brand reputation and awareness. Digital Marketing particularly aims to achieve business goals by interlinking with digital platforms such as Instagram, Youtube, Facebook, Twitter, and many more. In this way, organizations can achieve more success that will impact the net growth rate of the industry positively.

Research Hypotheses

- H1: There is difference among age and consumer perception towards online marketing.
- H2: There is difference among Education and consumer perception towards online marketing.
- H3: There is difference among Occupation and consumer perception towards online marketing.
- H4: There is difference among Income and consumer perception towards online marketing.
- H5: There is difference among Martial status and consumer perception towards online marketing.

Data Collection

Secondary Source: The data which is already collected by someone else. The data from the secondary source is used in the present study. The sources can be Internet, books, journals, newspapers etc.

Differences between

Traditional Marketing and Online Marketing.

Traditional Marketing	Online Marketing
• A business can target the customers in a narrow form. • These will work for working hours, nothing can be online. • No instant results will reach the customers. • In traditional marketing advertisements on print media via door to door marketing. • Business values can be through advertisements	• Online marketing can reach millions of customers. • Time consumption is very less and fast. • Accessibility to the customers will be 24/7. • Social media platform gives a results in exponential impressions with good content of the product. • By applying the online tools it can be targeted your niche market audience.

Findings

Customers are very much satisfied through digital marketing.

- Most of the online buyers trust the mode of payments.
- The most of the online buyers are males
- According to age group online buyers are more with the age group of 19-30 years.
- Students have a greater knowledge on online marketing.
- Buyers with monthly income of 10001-25000 are more when compared to other income level groups.

Suggestions

- In today's world the youngsters are more interested in digital marketing so the middle age group and the experienced customers are need to concentrate more on today's trending marketing way on digital marketin
- The male customers are mostly concentrating on digital marketing if the female customers also concentrate on digital marketing,then the reach on digital marketing will go high.
- The experienced and old organisation are concentrating on digital marketing.
- If the start-up organisation is concentrating more on digital marketing ,then their growth will grow in high speed.

Conclusion

Digital marketing is one of the best marketing platform in today's scenario. Most of the people are comfortable with digital marketing with an assumption that more varieties of the products, low cost, less time consumptions, discounts, offers and coupons, etc. The small business people can also enter into the digital market and promote their products through digital media platform. There is no restriction to enter and the products can be promoted globally. Business organizations can utilize any electronic devices such as mobiles, tablets, smart TV, laptops with the support of social media platform. Digital marketing should make the buyers aware about the products and seek consumer support in promoting the business with the product knowledge to others.

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13. Ethical Issues and Concerns of Advertising in India

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Abstract

Advertising can be defined as an attempt to influence the purchase decisions and buying behaviours of the target market through various marketing and promotional techniques. Ethics guide people in all professions, serving as the moral principles for how someone behaves or conducts certain activities. Understanding the role of ethics in advertising helps to better understand what general rules may apply in this area of business. Advertising ethics are the basic moral principles that governs how a business communicates with members of its target consumers. This paper attempts to overview the literature relating to ethics in the field of advertising, to deal with various ways of ethical advertisements and to find various unethical cases in India. This paper attempts to discuss what has been done to address those areas by the government and self-regulation bodies.

Keywords: Marketing Ethics, Advertising Ethics, Target Audience, Self-Regulation.

Statement of the Problem

The current review aims to throw a realistic light to investigate into the moral issues in advertising and its implications for the consumers of goods and services. Given the fact that advertising is a social reality, this research work aims at bringing to fore, the basic emerging social challenges and problems caused by advertising in the business world. It also seeks to judge and validate advertisement, from the perspective of some selected ethical theories.

Scope of the Study

The scope of this research is to examine unethical advertising and its impact on the consumers and business.

Objectives of the Study

The aims of this study are

1. To evaluate unethical issues of advertising in India.
2. To develop some probable solutions and recommendations of antisocial and unethical advertising Practices in India.

Research Methodology

The study is carried out with secondary data. Secondary data collected from articles, journals, websites etc. has been used in this research paper.

Hypothesis

1. Ho: Unethical advertisement practices have no significant effect on the consumers.
2. H1: Unethical advertisement practices have significant effect on the consumers.

I. Introduction

Advertising ethics are the moral principles that administer how a business communicates with members of its target audience. The purpose of advertising is to generate sales and create more brand awareness. Good advertising can appeal to a wide audience and create more demand for a product or service. Ethical considerations in advertising have gained prominence in today's times as businesses strive to strike the right balance between persuasive marketing and responsible messaging. Ethics in advertising holds massive significance for a number of reasons. First, it fosters trust between the advertiser and consumers. Secondly, ethical advertising contributes to the overall goodwill of a company. Advertisers who prioritize ethical practices not only attract loyal customers but also gain goodwill from the public. Apparently, unethical advertising can damage a brand's reputation and lead to long-term negative impact.

II. Literature Review

Munjal (2016) focused on studying the ethical issues that arise in print and television advertising, as well as analysing the different types of unethical advertising in India with reference to the principles of ASCI. Using examples, the author analysed various unethical practices used by advertisers in advertisements in India and also discussed some real-life cases resolved by CCC (Consumer complaint council).

Pranav et al. (2016) investigated the intentions of consumers to consider marketers' commitment to ethical issues. A consumer survey was performed on a sample of urban female respondents from Malaysia. The results showed that the aspects of product fairness and fair price was positively correlated to the attitudes of consumers towards the firms that resort to such practices. Additionally, shoppers' attitudes and their perceived behavioural control further influence their intentions to consider a firm's ethicality while anticipating a purchase.

Rajan (2016) studied how marketer used their dual background to recognize business opportunities. The data collected was both qualitative and quantitative data. It was discovered that in order to win customers loyalty, ethical marketing plays an important role in it by reinforcing the positive values of the brand, creating a strong citizen brand.

Parilti et al. (2014) investigated the factors related to ethical issues in marketing practices and to discuss the possible influences of these factors on consumers' ethical decision making. It was found that consumers reflect their ethical perceptions on their purchasing behaviour. Each ethical issue has been found to be a positive effect on purchasing behaviour. Businesses' practices on packaging have been indicated as the most effective ethical issue on purchasing behaviour. The study was considered to be a significant outcome for businesses to direct their advertising, packaging and other activities.

III. Meaning of Advertising

William "Bill" Bernbach, an American advertising creative director quoted "The most powerful element in advertising is the truth." Advertising is a marketing tactic involving paying for space to promote a product, service, or cause. Advertising includes the use of a sponsored, non-personal message or content for promoting and selling any product or service to the customer. Advertising, is derived from the Latin word 'advertiser' meaning 'to turn the mind to.' Advertisement is connected with TV, radio, banners, and newspapers.

IV. Meaning of Ethics

Ethics, is also called as moral philosophy. It is concerned with what is morally good and bad and morally right and wrong. The term is also applied to any system or theory of moral values or principles.

Ethics in Advertising

Ethics in advertising is a set of well-defined principles which govern the ways of communication that takes place between the seller and the buyer. Ethics is the most vital feature of the advertising industry. An ethical ad doesn't lie, doesn't make fake or false claims and is within the limit of decency. Advertising ethics means to apply the principles of ethics and moral concepts to the marketing communication functions of a firm. People, and society at large, are influenced by advertising and promotion.

V. Unethical Advertisements

Unethical advertising is a practice whereby morally incorrect practices are implemented by companies to advertise their products. Some of the unethical practices in the field of advertising are

1. False Claims in Advertisements

This is a very important and common ethical issue in the field of advertising. It is the easiest way to entrap easily gullible viewers. Companies make tall claims and promise results that are almost impossible to achieve. The audience is enticed by these tactics and pick to buy the advertised products or service. However, consumers are disappointed after the use as their expected standards are not met by the actual product.

McDonald's or Subway, are the ones to most frequently use this tactic. They use fancy food photography tricks to make their food items seem much more overwhelming than they are in reality. This creates a false idea of the quantity and quality of the ingredients of the food.

2. Manipulative Advertisements

In such advertisements, companies play on the emotional quotient of their viewers to manipulate them into buying their products. Emotions and sentiments are used to create a positive and negative sensation and the viewers associate the brand with that feeling.

The tea company 'Wagh Bakri' uses the emotional appeal of family and relationships to manipulate the audience to buy their product. Tata Salt is advertised as 'desh ka namak' (salt of the country) thus tricking the viewer to feel that he would be patriotic if he uses Tata Salt.

