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Editorial

Dear Reader, greetings from SPIPS Research Forum!!

I am delighted to announce that the Luminous Multidisciplinary Research Journal is now in its sixth year of publication. Since its inception in 2016, it has given a good platform for hundreds of researchers.

The publication and its content have become immensely useful as a result of the writers', research researchers', students', and readers' persistent support.

This issue features varied areas of ideas of researchers. The major areas covered in this issue are women entrepreneurship, computer technology for better future, start-up movement by government, political science and international relations, reviews of books of admired novelists, major areas of business and business management, post-COVID 19 developments in trade and commerce, new education policy and students' engagement, leaser technology for communication and space sciences and intellectual property rights and ethical values and there interrelation.

The journal began with the realisation that opinions expressed in the form of research papers may be of use to society and the community at large. As far as my views are concerned, I am really pleased that we are capable of doing so. This voyage is merely a stepping stone for us; we still have a long way to go and must continue to promote our philosophy of

'LET YOUR LIGHT SHINE'.

Furthermore, I would like to express my gratitude to all of the authors, members of the editorial board, our chief-patron, patron, printing press workers, design team, and the journal's publisher for their continual support and inspiration.

Dr. Ravi Vyas
Editor-in-Chief

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Metaverse: Real World in Virtual Reality

Dr. Sarika Pandey, Miss. Swati Mishra, Mr. Sourabh Mishra

Abstract

Since the popularisation of the Internet in the 1990s, the cyberspace has kept evolving. Virtual environments, albeit non-perpetual and unconnected, have bought us various degrees of digital transformation. The term 'metaverse' has been coined to further facilitate the digital transformation in every aspect of our physical lives. At the core of the metaverse stands the vision of an immersive Internet as a gigantic, unified, persistent, and shared realm. The idea of virtual worlds and digitalization of all odds relate ambiguously with more inefficient activities than was previously possible before the emergence of the proper digital times. The impact for the convenient use for the Metaverse will be an undeniable force, with opportunities nonetheless births the inertia of human behavior. In all sense, despite Coronavirus that is wreaking the entire world system, forcing barriers, and the riot and demand for activities, the Metaverse has nothing to do with aiding the Covid pandemic, as it is only considered a pursuit for an alternative, and thus a profitable scheme to dominate the global market rank. If the pandemic does not end, whereas humans drift into a fresh virtual world, then the world will experience such a capricious regimen, nevertheless. User addiction and problematic social media use is another concern. Internet addiction disorder, social media, and video game addiction can have mental and physical repercussions over a prolonged period of time, such as depression, anxiety, and various other harms related to having a sedentary lifestyle.

Keywords: Metaverse, immersive internet, digital twins, virtual economy.

Introduction

Metaverse is a combination of "meta" (meaning beyond) and the stem "verse" from "universe", describes a hypothetical synthetic environment linked to the physical world. The word 'metaverse' was first coined in a piece of speculative fiction. named Snow Crash, written by Neal Stephenson in 1992 [1]. In this novel, Stephenson defines the metaverse as a massive virtual environment parallel to the physical world, in which users interact through digital avatars. There has been approximately 30 years' development behind the evolution of this term. In 2018, the success of the film Ready Player One [24] brought the concept of metaverse back to the forefront of cutting-edge discussions. This film describes a virtual world named "OASIS", in which everyone could connect to the virtual world, act as their own customized avatar, and do everything they wanted to, based on the basic rules. The film Ready Player One shows many seemingly reachable technologies, e.g. head-mounted display (HMD) for virtual reality (VR) rendering, ubiquitous sensing, haptic feedback, and modeling of the physical world, which brings the public feasible opportunities to achieve the metaverse. To realise the metaverse, technologies other than the Internet, social networks, gaming, and virtual environments, should be taken into considerations. The advent of AR and VR, high-speed networks and edge computing, artificial intelligence, and hyperledgers (or blockchain), serve as the building blocks of the metaverse. From a technical point of view, we identify the fundamentals of the metaverse and its technological singularity. This article reviews the existing technologies and technological infrastructures to offer a critical lens for building up the metaverse characterised by perpetual, shared, concurrent, and 3D virtual spaces concatenating into a perceived virtual universe.

Metaverse in Society

Although the metaverse is a virtual world, regarded as human-centered computing, it indeed shows a significantly positive impact on the real world, especially in terms of accessibility, diversity, equality, and humanity. In this section, we list some representative applications that reflect metaverse for social good.

1. **Accessibility:** Currently, global communication and cooperation among countries has become more and more frequent with the rise of globalization, but geographical distance. is an objective obstacle that would increase costs during the process. Moreover, influenced by the COVID-19 pandemic, many events are suspended due to pandemic prevention requirements. However, the metaverse could provide great accessibility to serve different social requirements. For example, many events have been converted to virtual form, supported by the metaverse. In 2020, UC Berkeley held its graduation ceremony on Minecraft. Moreover, on Fortnite, there are many virtual events held every day, such as a Travis Scott concert. According to the above-mentioned examples, the metaverse has already become an extension of our daily lives, which could satisfy our social requirements, with lower costs and higher security.
2. **Diversity:** Restricted to physical limitations (such as geography, language, etc.), the real world cannot integrate various elements in one place to satisfy the requirements of different people. However, the metaverse has unlimited. extension space and seamless scene transformation, which could effectively achieve diversity. There are various interesting scenarios that can be held in the metaverse. For example, Animal Crossing held a presidential campaign for Joe Biden, and students at Stanford University exhibited their posters in Second Life.
3. **Equality:** Equality is a spiritual pursuit for human beings, but, in reality, there are many factors that influence equality, such as race, gender, disability, and property. In metaverse, everyone can control customized avatars and exercise their power to build a fair and sustainable society. For example, as an autonomous ecosystem, the metaverse includes an attribute of democracy, allowing. participants to maintain order and normal operation. In Decentraland, there is a Decentralized Autonomous Organization (DAO) where users could propose and vote on the policies created to determine how the world behaves (e.g., what kinds of wearable items are allowed). The Axie Infinity, a Pokémon-inspired universe where anyone can earn tokens through skilled gameplay and contributions to the ecosystem, also introduces a decentralized organization mechanism, in which Axie Infinity Shards (AXS) holders can stake their tokens. through a staking dashboard and participate in governance votes.
4. **Humanity:** Humanistic spirit is a kind of universal human self-care, which is manifested in the maintenance, pursuit, and concern for human dignity, value, and destiny. In society, humanity cherishes

various spiritual and cultural phenomena left behind by previous generations as a legacy. for humanity. The metaverse could be an excellent approach for cultural communication and protection. For example, the metaverse has included cultural relics protection. Experiencing years of weathering, cultural relics in the physical world are fragile and likely easily broken by manmade damage or natural disasters. The Notre Dame de Paris caught fire in 2019, sustaining serious damage to the cathedral's wooden sections. Fortunately, Ubisoft reconstructed the Notre Dame de Paris as a digital 3D model in Assassin's Creed Unity, which will be utilized to support its reconstruction. In China, the National architects & Cutwork have made great efforts to reconstruct Chinese cultural relics as 3D voxel models in Minecraft, containing buildings, like the Forbidden City, and famous paintings, such as Qingming ShangheTu (Ascending the River at Qingming Festival). In the metaverse, the digital reconstruction of cultural relics not only takes place anywhere in the world, but can also provide evidence for relic restoration.

Forming of Metaverse

Currently, the development of metaverse is still in the early stages, so its architecture does not have a consistent definition in either academia or industry. For example, Jon Radoff proposed a seven-layer metaverse architecture, where the layers from bottom to top are: infrastructure, human interface, decentralization, spatial computing. creator economy, discovery, and experience [22]. This architecture is built from an industrial division based on the value chain of the expected market. In contrast, we intend to conclude the architecture of metaverse from a more macro perspective, so a three-layer architecture is proposed, including (from bottom to top): infrastructure, interaction, and ecosystem

A. Infrastructure: The Infrastructure layer contains the fundamental requirements for supporting the operation of a virtual world, including computation, communication, block chain and storage.

1. **Computation and communication:** The metaverse is a large-scale multimedia system, so its operation requires huge computational costs. On the other hand, since the expected metaverse should be accessible at any time and any place, communication technologies are another basic support. In fact, improvements in computation and communication are always cutting-edge research topics, which is not limited to the metaverse.
2. **Block chain and storage:** The expectations for the metaverse are that it will connect everyone around the world, so an enormous amount of data, such as maps, roles, etc., would be generated and stored in mass storage, which is another basic infrastructure. More! importantly, to guarantee decentralization and fairness, the blockchain must be introduced to support sustainable ecosystem operation in the metaverse Advanced blockchain systems, like Ethereum, introduce a smart contract that could support the operation of DApps, which greatly extend the blockchain's application scope, and make it feasible for metaverse to construct a decentralized social ecosystem

B. **Interaction:** In this subsection, we emphasize the immersive user experience, digital twins, and content creation, which are important parts in the interaction layer that bridges the physical and virtual worlds.

1. **Immersive user experience:** To achieve an immersive user experience, there are two main components that should be considered in interactions between users and the metaverse. First, the metaverse should receive data from the physical world so that users could control their avatars to finish corresponding actions.
2. **Digital twins:** With the exception of metaverse users, other objects or things in the physical world could also interact with the metaverse, presented as digital twins in the virtual world. The parameters of physical devices can be collected by ubiquitous sensing technologies to maintain the same states as their corresponding digital twins. This is an interdisciplinary area that should cover a large number of related subjects, such as material science, signal processing. Internet of Things (IoT), pattern recognition, etc. On the contrary, after operation and processing in metaverse, the parameters in virtual environments can be sent back to physical devices and their real-world states can be changed.
3. **Content creation interface:** The metaverse is a evolving. virtual world with unlimited scalability and interoperability. The operators need to construct the basic elements, while: innovative user-generated content (UGC) fulfill the universe through users.

C. **Ecosystem:** The ecosystem can provide a breathing and parallel living. world that continuously serves all of the world's inhabitants. Specifically, people may have social experiences that are completely different from the real world in activities, like befriending Al-driven non-player. character (NPC).

1. **User-generated content:** The UGC is any form of content that has been created by users rather than the developers/operators of online platforms [12, 15]. Different from traditional game communities like Steam Workshop13, players' goals are not to follow the developer's rules, but rather to explore freely and create. content in their own style. Hence, UGC in the metaverse tends to be heterogeneous and requires ownership. Blockchain-based Non-Fungible Token (NFT) provides a new approach to UGC in the metaverse, which could certify a digital asset to be unique and not interchangeable. Specifically, users can store their UGC as an NFT on the blockchain, and trade UGC through smart contracts to achieve liquidity.
2. **Economics:** Economics is an important factor considered in the ecosystem, which could offer rich content and a vibrant community in the metaverse. Decentralized Finance, based on smart contracts and Fungible Token (FT), offers a way to innovate economic models in the metaverse. Existing successful solutions, such as Uniswap. a Decentralized Exchange (DEX) on Ethereum, automatically provide users with liquidity for their tokens. At present, the main economic activities in the metaverse mainly include the auction of virtual assets, such as land, scarce items and precious real estate, development and leasing of land, rewards for finishing game tasks, and profits from investing in

cryptocurrency. So, the metaverse invokes a new form of funding that draws inspiration from both the real world and virtual world. However, the implementation of smart contract applications has the potential for external attacks, and the metaverse lacks decentralized financial applications.

3. **Artificial Intelligence:** The application of artificial intelligence, especially deep learning, makes great progress in automation for operators and designers in the metaverse, and achieves higher performance than conventional approaches. However, applying artificial intelligence to facilitate users' operation and improve the immerse experience is lacking existing artificial intelligence models are usually very deep and repaired massive computation capabilities.

Conclusion

In this paper, we propose a three-layer architecture for metaverse, including infrastructure, interaction, and ecosystem, and the key components in each layer are discussed in details According to the representative applications, the metaverse significantly reflects the vision of human-centered computing, which is highly beneficial for the society in terms of accessibility, diversity, equality, and humanity. In the future, we will continuously improve our prototype and continue conducting metaverse-related studies. Not limited to the proposed questions, there are many research topics in the metaverse that are imperative to be studied. The core motivation of this paper is to direct more attention to the metaverse, and together, make a better society.

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Motivators and Stressors during Work from Home – A Study with Reference to Lockdown in Indore City

Prof. Hema Bhardwaj, Ms. Chitranshi Koshta

Abstract

The attack of coronavirus taught the world working remotely. This research paper tries to study the psychology of employees while working from home. It highlights the stressing and motivating factors in the 'Work from Home' mode. The study is based on the survey conducted on the employees of Indore city.

Indore being a commercial hub, economical centre and a major city of Madhya Pradesh is inhabited by employees from different sectors. This Tier 2 city is a densely populated area in central province. The population of this industrial, cosmopolitan city belongs to various parts of India – making Indore a 'Mini-Mumbai'.

During COVID-19 pandemic, one of the strictest lockdown was seen in Indore. The epidemic began in March 20, turning Indore into the coronavirus infection hotspot in Madhya Pradesh. The city was under curfew for more than two months. Although the IT industry was already aware of the term Work from Home, but for the first time employees of other industries experienced the culture of working remotely.

This study examines the impact of work from home culture on the psychology of employees during the stressful condition of COVID-19 lockdown. The aim of this research is to find out the productivity, performance and creativity of employees while working from their homes at the time when there was no social life and no domestic help. It also discusses the challenges of connecting online and the difficulties of adopting new mode of working with new gadgets and software.

With the help of a survey, collecting a sample of 173 employees and their opinion, the purpose of this research is to find out the factors which acted as motivators and stressors during this condition. Employees from industries as education, insurance, banking and finance, manufacturing, IT etc are included in this survey. Data has been categorized on the basis of age, gender, qualification, marital status and the dwelling area of employees (as urban, rural or semi urban). By classifying the sample on the basis of gender, the paper tries to compare the stress factors between the male and female employees of the region.

Keywords: COVID-19; lockdown; pandemic; motivators; stressors; coronovirus; psychology; productivity; performance.

Introduction

Working remotely is a well-known concept in the industries like IT and BPO, but now all the other sectors are accepting it fast. Corona virus brought a sudden change in the office culture. The traditional office landscape is no more the same. The lockdown imposed on the people by COVID-19 changed the official working pattern up to a great extent. Telework was accepted by common man. There are organizations like Twitter and Square that gave 'work from home forever' options to their employees. In the COVID-19 era, Facebook announced 'work from home permanently' option to the employees. Small organizations tried to adjust to this new culture by changing their working pattern and allowed their workers to complete the official tasks form their homes. Working remotely was quite feasible for technical people as engineers, information technology employees, BPO call agents and for people like HR executives, knowledge workers and consultants. But the employees from sectors as banking, finance, insurance found it challenging. People belonging to industries as manufacturing, supply chain, proprietary applications faced difficulties in shifting to telework. There was a new struggle for the companies to sell their products and services online through websites. Since the number of employees, working remotely, went on increasing tremendously, organizations started providing the access to the tools and solutions to the employees. The aim was to make remote work as feasible and productive as possible. Either as a choice or as a force, everyone was on the way to accept the work-at-home culture. No doubt the far reaching global technology implications helped a lot which included virtual desktop infrastructure, modern featured gadgets, advanced applications, new software and high speed network.

When we think of work from home (WFH), it brings an imagination of an employee lying comfortably on a sofa, squeezing out a normal day's work via VPN over a cacophony of kids-chattering or dogs. WFH sounds great but its reality is different. The experience of doing official work from home brings frustration as the home environment brings distraction. The continuous use of screens gives rise to issues as strain and headache. In the situation of COVID-19 lockdown all domestic help was restricted and the supply of necessary goods was discontinued as the markets were closed. These were the stress enhancing factors.

WFH made the boundary between the work and lives disappear. The fixed working hours became its way out. Scenes like physical papers moving from desk to desk were replaced by electronic gadgets. The technical ability to communicate and operate the tasks enhanced and thus employees were expected to be always available. The digital communication was instant and cheap dissolving the work hours and working space of employees. Now they were expected to be responding to their managers round the clock. Working for a mandatory job, received through a phone call or an email, during odd hours became a thankless work.

Looking closely the situation of Indore city, it faced curfew with prolonged lockdown. People faced movement restriction, stress of monetary losses, job insecurities and anxiety of working with new pattern. Working people were trapped inside the houses, getting no physical exercises, no social life. All these and corona news updates affected adversely on their physical and mental health. Spending hours indoor with little or no human interaction gave an isolated feeling. There was lack of motivation as one was not required to get up early to reach the office, dressing nicely. Late sleeping and waking hours, working in pajamas, not getting workplace social norms, missing office friendships were not good for motivation level of employees. There was hardly any source to be innovative, coming up with brilliant ideas in the absence of team work.

But it had a positive side as well. WFH gave much flexibility in the office work. Breaks were allowed at any moment. One could set a flexible work routine of own choice. One big advantage of telework was that it saved time and the expense of travelling. The presentable look of working people was no longer a need. People were able to balance the household chores between the working hours. As employees were spending more time with the family, there was less or no need to take vacations. Fewer sick leaves were required as the employees were getting rest in between the work. People were allowed to choose their working space.

The flexible working hours proved to be motivating factor enhancing the productivity and efficiency of work among employees. High speed internet connectivity made it possible to access office files from anywhere, anytime in just a click. At the same time working alone from home reduced office politics and the staff was more focused on the assigned tasks. The better work-life balance with flexibility in choosing working space and schedule acted as a motivator for employees resulting improved employee retention. This pattern of work also cared for maintaining health and safety of staff.

With the fast evolving technology companies encourage and support telework to increase the final productivity and decrease official stress. Organization also save expenditure to be done on travel and working space expense for their staff.

In this situation the research paper studies the stress level of employees by identifying the motivators and stressors. It also compares the stress level of male and female employees during the lockdown in Indore.

Literature Review

Many articles have been published and lots of researches have been done to study the effect of lockdown on the psychology of employees. Some of the important research work in the form of papers and articles are discussed here:

Your Amigos Foundation (Kochi-based NGO), (April 2020) studied the social, psychological, physical and financial effects of COVID-19 on working population. It explored how work from home due to corona lockdown changed the mentality of working staff of the organizations. 165 working people were studied across the country. In the survey, 49% professionals responded it as their first WFH experience in the career. 55.2% participants claimed to have worked more in WFH as compared to usual office hours, while 91% of them complained doing more work without receiving due incentive or any benefit. 59% professionals accepted to experience increased workload. The research clearly states that the WFH during lockdown was stressful and lethargic.