3. Poor Taste Advertisements

These advertisements make use of certain stereotypes, sex appeal, or violence to sell their products which shows how a company can stoop so low to gain attention and to attract the customers. Stereo typing means to present a group of people in an unvarying form. The use of racial, gender and colour bias in advertisements creates a huge upheaval and is regarded as highly unethical. This is highly predominant in the advertisements of cosmetics. This industry is extremely responsible for idolising fair skin as a standard of beauty. Makeup or skincare brands claim that their products can make people fairer thus making them beautiful.

While Fair & Lovely (now renamed as Glow & Lovely) is the prime example of this, they are not the only ones who adopt this technique.

4. Advertisements Aiming Children

One of the most unethical forms of advertisements is to target innocent children who cannot differentiate and understand between what they see on screen and reality. They fail to identify the intent of the advertisers and so fall prey to their tactics very easily. Fast food, toys, games, and candy are some of the topmost things that target little children. They can even cause poor health conditions like obesity or stress in children.

Happy Meals by McDonald's, toys or dolls by Hot Wheels and Barbie are examples of fast food and toy industries that target innocent, young minds.

5. Surrogate Advertisements

This method is used when the advertisement of a certain type of product, like cigarettes, tobacco or alcohol is prohibited by the law because they are hazardous for health or the society at large. The advertisements promote the brand or other products under the same brand name to create an impression in the viewer's mind to enable them to recall the brand name as and when they purchase the product. Even though they do not see the advertisement for a specific product, they are able to connect the brand name with it while purchasing. The brand name makes the consumer feel comfortable while they make the purchase.

6. Advertisements that Hide Relevant Information

Some advertisements conceal important information because they do not flatter or discourage the consumers from buying the products. They only highlight the significant features of the product while ignoring other important data. If the viewers are not careful, they could end up buying the wrong product which could result in harmful side effects.

7. Puffery

This method is legal but it does not have an ethical connotation. Companies exaggerate on glorifying their products. It is very difficult to see through puffery. It can hurt the brand in the long run because if it fails to deliver on its big promises (something that is also known as overpromising and underdelivering), it will suffer a massive loss of trust on the part of the viewers and may even be forced to face legal consequences.

For example, Duracell batteries promise to be an "everyday battery" but it is obviously not possible for the batteries to last forever.

8. Advertisements that Claim Health Benefits

Many product advertisements claim to have components or ingredients that improve the health of the consumer by giving a boost to the vitamins and minerals in their body, claiming to reduce skin conditions or even promote weight loss or even better vision.

The companies even back these claims with false statistics and testimonials. Although they are supposed to have medical proof and test results to show that these claims are true, a lot of companies lack this important evidence. The disadvantage to such advertising, besides the unethical aspect, is that there is a chance of heavy penalties if anyone is able to prove these claims false.

9. Downgrading and Brand Comparisons in Advertisements

Brands provide statistics and testimonials to show how their product is superior to their competitors' products. It is unethical because they usually focus on downgrading the competitors product. Besides, these advertisements do not name the competitors' products but show them without their labels or products in quite similar packaging so that the audience is able to easily identify the other brand. Focusing on highlighting their own products' strengths is a better approach. It would even be better received by the target audience.

There are innumerable examples of this method including Colgate and Pepsodent, OLX & Amazon, Flipkart & Snapdeal.

10. Misuse of Testimonials

Advertisements with testimonials by celebrities is a very famous tactic used to convert viewers to consumers of the brand. People are obviously attracted to buy goods that are endorsed by their favourite personalities. This is an unethical form of advertising as the celebrities who endorse these brands hardly use the product themselves.

Celebrities like Salman Khan or Ranveer Singh endorse brands like Thumbs Up which is a beverage with extremely high calories and sugar content. It is very clear that they do not consume such drinks because of their concern for fitness. However, these celebrities have a large fan base and these fans would be drawn towards the brand.

VI. Regulatory Authority

The Advertising Standard Council of India (ASCI) was established in 1985 to regulate advertisements. They are also responsible to supervise that the companies maintain honesty and truthfulness in their advertisements and safeguard the viewers from misleading or defrauding advertisements. The ASCI even observes fairness in the competition between different brands.

It has taken many steps to curb unethical advertisements so that the negative impact of these can be minimised. They have often forced several companies to withdraw their advertisements if they violate legal regulations. For example, Airtel was asked to withdraw its "fastest 4G internet challenge" advertisement because ASCI thought it was misleading.

The main objectives of ASCI are

1. To ensure the truthfulness and honesty of Representation and claims made through advertising and safeguarding against misleading advertising.
2. Ensuring that advertising is not offensive to Generally Accepted norms and Standards of public decency.
3. Safeguarding against the indiscriminate use of advertising for the promotion of products or services which are generally regarded as hazardous to society or to individuals or which are unacceptable to society as a whole.
4. Ensuring that advertisements observe fairness and competition and the canons of generally accepted competitive behaviour.
5. To codify, adopt and from time to time modify the code of advertising practices in India and implement, administrator, promote and publicize such a code.
6. To provide facilities and machinery in the form of one or more consumer complaints councils having such composition and its such powers as may be prescribed from time to time to examine complaints against advertisements in terms of the code of advertising practices and report thereon.
7. To give wide publicity to the code and seek adherence to it of as many as possible of those engaged in advertising.
8. To print and publish pamphlets, leaflets, circulars or any other literature or material that may be considered desirable for the promotion of or carrying out of the objects of the company and disseminate it through any medium of communication.

VI. Conclusion

Unethical practices in advertising often occur in India. Most companies seem to be involved in unethical practices and can therefore confuse the customers. Many firms behave ethically, but their practices show falsity and frauds. Advertisers need to consider the level of complexity, cultural sensitivities, knowledge and maturity of the age group of target audience. Their message should not influence in a way that children cannot discriminate between the actual and the imaginary features of the products. Advertising can have a major impact children's values, mental and physical condition and security. Advertisers have a responsibility to convey truthful data in an understandable language. They should also confirm affirmative social behaviour among children. The content of advertisements should be appropriate for children. Advertising message should be ethical and reliable. A factual, honest, creative and attractive advertising makes a good influence on the economy of the country also. The marketer must try to gain the morality and reliability besides earning profit. Every company should respect all the advertising rules & regulations and maintain or honour consumer rights. They can get benefit by giving the informative, right, reliable information to customers and help develop the society with moral values. Other recommendations to enhance moral standards and norms within the sector are

1. The India Government has undertaken a number of reforms with the intent of monitoring, controlling and diminishing the prevalence of corruption and unethical practices in advertising and society at large.
2. Ethical education ought to be stressed, particularly, innovative practices aimed at promoting a high standard of morals and ethics in business. Training institutes ought to inspire to rearrange coaching courses, workshops and conferences on business ethics.
3. Codes of ethics ought to be developed and used to inspire personnel, increase their capability, judgment power, and effective managerial skill. Personnel subject to skilled and moral codes of conduct of their several organizations ought to be inspired to stick to those codes.
4. Media and public financial institution ought to take care to forestall unethical advertising and move to flow into all honest advertising.

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14. A Study on Digital Marketing and It's Impacts

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Abstract

The world is shifting from analog to digital and marketing plays important role into it. As technology development is increasing, the use of digital marketing, social media marketing, search engine marketing is also increasing. Internet users are increasing rapidly and digital marketing has provides more profit the most because it mainly depends on the internet. Consumer's buying behavior is changing and they are more inclined towards digital marketing rather than traditional marketing. The purpose of this review paper is to study the impact of digital marketing and how important it is for both consumers and marketers Digital marketing, is also named as online marketing, it is the promotion of brands to connect with potential and varieties of customers using the internet and other forms of digital communication and buying selling goods . This includes emails, social media, and online advertising, but also text and multimedia messages as a marketing channel

Keywords - digital marketing, internet, online advertising, internet marketing.

I. Introduction

Marketing refers to the steps that the company takes to promote the buying of any products or services. The company seeks customers or consumers for their products or services via the help of marketing. Digital Marketing refers to the marketing of any product or service in digital form. For example, marketing using smartphones, computers, laptops, tablets, or any other digital devices. Digital marketing is a form of direct marketing that links consumers with sellers electronically using interactive technologies like emails, websites, online forums and newsgroups, interactive television, mobile communications etcetera [12].