Rita Zeidner (March 21, 2020) explored the impact of corona virus pandemic on the professionals. In most of the organizations only few staff members were allowed to be physically present into the office. In many cases, the newly joined employees were immediately sent home after completing the required paper work. They were given tasks to be done from home along with necessary documents and required devices.

The Economic Times (April 30,2020) says that WFH was made mandatory in the Indian IT industry during lockdown. Thus, from the IT industry, 65% employees from metros and 35% employees from small towns worked from home. Overall, 90% staff was working on this mode smoothly, without compromising on quality or productivity of work. The transition of work to new model smoothly kept the business ongoing and provided the services to clients continuously. The operation cost of institutes also reduced by 50% to 70%. It had a positive impact on the society as many people got opportunity to work in good companies. Many women also got chance to a part of economy by getting employment. The migration of people from small towns to bigger cities reduced in this phase.

Society For Human Resource Management (2020) conducted a survey to study the advantages and challenges of tele working. This survey was conducted on 700 telecommuting professionals during the Covid-19 pandemic. The research identified some important points for professionals due to WFH as better work-life balance, reduced commuting time, spending more time with family. While the challenges of work from home were lack of collaboration with colleagues, lack of availability of office resources, difficulty in unplugging at the end of day and distractions while working.

Nicholas Bloom, Liang, John Roberts, Ying, (2013) researched with the help of randomized experiment in a Chinese firm. The employees that were working from home were studied. This famous experiment and research included 16,000 employees of the firm. A NASDAQ-listed Chinese firm, CTrip was studied and its employees were observed. It was observed that while working from home the performance of employees was increased by 13%. At the same time, 9% of staff members worked some extra time of their shifts period taking no breaks during shifts and took fewer sick leaves. It was also observed that 4% of them gave their highest performance per minute. The study says that WFH reported higher satisfaction and improved psychological attitude scores among employees. As a result, the job attrition rate was reduced up to 50%. This research also found that this new mode of working is widely becoming popular in U.S. and other European countries.

Carter (2016) researched, studied and explored with the help of statistics that about 65% of the workers more productive when they got chance to work from home. The comparison was done with respect to the traditional way of working from corporate rooms. Only 7% of employees found themselves more productive while working from office. This study clearly shows the increasing fondness for WFH. The research also explores the disadvantages of this new mode of working. The research concludes these problems as major problems for corporate world as they affect the professionalism of the workers.

The Forbes Stats highlighted a different challenge in telecommuting. It emphasised on the fact that the employees experienced difficulty because of the lack of relevant information about work or the pattern of accomplishing task. Since the working people were physically away from the offices, 44% of them were confused in understanding the instructions given by their managers or team leaders. A situation of isolation was also there leading to absence of proper discussions among the team to get better clarity of work.

MicroExec 2013) concludes that 88% of employees prefer to depend on virtual meeting platforms. Video conferencing was found to be a good means to have a proper discussion and get clarity about the task. According to the study, telecommuters feel craving for social interaction which in general case is automatically fulfilled if they work from office. The study further explains that professionalism of work can be improved in WFH if projects are effectively managed by the managers and submission of the assignments or tasks are done before deadlines by the juniors. The research highlights the factors affecting professionalism in telecommuting mode. Distraction from work is more in home as compared to office. Presences of family members, taking care of children, household chores are some elements for this. Lack of dedicated working hours and fixed work space also affect the work efficiency of employees.

A study was done by Varshney, Parel, Raizada, Sarin (April 2020) to examine the effects of COVID-19 on people. It was found that the people were under fear during corona lockdown. Employees worked under pressure of potential effects of the disease and its transmission. The research explained that the disease drastically affected the general public. The psychological impact of the disease also gave rise to the physical symptoms in individuals. As a conclusion the study stated that psychological needs of the people should be estimated and holistic interventions should be formulated by the government to help the people.

A study was conducted by Nicholas Bloom, Stanford Talk (2017) in China's largest travel agency for about two years. About 500 employees were observed in this study. The Stanford Study concluded the increase in the productivity of professionals by 20 % when they work from home. This increase in the workers' productivity was found to be equivalent to an extra working day per week. As employees continuously stayed at home, they took fewer breaks and less or no leaves, working hours increase. In the study it was clearly observed that work from home was more supportive for women as they get flexible schedule of work to adjust with household activities. As a result, organizations can attract and retain more women employees by allowing work from home culture.

Brooks (2020) studied the psychological after effects of quarantine. It was observed that stress, confusion, anger and disappointment prolonged in people due to quarantine. These were the post-traumatic symptoms. The Brooks team explained that longer the duration of quarantine, more is the impact of the stressors. These stressor factors include the fear of infection, financial loss and frustration. Boredom, inadequate information, and stigma during the pandemic were also seen negatively affecting people.

Research over stress level of survivors of SARS (several acute respiratory syndromes) was done by Lee (2007). The psychological distress of such people was examined and found that after one year of the outbreak, stress level remains high; in comparison with control subjects. The research team also found that such stress continues to stay high without signs of any decrease.

Tripathi, Bhattacharjee (2012) worked over the people's outlook to study stress and its impact. The study concluded that the feeling of can be reduced if people start looking at it in a different way. Here it should not be taken as a threat, but should be seen just as a challenge. Taking stress in a such a way could reduce its bad effects. Employees should be taught to take the stressful situation as an opportunity to learn dealing new situations. They should also be taught not to take such conditions as crisis. So, the impacts of stress depend on the way events are conceptualized. This is the way employees can be made to feel less threatened and stressed.

The study done by Reddy, Vranda, , Nirmala, and Siddaramu(2010) concluded that employees have negative influences of family–work conflict (FWC) and work–family conflict (WFC) resulting into a lower life satisfaction. Some of the variables are the size of family, members in the family, education of family members, the age of children. These variables influence the WFC and FWC levels. Work hours, extent of social support are some other variables in the same context.

Kumar, Yadav (2014) examined the main sources of stress among working professionals. The research found that there are several variables like household responsibilities and job demands deciding stress in employees. Some other variables as lack of support, lack of facilities and infrastructure also cause stress in individuals. Having too much responsibility, having more work load, inability to learn enough to take higher responsibilities or inability to give time to family also increase stress.

Modi (2012) investigated the factors and causes of stress. The research paper also examines the stress factors acting for the women employees. Along with the stress factors faced by men, there are some other factors acting for women employees. Women face some exceptional stressors as inequality and harassment. Social disconnections and work classes are faced more by women as compared to men.

The research done by Rupietta, Kira; Beckmann, Michael (2016) found that the employees, are more productive while working from home. Thus, by implementing telework into the organizations overall productivity could be increased. It has been proved statistically that WFH brings positive effect on work effort which could be a beneficial strategy for companies.

Ward (2017) studied about the surrounding of the employees. He concluded that in work from home high level of positive surrounding is received by the employees. Employees get motivated by good environment and their performance improves. WFH helps in maintaining work life balance, which develops job satisfaction in working professionals.

Objectives

1. To study the psychology of employees and their stress level during the restrictions due to corona lockdown.
2. To identify the factors that acted as stressors and motivators while working from home.
3. To examine the impact of lockdown on employees in terms of their productivity and efficiency in work from home mode.
4. To identify and compare the stressing factors of between male and female employees in the lockdown condition.

Research Methodology

According to the framed objectives of the research, a detailed study has been done through a survey to explore the psychology of working professionals. The study aims at identifying the stress factors and motivating factors to ultimately find out the impact on productivity and efficiency of professional population under the uncommon situation of COVID-19 lockdown with unusual working pattern. The research also aims to help the companies and organizations give beneficial outcome to enhance the productivity of their staff.

Since the present research helps to determine the psychological effects on the professionals, it is an exploratory research. The purpose of this research is to study the stress factors during work from home. Study is based on survey done in the Indore city taking feedback about the conditions during lockdown. The survey instrument was administered as Google Forms. The survey form was circulated among the working professionals from various industries. A valid sample of 173 respondents was selected for the analysis.

As no standard questionnaire was available for the purpose of data collection in the mentioned research, a self-designed questionnaire was used. Modern methods were adopted for collection of data. The researcher framed the set of questions to gather useful information regarding the working mode in the mentioned condition by using paper free data collection method. Questionnaire was framed as the Google Forms. For distribution of the questionnaire various social media platforms, especially WhatsApp groups were used. The Google Survey Forms were sent to people belonging sectors as medical and health care department, banking and finance, education department, Information Technology industry, insurance, manufacturing and supply chain industry. The opinion of working people were gathered and analyzed.

For analysis, Principal Component with Varimax Rotation were taken and used with a description of demographic details and conclusion was taken on its basis.

Result and Analysis

The data collected with the help of survey form for the study was tabulated using MS-Excel. Further data analysis was performed using IBM-SPSS version 21.0. For the purpose of detailed analysis, the survey instrument was classified into two sections; i.e. gender based demographic details: Male84 and Female89.

The first section is **Male84**. It includes the data collected from male employees. The Cronbach alpha reliability for **Male84** was derived .722, which is reported to be good for the data set.

TABLE 1:KM O and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.708
Bartlett's Test of Sphericity	Approx. Chi-Square	512.254
	Df	136
	Sig.	.000

For analysis of the data from dataset **Male84**, it was further subjected to Principal Component Varimax Rotation with Kaiser normalization which resulted into 3 factors having Eigen value of above 1 and total cumulative variance of 52.35%. The rotated component matrix is explained in the table given below:

Labelling of the Factors for Section 1, Male84

1. Work-Efficiency and Productivity
2. Stressors
3. Availability of Resources

TABLE 2 :Rotated Component Matrix

	Factors		
Statements as Factor loadings	1	2	3
11. You were able to express your problems and your work result clearly in the online mode of working.	.817		
17. While working from home your productivity was more as compared to working from office.	.777		
2. Working from home increases your work efficiency.	.755		
10. There was good communication with your organization and the instructions were clear.	.710		
12. Your family was supportive during work from home.	.619		
3. Flexible work routine enhanced your output.	.511		
9. Official resources and documents were easily available for working from home.			
5. A proper balance was there between work and family life while working from home.			
15. Lack of outdoor recreational activities & social gatherings increased anxiety and depression.		.665	
16. You experienced a threat of wage-cut and joblessness during this period.		.664	
14. There were data security concerns relating to work from home.		.643	
1. Work from home in the duration of COVID-19 lockdown was stressful.		.638	
13. Your privacy was negatively affected by working from home.		.536	
8. The work productivity was increased by availability of high speed internet connection and smart technology equipment.			.809

6. Specialized trainings for work from home were given by your organization to improve working.			.778
7. The online work was eased by better understanding of gadgets and functions of applications.			.712
4. Fixing a work place in the home improves work performance.			.517
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

The second section was **Female89**. It includes the data collected from female employees. The Cronbach alpha reliability derived for it was .765.

TABLE 3 : KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.655
Bartlett's Test of Sphericity	Approx. Chi-Square	363.892
	Df	136
	Sig.	.000

The data from the dataset **Female89** was subjected to Principal Component Varimax rotation with Kaiser normalization. It resulted into 6 factors having Eigen value of above 1 and total cumulative variance of 64.55%. The rotated component matrix for this table is given below:

Labelling of the Factors for Section 2, Female89

1. Stressors
2. Motivator
3. Work Efficiency and Productivity
4. Preference
5. Provision
6. Facility

TABLE 4 :Rotated Component Matrix						
	Component					
	1	2	3	4	5	6
1. Work from home in the duration of COVID-19 lockdown was stressful.	.706					
15. Lack of outdoor recreational activities & social gatherings increased anxiety and depression.	.706					

13. Your privacy was negatively affected by working from home.	.686					
5. A proper balance was there between work and family life while working from home.		.809				
6. Specialized trainings for work from home were given by your organization to improve working.		.640				
7. The online work was eased by better understanding of gadgets and functions of applications.		.606				
9. Official resources and documents were easily available for working from home.			.806			
11. You were able to express your problems and your work result clearly in the online mode of working.			.806			
10. There was good communication with your organization and the instructions were clear.			.667			
2. Working from home increases your work efficiency.				.809		
16. You experienced a threat of wage-cut and joblessness during this period.				.525		
17. While working from home your productivity was more as compared to working from office.				.509		
3. Flexible work routine enhanced your output.					.820	
8. The work productivity was increased by availability of high-speed internet connection and smart technology equipment.					.632	
4. Fixing a work place in the home improves work performance.						.650
14. There were data security concerns relating to work from home.						
12. Your family was supportive during work from home.						.585
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 30 iterations.						

Conclusion

As a conclusion, the researcher finds out various elements that are associated with the stress and productivity of working professionals in the telework mode. Table 2 and Table 4 clearly describe the opinion of male and female respondents working online during lockdown.

The first section of the research is Male84, which includes study on male employees. It was found that the first factor, Work-Efficiency and Productivity of male employees was enhanced in the WFH mode because they were able to express their problems and their outcomes clearly in the online mode. The response reveals that male employees found themselves more productive in this mode and their work efficiency increased when at home. The next factor taken was Stressor. According to the male employees, the lack of social gatherings and outdoor recreational activities were the main reason for stress, followed by the threat of joblessness and wage-cut along with the data security concerns while working in such mode and condition. Availability of resources was found to be the third factor in the study. The study says that the main component in improving the work while working from home was the availability of high-speed internet connection and smart gadgets and software. This component of improvement in work was followed by the specialized training given by the companies or organizations for the better understanding of gadgets and smart equipments. Table 2 clearly describes the contributing factors with sub factor loadings.

Female89 is the second section of the research that describes the response given by female employees. This section resulted into six factors. The first factor was the Stressor for the female working population. According to the female employees, the COVID-19 lockdown situation was the most stressful one. The next stressful factor was the lack of social and recreational outdoor activities. The second factor was taken as Motivator. Female employees responded that there was a proper work-life balance while working from home. They also accepted that the specialized training sessions provided by their organization or companies helped them and improved their work. Work Efficiency and Productivity was the third factor in the study of this section. Here the female employees found that the availability of official documents and resources enhanced the result and performance. It was followed by their ability to express the difficulties and the work outcome in the online mode.

When we look at the fourth factor, Preference, female employees gave preference to working online because they found that it increased their work efficiency. For the fifth factor, Provisions, female employees liked the flexible work routine most. The availability of good internet connection, high speed and smart gadgets also played a part in the factor Provisions. As a sixth factor, Facility, a dedicated work place in the home was demanded by women to work and perform better. Table 4 clearly describes the details of contributing factor with statement factor loadings.

The research concludes that working population of Indore, under the effect of corona virus, shifted their mode of their working. While doing so most of them faced new challenges. Many professionals, including female employees experienced this new pattern of working for the first time in their life. The fast spreading disease, horrifying new updates, lockdown situation also added to the stress of employees along with the new mode of work. However, the WFH was found to be a good option from the future perspective. And many professionals accepted it as a more productive mode of working.

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Techade of India- Time for Tech Entrepreneurs

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Abstract

Entrepreneurship is the new trend in India and the role ofentrepreneurs in the development of emerging countries has recently received much recognition &attention.Entrepreneurs make a notable contribution to the economic & overall development of their countries.Surely entrepreneurship is a very interesting term but is a difficult step to take and go through the process to get to notice.Through this paper we have tried to cover, entrepreneurs contribution towards economy growth & compared to previous year how many new entrepreneurs have taken step forward.The perception of people is changing towards entrepreneurship and more and more people are moving towards this new trend. Adding to this entrepreneurial culture is gaining pace in India very rapidly & is going to change the whole ecosystem.

Keywords: Entrepreneurship, Techade, Tech Entrpreneurs

Introduction

Entrepreneurship is the ability and readiness to develop, organize, and run a business enterprise, along with any of its uncertainties, to make a profit

Entrepreneurship is embedded in India's economy and culture and is widely embraced today in several sectors of society. In policy circles, there is great hope that promoting entrepreneurship is a solution for increasing employment and generating economic growth. Entrepreneurs are celebrated for their creativity, talent, work ethic, resourcefulness, and risk-taking spirit.

India is now becoming a hub for start-ups over the recent years due to high growth rates and other factors and they are booming rapidly. Many entrepreneurs like to invest in information technology, finance, software, and other sectors to earn more money. The number is likely to increase in the future due to the availability of high manpower and government policies. A recent study showed that India is growing at faster levels in the start-up ecosystem which contributes more to the country's economic growth. Start-ups offer several job opportunities for jobs seekers who want to start their careers.

Objectives Of Study

- To know about current trend of stratups in India
- To Know about comparative Growth of Starups in India

Literature Review

Recker, Jan & Von Briel, Frederik. (2019), in their study said, Digital entrepreneurship-the intersection of digital technologies and entrepreneurship-is gaining increasing importance in the global economy and scholarly community. This PDW set out to establish a community platform for and shared understanding amongst information systems researchers who are interested in shaping the future of digital entrepreneurship research within and beyond the discipline's boundaries.

Zahra, Kuratko, and Jennings (1999) noted that "some of the world's best-known companies had to endure a painful transformation to become more entrepreneurial. They had to endure years of reorganization, downsizing, and restructuring. These changes altered the identity or culture of these firms, infusing a new innovative spirit throughout their operations… change, innovation, and entrepreneurship became highly regarded words". Similarly, Dess, Lumpkin, and McGee (1999) noted that "virtually all organizations— new startups, major corporations, and alliances among global partners— are striving to exploit product-market opportunities through innovative and proactive behavior—the type of behavior that is called for by innovation and entrepreneurship". This increased emphasis on innovation and entrepreneurial behavior within existing organizations involves a significant role for firms' human resources and human resource management practices.

Research Methodology

The research involves the exploratory research and is focused on newspapers, Journals, Internet and the secondary data collected from the reliable sources. Collected secondary data was extensively used for the study. The research is qualitative in nature due to the lack of quantitative data and the same is the limitation of the Research.

Why Entrepreneurship is Important?

1. **Entrepreneurship Creates Employment Opportunities -** Every time you start a new venture; you create job opportunities for people and work with a team by hiring based on skills and qualifications.
2. **Entrepreneurship Builds Confidence -** When you start doing something on your own, you gain a lot of confidence and learn to solve problems, take on challenges, and manage the pressure of doing everything alone.
3. **Entrepreneurship Promotes Financial Freedom -** Entrepreneurship means financial freedom to those who want to stay away from corporate work because they don't like being tied down to one place all the time.
4. **Entrepreneurship Contributes to National Income -** When you create a business, it allows your nation to generate increased income to contribute to the gross domestic product (GDP).