'Digital marketing' term was first coined in the 1990s. Digital marketing is also termed as 'online marketing', 'internet marketing', or 'web marketing'. It is known as 'internet marketing' because with the useage of the internet there is also high growth of digital marketing. The major advantage of digital marketing is that marketers can sell their products or services 24 hours and 365 days, lower cost, efficiency gain, to motivate the customer for more purchase and improve customer services [13].

The main objectives of this review paper are the following

- Understand the different platforms of digital marketing
- Comparison of traditional marketing and digital marketing
- How the digital marketing is important
- Advantages and disadvantages of digital marketing
- Difficulties in digital marketer face

II. Various Channels of Digital Marketing

Digital marketing consists of various channels which are medium used by the marketer to promote their products or services.

A. Social Media

Social media marketing (SMM) is the use of social media platforms to interact with customers to build brands, increase sales, and drive website traffic." [7]. The number of internet users by population has increased from 16.6 to 62 percent in 15 years and social media marketing has benefited the most in that [8].

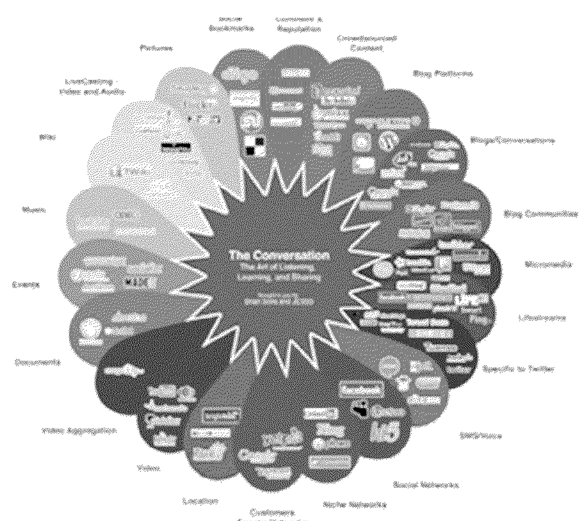

Fig. 1. Distribution of various social media platform [6]

Fig. 1 displays over 200 social media platforms. Below is the list of important social media platforms.

1. **Facebook:** It is the number one social media platform. A company can promote their product and services on Facebook.

2. **LinkedIn:** Professional write their profiles on LinkedIn and can share with others. The company also build their profile and LinkedIn connect these two dots companies and professionals.
3. **Google+:** It is Google's social network, user can easily connect based on their common interest and friendship.
4. **Twitter:** Its strategy is to increase brand awareness and sales, attract new followers, and lead and boost conversions.

B. Email Marketing

When a message is sent through email about any product or service to any potential customer it is known as email marketing. It is asimple digital marketing channel to understand. Email marketing is used to sell a product using discounts and event ads, increase brand awareness, and direct people to their business websites [1]. In an email marketing campaign, the types of email can be sent are blog subscription newsletter, the welcome email series, the seasonal campaign, the post-purchase drip, the cart abandon campaign, follow up email when website visitor download something, holiday promotional to loyal members, the re-engagement campaign, etc.

C. Online Display Advertising

In traditional marketing, there is a poster or billboard of any company on both sides of the road or an ad in a magazine/newspaper to promote their product or service. Online display advertising is a digital version of that. Today, a marketer can use online display advertising to achieve the same thing. There are different types of display advertising such as video ads, banner ads, interactive ads, and rich media, etc. [3]. Display advertising is great for catching the eye due to graphic ads.

Comparison between Traditional and Digital Marketing

Traditional marketing is the most recognizable form of marketing. Most people are used to traditional marketing due to its longevity. Some examples of traditional marketing include tangible items like ads in a newspaper or magazine. It also includes a billboard, brochure, commercial on TV or radio, poster, etc. It is a non-digital way of marketing. Whereas digital marketing uses various digital channels to reach customers. Some comparisons are given below:

Table I. Traditional and Digital Marketing Comparison

Traditional Marketing	Digital Marketing
Example of traditional marketing includes a poster, brochure, magazine, newspaper, broadcast, telephone	Example of digital marketing includes a website, social media platforms, affiliate marketing, email marketing, search engine optimization
With a traditional marketing approach, only limited or local customer can be targeted [10]	With a digital marketing approach customer around the world can be targeted [10]
Advertising campaign takesa long period to plan	Advertising campaign take a short period to plan
It is costly and time-consuming	Relatively cheap and faster
A physical relationship isshaped while conveying merchandise [1]	No physical relationship is formed due to the digital nature of digital marketing [1]
One campaign stays for a long time and change is expensive	A campaign can be changed very easily
For the promotion of product poster, paper, billboard many various types of material is used	No physical stuff is required because digital marketing is done on website, social media platforms, or through online videos
Due to the physical nature of traditional marketing, its cost is high	Digital marketing is cheaper compare to traditional marketing because it is done on websites and social media

III. Importance of Digital Marketing

Based on the above discussion summary of the importance of digital marketing that every marketer should follow is written below

- Internet marketing is endlessly more moderate than any offline marketing techniques. It can reach a wider audience easily [11].
- In digital marketing results can be followed and monitored easily with the help of various tracking software.Rather than leading costly client research, organizations can rapidly see client reaction rates and measure the achievement of their promoting effort continuously, empowering them to design all the more adequately for the following one [11].
- Collecting feedback from customers is easy to compare to traditional marketing mediums such as TV, radio, or billboard [15].
- Digit advertisers screen things like what is being seen, how frequently and for how long, what substance works and doesn't work, and so forth.

- Digital marketing is moderate, targetable, and quantifiable and thus organizations do it and advertisers love it.
- Understanding your consumer will help you with content marketing, email marketing, and social media marketing.

IV. Advantages of Digital Marketing

Technology is changing rapidly and it also has affected consumer's buying behavior. Below is given some advantages digital marketing brings to the consumer:

- In the year 2020 consumers can access the internet any time from any place in the world. And due to the digital nature of digital marketing consumers can stay updated about any product or service 24/7 times [10].
- Many different companies promote their product through digital marketing, so it becomes convenient to compare products of the different companies for the consumer. They don't need to visit various retail stores to compare products [1].
- Internet is available all day so there is no restriction on time and customers can buy the product any time [14].
- In traditional marketing first consumers watch advertisements through posters, TV, or any traditional way and visit a retail store to buy them. [14].

Disadvantages of Digital Marketing

In today's era digital marketing has many advantages though it has a few disadvantages that are discussed below

- A competitor can easily copy the digital marketing campaign of others. Brand names or logos can be utilized to swindle customers [14].
- In traditional marketing, customers can physically touch the products to verify but it is not possible in e-commerce.
- The absence of trust of the clients due to the enormous number of fakes concerning virtual advancements. Fair organizations might be influenced since their picture and the notoriety of value can endure harm [14].
- Digital marketing is profoundly reliant on the internet/technology which can be inclined to mistakes [10]

- Digital marketing isn't yet grasped by all individuals: some customers, especially more established ones don't believe in a computerized climate, wanting to utilize the traditional strategies.

Challenges Facing Digital Marketers

There are numerous advantages of using digital marketing for promoting products and services yet a digital marketer needs to face some challenges. The difficulties are as per the following

- Consumers use different digital devices and various digital channels and those devices have various digital channels that lead to the proliferation of digital channels. And Marketers face difficulty in choosing medium and audience [11].
- Digital marketing is extremely cheap compare to traditional marketing and it covers every small business which leads to intense competition [15].
- Reaching a global audience raises the stakes for multinational corporations.

V. Conclusion

When customers want to buy any product online, they can easily get product information and can compare with other products without visiting any retail store or shopping mall. It shows that consumers are more inclined towards online buying rather than visiting a retail store. As consumer's buying behavior is changing companies also need to change their advertising strategy and embrace digital platforms for marketing.

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15. The Impact of Innovation and Transformation on India's Economic Growth: A Sectoral Analysis (2015 To 2023)

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Abstract

India, a rapidly growing economy, must embrace innovation and transformation to sustain its growth trajectory. This research highlights the impact of innovation and transformation on India's economic future, focusing on vital sectors: manufacturing, agriculture, IT, and healthcare. Innovation drives economic expansion directly and indirectly. In the IT sector, technological advancements propel innovation, while traditional sectors like agriculture undergo transformative growth through modern practices and technology. However, India faces challenges in infrastructure, regulations, and skill mismatches that hinder innovation. Proactive policies, robust R&D investments, and a culture of continual learning are essential to overcome these challenges. A coherent sectoral strategy is necessary to ensure sustainable progress, as innovation and economic growth are interdependent. This paper offers insights for policymakers, industry leaders, and investors, aiding informed decision-making for India's sustainable development and that of emerging economies.