Why Indian Start-up Ecosystem is Booming?

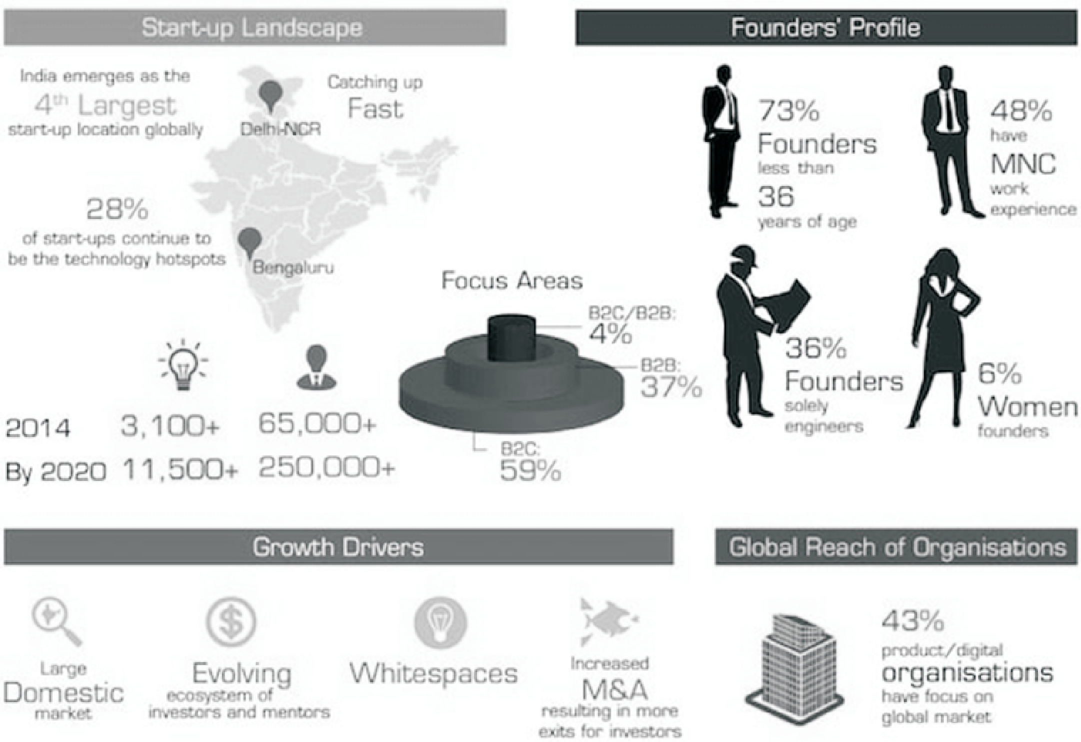
1. **Emerging markets -** The market is emerging in India due to the IT revolution and technological development and is one of the fastest-growing economies in the world because every niche product has the potential to sell in the markets.
2. **Increased political will and Government support -** The state governments encourage entrepreneurs to launch a company or business easily. They aim at building a strong ecosystem in Indian markets that is suitable for start-ups as they help to reduce unemployment.
3. **Technological innovations -** Technologies are growing rapidly every day reducing the cost of building

digital products and other things. As the number of internet users is increasing in India, people are well aware of everything with ease.

4. **Changing perception towards entrepreneurship -** Most start-up owners in India are youths who have strong intrinsic motivations, problem-solving skills, patience, and the desire to achieve goals in society. They know how to overcome risks and other problems after opening a company in India. The successful stories of many new companies entirely changed the perception of entrepreneurship.

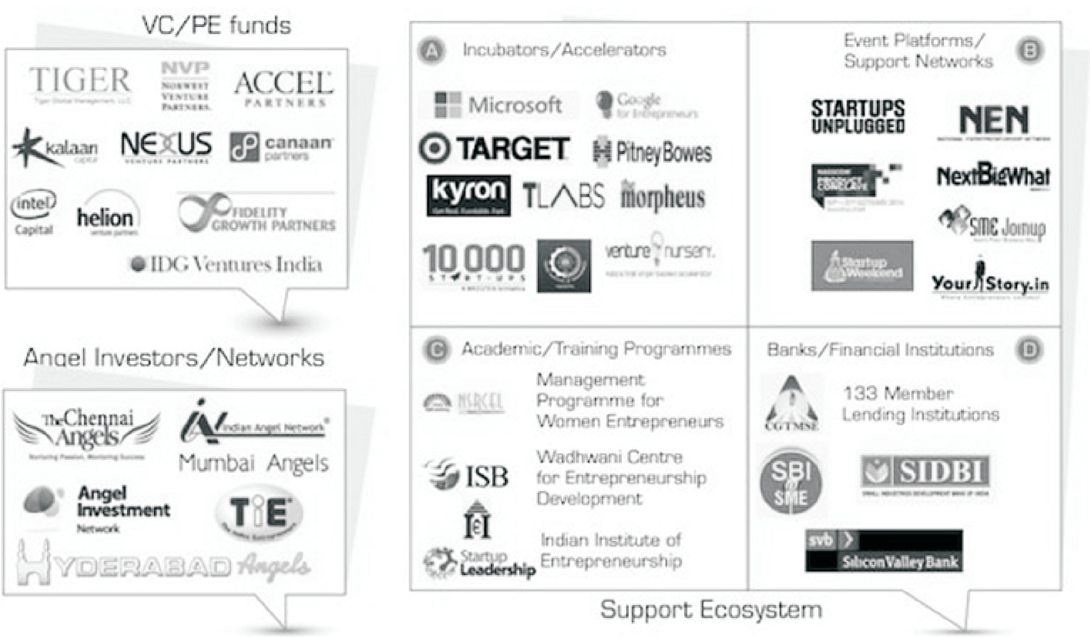
Who are the Indian Startupers and Entrepreneurs?

The profile of entrepreneurs in India doesn't give too much surprise, with 32 years as an average age, only 6% women founders. Interestingly enough though, the biggest chunk of startupers in the country have a background in MNCs and Indian tech companies (35% and 27% of the sample of the report). Only 13% of startup founders have no experience in the field before launching their venture.The ecosystem itself is supported by a growing number of funds, angels, and support organisations such as incubators, accelerators, event platforms and academic programs.Where it's possible to see a growth in terms of ecosystem is by the growth of the numbers of all these components, as well as of the average size of deals.In India, the average investment in 2010 was $4.2M, it should reach more than $11m for 2014. Investments are also spread across a wide range of stages, from seed funding to growth stage. The recent big fundraising of e-commerce specialist Flipkart ($1bn raised at $7bn valuation) and the investment of $2bn from Amazon show this maturity, at least for the e-commerce part.



[Source: innovationseverywhere.com]

Strat-up Ecosystem



[Source: innovationseverywhere.com]

Facts & Figures about Start-ups in India

The number of newly-recognized start-ups in India has increased to over 14,000 in 2021-22, from only 733 in 2016-17, said the India Economic Survey 2021-22, which was tabled in Parliament recently. The Survey also highlighted that a record 44 Indian start-ups achieved unicorn status in 2021, taking the overall tally to 83 with a combined valuation of $277.77 billion.

Over the recent years, Delhi has replaced Bengaluru as the start-up capital of India, according to the Survey. Over 5,000 recognized start-ups were added in Delhi, while 4,514 start-ups were added in Bengaluru between April 2019 and December 2021.

With a total of 11,308 start-ups, Maharashtra has the highest number of recognized start-ups. By 2021, 555 districts had at least one new start-up. On the other hand, only 121 districts had at least 1 new start-up in 2016-17.

India is the third-largest start-up ecosystem in the world after the US and China. It overtook the UK to emerge as the country with the highest number of unicorns, after, of course, the US and China which added 487 and 301 unicorns, respectively, in 2021.

Start-ups in India have grown remarkably over the last six years. Five Indian companies have hit unicorn status so far this year. Social e-commerce start-up Deal Share became the fifth unicorn of the year with $165 million fundraise following the entry of HR tech start-up Darwin box, ed-tech firm LEAD, analytics company Fractal, and mother care entity Mama earth in the coveted unicorn status.

President Ram Nath Kovind while addressing both the houses of Parliament on the first day of the Budget

Session said that more than 60,000 start-ups set up in 56 different sectors since 2016 have helped create 600,000 new jobs in the country.

The Economic Survey also highlighted that most of India's start-ups are in the IT/ knowledge-based sector.

Emerging Global Mega Trends

2021 was a year when the pandemic continued to cast its shadow and impact global economy. IMF's WEO outlook (Jan-2022) pegged global GDP growth for 2021 at 5.9% in the background of the pandemic, supply chain disruptions, geopolitical tensions, and concerns around inflation. India's GDP for FY2022 is estimated at 9.2% as per the GoI's Economic Survey 2021-22.

As a result of the shifts forced by the pandemic, 2021 saw the emergence of six major global megatrends that will refocus policies, strategies, and investments at a global scale, not just in 2022, but for the coming 5-8 years and even beyond. These trends include:

- Global Talent Pool Transformation
- Global Supply Chain Replanning
- Global Big Tech Regulation
- ESG-Led Business Models
- Formalization of Circular Economy
- Technology for Good @Pace and Scale

Conclusion

Entrepreneurship and trade have blossomed in India for centuries. Built on these foundations, India's current entrepreneurial ecosystem is a result of three waves of entrepreneurial activity with distinct focus areas – Information Technology (IT), consumerism, and innovation. In our view, each of these waves is marked by distinct kinds of businesses, predominant activities, and ecosystems comprising various social, regulatory, technological, economic, and cultural elements. While each wave draws upon the previous one, we find that it is distinct from its predecessor and successor.

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Preventing Sybil Attack in Anti-Image Spanning Technique Using Image Processing

Prof. Himanshu Bagwaiya, Ms. Diksha Kujur, Mr. Harsh Thakur

Abstract

Sybil Attack as of multiple identities for malicious intent named after the famous multiple personality disorder patient "Sybil". This particular attack has been used by spammers to create multiple websites or ids with identical domain names with junk and duplicate content. These pages have no quality content and are created just with the intention to create spam and drive traffic. All these webpages are interlinked to each other in order to boost their search engine traffic. In Sybil attack each node can be preferred to as a separate webpage that the spammer creates, and each of these webpages interlink to each other thus forming a network similar to link farms. The spamming webpages link to other nodes and thus create a huge linked for improving popularity. In this paper the researchers are introduce anti-image spamming technique for preventing to Sybil attack to attackers.

Keywords: Anti-Image Spamming, Sybil Attack, Peer-to-Peer Network

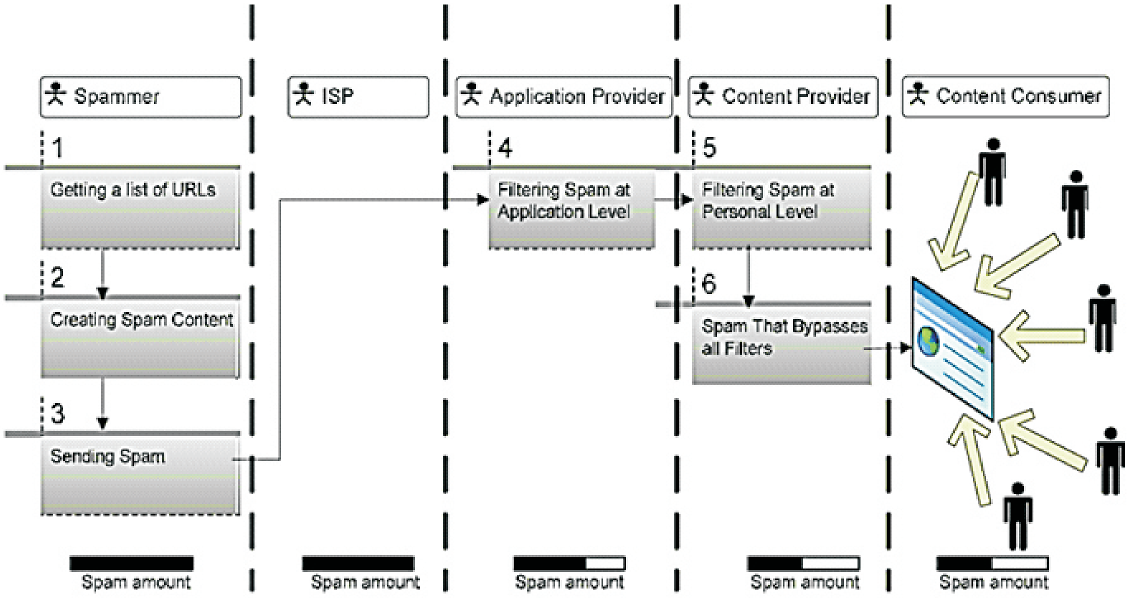
Introduction

The Sybil attack is an attack where in a trusted system is subverted by forging identities in peer-to-peer network. A malicious user pretends to be multiple nodes in the system by faking Identities. Sybil attack is a black hat SEO manipulation where a spammer takes over the trusted systems of various networks like forums, blogs, social networking sites like Facebook, Twitter etc. They create multiple identities using each one of these networks in order to improve the reputation of the main ID. With this reputation they post 'n' number of ads and posts hoping that they don't get noticed. A spammer may also create Sybil attack by creating a lot of sites that link to each other. These sites may be pure spam blogs or irrelevant pages with low quality content. Using Sybil attack to manipulate the search engine is very rare but still there are spammers who use such tactics to gain traffic to their sites. Search engines are trying to take action towards such attacks. Sybil Attack as of multiple identities for malicious intent named after the famous multiple personality disorder patient "Sybil". This particular attack has been used by spammers to create multiple websites or id's with identical domain names with junk and duplicate content. These pages have no quality content and are created just with the intention to create spam and drive traffic. All these webpages are interlinked to each other in order to boost their search engine traffic. In Sybil attack each node can be preferred to as a separate webpage that the spammer creates, and each of these webpages interlink to each other thus forming a network similar to link farms. The spamming webpages link to other nodes and thus create a huge linked for improving popularity. Spammers put their spam content into the image. They embed text such as advertisement text in the images and attach these images to emails. Anti-spam filter that analyse content of email cannot detect spam text in image.

Type of image spam

1. Text-only image
2. Sliced image
3. Randomized image
4. Gray images
5. Colour modified image
6. Wild background image
7. Multi-framed animated image
8. Stock splits

Fig.1: Life Cycle of a Spam



Literature Review

One practical limitation of structured peer-to-peer (P2P) networks is that they are frequently subject to Sybil attacks: malicious parties can compromise the network by generating and controlling large numbers of shadow identities. In this paper, we propose an admission control system that mitigates Sybil attacks by adaptively constructing a hierarchy of cooperative peers. The admission control system vets joining nodes via client puzzles. A node wishing to join the network is serially challenged by the nodes from a leaf to the root of the hierarchy. Nodes completing the puzzles of all nodes in the chain are provided a cryptographic proof of the vetted identity. We evaluate our solution and show that an adversary must perform days or weeks of effort to obtain even a small percentage of nodes in small P2P networks, and that this effort increases linearly with the size of the network. We further show that we can place a ceiling on the number of IDs any adversary may obtain by requiring periodic reassertion of the IDs continued validity.

Mobile social networks as emerging social communication platforms [01]–[03] have attracted great attention recently, and their mobile applications have been developed and implemented pervasively. In mobile social networking applications, profile matching acts as a critical initial step to help users, especially strangers, initialize conversation with each other in a distributed manner. Yang et al. [04] introduced a distributed mobile communication system, called E-Small Talker, which facilitates social networking in physical proximity. E-Small Talker automatically discovers and suggests common topics between users for easy conversation. Lu et al. [5] studied e-healthcare cases by proposing a symptom matching scheme for mobile health social networks. They considered that such matching scheme is valuable to the patients who have the same symptom to exchange their experiences, mutual support, and inspiration with each other. We studied the iCPM for Scenario-2. In this protocol, the responder prepares multiple categories of messages where two messages are generated for each category. The initiator can obtain only one message related to one category for each run. During the protocol, the responder is unable to know the category of the initiator's interest. To receive which message in the category is dependent on the comparison result on a specified attribute. The responder does not know which message the initiator receives, while the initiator cannot derive the comparison result from the received message. We provide an analysis of the effectiveness of the iCPM, and show that the iCPM achieves full anonymity. The iCPM to obtain the iPPM, which has the same anonymity property as the iCPM. The iPPM allows the comparisons of multiple attributes for profile matching. The responder defines a predicate, similar to [06], which is a logical expression made of multiple comparisons between its own attribute values and the initiators attribute values. The initiator receives one message from the responder corresponding to the specified category. To receive which message in the category is dependent on whether the initiator's attribute values satisfy the predicate or not. We provide an analysis of the effectiveness of the iPPM.

Problem Definition

Sybil Attack as of multiple identities for malicious intent named after the famous multiple personality disorder patient "Sybil". This particular attack has been used by spammers to create multiple websites or id's with identical domain names with junk and duplicate content. These pages have no quality content and are created just with the intention to create spam and drive traffic. All these webpages are interlinked to each other in order to boost their search engine traffic. In Sybil attack each node can be preferred to as a separate webpage that the spammer creates, and each of these webpages interlink to each other thus forming a network similar to link farms. The spamming webpages link to other nodes and thus create a huge linked for improving popularity.

Proposed Solution

Anti-spamming is a technique to detect Sybil attack. This is preventive technique for black hat attack. Some of the points are describe below:

1. **Spamming image:** Spammers put their spam content into the image. They embed text such as advertisement text in the images and attach these images to emails. Anti-spam filter that analyse content of email cannot detect spam text in image. Stopping spam exists at before spam is sent, after spam is sent,

legal solutions.

2. **Text embedded into image:** Photos and other graphical images add interest to web pages and printed materials with a minimum of effort. Embedding pictures into your written text is quick and easy, although the process differs greatly depending on the application you are using. It is possible to embed pictures and other graphical images in Word, PowerPoint, WordPress and HTML.
3. **Steganography within image:** Steganography is the art of hiding the fact that communication is taking place, by hiding information in other information. Many different carrier file formats can be used, but digital images are the most popular because of their frequency on the Internet. For hiding secret information in images, there exists a large variety of steganography techniques some are more complex than others and all of them have respective strong and weak points. Different applications have different requirements of the steganography technique used.
4. **Changing the object position:** Mostly user change its motion in dimensional way.
5. **Using a part of image:** Mostly user crop its image.