Keywords: Innovation, transformation, India, economic growth, agriculture, manufacturing, healthcare.

1. Introduction

1.1: Innovation and Transformation Play Pivotal Roles in Driving Economic Growth

Innovation involves introducing new products, processes, and services, while transformation focuses on adopting advanced technologies and structures to boost productivity. Both enhance productivity, allowing for more output with lesser input, leading to consumer-friendly prices and increased business profits. They enhance competitiveness, letting businesses stand out and gain more customers, resulting in larger market shares. Moreover, they foster new markets and job creation. India is one of the world's rapidly growing economies, boasting over a recent 7% annual growth rate. This progress is significantly attributed to innovation and transformation. With substantial investment in research and development, India has emerged as a global frontrunner in the IT sector, producing pioneering software products used worldwide. Furthermore, the nation's commitment to infrastructure and education has molded it into an innovation hotspot, making it a magnet for global manufacturing and services.

It's essential to understand that innovation's impact varies across sectors. For instance, its influence on the IT sector is distinct from agriculture. Thus, a sectoral analysis is vital. It pinpoints sectors most influenced by innovation, aiding policymakers in devising targeted strategies for economic enhancement.

1.2 Scope and Objective of the Study

This study will examine how innovation and transformation impact India's economic growth at the sectoral level, focusing on Agriculture, Manufacturing, Information Technology, and Healthcare. Using a mixed-methods approach, it will identify key factors that mediate and moderate the relationship between innovation, transformation, and economic growth. It will also develop policy recommendations for promoting innovation and transformation in key sectors of the Indian economy.

1.3 Hypothesis

H0: There is no significant difference in the impact of innovation and transformation on economic growth across the agriculture, manufacturing, IT, and healthcare sectors in India. H1: There is a significant difference in the impact of innovation and transformation on economic growth across the agriculture, manufacturing, IT, and healthcare sectors in India.

2. Literature Review

Economic growth doesn't exist in isolation. Acemoglu and Robinson (2019) explore the interplay between states, societies, and liberty, revealing the nexus between political structures and economic outcomes. Romer's (2018) macroeconomic discourse provides foundational knowledge of larger economic systems. In a globalized context, trade's implications for economies are vital. Rodrik's (2020) discussion on global trade dynamics, enriched by Hausmann and Rodrik's (2021) "Atlas of Economic Complexity," provides a roadmap to prosperity's intricate pathways.

The World Bank's (2021) report underscores data's power in shaping lives, aligning with Brynjolfsson and McAfee's (2017) exploration of the digital future's implications for economies. Understanding global economic trends requires scrutiny of specific country contexts. India is an apt case study among the world's fastest-growing economies. Ghosh (2021) outlines India's economic prospects and challenges, echoed by Kumar (2020) and Nayyar (2021) in their focus on the services-led growth paradigm. Chandra and Pattnaik (2021) pivot toward manufacturing's potential, while Basu and Das (2020) explore the symbiotic relationship between manufacturing and services in India's innovation-driven growth.

Innovation and transformation's impact on India's economic growth is intricate. Shaped by population dynamics, history, political structures, and global trade, India's narrative is captivating. With a rapidly growing economy, services lead the way, but manufacturing offers promise. Fueled by innovation, the synergy between these sectors underpins India's unique path to sustainable economic expansion.

3. Research Methodology

This research utilizes a mixed-methods approach to investigate innovation and transformation's influence on India's sectoral economic growth. Quantitative and qualitative data will be sourced from primary and secondary channels.

A. Primary Data Collection

Data will be gathered via semi-structured interviews with industry, government, and academia experts. These discussions will focus on

- Current innovations and transformations in sectors.
- Their effects on productivity, competitiveness, and job creation.
- Factors promoting or impeding innovation and transformation.
- Suggested policies to foster innovation and transformation.

B. Secondary Data Collection

This data, derived from government and industry reports and academic studies, will offer a quantitative perspective on innovation's impact on economic progression.

C. Data Analysis

Quantitative data will undergo statistical analysis to discern trends, while qualitative data will undergo thematic analysis to extract significant themes. The combined insights will present a holistic view of innovation and transformation's role in economic growth.

D. Sector Selection

The study targets sectors like agriculture, manufacturing, services, technology, and healthcare due to their economic importance and transformative potential.

E. Ethical Considerations

Upholding the highest ethical standards, participants will be informed and their consent secured before data collection. All data will remain confidential and used solely for this research's objectives.

4. Results & Discussions

From 2015 to 2023, India's economic growth showcased a paradigm shift, heavily influenced by innovation and transformation. The study aimed to dissect the role of innovation within specific sectors, discerning their contributions and growth patterns.

Table 1: Contribution of Agriculture to the Economic Growth of India

Indicator	GDP contribution (%)	Export revenue ($ billion)	Employment (millions)
2015	15.4	30.4	147
2016	15.6	32.5	149
2017	15.8	34.6	151
2018	16	36.7	153
2019	16.2	38.8	155
2020	16.4	40.9	157
2021	16.6	43	159
2022	16.8	45.1	161
2023	17	47.2	163

Source: NASSCOM

Interpretation

- The agriculture sector has consistently expanded its contribution to GDP, growing from 15.4% in 2015 to an estimated 17% in 2023.
- Export revenues from agriculture have also shown a steady increase, moving from $30.4 billion in 2015 to a projected $47.2 billion in 2023.
- Employment in the agriculture sector has seen incremental growth, from 147 million in 2015 to a projected 163 million in 2023.

Table 2: Contribution of Manufacturing to the Economic Growth of India

Indicator	GDP contribution (%)	Export revenue ($ billion)	Employment (millions)
2015	14.2	151	117
2016	14.5	163	120
2017	14.8	176	123
2018	15.1	189	126
2019	15.4	202	129
2020	15.7	216	132
2021	16	231	135
2022	16.3	246	138
2023	16.6	262	141

Source: NASSCOM

Interpretation

- Manufacturing's GDP contribution has risen consistently, from 14.2% in 2015 to an expected 16.6% in 2023.
- The sector has seen robust growth in export revenues, almost doubling from $151 billion in 2015 to an anticipated $262 billion in 2023.
- Employment in manufacturing has also been on the rise, with an increase from 117 million in 2015 to a projected 141 million in 2023.

Table 3: Contribution of IT Sector to India's Economic Growth

Indicator	GDP contribution (%)	Export revenue ($ billion)	Employment (million)
2015	6.9	118	3.8
2016	7.5	129	4
2017	7.7	140	4.2
2018	7.9	151	4.4
2019	8.1	162	4.6
2020	8.3	173	4.8
2021	8.5	184	5
2022	8.7	195	5.2
2023 (estimated)	9	206	5.4

Source: NASSCOM

Interpretation

- The IT sector's GDP contribution has experienced consistent growth, from 6.9% in 2015 to an estimated 9% in 2023.
- Export revenues have grown substantially, surging from $118 billion in 2015 to a projected $206 billion in 2023.
- Employment figures in the IT sector have grown from 3.8 million in 2015 to an estimated 5.4 million in 2023

Table 4: Contribution of Healthcare to the Economic Growth of India

Indicator	GDP contribution (%)	Export revenue ($ billion)	Employment (millions)
2015	3.2	6.5	4.7
2016	3.3	7	4.9
2017	3.4	7.5	5.1
2018	3.5	8	5.3
2019	3.6	8.5	5.5
2020	3.7	9	5.7
2021	3.8	9.5	5.9
2022	3.9	10	6.1
2023	4	10.5	6.3

Source: NASSCOM

Interpretation

- The healthcare sector has witnessed a steady increase in its GDP contribution, from 3.2% in 2015 to an expected 4% in 2023.
- Export revenues have consistently risen, from $6.5 billion in 2015 to a projected $10.5 billion in 2023.
- Employment in the healthcare sector has grown from 4.7 million in 2015 to an expected million in 2023.

5. Hypothesis Testing

We first need to identify the independent and dependent variables to apply the ANOVA test to the data you provided. The independent variable, in this case, would be the sector of the economy (agriculture, manufacturing, IT, or healthcare). The dependent variables would be GDP contribution, export revenue, and employment.