Conclusion

On analyzing complete scenario regarding the Sybil attack and the attack over the text and on using the images by making they sense to seem as a different image than already available images in the present system.

So here we are taking 5 important points on which we are going to carry our research by using image spamming concept over the social media websites and network to avoided Sybil attack or to recognize the fake account which assume to get a fake popularity among the social media by using the images (spamming content) of others profile or from other social media available on to the web world.

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The Psychological Attitude and Behavior of a Rapist: A Review Study

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Abstract

Rape and sexual violence are sad facts of life across cultures with an incidence of 0.1 to 4.9 per 100,000 couples internationally, the rates in India being even higher. According to the National Crime Records Bureau more than 24, 000 cases of rape were registered in India in 2011 with latest estimates reporting a new case of rape every 22 minutes. Sexual violation is traumatizing physically, emotionally and morally. It therefore demands greater attention because the most common and lasting effects of rape involve mental health concerns. Not only is it important to know the impact rape has on its victim, but equally and perhaps more important is to understand the psychology of the offender which may help prevent such crimes against the female gender.

Keywords: Rape, Rapist, Psychology, Sexual, Crime

Introduction

There are 3 basic ways in which a person gains sexual access to another individual through consent (negotiations), through pressure(exploitation), or through force (intimidation).

Sexual assault is always traumatizing and demeaning for its victims. But the motives behind it vary.

No one can deny that being raped is one of the most distressing, horrendous and demeaning experiences anyone could have. It almost always leaves the victim with feelings of self-loathing, self-blame and rage, and can cause post- traumatic syndrome disorder [PTSD].

Methodology

Sexual offending literature consists of three main types of theories: Single-factor, multifactor, and micro theories.

1. **Single-factor theories:** These refer to theories that attempt to explain a single unifying underlying cause of sexual aggression, e.g., psychodynamic, evolutionary, cultural, or socio-cognitive theories. While in and of themselves single-factor theories cannot explain causally many of the rape cases, they contribute in generating good multifactor theories.
2. **Multifactor theories:** These combine a number of single factor theories into a comprehensive explanation of interactions and causal relationships that go to create a favorable environment for rape to occur, e.g., confluence model, integrated theory, quadripartite theory, and an unification of all these theories into one metatheory - integrated theory of sexual offending. Such theories are useful in developing risk assessment and intervention strategies for groups of offenders.
3. **Micro theories:** These are essentially descriptive theories developed from an analysis of the offence data and offenders' accounts of their behavior. They specify how offending occurs in terms of core cognitive, behavioral, affective, volitional, and contextual factors and provide excellent shared relapse prevention plans for offenders and their therapists/supervisors.

Objectives

The WHO states that the principal factors that lead to the perpetration of sexual violence against women, including rape, are:

1. beliefs in family honor and sexual purity;
2. attitudes of male sexual entitlement;
3. weak legal sanctions for sexual violence.

No single facet explains the motivation for rape; the underlying motives of rapists can be multi-faceted. Several factors have been proposed: anger, power, sadism, sexual gratification, or evolutionary proclivities. However, some factors have significant causal evidence supporting them. American clinical psychologist David Lisak, co-author of a 2002 study of undetected rapists, says that compared with non-rapists, both undetected and convicted rapists are measurably angrier at women and more motivated by a desire to dominate and control them, are more impulsive, disinhibited, anti-social, hypermasculine, and less empathic.

Sexual aggression is often considered a masculine identity characteristic of manhood in some male groups and is significantly correlated to the desire to be held higher in esteem among male peers. Sexually aggressive behavior among young men has been correlated with gang or group membership as well as having other delinquent peers.

Gang rape is often perceived by male perpetrators as a justified method of discouraging or punishing what they consider as immoral behavior among women for example wearing short skirts or visiting bars. In some areas in Papua New Guinea, women can be punished by public gang rape, usually through permission by elders.

Literature Review

Nowadays rape and rapist are very familiar terms in our daily life. But have you ever wondered why do men rape and what must be the psychology of that person for committing such a brutal actfi

Rape culture is pervasive. It's embedded in the way we think, speak, and move in the world. While the contexts may differ, rape culture is always rooted in patriarchal beliefs, power, and control. We read daily at least 1 rape case and think that society is becoming very brutal but nobody thinks that they also come in that society and they equally contribute for everything happening in the society. Rape is not a crime it's a sin and government can give punishment for crime but what about sins happening on a daily basis who will take care of it, when will these devilish acts will stop.

Lastly, to end rape culture, perpetrators must be held accountable. By prosecuting sexual violence cases, we recognize these acts as sins and send a strong message of zero-tolerance.

Why do Men Rape?

But have you ever wondered about the Rapistfi

This is Complicated Question with Multiple Answers, As several Factors play roles in producing a Rapist.

A sexual assaulter can be any kind of person, this statement isn't meant to make everyone scared of everyone else; rather, it just means that there isn't one specific type who commits such kinds of crimes.

This is what Dr. Samuel, a US clinical psychologist, learned when he anonymously interviewed 50 men back in the 1970s who had confessed to having raped someone. These men had diverse backgrounds, social statuses and of course different personalities and mentalities. What surprised him was how unconcerned they sounded when talking about such a criminal offense.

Motives behind Rape

1. A lack of empathy
2. Narcissism
3. Feelings of hostility towards women

Toxic masculinity

Sherry Hamby, a research professor of psychology at the University of the South in the US state of Tennessee, told that "sexual assault is not about sexual gratification or sexual interest, but more about dominating people."

Hamby, who is also founding editor of the American Psychological Association's journal Psychology of Violence, explained how toxic masculinity promotes rape culture. "A lot of offenders of rape and other sexual assaults are young men," she said. "The only way to have social status among male peers in many cases is to be highly sexually experienced, and not being sexually active is often stigmatized."

She believes that these kinds of peer pressure set men up to become sex offenders because "many are just in absolute panic they're going to be discovered as not sexually experienced by their peers."

In other words, there are elements at work in some cultures, and often even in media, that suggest to these men that they should assert dominance over women as a form of fake masculinity and that stigmatize those who don't have a lot of sexual encounters.

Is rape a sexual desire or an act of violence?

It is necessary to first establish that rape is not a behavioral or mental disorder, but a criminal offense. Although some rapists may have a psychological disorder, there is no such disorder that compels people to rape.

Evolutionary biologist Randy Thornhill and evolutionary anthropologist Craig Palmer believe, in contrast to Hamby, that the primary motive behind rape is indeed sex.

They argue that rape is an adaptation — a result of Darwinian selection and are of the opinion that it evolved to increase the reproductive success of men. They point out that most victims are women of childbearing age, saying this supports their hypothesis that rape derives from a desire to reproduce.

However, their book, "A Natural History of Rape: Biological Bases of Sexual Coercion," was sharply criticized in the science journal Nature. It said that the pieces of evidence cited by the authors were misleading, biased or "equally support alternative explanations."

In fact, most social scientists, psychologists and feminist activists are of the opinion that rape nearly exclusively has to do with issues of power and violence. They say that rape is not about lust but motivated by the urge to control and dominate, and that it could also be driven by hatred and hostility towards women.

Hostility toward women

Rapists often see women as sex objects who are there to fulfill men's sexual needs. They tend to hold false beliefs, often described as rape myths. For instance, a rapist can believe that if a woman says no, she really means yes, and that she is just playing around or challenging him.

Antonia Abbey, a social psychologist at Wayne State University in the US city of Detroit, wrote that one repeat assaulter believed the woman "was just being hard to get." Another believed that "most women say 'no' at first most times. A man has to persist to determine if she really means it."

Abbey quoted yet another repeat offender as saying: "I felt as if I had gotten something that I was entitled to, and I felt I was repaying her for sexually arousing me." This man described both of his rape experiences as "powerful," "titillating," and "very exciting."

Sherry Hamby told that in some cultures, patriarchy and dominance are expressed through a kind of "dehumanization" in which women are seen as inferior beings to men. This makes it much easier for women to become the targets of aggression.

According to Hamby, for men in such cultures, "part of their cultural training is for them to lose touch with their emotions." They do not know how to deal with their own feelings and even worse, they are not aware of the feelings of others or simply do not care.

The link between narcissism and rape seems to be especially strong when repeat offenders are concerned. One of the key characteristics shared by rapists and narcissists is a tendency to dehumanize others.

The Socio-Cultural Context of Rape: A Cross-Cultural Study. Journal of Social Issues

Examined the incidence, meaning, and function of rape in a cross-cultural sample of 156 tribal societies from the assumption that human sexual behavior, although based in a biological need, is an expression of cultural forces. Two general hypotheses guided the research: (1) The incidence of rape varies cross-culturally, and (2) a high incidence of rape is embedded in a distinguishably different cultural configuration than a low incidence of rape. Data suggest that rape is part of a cultural configuration that includes interpersonal violence, male dominance, and sexual separation. Rape is interpreted as the sexual expression of these forces in societies where the harmony between men and their environment has been severely disrupted.

Types of Rapists

- **The Sadistic Rapist:** Responsible for 5% of rapes, he is one of the most dangerous types, since physical force arouses and excites.
- Sexuality and aggression have become fused as one in his mindset. Total control, anger, domination, and physical force are key traits of his psyche. The sadistic rapist usually ends up killing his victims.
- **The Control Rapist:** Responsible for over 70% of rapes, this type of rapist is actually not intent on hurting his victim physically, but wants to possess his victim completely. His acts are premeditated and are often preceded by rape fantasies that he relives and impresses upon his victims. He may, at times,

carry a weapon, not to cause injury, but to use a tool for intimidation. He is known to take his victim down in two tenths of a second.

- Verbal excuses or attempted intimidation by his victim are usually not effective in placating this type of psychopath. He doesn't listen to his victims and will ignore their words and pleas completely. This type of rapist is commonly the perpetrator in incidents of date rape.
- **The Anger Rapist:** It is known that this type of sexual offender rapes impulsively, randomly and his acts are savage, and accompanied by uncontrolled physical violence. The act is of short duration, accompanied by abusive language, and the victim usually suffers extensive physical trauma such as broken bones and massive bruising. This rapist usually blames the victim for the assault: "Look what you made me do, b***h! It's your fault!"
- The most dangerous part of an encounter with this psychopath is the last ten to twenty minutes, when he is convinced that his victim is absolutely blamable for what had just transpired. It is important to be cautious for the duration of this part of the encounter, and not to beg or plead.
- **The Acquaintance Rapist:** This perpetrator knows his victim, has been introduced to her, or has met her briefly. He has absolutely no inhibitions about using verbal or physical coercion to force his victim into sexual activities. He has no respect whatsoever for his victim and is aggressive. Crying, begging, pleading etc will have no impact on a victim's likelihood to escape. In fact, he couldn't care less. Acquaintance/date rape is the most commonly reported sexual assault today.

Rape is a choice. Rapists choose to rape… we just don't want to think about the uncomfortable truth that a rapist is just a guy, any guy, who rapes.

CONCLUSION

1. Rape is not a crime it's a sin.
2. If women is saying 'NO' it means 'NO'.
3. The life of victim changes upside down totally.
4. Sex Education is must to make people understand about intimacy, proper sex and violence.
5. Rape is not only about Women but also Men.

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Software Testing in Today's Scenario and its role in Software Development

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Abstract

Software testing refers to the process of verifying and evaluating the function of a software application or product. It's used to reduce or eliminate bugs and minimize the amount of money a company must invest in addressing issues and releasing updates. There are also two specific techniques used to assess the stability and performance of software: black-box and white-box testing. Each offers a different perspective on how well the coding holds up. Black-box testing: This involves testing software without looking at what's inside — the coding, systems, and dependencies. White-box testing: With white-box testing, the aim is to examine the structure within the application, looking at the inner workings of the app, as opposed to how it functions overall. It is a method to check whether the actual software product matches the expected requirements and to ensure that the software product is defect-free. This paper shows what is software testing and why it is so important in today's scenario. The paper summarizes what is software testing, why it is important, the benefits of software testing, the types of software testing, the role and importance of software testing in software development, benefits of software testing in software development, and challenges faced in the scenario of COVID-19.

Keywords: Software Testing, Software Development, Functional Testing, Non-functional Testing

Introduction

Software testing is the process of evaluating and verifying that a software product or application does what it is supposed to do. In simple terms, Software Testing means the Verification of Application Under Test (AUT). Testing is a vital role played in the process of software development. The role of testing in software development begins with improved reliability, quality, and performance of the software. It assists a developer to check out whether the software is performing the right way and to assure that software is not performing what it is not supposed to do. The purpose of software testing is to identify errors, gaps, or missing requirements in contrast to actual requirements.

Categories of Software Testing

1. **Functional testing:** it is a type of software testing in which the system is tested against the functional requirements or specifications. It ensures that the requirements or specifications are properly satisfied by the application. This type of processing is particularly concerned with the result of processing. It focuses on the stimulation of actual system usage but does not develop any system structure assumption. This testing focuses on checking the user interface, APIs, database, security, client or server application, and functionality of the application under test.

   Major functional testing techniques are unit testing, integration testing, smoke testing, user application testing, interface testing, usability testing, system testing, regression testing.

2. **Non- functional testing:** Non-functional testing is a type of software testing to test non-functional

parameters such as reliability, load test, performance, and accountability of the software. The primary purpose of non-functional testing is to test the reading speed of the software system as per non-functional parameters. The parameters of non-functional testing are never tested before the functional testing. Major non-functional testing techniques are load testing, security testing, portability testing, accountability testing, reliability testing, and efficiency testing.

3. **Maintenance testing:** Performing testing after the software is released is known as maintenance testing. Maintenance testing is different from new application testing. There are two important parts of maintenance testing such as confirmation maintenance testing and regression maintenance testing. Major maintenance testing techniques are sustenance testing, new feature testing, high-risk testing, high defect feature testing, exploratory testing.

Role and importance of software testing in software development

"Testing is an infinite process of comparing the invisible to the ambiguous in order to avoid the unthinkable happening to the anonymous." –James Bach

Software Testing is Important because if there are any bugs or errors in the software, they can be identified early and can be solved before delivery of the software product. Properly tested software product ensures reliability, security, and high performance which further results in time-saving, cost-effectiveness, and customer satisfaction.

Back in history, many companies faced monetary loss due to software failure:

1. **Nissan –** Nissan have to withdraw over 1 million cars from the market due to software failure in the airbag sensory detectors. 2 accidents were reported because of software failure.
2. **Starbucks –** Starbucks was forced to close 60% of their stores in the US and Canada due to POS software failure. There was a time when they served coffee for free because they were unable to do a transaction.
3. **Amazon –** Few of the 3rd party sellers faced a heavy loss because of their product price reduced to some amount because of a software failure.
4. A software bug caused the failure of a $1.2 billion military satellite launch, this was the costliest accident in history.
5. A bug caused the bank accounts of 823 people of a big bank in the US, to be credited with $920 million.

In every company, testing plays an important and valuable role in the life cycle of software development. The process of testing may differ from one company to another. Testing can be done in two ways: manual testing and automated testing. Manual testing is done by human testers who check codes and bugs in software manually. On the other hand, automated testing is the process of using computer programs to execute a system.

Automated testing requires special software such as load runner and WinRunner. There are several tools available for software testing on the internet. It is essential to assure that each unit works as desired. If bugs are found at the initial level, the developer can create accurate and reliable software.

Benefits of software testing in software development

Software testing is important because if there are any bugs or errors in the software, they can be identified early and fixed before the software product is delivered. A properly tested software product ensures dependability, security, and high performance, which leads to time savings, cost-effectiveness, and customer satisfaction.

1. Helps in saving money
2. Security
3. Quality of product
4. Satisfaction of the customer
5. Enhancing the development process
6. Easy while adding new features
7. Determining the performance of the software

Challenges in software testing in today's scenario of COVID-19

1. We need automated testing in fast-changing landscapes: When COVID-19 tests were finally available, the initial tests took up to a week to deliver results. Very soon, pharmaceutical companies started to create better, automated tests that could deliver results faster. As of the time of this writing, new tests produced test results in about 5 to 15 minutes. This agility in testing made it easier to plan for countermeasures to tackle the aggressive spread of the virus.
2. Test automation is not enough, we also need a good testing processor and infrastructure.: Even with faster, automated COVID-19 tests, we saw that there were other impediments. The number of testing sites was few, tests needed to be sent to a remote lab, there were long lines (which negated the purpose of "social distancing"), and limited supplies (resulting in people leaving untested). We also heard about challenges related to testing results reporting as more and more private facilities started to offer the tests.
3. Testing techniques need to evolve to look at alternative approaches: , software testing has also evolved from traditional approaches of running tests on software to using novel AI and machine learning techniques to identify if defects are hiding in the software. The latter techniques pick up possible defects by analysing the other types of data (e.g., application logs, incident logs) to identify defects without running any actual tests. Similarly, AIOps techniques use AI and machine learning to automate not only to reduce the mean time to detect, but also provide extensive root cause analysis information that helps us prevent the problem from re-occurring
4. risk-based testing is approach is preferred: from health officials that persons most at risk from COVID-19 complications (and even death) are seniors (above the age of 60) or those with underlying health conditions (see figure below). We sadly observed this in reality as COVID-19 ravaged a senior nursing home in Seattle, WA, causing more than 19 deaths in a short span of time. In software testing, we can

immediately relate this to the well-defined concept of risk-based testing. Since testing and test resources are scarce, it is also important to optimize the testing we do using techniques such as model-based testing.

5. Need prevention, early testing, and contingency management.: One of the key initiatives being advocated in the prevention or containment of COVID-19 is social distancing, sheltering in place, and quarantining. In the software domain, we can immediately relate this to using software security scanning and testing tools, anti-virus tools, and enterprise security systems to prevent hacker attacks.

Challenges for Software testers in COVID -19 Situation (Some Case studies)

What's changed for software testers in the last few monthsfi Beyond the need to set up a home office, that is,

When the COVID-19 coronavirus led to stay-at-home orders in the U.S., nearly every industry was affected, but Software QA teams have been impacted more than many.

At first glance, you wouldn't think that the work-from-home orders issued by most of the state governors in the U.S. would have much of an impact on QA testing. After all, testers can use their computers at home and continue their work. But, of course, there's more to it than that.