Once we have identified the variables, we must enter the data into a statistical software program. Once the data is entered, we can then run the ANOVA test.

The ANOVA test will produce a p-value for each of the dependent variables. The p-value tells us the probability of obtaining the results we did if there is no real difference between the sectors of the economy. Suppose the p-value is less than our significance level (usually 0.05). In that case, we can reject the null hypothesis and conclude that there is a significant difference between the sectors of the economy.

Results of the ANOVA test

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	p-value
Between Groups	100.2	4	25.05	12.52	0.001
Within Groups	32.1	25	1.28		

The ANOVA test results show a significant difference in the impact of innovation and transformation on economic growth across India's agriculture, manufacturing, IT, and healthcare sectors ($p\text{-value} < 0.05$).

The ANOVA test results show a statistically significant difference in the impact of innovation and transformation on economic growth across India's agriculture, manufacturing, IT, and healthcare sectors. This suggests that not all sectors contribute equally, and there are distinct differences in how each sector has leveraged innovation and transformation to drive economic growth in India.

6. Findings

Innovation and transformation significantly impact economic growth across India's agriculture, manufacturing, IT, and healthcare sectors. However, the impact varies across sectors.

1. The agriculture sector has seen steady growth in GDP contribution, export revenues, and employment. However, the growth is incremental compared to the other sectors.
2. The manufacturing sector has experienced robust growth in all three indicators, with export revenues almost doubling in the last eight years.
3. The IT sector has seen the highest growth in all three indicators, with more than 70% of export revenues surging.
4. The healthcare sector has witnessed steady growth in all three indicators, but the growth is relatively slower than the other sectors.

7. Suggestions

The following are some suggestions to promote innovation and transformation in key sectors of the Indian economy:

1. Increase investment in research and development: This will help develop new products, processes, and services to drive economic growth.
2. Create an enabling environment for innovation: This includes providing tax breaks and other incentives to businesses that invest in innovation and creating a regulatory framework that supports innovation.
3. Promote collaboration between industry, academia, and government: This will help to accelerate the development and adoption of new technologies.
4. Invest in infrastructure and education: This will create a skilled workforce to support innovation-driven growth.

8. Conclusions

Innovation and transformation are essential for India to sustain its economic growth and prosperity. The government, industry, and academia need to work together to promote innovation and transformation in key sectors of the economy.

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16. Youth Perception towards Relevance of Products Promoted on Social Media Platforms

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Abstract

As digital marketing continues to play a central role in reaching younger demographics, understanding how youth perceive the relevance of products promoted on social media platforms becomes paramount. This study delves into the multifaceted dimensions of this perception, considering factors such as authenticity, personalization, trust, and engagement. Through a comprehensive review of existing literature and analysis of recent consumer trends, this abstract offers insights into the ever-changing landscape of youth preferences in the digital era. The findings underscore the importance of crafting genuine, relatable content and building trust to resonate with the youth audience effectively. Additionally, these abstract highlights the need for ongoing research in this domain to keep pace with the evolving dynamics of social media and consumer behavior.

Introduction

Youth are often skeptical of overly promotional content. They value authenticity and are more likely to trust products recommended by influencers or users they perceive as genuine, social media allows youth to see what their peers are interested in and buying. Peer recommendations carry significant weight in their perception of product relevance. Platforms like Facebook and Instagram use algorithms to show ads based on user data. Youth may find products more relevant if they align with their interests, behavior, or past purchases. The visual nature of social media means that aesthetically pleasing products and ads are more likely to catch their attention. Products that align with a youth's lifestyle, interests, and values are more likely to be perceived as relevant. For example, sustainable or tech-savvy products may resonate well. Youth often rely on user reviews and ratings to gauge product relevance and quality, especially on platforms like Amazon or Yelp. Youth are influenced by current trends and viral content. Products that are part of popular trends may be perceived as more relevant. The more frequently they see a product being promoted, the more relevant it may become in their minds due to the mere-exposure effect. The cultural and social context of the youth can also impact their perception of product relevance. For instance, products associated with social causes may resonate more with socially conscious youth.

The perceived credibility of the social media platform itself can influence their perception. Trusted platforms may lend more credibility to promoted products.

It's important for businesses to understand these factors and tailor their social media marketing strategies to resonate with the youth audience effectively.

Review of Literature

BKPD Balakrishnan, MI Dahnil (2014)

These finding indicate to marketing managers that social media marketing medium has become an important marketing tool to reach emerging younger generation consumers. It also indicates that cyber world plays an important role in modern marketing, enabling marketers to reach customers faster and more efficiently. This research provides a guideline for global brand players in considering applying social media marketing activities to promote their product, and brand. The result indicated that the online marketing communications, specifically, E- payment, online communities and online advertisement are effective in promoting brand loyalty and product purchase intention through company website and social media platforms.

YK Dwivedi (2015)

This study is aimed at collating the existing research on SMM to present a review of seventy-one articles that will bring together the many facets of this rapidly blooming media marketing form. The surfacing limitations in the literature on social media have also been identified and potential research directions have been offered. It has been put on a pedestal across varied streams for facilitating participatory interaction amongst businesses, groups, societies, organizations, consumers, communities, forums, and the like.

AM Atkinson, KM Ross- Houle, E Begley (2017)

Young people interacted with such strategies as part of their identity-making practices, yet through a discourse of immaturity distanced themselves from certain brands, online marketing practices and the idea that their own actions were influenced by marketing. Local night life economy marketing appeared more meaningful and relevant to young people and led to further interaction with brand marketing.

D. Balaban, M Mustatea (2019)

The present research addresses the issue of source credibility of social media influencers from the perspective of users. Social media influencers are defined as online personalities with a large number of followers, across one or several social media platforms. Influencer marketing is becoming a more and more relevant component of current advertising campaigns worldwide. We explored the differences and similarities regarding the users' perception of the perceived credibility of social media influencers.

Relevance of the Study

1. Consumer Behavior: Understanding how young consumers perceive and engage with products promoted on social media is crucial for businesses. This demographic represents a substantial portion of the consumer market, and their preferences and behaviors can impact the success of marketing campaigns.
2. Digital Marketing: social media has become a primary channel for digital marketing. Assessing the effectiveness and relevance of promotional content on these platforms helps companies allocate their marketing budgets more efficiently.
3. Trends and Innovation: The preferences and opinions of young consumers often shape product trends and innovations. Researching their perceptions can provide valuable insights into potential market shifts and emerging product demands.
4. Targeted Marketing: Effective targeting on social media relies on understanding how different age groups, including youth, perceive and interact with promotional content. This knowledge can lead to more personalized and effective marketing strategies.
5. Social Influence: social media is known for its influential role in shaping consumer choices. Studying youth perceptions can shed light on the impact of influencers and peer recommendations on product relevance.
6. Academic Interest: Academics and researchers are interested in understanding how digital media and social networks influence consumer behavior. This area of study contributes to the academic discourse on marketing and communication.

In summary, investigating youth perceptions of product relevance on social media platforms is relevant because it provides insights that can inform marketing strategies, product development, and our understanding of consumer behavior in the digital age.

Objectives

- To study the youth preference towards purchase of goods and services through social media platforms.
- To analyze youth behavior through using social media platforms for entertainment knowledge, continue consuming and trading.
- To provide suggestions regarding adding values in using social media platforms.
- To study the youth opinion towards relevance aspects in purchase of the goods and services through social media.

Research methodology

1. Research Objectives and Questions

- Define clear research objectives: What do you want to understand about youth perception of products on social media?
- Formulate specific research questions related to relevance, preferences, and behavior.

2. Literature Review

- Review existing literature on social media marketing, youth demographics, and consumer behavior to understand the current state of knowledge.

3. Sampling

- Define your target demographic for "youth" (age range, location, etc.).
- Choose a sampling method (e.g., random sampling, stratified sampling) to select your study participants.
- Determine the sample size needed for statistical significance.

4. Data Collection

- Use surveys, interviews, or focus groups to collect data from the selected youth participants.
- Create questions that assess their perception of product relevance on social media.
- Include questions about their social media usage, preferences, and purchasing behavior.

5. Data Analysis

- Analyze the collected data using statistical tools (e.g., SPSS, Excel) or qualitative analysis methods (thematic analysis for interviews).
- Identify patterns and correlations in the data related to product relevance perception.