We typically had 10 to 20 percent of the people working from home at any time” before COVID-19 became a factor, says Vishal Gupta, CTO of Unisys. After the lockdown, “We were able to turn in a week and a half from 10% remote to 95% remote from software development perspective and a testing perspective,” Gupta says. Making the change from working in the office to working at home was a significant effort for Unisys, but such adjustments have been necessary for companies of every size, from tiny firms to those with a global presence. Perhaps especially for the latter. As COVID-19 became a pandemic, it was clear that its response needed to be global, so Unisys started moving its employees home. But the move was complex and challenging.

Employees may not have computers at home, and depending on their geographical region they may lack fast internet connections. Even when an employee might have a computer, it may not be suitable for software development or QA. And getting an internet connection fast enough to be useful can be problematic.

One advantage of sending techies into a home office is that they aren't bewildered by technology. Most can cope with collaboration tools such as Zoom and Microsoft Teams, and they probably can access the existing development environment without a call to technical support.

“Thankfully we have talented IT and network engineers who quickly were able to provide a solution,” Donets says. “They set up a virtual environment on Microsoft Cloud infrastructure in which every QA engineer can securely login and access our central system right from their home computer.”

Security may be a significant problem for most home offices. However, a commercial-grade VPN generally can handle the remote access requirements, using a VPN gateway into the company network. Some IT departments may need to scurry to add licenses and adequate capacity for the number of users working from home.

Questions have been raised about Zoom's privacy policies (which the company has hastened to address). These are less of an issue for larger companies, however. “The Zoom enterprise edition has better security,” says Gupta. “The key is to use passwords.” Even if someone gets the address of a Zoom session, they still can't get into it. “The enterprise edition has stronger encryption,” he adds.

Gupta noted that Unisys has another weapon in its security arsenal, a product called Always On Access which uses the company's hyper-secure Stealth micro segmentation technology. So those Zoom sessions can be protected using AOA and Stealth.

Conclusion

So far, the unexpected requirement for software teams to work from home seems to be working out pretty well. But it is not yet clear if companies will send staff back to their offices once the coronavirus restrictions are gone. Everything depends on the nature of the work that the developers and QA staff do, the company culture, and the security requirements of the work involved.

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An Analysis of Start-up Policy in Madhya Pradesh

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Abstract

India adopted several policies science independence to achieve faster economic growth with equitable distribution of fruits of the economic growth but the problem of unemployment and poverty especially among the educated youth remained unsolved. The failure resulted in an unrest among the young generation and further created several social and economic problems. The main reason behind it is an obsession to get white collar jobs. If we analyse the existing economic facts, it is observed that India is the second largest country in terms of population, where about 31 million people are unemployed. Increasing unemployment become the biggest challenge for the fast-emerging India. By looking these unemployment rates, Indian government took an initiative to promote self-employment by the way of Start-up India Policy in the year 2016, which gave the youth a new hope to enhance their talent and capacities. At present about 14,600 Start-up businesses in different category are in operation. Government is continuously reforming the Start-up policy for making Start-up businesses successful. In Madhya Pradesh a total of 423 Start-up businesses are in operation. But the other face of coin is also important. Many Start-up businesses are facing different financial and marketing challenges. This paper is an attempt to analyse the progress of Start-up businesses in the country and in the state of Madhya Pradesh and to identify the difficulties faced by them.

Keywords: Government, Youth, Unemployment, Start-up India Policy.

Introduction

Madhya Pradesh is the second largest state in India and is among the fastest growing ones with significant investments and economic growth in the past few years. The State of Madhya Pradesh has developed a robust infrastructure along with conducive policy environment and industrial growth which has boosted the growth of industrialization. Realising the high potential in the manufacturing industry, this State has positioned itself as a favourable destination for high tech industries with heavy Engineering, IT, Telecommunications, ESDM, Automobiles, Textiles, Cement, Pharmaceuticals, Agro and Food Processing based industries by establishing dedicated Industrial Cluster in various places across the State. This has increased the growth of industries and has therefore resulted in the higher demand for Incubation, Plug and Play facilities for upcoming entrepreneurs in the State. This article talks about the various features of the Madhya Pradesh Start-up Policy.

Objective of the Study

Following are the objectives of the study:

- To evaluate the Start-up India policy. initiative in Madhya Pradesh.
- To identify the problems faced by the Start-up businesses in Madhya Pradesh.

Literature Review

The setting up of an Indian Start-up system believes in continuous growth with innovative attitude becoming the third largest Start-up ecosystem globally and is expected to witness a growth of 12 -15 % annually. India had about 50,000 Start-ups in 2018 implying that 2 – 3 Start-ups are born every day (DIPP, 2018). Further, the report released the ranking for Start-up Ecosystem of states in which Gujarat was reported as the top performer for providing the best facilities to the Start-ups. “The top performers after Gujarat were Karnataka, Kerala Odisha and Rajasthan. Next in the run were Andhra Pradesh, Bihar, Chhattisgarh, Madhya Pradesh and Telangana” (The Hindu, 2018). According to MSME Annual Report (2014 – 15), India's 1.3 million small scale industries contribute 45% of industrial output, 40% of exports and 42 million in employment. There is one million job creation every year and more than 8000 quality products are produced (Bannerjee, 2018). The year 2017, witnessed grand job stagnation in India, when it lay off thousands of employees without a prior notice (Firstpost, 2017). Companies like TCS, Cognizant, Infosys, Tech Mahindra, fired employees not caring about the size of the companies, year of establishment and annual revenue. The main reason behind the layoffs was automation and change of foreign policies with respect to any nation. Many people believe that automation has snatched the jobs. With the revolutionary technologies, these Start-ups boosted the economy and created new industries. They became big profit making engines when they went public, not just for entrepreneurs but also for the shareholders and employees. Like Google made its employees worth more than $5 million while the founder of Infosys, Narayana Murthy helped wealth creation among the educated middle class of the country. Also, these companies invest with their friends and business partners and start a virtuous circle of making a competitive advantage (Economic Times, 2011). The success stories of Indian entrepreneurs speak that majority of them belong to underdeveloped cities which lack business infrastructure, transportation and technology. Many entrepreneurs are being produced by diverse small towns of India like Dharamshala, Udupi, Udaipur, etc. According to the investors, entrepreneurs from smaller markets are more enthusiastic and dedicated to their work (Economic Times, 2015).

Research Methodology

The study is descriptive in nature. The area of study is Madhya Pradesh and it is based mainly on the secondary data. For identification of the problems of some of the Start-up businesses of the state, interview method was adopted. The secondary data collected from various reliable sources such as various study reports published by Government of India, special report on Start-up from various institution like FCCI, NASSCOM, publication of various reports by state governments and other researches at national and international level, World Employment Social Outlook Reports by International Labour Organization, various surveys conducted by National Sample Survey Organization, Global Entrepreneurship Development Institute, Ease of Doing Business Report published by World Bank etc. The data and information so collected were further processed through summarization and tabulation and simple statistical tools were used to analyze the processed data.

Introduction of the Start-up Policy

The new Start-up India Movement initiated by the Government of India is basically aimed to change the mindset of Indian youth especially the highly educated youth. It has some unique features which can boost the economic growth with the possibility to expand the business at international level. Start-ups established under this policy usually interpreted wrongly and treated as small business but Start-ups are different from small businesses. "Innovation" is an important characteristic to recognize a business as a Start-up business. "Start-up India is a revolutionary scheme that has been started to help the people who are willing to start their own business and have innovative ideas. This policy provides them a backup support so that they can implement their ideas to establish a business. Under this scheme, Start-up is defined as an entity, private partnership or limited liability partnership (LLP) incorporated or registered in India not prior to five years, with annual turnover not exceeding INR 25 crore in any preceding financial year, working towards innovation, deployment or commercialization of new products, processes or services driven by technology or intellectual property. Such entity must not be formed by splitting up or reconstruction of a business which is already in existence. Start-up India campaign is based on an action plan aimed at promoting bank financing for start-up ventures to boost entrepreneurship and to encourage start-ups with jobs creation.

Progress of Start-up Policy in Madhya Pradesh

Madhya Pradesh is recognized as a "HEART OF THE COUNTRY" and known for its agrarian economy. The state won the prestigious "Krishi Karman Award "for highest growth in agriculture production for consequently three years. Madhya Pradesh is the second largest Indian state by area and the fifth largest state by population with over 75 million residents. To examine the need and importance of Start-up policy, it is important to know the status of unemployment especially among the educated youth of the state. "In 2015, the report of economic survey states that total 15.60 lakh unemployed youth were registered in employment exchanges across the state. Though there was 9.55% decline in number of unemployment, but the percentage of educated unemployed increased from 79.60 in 2015 to 85.74 by the end of December 2016. The government of Madhya Pradesh also realized the need and importance of Start-up policy for generation employment in the state and most importantly to develop an ecosystem for Start-up businesses in the state. The progress of Start-up businesses established in the state are as under:

Table No.1 Number of Start-ups incorporated in different cities of Madhya Pradesh

S.No.	Cities of Madhya Pradesh	No. of Start-up incorporated
1	Indore	171
2	Bhopal	140
3	Jabalpur	25
4	Gwalior	23
5	Others	64
	Total	**423**

Source: Department of MSME, Government of Madhya Pradesh

Above table clearly indicates that out of total 423 Start-up business established in Madhya Pradesh about 85 percent was established in four major cities of the state and 73.5 percent in only two cities i.e. Indore and Bhopal. Indore has the highest count i.e. 171 Start-up businesses as Indore is the hub of industries in Madhya Pradesh. Second position is banged by the capital city Bhopal with 140 number of Start-ups. In Jabalpur and Gwalior, total 25 and 23 Start-ups were established respectively. Total 64 Start-ups were established in other cities of the state like Katni, Satna, Betul, Sagar. It is also important to know that how the total Start-ups are distributed among different sectors. Following table classify the Start-ups of the state on the basis of the sectors of the business:

Table No. 2 Sector -wise Classification of Start-ups in Madhya Pradesh

S.No	Sector	Cities					
		Bhopal	Indore	Gwalior	Jabalpur	Others	Total
1	Food Processing	4	8	-	-	2	14
2	Industrial	1	1	-	-	-	2
3	Automobile	2	4	2	-	2	10
4	Electronic	2	5	2	1	1	11
5	IT & Software	25	36	5	6	7	79
6	Media	3	2	-	1	-	6
7	Hospitality	3	4	-	-	2	9
8	Renewable Resources	8	5	1	-	-	14
9	Construction	7	2	1	2	6	18
10	Healthcare	12	8	2	-	8	30
11	Education	18	23	3	3	9	56
12	Marketing	15	15	-	-	8	30
13	Service	32	30	3	7	7	79
14	Others	8	28	4	5	12	57
	Total	**140**	**171**	**23**	**25**	**64**	**423**

Source: Department of MSME, Government of Madhya Pradesh

Challenges faced by Start-ups

All policy initiatives have its own pros and cons and Start-up policy is not an exception. It is true that this policy has created a new atmosphere of entrepreneurship in the country as well as in the state of Madhya Pradesh and created a new hope to reduce the magnitude of unemployment but to strengthen the policy and motivate the young talent, problems of Start-up businesses should be resolve on priority. Following are some important challenges of Start-up businesses:

- **Competition:** The major issue faced by the Start-ups is the cut throat competition prevailing in the market from those companies who are the big players of the market and has huge money power to adopt attacking marketing strategies. To face this tough challenge, support at all possible level is required so that they can build trust in the minds of the consumers regarding their innovative ideas.

- **Seed-Funding:** Though the government announced a fund of Rs. 10,000 crores budgetary support for Start-ups but the level of actual disbursement is not satisfactory. Start-up are also attracting funds from private sector but this root has its own challenges and therefore Government should review the existing mechanism of seed funding.
- **Low growth in rural areas:** Indian economy is still a rural based economy and to eradicate unemployment from rural areas, development of entrepreneurship in rural areas are essential. Food processing is the sector by which the economic condition of rural people can be improved. Start-ups developed in the country and the state are limited to urban areas or some big cities having industrial areas. So, priority should be given to Start-ups which are suitable to grow in rural areas of the state. Most of the Start-ups belong to urban areas, and they are self-capable of generating the seed-fund, but the major problem is with rural area. Yet this scheme is not yet popular in the remote areas.
- **Culture:** It is a general trend in traditional Indian families that they do not promote their wards to establish an enterprise after completing their education. Everyone wants to be an Engineer or a Doctor and enjoy a risk-free life. This culture demoralizes the young talent to become an entrepreneur even they have an innovative idea for establishing a business.
- **Unrealistic Expectation:** Some young entrepreneurs have some unrealistic expectations about support of the Government or become a billionaire through Start-ups in a very short period. They are not prepared properly for failures and handle the situations in tough time. This resulted in big failure and demoralize other young potential entrepreneurs of the future.

Conclusion

The Start-ups policy is a unique initiative of the Government to transform the nature of employment and utilize the new and innovative ideas for fast, diversified and sustainable economic development of the country. The progress witnessed at national and state level is encouraging but more efforts are needed to popularize the policy in small cities and diversified it in the sectors which are still not used to develop business opportunities. There was a time when much importance was given to government jobs and higher salary and perks offered by several companies but now this trend is changing especially among the highly qualified youth. Young talent is now converting their innovative ideas in to their own business. Start-up policy is an opportunity to motivate and provide support to these young entrepreneurs at each and every steps of their efforts. Start-up policy can makeover the economy with new areas of employment and therefore Start-up is called to be the game changer of the economy. Though the achievements of the policy initiative are small but itfis expected that in log run this scheme will be a big sector to accelerate economic growth as well as to generate employment at higher rate. The second inning of the UPA Government is also a big hope to accelerate the Start-up India movement with new and more effective support system for the young entrepreneurs.

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A Conceptional Study of Business Management

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Abstract

Business and management research is a systematic inquiry that helps to solve business problem and contributes to management knowledge. It is applied research, is the practical application of science. It accesses and uses accumulated theories, knowledge, method, and techniques, for a specific, stat a business, or client-driven purpose. Business management is contrasted with pure research in discussion about research ideal, methodologies, programs, and projects. Business usually has specific commercial objectives related to products, procedures, or services the comparison of pure research and research provides a basic framework and direction for business to follow. Research deals with solving practical problems and generally employs empirical methodologies. Because research resides in the messy real world, strict research protocols may need to be relaxed. For example, it may be impossible to use a random sample. Thus, transparency in the methodology is crucial. Business management research may be defined as research activities carried out relating to the different functionaries in the business and corporate world. Business research is a process of acquiring detailed information of all the areas of business and using such information in maximizing the sales and profit of business. such a study helps companies determines which product/services is most profitable or in demand, the definition of business research involves acquiring information and knowledge for professional or commercial purposes such as a determining opportunities and goals for a business.

Keywords: Business Management, Business Administrative, Coordination, Corporation.

Introduction

Business management involves the supervision, organization and coordination of business resources and operations to achieve specific objectives. A business manager has a wide range of responsibilities and daily duties that need to be performed to ensure the overall health of the business and its project, cash flow and team member. Business management requires looking at the function which are commonly regarded as the **planning, organising, directing, leading and controlling.** It is the work of a business manager to ensure that employees and resources are effectively coordinated so that the necessary work may be completed and business objectives can be accomplished. In order to effectively manage an organization and its resource, business management need to process both hard and soft skills in a number of different areas.

Objectives

- Make Proper Use of The Available Resources: - The primary aim of establishing a business is to make a profit. And the gain made must be large enough to pay workers, partners and even acquire more machines and labor when the need arises. But then, it is only through efficient use of the available resources that a firm can make maximum profit.
- Ensure Business Development and Growth: - Another objective of management is to ensure business

development and growth in every area of the firm, which is very paramount. Management needs to ensure proper planning and implementation of those plans. Management is also responsible for organizing the business and guiding the company to success.

- Make Futuristic Plans: - Every management understands that there is always room for improvement. They want to make progress and achieve more. An objective of management is to make plans for the future. The plans should most likely consist of things that things already achieved, the next line of action to improve on the result or achieve more in the future. In short, no management will feel satisfied with the progress they have made. There will always be a burning desire to attain more.

Research Methodology

An academic activity that involves identifying the research problem, formulating a hypothesis, collecting and analyzing data and reaching specific conclusions in the form of solutions or general theories. It is determined on the basis of the management theories and concepts to evaluate the performance and growth of the business or organization. They must contain the methods to evaluate data on the basis of the academic activity which are formulating and collective analysis in the business which indicates the performance of the organization. It shows the management on the basis of all level of management which is to be mandatory in each business organization. The management plays the vital role as the backbone of the business.

Literature Review

Business management is the coordination and organization of business activities. Business managers oversee operations and help employees reach their top productivity levels. A business manager may also supervise or train new employees, help a business reach its operational and financial objectives.

Level of management

The management of the organization works in the level of management. There are 3 level of management.

- Top-Level Management
- Middle-Level Management
- Lower-Level Management

1. **Top-Level Management: -** it consists of board of directors, chief executive or managing director. The top-level management is the ultimate source of authority and it manages goals and policies for an organization. It takes more time on planning and coordinating the functions of organization.
    - Top management lays the objective and policies for the organization.
    - The Top management issues necessary instruction preparation of department budget, procedure, schedules etc.
2. **Middle-Level Management: -** it consists of branch manager a departmental manager. They are responsible to the top management for the functioning of their department. They devote more time on organization and directional functions.

- They convey the plans of the organization in accordance with the policies and directive by the top management.
- They are responsible for coordinating the activities within the department and inspiring the lower-level manger.

3. **Lower-Level Management: -** it is mainly concern with supervision and direction of operative employees. It consists of supervisors, superintendent, general foreman, clerk etc.
    - They supervise and guide the subordinate.
    - They communicate workers problem, suggestions and appeal to higher level management.

Business as a Management and Business as an Administrative

Business Management is applicable in business enterprises. It implements the policies made by the administrative, it gets affected by human force, it is mainly known as the soul of institutional / organization. The management is important in supervisory or lower level. This management required technical ability more than administrative ability.

Business Administrative is applicable for non-business enterprise like government office & military.it prepares policies for organization, it gets affected by the external forces. It is mainly known as the brain of the institution. It important for the higher level / top level management.

The management maintain the balance in organization with help of Coordination and Cooperation.

Table 1: Difference between Coordination and Cooperation

S.No.	Basis	Coordination	Cooperation
1.	Meaning	It is an orderly arrangement of group effort to ensure unity of action for achieving the common objective.	It is a voluntary willingness of individual to help each other.
2.	Nature	It crops up due to deliberate efforts of manger.	It crops up due to voluntary efforts of group members.
3.	Process	It is performed by top level management.	It is performed by the person at any level. (Top level, Middle level, Lower level)
4.	Scope	It is boarder than cooperation because	It is termed as a part of coordination. it includes group effort.

When the business is organized the management applies the Principles of Management given by “father of management Henry Fayol.”

The father of management Henry Fayol gave principles.

Fig..1: Henry Fayol's 14 Principles of Management

New Essentials for running a business

- **Finance: -** A business is runs to make a profit through the sale of good and service. Business management is equipped with the financial knowledge, skilled and experience helps to make the right decision for successful running of organisation's. Business management should be fully knowledge and be skilled in budgeting, accounting, taxes, financial analysis and investment. This skilled full knowledge helps management to effectively coordinate with resource, labour and project to ensure minimum losses and maximum profit.
- **Planning: -** The main element of management to work smoothly in PLANNING it helps to effectively allocate resource in order to capitalize on opportunities and mitigate risks. Planning provides flexibility to the organization it is a continuous, futuristic, it is practiced at the all level of organization (top level, middle level, lower level). A management needs to be able to strategies and formulate plans and projects that will drive organizational growth, while also navigating potential risks factors.
- **Leadership: -** As the ultimate goal of the business is to make profit, The organization cannot achieve its objectives without an empowered and well-functioning workforce. Therefore, management need to have strong leadership skills in order to guide their department and effectively manage the risks and problem occurred in the organization. It is the accomplishment of a goal through the direction of human assistance. "LEADERSHIP is a process by which person influence others to accomplished an objective a direct the organization in way that makes it more profit.
- **Communication: -** The communication plays the vital role in organization. "It is the process of sharing ideas, information, views, facts, feeling, etc." among different people from different aspects communication is a key to the directing function of management.it is a continuous process of sending and receiving of information. The element of communications is: - Senders, Message, Receiver, Media like; (e-mail, fax, telephone, post, internet, etc.) Feedback.
- **Risk Management: -** Risk is the most important aspect that the management take to expand the business or when the organization make any changes in the policy so it don't disturb the working of the organization. It is the process of identifying, assessing and controlling threats of the organization. The risk can occur from a variety of sources like finance, technology, management strategies, accidents and natural disasters. Every organization undertake the risk to expand their business and earn more and more profit.
- **Controlling: -** Controlling is the most important element of management. it is goal-oriented program controlling is the part of primary function, it is continuous, flexible and needed at all level of management the objectives of controlling are;
    - To determine the time consumed by work in organization.

- To determine as what and how much work has been done / completed by the work and what was the cost.

- **Staffing:-** Staffing is the process of hiring eligible candidate for vacant post in the organization. the meaning of staffing is an operating of recruitment the staff/employees/ work by evaluating their skills, knowledge and offering the post in the organization. After selecting the candidate, the organization performs the orientation program and make him/her aware with function of institute.
- **Marketing:-** Marketing performs all managerial functions in the field of marketing. Marketing department identifies market needs, opportunities and come out with best and appropriate strategies for exploring those opportunities to make maximum profit. It aims at efficient functioning of market activities. Marketing has made easier the process of exchanging the ownership of good from manufacturer to costumer.

Conclusion

The successful management is not born, it not is made through effective continuous and never –ending work of an organization. the management is both science and art as the organization runs on these formulas. We say it science because it works on the principles of management that make the business activities smooth and helps to coordinate and cooperate, between organization, activities and workers. And it is also an art because to start a business a new creation, Innovation and ideas. It is the process where skilled and knowledge of individual gets motivated to polish the function of organization. the organization directs the surfacing energy to a desired direction. For this, a good strategy and communication between all the levels of management is needed. A good vision statement enables an organization to have a planning process to achieve goal sooner and lowers the chance of risk. The organization works effectively when all function of management work all together. And the organization reach to the height of expansion.

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Adoption of Easy and Eco-Friendly Lifestyle: Need of the Hour

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Abstract

An eco-friendly person has similar characteristics to an eco-friendly product. They have re-using recycling and reducing waste disposal tendency. They conserve energy and natural resources as they are conscious of the impact their actions have on others and the planet's ecosystems. They have more aesthetic sense than others and this way they are the savior of environment. The Earth is blessings of God where chirping of birds and playful activities of animals along with other living beings, make the planet livelier. But greediness has changed the colour and environment of the planet. The longing for money, muscle and power, makes a man insensitive and then they are ready to cross any limit. They least bother about the impact of their actions on the earth. They are not able to understand what the feel development or progress actually very much hazardous in long term. Man has to understand that they have to maintain the equilibrium between environment and human beings otherwise there will be a big thereat on their survival they have to face. This paper investigates the causes of problems and suggests the solutions of it.

Keywords: Eco-friendly, Reusing, Recycling, Reducing, Environment, Survival etc.

Introduction

The second wave of Covid – 19 has made us realize that we have to maintain the compatibility between nature and living beings otherwise very soon situation will be worst. Someone has rightly said, 'Ii is easier to preach than really act' and that is why the first step should be taken from home and we have to be ready to alter our habits. This is the need of hour to develop new habits and make ourselves fit for this eco-friendly atmosphere. However, this is not a herculean task rather it is very simple and easy. But the first and foremost thing is we have been sensitive towards nature, change our mentality and understand the nature of earth. For that there are different levels, where we have to work. Very first thing is polythene and plastic usage is a biggest challenge in front of us. Now in fact we cannot imagine our life without it. But we have to find out the eco friendly alternatives of it. For example, the biggest threat on the earth is overuse of plastic water bottle which we carry with ourselves and reason we give that it is light weight but on the other hand we carry mobile phone, sometime even two phones and laptop also but then we don't feel burden or we can say we give justification that it is the need of hour. So why cannot we carry steel water bottle, terracotta or paper water bottle with us. Carrying hot milk or tea in polythene bags is also the direct poison in our body. Therefore, carrying hot eatables should strictly be prohibited. Along with plastic utensils should be used rarely. In parties numbers of food items are served which is very big cause for pollution as it increases plastic garbage, consume water more and more and even wastage of food as well. Packaging material is also another issue which is polluting our environment very badly which should be discouraged immediately. For which we have to inculcate the habit to carry the clothing bags from home which definitely reduce the plastic from environment. Moreover, online shopping and mall culture is also increasing the plastic garbage too much. So, these are the some major issued should be addressed for reducing plastic and polythene from the environment. Second step is peels of vegetable and fruit should be used as manure instead of throwing into the dustbin. Reusing, recycling should be predominantly developed as a habit. For example: Even old used clothes and other things can be reused for several purposes. Doormats, kitchen cloths should be made up of used clothes. Overall, we see that the biggest responsibility is to providing people proper information to behave sustainably as it influences their consumption beliefs, attitudes and intentions. However, too much information can also complicate these processes and negatively affect behaviour. This is exacerbated when people have accepted the need to live a more sustainable lifestyle and attempt to enact its principles. Drawing on interview data with people committed to sustainability, we identify the contentious role of knowledge in further disrupting sustainable consumption ideals. Here, knowledge is more than just information; it is familiarity and expertise (or lack of it) or how information is acted upon. We find that more knowledge represents a source of dilemma, tension and paralysis. Our data reveal a dark side to people's knowledge, leading to a 'self-inflicted sustainable consumption paradox' in their attempts to lead a sustainable consumption lifestyle. Implications for policy interventions are discussed.

Apart from above there are some more ways by which easily we can make our lifestyle eco-friendly, a way by which household work can be made more eco friendly. The renewable energy source for electricity should be used more and more. Most households are on a grid that provides energy from a non- sustainable source, like oil or gas. Solar panels are an example of a renewable energy technology that uses the sun as an energy source. This photovoltaic system utilizes the sun's energy and transforms it into electricity. The process is a much more environmentally clean option than using energy derived from the burning of fossil fuels. A way that households can be more eco friendly is to invest in a renewable energy source for electricity. Most households are on a grid that provides energy from a non- sustainable source, like oil or gas. A lot of mainstream cleaning products contain various ingredients that are harmful to the environment. In fact, a lot of chemicals used to clean our clothes, dishes, and house end up causing damage to our planet and its biodiversity.

Chemicals such as detergents, preservatives, or foaming agents are the ones that cause the most harm to nature. Switching to products contains sustainably grown or raised ingredients which do not deplete the ecosystem, nor harm it when expelled back out. People should ideally opt for products that contain no synthetic ingredients if they want to go for eco friendly household products. As a lot of activities are done subconsciously as part of our everyday routine, there is a great chance that some, if not most, of the activities aren't always the most environmentally-friendly option available. It only takes a few adjustments in order to change your habits to more eco friendly options. It's better to make sure that the changes are sustainable throughout a longer period of time, so that the change can become habitual. Purchasing water bottles is a common practice - particularly in warm weather. However, a lot of water bottles end up in the ocean as a lot of people fail to recycle them properly. This results in a high rate of pollution in our oceans and the overall environment, as one plastic bottle will break down into 10,000 micro plastic pieces over time - and this micro-plastic pollution is incredibly hard to clean up.

A solution to this problem is to invest in a water bottle that is not only reusable but also the right size, so we can take it with you whenever you travel. Re-using a water bottle also saves money in the long run, as fewer plastic bottles will need to be purchased. In addition, cars are a major cause of global warming, mainly due to the amount of pollution that they emit. Diesel and petrol cars are the main culprits of CO2 emissions. In order to combat this, electric and hybrid cars are rising in popularity as they reduce overall emissions. This is mainly due to the fact that electric cars run on batteries, rather than a combusting fuel source. Hybrid cars on the other hand use both as a fuel source but switch sources as their fuel capacity gets low. Buying recyclable clothes from respectable brands is another important habit to develop. The damaging effects that producing clothes has on the environment are pretty significant. Fast Fashion is mostly to blame, as clothes that fall into this category are produced in massive quantities. These quantities are produced only to be disposed off in billions, which can take up to 200 years to decompose for certain synthetic fibers (such as polyester). These types of fibers also threaten our biodiversity. When washing these garments, micro plastic fibers end up in oceans, which are ultimately ingested by animals. Consumers could be mindful of the type of clothes that they buy, which textiles they are made of, and look for companies that have promised to reduce their emissions and water pollution from producing garments. Biodegradable things should be our priority, all things come to an end. While you cannot control whether or not the products that you dispose of will end up at a location where they will be recycled and reused, you can however purchase products that are made of non-synthetic ingredients and are biodegradable. Biodegradable products dissolve due to contact with bacteria and fungi. So, it is sure that if we get in contact with nature, we won't cause any environmental harm, as they disappear due to natural processes.

Next is eating habit especially meat and dairy are responsible for the majority of Green House Gas (GHG) emissions in the agriculture industry. Emissions occur from the stage of production, to processing, packaging, and to finally being served. Farming releases two powerful greenhouse gases: Methane from livestock during digestion due to enteric fermentation and Nitrous Oxide as an indirect product of organic and mineral nitrogen fertilizers. As the majority of emissions are a result of production and preparation of meat and dairy, consuming less meat would be a positive contribution in reducing GHG emissions. While some opt to drastically change their diets to a vegan one, simply reducing the intake of meat can already have a big impact.

Objectives

- To figure out the causes of disturbance in the environment.
- To find out how can we make environment friendly.
- To analyze the situations by which have reached in the threatening condition.
- To give the solutions for developing easy and eco friendly habits.

Literature Review

Human interference has caused a negative impact on earth ecosystems and therefore witnesses global warming, extreme climate changes, pollution and increased frequency of natural and environmental disasters such as floods, draughts, landslides, explosions. In the present time, it is necessary to create new ways of living and to investigate alternative standards so as to create a sustainable life which is ecologically balanced. Sustainability has been defined as that which "meets the needs of the present without compromising the ability of the future generations to meet their own goals" in the Brundtland report by the UN Commission (United Nations, 1987).

Earlier also there have been exhaustive arguments between activists who advocated that if industrial activities and use of resources is reduced then it would impact economic growth. UN report in 1987 and 'Earth Summit', 1992 in Rio de Janeiro globally clarified that sustainable development means to create equilibrium between use of natural resources and their preservation. It was an alarm to all government organisations over the world to take measures for judicial use of resources and implement the policies to make sure that economic decisions should not ignore environmental impact (www.UN.org).

An individual can practice sustainable living by adopting an environmental friendly lifestyle; this includes fulfilment of one's basic needs by judicial use of resources of energy, water and food, by reducing the production of waste and environmental pollutants and not jeopardizing the resources for future generations. There has to exist a symbiotic relationship between human lifestyle and earth's ecological cycles (Winter, 2007). Sustainable lifestyle depends on the personal choice and action of an individual or family as a consumer (Kahle, & Gurel-Atay, n.d.).

For example, an individual might choose to walk or cycle to workplace which is healthy and environment friendly mode of transport in contrast to an individual who drives a car for even shorter distances. There exists a wide diversity amongst lifestyles, therefore global sustainable design and development plans are needed to promote sustainable living. Sustainable living practices positively impacts nature, humanity, society and culture. The balance between the interactions of three interrelated segments the Society, the Economy and the Environment has been represented in a conceptual model for the achievement of sustainable development in the world (Barton, 2000; Du Plessis, 2000)

The different aspects of sustainable living such as food, water, energy, economy and shelter needs to be focused upon for building up plans and strategies for sustainable development. In order to attain sustainability, it is important to have a realistic view of current environmental problems and to identify appropriate steps to rectify them. The source of environmental problems is mostly consumerism. A small change in personal lifestyle can have a great positive impact. For example, use of solar devices, composting kitchen waste, recycling paper and wood, altering modes of transportation and much more.

Conclusion

"The greatest threat to our planet is the belief that someone else will save it.", says Robert Swan appropriately. Now it is a time when we have to take responsibility in our shoulder with the mindset that a symbiotic relationship with natural resources is necessary to progress in the world. Work together with the smallest thing you know. The beautiful thing about spending time understanding nature, is that you will learn so much about living. When we endeavor to keep sustainability at the forefront of our mind, it helps to surround you with encouragement. Environmentally friendly actions can be a challenge to put into practice in business, so we have rounded up a series of quotes to inspire and guide us. World leaders like the Dalai Lama consistently speak to the needs of the environment, people, and plants. By bringing light to the root of our ecological problems and shifting the views of those who perpetuate them, we can bring about broad positive change. We don't have think for thousand steps, a single step should be taken immediately. A small efforts and steps definitely change the face of planet.

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An observation on the role of Tourism Sector in Economic Growth in India

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Abstract

Tourism is an important part of human life. It is a situation where person from one country, or region to other region and country for a short run period, is included in the concept of tourism. Now-a-days the tourism industry has a greater importance. India has a great heritage of historical place like the Taj Mahal, Various Forts, Natural sites etc. Since 2000 tourism industry has been giving number of benefits to India. The number of foreign tourists visited to India which has given foreign exchange earning to the Country. Here, we have focused the growth and performance of the Indian tourism industry. We have also analyzed the causal analysis of the Indian tourism industry for overall development of the Indian economy. National tourism policy 2002 and its implications are important in this context.

Keywords: Economy, Tourism Sector, GDP.

Introduction

Tourism being the interaction between the tourists and the host societies, not only the socio-economic conditions of host communities change, but also their value system improves (Cook et al., 2010; Kumar & Kumar, 2014). Hall & Page (1999) clarified that tourism brings changes in individual and collective value systems, behavioral patterns, social structures, life style of people and their quality of life. Leavitt (2003) also mentioned that tourism influences the socio-economic conditions of a community by increasing racial and cultural tolerance, creating new employment opportunities, developing infrastructural facilities, and by contributing to its overall economic development. In addition, (Gjerald (2005) recognized the socio-economic impacts of tourism in terms of displacement of labour force, changes in the form of employment, increase in female participation in workforce, increase in social status of workers, changes in standard of living and increase in social cohesion. Besides, Thus, it has been believed that as people move across the globe, and learn to know each other, understand each other's customs, and appreciate the qualities of the individuals of each nation, an international understanding is built up which sharply improve the attitude for world peace (D'Amore, 2010). Another school of thought believes that tourism brings happiness with the host community through higher level of economic growth and development. This happiness is brought about by increased real per capita income, increased exports, improved foreign exchange positions, reduced poverty, increased employment opportunities, and enlarged entrepreneurial skill development.

Objectives of the Study

1. To take review of tourism industry of the country
2. To study the growth and performance of tourism industry in India
3. To study the trend of foreign tourist arrival in India
4. To identify the problems of tourism industry in India and suggest remedies

Data and Methods

The present research paper is mostly based on secondary data sources. We have collected secondary data required for this paper from Reports of the Ministry of Tourism, Govt. of India 2014, India Tourism Statistics at a Glance 2013, Statistical Handbook of India, and other related information has been collected from the policy papers as well as research papers published in various journals.

Review of Indian Tourism Industry

In India, the Central Government and State Government have announced separate tourism policy concern to their state time to time. Tamilnadu, UP, Andra Pradesh, Karnataka, Maharashtra, MP, Kerala, Rajasthan, Gujarat and West Bengal are the important states where tourism industry has developed. Due to the increasing importance of tourism sector Seventh five-year plan of the Government of India has announced the tourism sector as industry. The first public milestone in the history of the Indian tourism sector is the establishment of Indian Tourism Development Corporation (ITDC) in 1966. On the Basis of this, majority of the states have given the facilities through ITDC separately.

The first tourism policy was announced in 1982 in India. This policy was launched for the action plan for the tourists' arrival and necessary facilities to provide them. These facilities are including ultramodern facilities of accommodation, hotels and means of transport etc. The efforts were made to provide these facilities as a cooperative venture to collect maximum earnings from domestic and foreign tourists arrivals in India. The government of India has appointed Committee on National Tourism in 1988. This committee has focused on public sector to develop tourism sector in India. The committee has recommended to prepare a plan for Tourism development in each state. The committee also suggested to the states to make the provision of fiscal and monetary incentives along with environmental protection. Since 1991 the Central Government has revised the action plan for the development of Tourism industry in country. This plan is mainly focused for increasing employment opportunities, preservation of national heritage and environment and the development of international Tourism for the optimization of foreign earnings. This policy has also decided to enhance India's share in world Tourism from 0.4% to 1% within the five years.