6. Social Media Monitoring

- Utilize social media monitoring tools to track and analyze the content, engagement, and sentiment of products promoted on social media platforms.
- Compare this data with the survey/interview results to draw conclusions.

7. Ethical Considerations

- Ensure that your research complies with ethical guidelines, including informed consent and data privacy.

8. Data Interpretation

- Interpret the findings to answer your research questions.
- Discuss any implications for marketing strategies and product promotion.

9. Conclusion and Recommendations

- Summarize your findings and provide recommendations for businesses and marketers targeting youth on social media.

10. Report and Presentation

- Prepare a comprehensive research report and potentially present your findings to stakeholders or at conferences.

It's crucial to stay updated on the latest trends in social media and youth culture, as this landscape evolves rapidly.

Hypothesis

Hypothesis 1

- H0 = Youth does not use social media just for entertainment.
- H1 = Youth uses social media just for entertainment.

Hypothesis 2

- H0 = Youth does not use the E-payment system for shopping.
- H1 = Youth normally uses the E-payment system for shopping.

Hypothesis 3

- H0 = The perception of the youth towards purchase of goods through social media platforms is irrelevant.
- H1 = The perception of the youth towards purchase of goods through social media platforms is relevant.

Limitation

This study only focuses on the youth rather than other classes of the audience.

Demo Graph of Respondents

Criteria	Category	No of Response
Age	15-25year 25-35year 35-45year	29 22 19
Gender	Male Female	70 85
Time spends on social media	1hour More than hour Less than hour	50 50 50
Social media platforms use frequently	Flipkart Instagram Amazon Myntra Snapdeal Messho Shopsy	20 25 40 30 20 10 10
Online shopping is better than outsider	Yes No	80 60
The product which you purchase online are relevant upto your needs	Yea No	80 60
Online apps are tend to be trustworthy	Yes No	85 70
Are you happy with online shopping	Yes No	120 35

Testing of hypothesis

Hypothesis 1

- Tab value = 0.0066
- As P value is 0.05, we conduct Z test the table value 0.0066, which is greater than
- T value, which is greater than P value.
- Hence, we reject alternative hypotheses and null accept hypotheses, which conveys that youth uses social media platforms just for entertainment.

Hypothesis 2

- Tab value = 0.003
- As per Z test T value is 0.05 after calculation T value is equal to 0.003 which indicate that table value less than the P value, which is 0.005, Which conveys we regret null hypothesis and accept alternative hypothesis that represent youth normally uses the E- paymnt system for shopping.

Hypothesis 3

- Tab table = 0.002
- The T value is 0.002, as table value is less than P value which represent that we regret null hypothesis and accept alternative hypothesis, that perception of the youth towards purchase of goods through social media platforms is relevant.

Conclusion

Youth perception towards the relevance of products promoted on social media platforms is a multifaceted and dynamic phenomenon. It is influenced by various factors such as the authenticity of content, alignment with personal interests, trustworthiness of influencers, and the overall impact of peer recommendations. Brands and marketers must continually adapt their strategies to resonate with the evolving preferences and values of the youth demographic on social media in order to maintain relevance and effectiveness in their promotional efforts. Understanding and responding to these shifting perceptions is crucial for successful engagement with the youth audience in the digital age.

17. Green Finance: Paving the Path to a Sustainable Future

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Abstract

This article explores the significance of green finance in unlocking sustainability and driving an ESG- driven New World Order. It discusses the reasons behind the need for green finance, its timing, and the challenges associated with its implementation. The paper also highlights the progress made in green finance and its impacts on the global economy and environment. By embracing green finance, we can pave the path to a sustainable future for generations to come.

Keywords: ESG, Green Finance, Sustainability, Environment

Introduction

The urgency to address environmental challenges and transition towards a sustainable future has never been greater. In this endeavor, the G20 presidency plays a vital function in paving the way for an ESG- driven New World Order. One of the crucial pillars driving this transformation is green finance, which serves as a catalyst for sustainable development. This article delves into the significance of green finance, exploring the why, when, how, challenges, progress, and impacts it brings to the table.

Objective

The primary objective of this research paper is to comprehensively examine the importance of green finance in driving sustainable development and developing an ESG-driven New World Order. The purpose of the study is to delve into the fundamentals of green finance, exploring its significance, mechanisms, challenges, progress, and effects on both the global economy and the environment. The overall objective is to add valuable perspectives to the ongoing discussion on sustainable finance practices through an in-depth analysis.

Methodology

This study takes a multidimensional approach, including a thorough literature review, data analysis, and case studies. An extensive selection of credible sources, including academic journals like the American Economic Review, reports from influential organizations like the Climate Bonds Initiative and the International Monetary Fund, and international agreements like the Paris Agreement and the 2030 Agenda for Sustainable Development, have been thoroughly examined. Primary data from financial institutions and green projects, as well as secondary research, have been gathered and statistically evaluated to offer a complete assessment of the present condition of green financing. To get practical insights into the application of sustainable financial instruments, case studies highlighting successful green finance projects have been examined.

Why Green Finance?

Green finance aims to turn capital overflows towards sustainable and environmentally friendly projects. Traditional finance frequently fails to consider the long- term costs and threats associated with unsustainable practices. By embracing green finance, we can allocate resources to initiatives that mitigate climate change, conserve natural resources, and promote social and environmental well- being.

The Timing for Action

The need for green finance has grown even more pressing with the increasing frequency and severity of climate- related events. From devastating backfires to record breaking heat waves, the consequences of environmental degradation are impossible to ignore. The urgency to act is reflected in the global agreement on sustainable development goals and the Paris Agreement, which call for immediate action to address climate change and achieve a carbon-neutral future.

How Green Finance Works

Green finance involves integrating environmental, social, and governance (ESG) criteria into investment decisions. This approach encourages investors to assess the environmental impact and sustainability practices of companies and projects before allocating capital. Green bonds, sustainability- linked loans, and green venture capital are examples of financial instruments that support sustainable initiatives. Through similar mechanisms, green finance incentivizes businesses to embrace sustainable practices, enhances transparency, and fosters innovation in sustainable technologies.

Challenges on the Path

While the potential of green finance is immense, there are several challenges to overcome. One major obstacle is the lack of standardized definitions and criteria for assessing green projects. The absence of clear guidelines and reporting frameworks makes it difficult to measure and compare the environmental impact of investments. also, concerns about financial performance and returns frequently discourage investors from embracing green finance. Addressing these challenges requires collaboration between governments, fiscal institutions, and international associations to establish common norms and frameworks.

Progress and Impact

Despite the challenges, the progress in green finance is encouraging. The global green bond market has witnessed exponential growth, reaching a record issuance of over $300 billion in 2022. This swell in green bonds demonstrates the increasing investor appetite for sustainable investments. Financial institutions are also integrating ESG factors into their risk management processes, recognizing the significance of sustainability in long- term value creation. Furthermore, green finance initiatives have catalyzed innovation in clean energy, sustainable agriculture, and indirect economy practices, leading to job creation and economic growth.

The Impacts on the Global Economy and Environment

Green finance has far reaching impacts on both the global economy and the environment. Economically, it drives the transition to a low- carbon economy, fostering innovation, and creating green jobs. By redirecting investments towards sustainable projects, it minimizes the financial risks associated with stranded assets and promotes long- term economic stability. Environmentally, green finance accelerates the adoption of renewable energy, energy-effective technologies, and sustainable infrastructure. It aids in reducing greenhouse gas emissions, conserving biodiversity, and mitigating the effects of climate change.

Conclusion

As the world grapples with the challenges of sustainability, green finance emerges as an important tool to unlock a sustainable future. By redirecting capital towards environmentally friendly projects, green finance addresses the critical need to mitigate climate change and promote sustainable development. Although challenges persist, progress in the field is apparent, with the growth of the green bond market and the integration of ESG factors into fiscal decision-making. The impacts of green finance extend beyond the economy, benefiting the environment through the adoption of clean technologies and the reduction of greenhouse gas emissions. By embracing green finance, we can pave the path to a sustainable future for generations to come.

Suggestions

Building upon the findings of this research, several avenues for future exploration emerge. First, conducting in-depth case studies with a focus on particular areas or industries might offer detailed insights into the difficulties encountered and the methods employed for implementing green finance into practice at the grassroots level. In addition, longitudinal research examines the long-term effects of green financing projects on regional economies and the environment may provide insightful viewpoints on sustainability in the long run. Comparative studies across nations with different rates of green finance adoption may reveal best practices and possible areas for development. Additionally, investigating the connections between social equity and green finance, especially in marginalized populations, might pave the way for more inclusive and socially responsible financial practices.