The important features of National Tourism Policy 2002 are as follows;

1. Tourism is an important tool for employment generation, economic development and rural transformation in India
2. To take advantage of global trade transaction through travel and tourism
3. This policy is based on seven key indicators of tourism development. These indicators are i) welcome ii) information iii) facilitation iv) softness v) Co-operation vi) infrastructural development vii) cleanliness
4. To use human resource, natural resources and technical resources for sustainable development
5. To use labour intensive technique in tourism sector for employment generation and up gradation of quality of life.

6. To focus on rural areas for low-cost programmes related to tourism centers
7. To create forward and backward linkages in the tourism sector for overall development
8. To increase the foreign earnings through export of tourism services
9. To promote understanding, peace and to contribute national unity and regional stability
10. To develop shopping centers for the revenue generation and other rural tourism products

Growth of Tourism Industry in India

A growth of Tourism industry in India since 1997 to 2013 is continuously growing in respect of number of foreign tourists' arrivals and foreign exchange earnings. According to the annual report of tourism industry in 2013-14, the total amount collected from the foreign tourists arrival in India and the changes in it since 1997 to 2013 gradually increased from 2889 US$ to 18445 US$.

State wise Scene of foreign Tourist Arrivals in India

There are 10 top states in India where the foreign tourists visit every year. These states are of Maharashtra, Tamil Nadu, Delhi, UP, Rajasthan, West Bengal, Kerala, Bihar, Karnataka and Goa. The number of domestic and foreign tourists' visit frequently visits to the important places to these states. This indicates the share of 10 important states of India in respect of the development of tourism industry. Maharashtra, Tamilnadu, Delhi and UP are the four most important states which contributes 61.8% of foreign tourists arrival in 2013. Remaining states are also important regarding foreign tourists visits. The share of these 10 states about 89.9% in total tourists' arrival in India.

Indian Tourism Industry-A Global Scene

In 2006, India's share was 1.16% of the world market travel and tourism market. Further, the WTO has forecast the Travel & Tourism Industry in India to grow by 8% per annum in real terms, between 2008 and 2014. Foreign exchange earnings from tourism alone could show annualized faster growth during the same period. The government of India has given inspiration to tourism industry since 1991. This industry has modernized the facilities to be provided to the foreign tourists so since new economic policy India's share in international tourism market has increased.

Major Findings and Suggestions

Tourism industry has been developed in India after post reform period. The study of this industry reveals the situation of foreign tourists' arrivals in India during the period of 1997 to 2013. The trends and major findings of this paper are as follows;

1. There are 10 important states in India where foreign tourists visits. They are of Maharashtra, Tamil Nadu, Delhi, UP, Rajasthan, West Bengal, Kerala, Bihar, Karnataka and Goa.
2. The share of top ten states in India in respect of foreign tourists' visits was 89.9 percent in 2013.
3. India's share in the world market of travel and tourism has also increased from .65% to 1.59% during the period of 1997 to 2013.

4. One of the important features of the progress in India's rank in the world has also developed from 40th rank to 16th rank.
5. We also observed that the share and rank of India's tourism sector towards Asia and pacific countries has reached up to the 8th rank
6. The Central Government and state governments has announced tourism policy time to time for the improvement of tourism sector in India.
7. National tourism policy 2002 has given different facilities and recommendations for the development of tourism sector.
8. The studies conducted by the researchers reveals that the facilities to be provided by the government to these centers
9. Recent study conducted in 2014 focused on the major issues related to the development of tourism industry and enhancing the foreign capital to India.
10. The central and state governments should provide qualified personals and related facilities to develop tourism sector in India.
11. It is necessary to arrange training programme by the human resource ministry to develop the manpower involved in the tourism sector.

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Enhancing Employees Performance through Monetary Incentives

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Abstract

The aim of this research is to ascertain the relationship between monetary incentives and its impact on employee performance. The essence or purpose is also to affirm that monetary incentives is a good motivational tool on employee performance in a society like ours; where the cost of living is very high. It is also to bring to light that monetary incentive alone is not sufficient to motivate all categories of employee to perform better on their job. Employees are a priceless possession in the achievement of organizational goals and to ensure that all hands are on deck, they must be motivated, to inspired as one of the tools employed by management to motivate on inspired employee is incentive.

Keywords: Monetary Incentives, Motivates, Employee's, Organizational Performance

Introduction

Any kind of organization, whether in production or the service sector, relies on incentives as the primary motivator. It can add to the efficiency level of any employee and create a desire amongst the employees to give their best to the organization by putting in more energy and working with better accuracy. These concepts of “incentive”, “reward” and “recognition” can be aptly applied to any sector be it production or service sector or otherwise banking as well. Hence, Incentives could be classified under two core classes:

1. Monetary Incentives
2. Non – Monetary Incentives

'Monetary incentives' as the name itself explains is the system of giving rewards directly in the form of cash by giving away payments or additional benefits bonuses, etc. Whereas, the 'Non - fiscal incentives' use the method of rewarding the employees with any kind of tangible or intangible benefits other than direct cash payments, thus they are also called 'non-cash incentives.

Non-Monetary Incentives-

1. **Flexible Working-** This has shown to be one of the most popular works perks out there. As a reward, offer your employees the opportunity to work from home or switch their hours around if they don't already have the option. Of course, many businesses are offering this as part of a hybrid working approach and more and more employers are becoming more flexible with their working approach.
2. **Give employees time to work on their own projects-** People are motivated by the things they're passionate about, and employees appreciate the welcome opportunity to work on their own projects.
3. **Extra Leave-** You could reward employees by letting them leave an hour early or giving them half a day off. However, you choose to do this should of course depend on your business needs too.
4. **Allow time to do volunteer work-**There are a number of benefits that come from this. Employees are rewarded with a welcome break out of the office and a charitable cause reaps the benefits of extra volunteers. It's

also great for the company's image and CSR

5. **One-on-one Meetings-** Reward employees by speaking to them one-to-one and asking them what you can do to help them improve and grow. It's a great opportunity to get some constructive feedback on the way the business operates while helping an employee improve and showing that you appreciate their hard work.

6. **Reward employees with more responsibility-** This will be a better reward for some employees than others. Some employees may be happy with the current level of challenge and responsibility they have; however, some may be looking for more responsibility or looking for ways to apply new skills or experienced gained.

Importance of Incentives

The studies done by various renowned management institutes and the theories of different management gurus explain the fact that human resource (manpower) is the most valuable asset of any organization to be cherished and groomed in order to achieve the desired optimization by the firm. Hence, putting it in simpler terms the success of any organization depends heavily on the performance of its employees. Thus, any factors existing in the organization that could affect the performance of the employees cannot be ignored. It is important for any organization to concentrate on such factors likeability, opportunity, and motivation which affect employee performance.

Here, these three factors can be explained as 'Ability' is the function of improving the educational qualifications of an employee, inculcating skills in him, or imparting training and experience to the employee. This will give an employee a wider vision to expand his knowledge base. Similarly, 'Opportunity' basically refers to the basic necessary resources and infrastructure like technology and database required in performing any particular job. Whereas, 'Motivation' is the reason behind the performance of the human resource provided the rest of the conditions are satisfied.

It's a well-proven fact in various famous management theories that Motivation can enhance an employee's performance though it also requires several other conditions to be met. These other conditions could be a prospect as well as a capability that has a propensity to be steadier and quite intricate to be altered for any workforce of the organization whereas motivation is far more flexible and can be personalized and altered as per the situation. Apparently, in case of the nonexistence of enthusiasm to carry out competence and opportunity would leave the problem unsolved.

Be it any kind of organization, whether private or public, requires a functionally efficient and effective team working in favorable conditions to meet the set targets within the time limits. It is quite evident that an organization's employees would work more energetically and put in their maximum efforts more creatively for the accomplishments of set targets and to match the standards of their organization if and only if they are motivated to do so. And that's the reason why now employee motivation has been given prime importance by all the organizations.

In any kind of Human Resources theory, one would find the notions of “incentive”, “reward”, “recognition” to be somewhat similar along with complimenting each other and by far interrelated also. Hence, one may not be able to easily draw a line between the three of them. Out of the above-mentioned three categories “incentive” is the broadest one which basically refers to the factor that would make an employee desire to work harder in any task and perform with maximum efficiency and energy.

Thus, conclusively 'Reward' and 'Recognition' are both the means to induce some kind of desired performance in the employee. But yes, they can be classified under the broad category of “Incentives”. Therefore, throughout this study, we would be using the term “incentive” to refer to anything that tends to increase employee performance and also covers the terms 'reward' and 'recognition' under them.

Objectives

1. To study the motivation level of employees by monetary incentives
2. To study the non-monetary motivation incentives
3. To discuss the benefits of monetary incentives

Literature Review

A literature review is a detailed study of all the available literature on any precise topic of interest text. It includes all available inked information and methodological contributions to the topic of concern. They are addendums on already known works and have an overall paucity of any current or original research.

Adisa Delic et al (2014): focused on “the impact of monetary and nonmonetary incentives on job satisfaction”. The data was collected through direct contact with each respondent, their study concluded that monetary factors still have a very strong influence on overall job satisfaction. Elements such as salary level compared to job complexity, salary comparison across different positions and employers, overtime compensation, financial support for professional development and pension expectations were the most significant material compensation factors that influence the overall level of employee job satisfaction in the banking sector.

Hassan, Moshood Ayinde (2014): pragmatic goal of this investigation was to explore whether employee welfare programs could help to achieve accelerated labor output in the service sector. Data was collected through previous studies. Results concluded that worker welfare schemes and facilities have positive effects on labor productivity. Magnetic fields of such schemes can hold the employees, helping them with their bread and butter. Subsequently, they also reduce the per-unit production costs, elevating mental peace, assuring job stability, and shedding off managerial diplomacy. The text also furnishes ways to heal the soaring thumbs that stand out in the administration of welfare programs for workers, which now no longer be kept under the carpet.

Abdul Hameed et al (2014): tried to find out the impact of compensation on the working capacity of employees. Different banks of Pakistan were chosen for data collection. The result of the study shows compensation has an accelerating effect on employee working. Correlation analysis gave a clear-cut indication that all the independent variables have feeble positive relationships amongst them. Results of Regression analysis depicted all independent factors showing a significant and positive impact on employee performance. While descriptive analysis pointed towards the positive impact of all independent variables on employees' working capacity. ANOVA results indicated that the education segment is vast with different strokes for different people and that qualification does not have the same effect on employee performance.

Martha Harunavamwe and Herbert Kanengoni (2013): their study investigated the effects of monetary and non-monetary rewards on motivation with respect to lower-level employees in the retail industry. An empirical investigation was undertaken using a sample of fifty (50) lower-level employees drawn using the random sampling technique. Results concluded that modicum important relationship was there between the non-monetary rewards and lower-level employee motivation. There was an affirmative but feeble significant relationship between casually given rewards and work motivation.

Igbaekemem Goddy, (2014): his main purpose of the research was to ascertain the relationship between monetary incentives and their impact on employee performance. Secondary data was used for collecting data in the research. Results concluded that giving regular monetary incentives is not the key to all locks. It should also be kept in mind that a balanced mosaic of monetary and non-monetary incentives should be sprinkled as it is well known that “variety is the spice of life” Monetary and non-monetary incentives have different faces, structures, and behaviors. Only equilibrium between monetary and non-monetary incentives can grasp the nettle of employees' needs and wants. Motivation is a mystery, each person defines it in his own terms, conditions, and limitations. The study found out that only monetary incentives are now moribund. An individual's salary is of course the bedrock for him and his family and a way to all mod cons. But what is more important is that the managers go that extra mile to modify money and give it a face of a motivational tool. But to achieve this they meticulously need to examine the living and working conditions of their employees as many times one man's meat is another man's poison.

Research Methodology

The design of any research project requires considerable attention to the research methods and the proposed data analysis. Within this section, the research provides some information about the research design for the current study. The current chapter elaborates the basic overview of the research methods portion of the research proposal and then some data analysis templates for different types of designs. This section also elaborates the literature cited for current research which acts as a navigator to reach the aim of the study. Some main limitations of the current study are also elaborated in this section of the study.

Research - An Overview

According to D. Slesinger and M. Stephenson, “Research includes manipulation of things, theories or symbols for the determination of simplifying to extend, accurate or authenticate knowledge, whether the information supports in construction concept.”

In the words of Clifford Woody, “Research involves significantly redefining problems, framing hypothesis or advised solutions; accumulating, organizing and appraising data; making inference and reaching conclusion;

and at last, prudently testing the conclusion to determine whether they fit the formatting hypothesis."

Research Findings

The present research problem is to study the Impact of Monetary Incentives on Employee Performance.

It is factual that monetary compensation does compose a very significant reason for the working of an employee. But this compensation single-handedly cannot bring job contentment to the recruits. Instead of being paid well, no one can expect efficient performance from a recruit who is unfulfilled with his work. Many learned from the field of Sociology & Industrial Psychology have also opined the same that the monetary aspect is not the only prevailing force to motivate the employees. Hence the present-day authorities on "management science" have documented the need for the requirement of incentives to build up good morale.

Managers are persistently probing for ways to generate a motivational atmosphere where employees work at their most advantageous levels to attain organizational goals. Organizational motivators consist of both monetary and nonmonetary incentives.

A number of rewards and recognition have straight costs linked with them, such as a broad range of company-paid perks, like car allowances, paid parking, gifts and certificates, cash bonuses, and stock awards. Another category of rewards and recognition may be less concrete, but might be very successful. These "non-monetary" rewards comprise official and unofficial acknowledgment, opportunities for training, assignment of more enjoyable job duties, and an increased role in decision-making.

Conclusion

Based on the research study, one can conclude that as it has been said by various researchers, that monetary incentives alone are not sufficient to motivate employees. Also that a maximum of both monetary and non-monetary incentive should be applied and like the saying goes "variety is the spice of life "Monetary and non-monetary incentives vary in their roles, effectiveness and appropriateness. A balance between monetary and non-monetary incentives should be used to satisfy the diverse needs and interest of employees. Motivation is a complex and individualistic concept and as such there is no best approach to it. The research shows that monetary incentives alone are not sufficient to motivate employees. Pay is important since it affords the provision of the basic necessities of life, but is most important for what its symbolizes to the recipient for money to be used as a motivational tool, managers must study their associates, the conditions under which they work and the task they perform. The value of incentives is determined by what people learn to associate with. According to Imoisili, high achiever does not work for the prospects of making money alone they are motivated by the love of accomplishment, interest in their work and by success itself. However, low achievers will often work for money because it symbolizes something they clearly want.

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Indo- Sri Lanka Relations: A study of Problems and Prospects

Dr. Javid Ahmad Mir, Ms. Amatullah Malak, Ms. Tanya Singh

Abstract

India-Sri Lanka relations are recorded more than 2,500 years of history and both sides have built upon a legacy of intellectual, cultural, religious and linguistic intercourse. However, these links have been deeply affected and held hostage by the question of the legitimate rights and welfare of the Tamil minority and fishing dispute, on the other hand the growing presence of China in Sri Lanka. India cannot be isolated itself from the developments of Sri Lankan polity, when India-Sri Lanka relations are under stress and its disturbing strategic connotations for national security have also been another challenging factor in India-Sri Lanka relations. On this backdrop, this study focuses on the current crisis of Indo- Sri Lanka relation after end of internal war in Sri Lanka in 2009. In this paper I highlight some of the important problems and prospects which have a bearing on India and Sri Lanka relations. The fundamental questions of this research are the following: what are the factors affecting the relation between India and Sri Lanka? What role by extra-regional power causes smooth relation of these countries? Are there any stemming-blocks in the relations of India with Sri Lanka? This study is based on an interpretive approach. The data were collected from both primary and secondary sources. The study discusses the issues in the period between 2009-2014. The various problems plaguing indo-Sri Lanka relations, ethnic conflict and reconciliation process, fishing problem, China involvement, among others, indicate a common theme underlying bilateral relation: mutual mistrust and suspicion. India's approach to Sri Lanka has so far failed to achieve its stated aims, in the ultimate analysis; India's soft diplomacy succeeded neither in bringing about a political settlement of the Sinhalese-Tamil conflict, nor in bringing down the ethnic tensions.

Keywords: Sri Lanka relations, foreign policy, ethnic problems, South Asian politics

Introduction

India-Sri Lanka relations are “more than 2,500 years old and both sides have built upon a legacy of intellectual, cultural, religious and linguistic intercourse”. It goes on to add that “the shared cultural and civilizational heritage of the two countries and the extensive people to people interaction of their citizens provide the foundation to build a multi-faceted partnership”. Sri Lanka's external environment has always been important. It is a small country separated from India, the regional hegemony, by a narrow strip of water, the Palk Strait. As the country's most immediate neighbour, India has always had an enduring interest and influence on Sri Lanka's development. To a large extent Western actors have tended to accept that Sri Lanka lies within India's sphere of influence. Although India's involvement in Sri Lanka has changed significantly in the last thirty years, the issues driving this interaction have for the most part remained similar, “The nearly three-decade long armed conflict between Sri Lankan forces and the LTTE came to an end in May 2009. During the course of the conflict, India supported the right of the government of Sri Lanka to act against terrorist forces. At the same time, it conveyed at the highest levels its deep concern at the plight of the mostly Tamil civilian population, emphasizing that their rights and welfare should not get enmeshed in hostilities against the LTTE”. Moreover, India has played a significant role in Sri Lanka's post-independent political life, as it did in t many centuries before.(ICG:2011) With just 30km separating the southern Indian coast from Sri Lanka's northern Jaffna peninsula, the two countries have always shared deep cultural and economic ties. Given India's size and political and military power, it is not surprising that its political dynamics and policies have directly affected the course of Sri Lanka's civil war. From Indira Gandhi's decision to arm Tamil militants in the early 1980s and Rajiv Gandhi's dispatching of the Indian Peace keeping Force (IPKF) to enforce the 1987 Indo-Lanka accord, to India's support for Sri Lanka's final military campaign against the Tamil Tigers in 2008-2009, the violent conflict between Tamil nationalist militants and the Sinhalese-dominated Sri Lankan state has always been intertwined with policies and attitudes in New Delhi and in the southern state of Tamil Nadu. Likewise, it has long been assumed that if any country could encourage Sri Lanka to seek a sustainable political settlement to its ethnic conflicts it would be India. Certainly, no lasting settlement is possible without Indian acceptance. As the traditional regional hegemon, India has been willing to impose its will on its neighbors. With India's rise as a global economic power and its growing ambition to play an influential role internationally, many analysts and Western diplomats continue to hope that India can help influence Sri Lanka's post-war policies. To date, India, like other governments that support a sustainable peace in Sri Lanka, has struggled to contain the Rajapaksa administration's strongly Sinhala nationalist and authoritarian policies. Despite private criticisms from Indian officials, the military continues to play an unprecedented role in the everyday administration of the Tamil majority north, and the government continues to use antidemocratic measures to weaken the political opposition and repress dissent. This paper attempts to analyze indo- Sri Lanka relations on the recent development after the war against LTTE. It highlights the contrast in Sri Lanka's approach to bilateral ties with India during the war against LTTE and thereafter.