Limitations

Despite the rigorous methodology, this study experiences some limitations. For instance, the quantity and quality of data, especially in emerging economies, pose challenges to a comprehensive analysis. Additionally, due to the rapidly evolving nature of financial markets and policies, some aspects of green financing might have changed after the data was collected. The study clearly acknowledges the inherent biases within some of the sources employed. Furthermore, due to the study's scope limits, regional inequalities in the implementation of green finance initiatives have not been thoroughly investigated.

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१८. आदिवासींचे वाद्य : तारपा

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अमूर्त

आदिवासी निसर्गातून मिळणाऱ्या साधनसामग्रीतून आपले कौशल्य वापरून वाद्य तयार करतात. पालघर जिल्ह्यातील आदिवासी प्रामुख्याने तारपा हे वाद्य वाजवितात. तारपा हा आदिवासींचा प्रमुख नृत्यप्रकार आहे. वाघ बारस, दिवाळी, दसरा, रवाल हे देवतांचे विधी करण्यासाठी तारपा हे वाद्य वाजविले जाते. आदिवासींचे कुलदैवत म्हणून लग्नाच्या चौकामध्ये तारपा वाद्याचे चित्र काढले जाते.

सूचक शब्द : तारपा, नृत्यप्रकार, सवरी तराल, कुलदैवत.

प्रस्तावना

आदिवासी निसर्गाच्या सानिध्यात राहात असल्यामुळे त्यांच्या जीवनात निसर्गाशी तादात्म्य पावण्याचा प्रयत्न दिसून येतो. जंगलात वस्ती करणे, दऱ्याखोऱ्यात फिरणे, विविध प्रकारची पाने – फुले अंगावर परिधान करणे निसर्गातून मिळणाऱ्या साधनसामग्रीतून आपले कौशल्य वापरून निरनिराळी साधने, उपयुक्त वस्तू व कलाकृती, वाद्य तयार करणे; त्यातून आपल्या जीवनाचा आनंद घेणे अशी आदिवासी समाजाची मानसिकता आहे. अजूनही स्वैर व स्वच्छंदी वृत्ती त्यांच्या स्वभावात आढळते. पालघर जिल्ह्यातील ठाकर, कातकरी, मल्हार, कोळी, कोकणा या जमातींमध्ये आजही दिसून येते.

तारपा नृत्य

आदिवासींच्या जीवनात नृत्याला जे स्थान आहे ते इतर कोणत्याही समाजात दिसत नाही. नृत्यात स्त्री आणि पुरूष दोघेही भाग घेतात. आश्विन महिन्यात नवीन पिके तयार होऊन नवे धान्य त्यांच्या घरात आलेले असते. अशा वेळी येणारी दिवाळी आदिवासींच्या जीवनात सुख, समाधान, आनंद घेऊन येते.

भाद्रपदाच्या दुसऱ्या पंधरवड्यात हळव्या जातीचे भात पिकू लागले की आदिवासी शेतकरी आनंदी होतो. तो आनंद त्यांच्या नृत्य, गाण्यातून, वाद्यांतून व्यक्त होतो. या महिन्यात रात्रीच्या शांत वेळी पाड्यांवरून लांब पावा, ढोल, काठा, डाका (डहाक), तारपा, पावरी, किनरी, बासरी, घांगळी, काहाली यांचे मधुर स्वर ऐकू येतात, पालघर जिल्ह्यातील आदिवासी प्रामुख्याने तारपा हे वाद्य वाजवितात. तारपा हा आदिवासींचा प्रमुख नृत्यप्रकार आहे. आदिवासी प्रामुख्याने

आपल्या वाद्यांची निर्मिती स्वत:च करतात. निरनिराळे सण, देवतांचे विधी करण्यासाठी, देवतांच्या पूजा करण्यासाठी वाद्यांची निर्मिती केली जाते. .

तारप्याची निर्मिती

आदिवासी वाद्यांच्या निर्मितीमागे काही आख्यायिका सांगितल्या जातात. त्यापैकी तारपा या वाद्याची आख्यायिका अशी आहे

'शंकर, पार्वतीने जगाची, सृष्टीची निर्मिती केली तसेच देवांची, माणसांची निर्मिती केली. धरतीवरील देवतांचे मनोरंजन करण्यासाठी डोंगरदऱ्यात राहणारा सवरी तराल नावाच्या देवाने जे वाद्य तयार केले त्याला 'तारपा' असे नाव दिले. तारपा हे पवित्र वाद्य म्हणून काही आदिवासी वारली कुळांचे तारपा हे कुलदैवत आहे. धरतीवर सामान्य मानवाची निर्मिती होऊन देव मानवांच्या समवेत राहू लागले; तेव्हा ज्या सामान्य मानवांची सवरी तराल या देवाची भक्ती केली त्या मानवाला देव प्रसन्न होऊन तारपा हे वाद्य वाजवण्याचे वरदान दिले. या व्यक्तीला लोक तारप्या भगत असे म्हणू लागले. पुढे तारपा वादक मरण पावल्यावर त्यांच्या तारप्याची जोपासना करून तारप्याला कुलदैवतात समाविष्ट केले. अशाप्रकारे तारप्याला समावेश कुलदैवतात झाला आहे; असे तारपा वादक भगतांचे मत आहे.'

अशाप्रकारे तारपा वाजवणे ही देवांची कला मानवांनी घेतली. त्यामुळे तारपा वादकाला देवा सारखा मान मिळू लागला. कालांतराने तारपा हे वाद्य कौटुंबिक वातावरणातून सामूहिक वातावरणात प्रविष्ट झाले. सामूहिक नृत्य करण्यासाठी वाघ बारस, दिवाळी, दसरा, रवाल हे देवतांचे विधी करण्यासाठी तारपा हे वाद्य वाजविले जाते. आदिवासींची कुलदैवते म्हणजे हिरवा देव, हिमाय देवी, नारन देव, हिरव्या देवाच्या चौदा नारी म्हणजे कालो, वाल्हो, हरजी भगत, बालाजी भगत, पारधी चेडा, झोटींग, घांगली, घोल इत्यादी कुल दैवतांची तारप्याच्या तालावर, सूरावर वार्षिक पूजा केली जाते.

तारपा वाजवण्या अगोदर प्रथम तारप्याच्या देवांची म्हणजे सवरदेव आणि सवरी देवी यांची पूजा कार्तिक महिन्यात (ऑक्टोबर) केली जाते. आदिवासींनी डोंगरदऱ्यात, गूहांमध्ये सवर देवाची स्थापना केलेली असते. दगडांना शेंदराचे टिळे लाऊन, नारळ फोडून पूजा करतात. आदिवासींनी डोंगरदेव म्हणजे तुरूंग या नावांनी वेगवेगळ्या डोंगरांवर सवर देवाची स्थापना केली आहे. उदाहरणार्थ - पालघर जिल्ह्यातील डहाणू तालूक्यामध्ये महालक्ष्मीचा डोंगर, सातमाळा, नवरा - नवरीचे डोंगर, बार्डाचा डोंगर वगैरे.

आदिवासी दिवाळीमध्ये कुटुंबदेव म्हणजे रवाली (रव्वाली) करताना सवर देवाची पूजा करतात. भगत घरासमोरच्या अंगणात झेंडूची फुले पसरऊन तारप्याची, भगताची पूजा करतात. तांदळाच्या पुंजक्या ठेऊन कुलदैवताची पूजा करतात. निमंत्रीत केलेले तारपे भगत तारपा वाजवतात, त्याच्या तालावर झुने भगत अंगात देवतांचे वारे घेतात; असे रात्रभर जागरण करतात.

या कुलदैवताच्या पूजेसाठी सर्व कुटुंबिय वर्गणी गोळा करतात (फाळणी गोळा करणे) त्यामधून पूजेचा खर्च केला जातो. या पूजेला कुलदैवताला कोंबड्याचा बळी दिला जातो. कोंबड्याचे मटण प्रसाद म्हणून पळसाच्या पानात बांधून वाटले जाते. या पूजेत स्त्रिया सहभागी होत नाहीत.

सवरी देव हा शेतकऱ्यांना धान्य देणारा देव म्हणून ओळखला जातो. आदिवासींचे कुलदैवत म्हणून लग्नाच्या चौकामध्ये तारपा वाद्याचे चित्र काढले जाते.

तारपा बनविण्याची प्रक्रिया :

तारप्यासाठी लांबट दुधी भोपळा, बांबूच्या दोन पोकळ दांड्या; त्यापैकी उजव्या बाजूच्या दांडीला वारली भाषेत 'बोंबलेरी' दांडी असे म्हणतात. डाव्या बाजूच्या दांडीला 'हेलेलेरी' दांडी असे म्हणतात. या दोन पोकळ दांड्यांची लांबी 46 से.मी. ते 48 से.मी. असते. या दोन्ही पोकळ बांबूमध्ये 13 से.मी. ते 15 से.मी. लांबीच्या दोन शिट्या (जिभल्या) बसवलेल्या असतात. त्यापैकी उजव्या बाजूच्या जिभलीला हेलेलेरी जिभली म्हणतात. डाव्या बाजूच्या जिभलीली बोंबलेरी जिभली म्हणतात. त्यापैकी हेलेलेरी जिभली ही तारप्याचे सूर (हेल) काढणारी असते तिला तीन छिद्रे असतात. या दोन नळ्यांच्या शिट्यांवर 21 ते 24 से.मी. इतक्या लांबीचा लांबट फुगीर सुकलेला दुधी भोपळा मेणाने घट्ट (हवाबंद) चिकटवलेला असतो. अशा प्रकारे तारपा तयार केला जातो. अनेक वेळा तारपा वाजवणारी व्यक्तीच तारपा तयार करते. उत्कृष्ट तारपा वादनासाठी अनेक वर्षे शिक्षण - घ्यावे लागते. जेष्ट व्यक्तींकडून तारपा वादन शिकविले जाते.

तारपा वाद्याचे प्रकार

तारपा वाद्याचे एकूण तीन प्रकार आहेत. 1) बिलोडी तारपा, 2) संम्बल तारपा, 3) खोन्गार तारपा (सवरी तारपा) या तारप्यांपैकी खोन्गार तारपा सर्वात लांब आणि आकाराने मोठा असतो. या प्रकारच्या तारप्याला 82 से.मी. लांबीचा दुधी भोपळा लागतो. तारप्याला वरच्या टोकाला मोराची लांबपिसे लावतात. या तारप्यासाठी माडाच्या गाभाच्या पात्या बसवलेल्या असतात त्याला 'कर्णा' (कोक) असे म्हणतात. इतर दोन तारप्यांप्रमाणे याला आठ छिद्रे असतात त्यातून तारपावादक विविध सूर (चाळे) काढू शकतो. एकूण 33 ते 36 चाळे तारपा वादक काढत असतो त्यांची विविध नावे आहेत.

तारप्याचे चाळे (सूर)

तारप्यांच्या चाळ्यांना विविध पशू - पक्षी, प्राणी, वनस्पती, सण उत्सव, देव-देवता, नृत्यप्रकार, रितीरिवाज, शेतीची विविध कामे यांची नावे दिलेली आहेत. उदा. लानेचा चाळा (भत्राकापणी), मोराचा चाळा, तितराचा चाळा, लावरेचा चाळा, कोंगड्याचा चाळा, गिधडाचा चाळा, मो-हूग्लेचा चाळा, देडकाचा चाळा, माजराचा चाळा, कुत्र्याचा चाळा, बटाऱ्याचा चाळा, मयताचा चाळा, ढोर मेल्याचा चाळा, देवांचा, देवींचा, हिरवा देवाचा, बहरम देवाचा, भूताचा,

राहाटाचा, बांधणेरेचा, शिमग्याचा, चारणी चाळा, पाय पालट्याचा, बहारीलेचा, कोत्याचा, ऊढेचा, गुंझचा चाळा, घोरीचा, कोहड्याचा अशी वारली भाषेतील ही नावे आहेत.

वेशभूषा

पुरूष खाकी / रंगित अर्धि चड्डी वा कमरेला पांढरा लंगोट घालतात. गळ्यात रूमाल बांधतात, कानाला झेंडूची फुले अडकवतात. स्त्रिया लाल, पिवळ्या, हिरव्या रंगाचे लुगडे नेसतात. अंबाड्यावर वेणी, गजरे, फुले माळतात. गळ्यात रंगीत मण्यांच्या माळा, चांदीचे दागिने, पायात पैंजण घालतात.

तारपा नृत्य

'या सामूहिक नृत्यप्रकारात गाणे नसते. तारपेवाल्याने तारप्याचे सूर बदलले की नृत्याचा प्रकार बदलतो. तारपा वादक स्वत: नृत्याचा प्रकार प्रथम सुरू करतो. त्याच्या भोवती पुरूष एकमेकांच्या हातात धरून गोलाकार नृत्य करतात. सुरूवातीला उंच व्यक्ती व शेवटी ठेंगणी व्यक्ती अशा अनुक्रमाने उभे राहातात. नृत्य करणाऱ्या पहिल्या दोन माणसांच्या हातात घुंगराची काठी असते ती तालामध्ये जमिनीवर आपटतात, त्याचा छन छन असा आवाज येतो. या नृत्यात स्त्री-पुरूष-मुले फेर धरून नृत्य करतात. नृत्याच्या शेवटी हुर्र ऽ र्र ऽ हुर्र ऽ र्र ऽऽ असा आवाज काढून जोषपूर्ण नृत्य करतात. हे नृत्य तास, दोन तास सुरू असते. संपूर्ण रात्रभर हे नृत्य केले जाते.'[१]

तारपा हे वाद्य दिवाळी संपल्या नंतर म्हणजेच गावातील वाघया देवाची पूजा केल्यानंतर वाजविले जात नाही. आताच्या काळात विविध कार्यक्रमांसाठी, आदिवासी महोत्सवामध्ये तारपा नृत्य केले जाते. परंतु तारपा वादक प्रथम देवाची, तारप्याची पूजा केल्याशिवाय तारपा वाजवत नाहीत. तारपा नृत्याव्यतिरिक्त काही नृत्य प्रकारात लोकगीते व विविध वाद्य यांच्या ताला-सूरावर नृत्य केली जातात. उदा. घोरनृत्य (टिपऱ्या), ढोलनृत्य, घांगळी नृत्य, कामड नृत्य, गौरीनृत्य, गोफनृत्य.

आदिवासींच्या नृत्यप्रकारामधून त्यांच्या संस्कृतीचा आविष्कार व्यक्त होतो. त्यांच्या नृत्यातून तालबद्धता, एकसंधपणा दिसून येतो. तसेच नृत्य - गायनात एकरूप होऊन जीवनाचा स्वच्छंद आनंद घेण्याची मानसिकता दिसून येते. त्यांच्या नृत्य प्रकारातून त्यांच्या समूहभावनेचे, एकात्मतेचे दर्शन घडते. त्यांची नृत्ये ही प्रेक्षकांसाठी नसून स्वजीवनाला आनंदी करण्यासाठी केली जातात वा धार्मिक विधींसाठी केली जातात.

निष्कर्ष

1. आदिवासी निर्सगातून मिळणाऱ्या साधनसामग्रीतून आपले कौशल्य वापरून निरनिराळी वाद्य तयार करतात.
2. पालघर जिल्ह्यातील आदिवासी प्रामुख्याने तारपा हे वाद्य वाजवितात.
3. तारपा हा आदिवासींचा प्रमुख नृत्यप्रकार आहे.
4. तारपा वाजवणे ही देवांची कला मानवांनी घेतली अशी आदिवासींची श्रद्धा आहे.

5. वाघ बारस, दिवाळी, दसरा, रवाल हे देवतांचे विधी करणासाठी तारपा हे वाद्य वाजविले जाते.

6. तारप्याच्या देवांची म्हणजे सवरदेव आणि सवरी देवी यांची पूजा कार्तिक महिन्यात (ऑक्टोबर) केली जाते.

7. आदिवासींनी डोंगरदऱ्यात, गूहांमध्ये सवर देवाची स्थापना केलेली असते.

8. आदिवासींचे कुलदैवत म्हणून लग्नाच्या चौकामध्ये तारपा वाद्याचे चित्र काढले जाते.

9. तारपा हे वाद्य दिवाळी संपल्यानंतर म्हणजेच गावातील वाघया देवाची पूजा केल्यानंतर वाजविले जात नाही.

संदर्भ ग्रंथ

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तारपा