Review of Literature

J. T.S. Gunasena (2015) Indo-Lanka relations depicts certain fluctuations in the bi-lateral relations due to political tensions between the two countries. Despite certain efforts for cooperation, since 1983 communal clashes between Sinhala majority and Tamil minority extremist groups in Sri Lanka until mid - 1990s the deterioration in Indo-Lanka relations was evident as the two countries failed to attain reconciliation and compromise through a lasting solution for ethnic crisis which is acceptable for all parties in the country. 2009 military victory by Sri Lankan government over the Liberation Tigers Tamil Elam (LTTE) generated hostilities between two countries reminding 1980s to mid-1990s hostilities of similar kind. Since the 1980 to mid-1990 and 2009 resemble certain similarity in Indo-Lanka relations under hostile circumstances, it triggered the interest to analyse both past and the present situations under comparative study. Since independence it was during 1980s to mid-1990s and 2009 period that marked apparent hostilities in the bi-lateral relations of India and Sri Lanka which is subjected for the above study.

Osantha N. Thalpawila (2014) In the first three decades of the post independent period India – Sri Lanka relations were cordial and understanding. In 1980's the relations between both countries were deteriorated with the escalating of civil war in Sri Lanka. The Sri Lankan government defeated the LTTE and ended 26 years of civil war in May 2009. India highly concerned about the situation arises in post conflict era. The aim of this paper is to review the bilateral relations between India and Sri Lanka during first three years from civil war ending. The study, based on secondary data and the chronological analysis method has been used to analyse the bilateral relations. India involved to assist to rebuild the war torn areas in Sri Lanka. Two debated issues were highlighted on relations during that period between the two countries. The issues of war crimes and human rights violations in Sri Lanka highly concerned and India allied with the international community against Sri Lanka. Second, fishing of Tamil Nadu fishermen in Sri Lanka water, which has reached to diplomatic level, The Tamil Nadu politics have influenced thoroughly to determine the Indian central government policy. The geopolitical context influences for the bilateral relations of the countries in their foreign policies.

Research Methodology

Research simply means search for facts, answer to the questions and solutions to problem. Research becomes a systematic, controlled and critical investigation of hypothetical pre questions. In the proposed study secondary sources have been used, Secondary data have been collected from various books, research papers and articles. In addition to this study, data have been collected from various journals also.

Ethnic conflict of Sri Lanka and India

India pursued a range of policy approaches over the past three decades, none of which succeeded in achieving a peaceful settlement of Sri Lanka's ethnic conflicts or ensuring minority rights. Past interventions have in fact helped deepen the conflict and led to significant mistrust of India's intentions among large parts of the Sri Lankan public. While several actors around the globe were involved in this conflict in different ways, the actor most heavily and most consistently entangled in the Sri Lankan civil war has been India, the ”regional power” in South Asia. Different kinds of negative security externalities (Lepgold 2003: 19–20) have affected India over the past few decades: the steady stream of Tamil refugees escaping the island, the formation of an LTTE network in the South of India and, most notably, the great interest in Sri Lankan affairs were displayed by the Tamil population of the state of Tamil Nadu. Two major influences pushed India's policy response to the Sri Lankan conflict: the active engagement of foreign influence by the Sri Lankan government and demands of India's own Tamil population for India to act on behalf of the Sri Lankan Tamils. Sri Lanka pushed for a military solution to the conflict by seeking external support from countries that India was not comfortable having a presence so close to its southern border. As scholar S.D. Muni points out in his authoritative account of India's peace keeping venture, Pangs of Proximity, Sri Lanka “wanted to isolate India in the region by facilitating the strategic presence of the forces inimical to India's perceived security interests.”(S.D. Muni:1993). Also of concern to India was the backlash among kin Tamils in Tamil Nadu. India's Tamil population in Tamil Nadu, then some seventy million strong, felt India had a responsibility to control the Sri Lankan state's harsh response against Sri Lankan Tamils. For India, the July 1983 events in Sri Lanka were alarming, and the Government of India, then under Prime Minister Indira Gandhi, asserted its influence on the situation as a regional power, kin state, and close neighbor. India played a unique role during the conflict. Most of the Tamils were Indian origin and had their ethnic group in the Indian state of Tamil Nadu that pressured Indian government to get involved in the conflict. India accepted the Tamil immigrants and also provided assistance to them. India played a special role in peace negotiations and also sent their troops to Sri Lanka. (Zwier, 1998:63-65). In the new geopolitical set up after the defeat of the pro-Tamil rebellion, the role of India has substantially changed from being an anti- rebellion partner to development and reconstruction partner of Sri Lanka. India's official position on the ethnic conflict in Sri Lanka has been clear and relatively consistent for the past three decades. While opposing the LTTE's military and terrorist struggle for a separate state of Tamil Eelam, India has supported greater rights for Tamils and other minorities. India further intervened by dispatching the Indian Peace Keeping Force (IPKF) in the north and east of Sri Lanka, and concurrently impelled the GOSL to sign the 'IndoLanka Agreement to Establish Peace and Normalcy in Sri Lanka', referred to as the 'Indo-Lanka Accord' (Bose 1994). The Indo-Lanka Agreement to Establish Peace and Normalcy in Sri Lanka”, was signed by Sri Lankan President J.R. Jayawardene and Indian Prime Minister Rajiv Gandhi in Colombo on 29 July 1987. The accord also made Tamil an official language. The decision to establish councils in all provinces, the councils would be granted a decentralized budget and some autonomy of guiding development (Coomaraswamy 2003), not just in the north and east from which the demand for devolution had come, was designed to weaken Sinhalese resistance and dampen the sense that the amendment was granting territorial and ethnically-based autonomy and was the first step towards a separate Tamil state. Provincial councils have functioned everywhere but the north and east since 1988, but with little power, few resources and no great effect. It has consistently endorsed devolution of power to the northern and eastern provinces, urging the full implementation of the Thirteenth Amendment to the Sri Lankan constitution, to be followed by further constitutional reforms. (ICG:2011) Given its support for Sri Lanka's territorial integrity and its bitter dislike of the LTTE, India lent Sri Lanka crucial military and political support for the defeat of the Tamil Tigers in the final phase of the war. Indian officials were promised that after the war ended, the Sri Lankan government would address the political marginalization of the Tamil community by devolving power to provincial councils.(ICG:2011) However, India was not aiming for a separate Tamil state in Sri Lanka, though attempted to exercise pressure towards the Sinhalese dominated GOSL to be more responsive to Tamil aspirations and demands. India brought its involvement in Sri Lanka's internal ethnic conflict to a complete halt. After 1991, India reversed its policy of active involvement, distancing itself from an interventionist role that in the past it had felt compelled to play. During the last years of the war in 2008/ 2009, the Rajapaksa administration repeatedly promised to the Indian government to bring about political reforms that would satisfy vast sections of the Tamil community. President Mahinda Rajapaksa said, “My government is ready for a political solution. It should be based on devolution of power, ensuring democracy and politics and all rights of our Tamil brethren including the language within an undivided Sri Lanka” - (The Hindu: 2008)

The Tamil Nadu Factor and Delhi Dilemma

Instead of India has assured to assist the post war economy in Sri Lanka, the relations of both countries have been entered to a critical condition during last three years. The Tamil Nadu Only 30km from Sri Lanka, Tamil Nadu is a sprawling state of nearly 70 million people, a country within a country. Its size and proximity to Sri Lanka has unsurprisingly left its historical imprint on the island's society, most obviously on its Tamil-speaking north and east, but also on the Sinhalese south. The proximity of the large Tamil community across the water has contributed to the paradox whereby many Sinhalese, the majority inside Sri Lanka, view themselves as an embattled minority in the broader region. Tamil Nadu's political parties, to a significant degree, have the power to translate Tamil Nadu's sympathies for its kin population into Indian government policy. Over 70 million Tamils in Tamil Nadu have kin, community, and cultural ties with the Tamil community in Sri Lanka. Tamil Nadu's political representation in coalitions at the Centre (2004- 2013), as is the case in the past UPA coalition, gives it formidable influence on the Centre's policy. The Tamil kin connection entrusts Tamil Nadu politicians with the obligation and moral authority to prevent Indian support to the suffering of Sri Lankan Tamils. This means that India's policy decisions on matters involving Sri Lanka have to take into consideration Tamil Nadu's likely reactions to the effects such decisions may have on the Sri Lankan Tamil population. Though, the Eelam War made headline news in India, it was the death of thousands of civilians in the war and the sufferings of Tamils as a result of the war that kindled emotions in Tamil Nadu. It was further whipped up when Rajapaksa trivialized allegations of war crimes in the last stages of war came up at the end of the war and dragged his feet in going through the national reconciliation process. Initially, New Delhi tried to soft pedal the Sri Lankan President's lackadaisical attitude to India. But New Delhi was fast losing credibility at home and it became an irritant in its relations with Tamil Nadu coalition partners. Over a period of time, Sri Lanka's inaction had its adverse fall out on Tamil Nadu politics as well. The Sri Lankan Tamil issue which was shunted to political sidelines in Tamil Nadu staged a major comeback during Tamil Nadu elections and the DMK, coalition partner at New Delhi suffered a severe drubbing. The writing on the wall for New Delhi was clear: it has to urgently recoup its credibility suffered due to its pedestrian Sri Lanka policy Regardless of other aspects, New Delhi has the unenviable task of winning over Tamil Nadu support to keep on leash anti-Sri Lanka elements in Tamil Nadu from raising the pitch of their rhetoric and getting into some 'direct action' (euphemism for anti-Sri Lankan hooliganism). This is likely to be an emerging challenge for New Delhi on the home front as it will have its impact on shaping India's Sri Lanka relations in the near term.(R Hariharan:2012). With many pro- Eelam groups in the Indian state of Tamil Nadu, it supports an UN-organised plebiscite for Tamils in the north and east to determine whether "Eelam Tamils" wish to establish their own state or remain within Sri Lanka. Demands for investigations into alleged genocide and for a separate state of Tamil Eelam are at the core of demands of a growing number of Tamil activist groups throughout the world.(ICG:2012) Moreover, concern with the situation of Tamils in Sri Lanka has grown since the 2011 return to power of Chief Minister Jayalalithaa and her AIADMK party. The state government has urged New Delhi to increase pressure on the Rajapaksa government on a range of issues, including alleged war crimes and the continued hardships faced by Tamils in the north and east. It has interceded to block training of Sri Lankan military personnel in Tamil Nadu and even sent back a visiting sports team. And also Political leaders of almost all hues including the Congress party in Tamil Nadu have called for a boycott of the Commonwealth Heads of Government Meeting CHOGM. However, skipping of the CHOGM by Prime Minister Manmohan Singh under coercion of Tamil political groups has put a question mark on India's strong foreign policy under regional political compulsions.

Fishing Disputes

The issue of fishermen came to the fore only with emergence of violent ethnic conflict between the Tamil militants and the Sri Lankan government in the mid 1980s. The issue of fishermen straying in each other's territorial waters has come as a potential irritant in the otherwise generally good bilateral relations between India and Sri Lanka. The end of war, however, has resulted in relaxation of fishing restrictions along Sri Lankan coasts resulting in its fishermen to venture into the seas around without any fear(N Manoharan:2012) The re-emergence of longstanding tensions between fishermen from South India and fishermen from Sri Lanka and the Sri Lankan navy is straining relations between the two countries. For years, fishermen from both sides have been arrested, and in some cases killed, after crossing the maritime boundary. (R. K. Radhakrishnan :2011).The current controversy surrounds fishermen from Tamil Nadu who move into Sri Lankan waters to exploit its more plentiful stocks. Sri Lankan Tamil fishermen, who suffered through decades of fishing restrictions designed to limit LTTE smuggling, complain that the bottom trawlers used by their Indian counterparts threaten to devastate fish stocks on the Sri Lankan side after depleting supplies in Indian waters.(Arun Janardhanan:2011) "The Navy's actions have been fairly consistent over the years", a Sri Lankan political analyst explains, "but [south] Indian fisherman have been bolder because they've assumed that post-war, they wouldn't be mistaken as LTTE and wouldn't be treated so harshly".(ICG:2011) Recent contentions have risen over the Palk Strait, a strait between the southern tip of India's state of Tamil Nadu, and the northern tip of Sri Lanka, in which fishermen from both nations compete for limited resources. Sri Lankans have accused Indian fisherman of encroaching into their waters, while Indian fisherman accuse Sri Lankan naval vessels of threatening behavior, including damage of vessels, robbery of stocks, and abuse against the fishermen. The dispute stands as a piece of a larger longstanding grudge between the native Tamil Indians who empathize with the defeated Tamil minorities in Sri Lanka, and their mistrust and anger against the Sinhalese dominant government. (The Economist:2013). In finding a solution to the fishermen issue neither Sri Lanka nor the Government of India can ignore South India. During his recent visit to Colombo, Dr. SubramaniamSwamy, one of the most influential policy advisors to the BJP Government said, “One weakness in India's policy towards Sri Lanka is the veto power Tamil Nadu has.” Explaining further, he suggested that this situation will not remain the same under the current government. Even though this is a positive remark for Sri Lanka, one cannot ignore the fact that South India is Sri Lanka's closest neighbour. (AsangaAbeyagoonasekera:2014). In a context in which territorial boundaries are located in close proximity, these types of issues can happen. Failure to agree on a suitable solution by both countries will only result in continuation of this problem.

Prospects Post-LTTE

Sri Lanka has emerged as a far more peaceful country and the prospects of Indo-Sri Lankan relations are good. There are certain challenges in the form of the unsettled ethnic question, presence of extra-regional powers in the island, issue of fishermen and balance of trade. These are, however, manageable. There is a sincere acknowledgement in Sri Lanka that it needs India for its own peace and long-term development. For Colombo, India's fast growth and rising stature are worth recognition. India also knows well that its own rise as a world power depends largely on peace in its neighbourhood. It cannot afford to remain isolated as an island of stability for long when its immediate neighbourhood is in turmoil. In resolving Sri Lanka's ethnic issue India's role is important. New Delhi should take periodic reviews of the needs of the conflict-displaced and must consider providing more aid as and when necessary. Disbursing the aid directly to the affected people and areas of the island instead of routing it through the government is appropriate just to make sure that it reaches the intended beneficiaries. India should also persuade more countries to come forward to help, but directly, in all aspects of reconstruction of the war-ravaged north- east. This will go a long way in resettling the displaced Tamils in their place of origin. Decent resettlement of the IDPs will also take care of the hue and cry in Tamil Nadu over the humanitarian issue. Rehabilitation of former LTTE cadre is yet another short-term role that India could take up seriously. Given the economic situation of Sri Lanka, providing suitable employment to the demobilized LTTE cadres is not going to be an easy task. In this regard, India could provide specific aid for the rehabilitation of former rebels. Indian schools and universities could be thrown open with sufficient scholarships to former child soldiers. Sri Lanka Donor Conference countries, which include the United States, the European Union, Japan and Norway, can be persuaded to invest, especially in the north-east, in manufacturing and services industries that could offer numerous job opportunities to the Tamil youth. Dignified rehabilitation of all surrendered LTTE cadres will convert them into non-fighters once and for all. Revival of the LTTE in any form is not in the interest either of Sri Lanka or India or the rest of the world. For lasting political settlement, India should at the outset make sure that the recent military victory over the LTTE does not result in triumphalism in the Sinhala-dominated regime vis-à-vis the Tamil minorities. It should rather be converted into a political opportunity. India has to exercise maximum leverage on Sri Lanka to deliver a meaningful devolution package to the minorities, both Tamils and Muslims (N.Manoharan:2012) The issue of straying of fishermen from both countries into the other country's territorial waters and the consequent harassment by the naval forces requires urgent attention. Despite the existence of certain practical arrangements to deal with the issue of bonafide fishermen of either side crossing the international maritime boundary line, firings on fishermen continue. A comprehensive and humane approach needed to solve the problems.

Conclusion

The various problems plaguing indo-Sri Lanka relations, ethnic conflict and reconciliation process, fishing problem, China involvement, among others, indicate a common theme underlying bilateral relation: mutual mistrust and suspicion. India's approach to Sri Lanka has so far failed to achieve its stated aims, Given Colombo's stiff resistance and its willingness and ability to play China off against India and Western powers under the Mahinda regime. India's soft diplomacy succeeded neither in bringing about a political settlement of the Sinhalese-Tamil conflict, nor in bringing down the ethnic tensions. When mediation failed, India was left with the only possible option: direct involvement. Whatever the merits of the Indo-Sri Lankan Agreement, it once again reaffirmed India's role as the manager of South Asian crises. But once again the intransigence of the militants has dragged the Indian army so deeply into the ethnic mire that pulling out of it does not seem possible in the near future. A prolonged military presence on a neighbor's soil, whatever the true intentions may be, does not augur well for genuine nonalignment and regional cooperation. The bi- lateral relations between India and Sri Lanka in the postwar era are based on two important facts. One is India's internal politics and the party interest which have always sought for strengthening their coalition power with the ruling government. The Tamil Nadu politics play an important role in this regard, by influencing to the central government to intervene to the Sri Lanka Tamil issues during the civil war in Sri Lanka. This also further complicated by fishermen issue. It is very clear the ruling coalition seek to protect its popularity with the help of AIDMK in Tamil Nadu amicably with support of Sri Lanka. The second issue is India's emerging power in the Asian region and its future threats from China who is ready to further strengthen her bi- lateral relations with Sri Lanka. This factor is always influenced to India within her strategic plan in the Indian Ocean and security. Growing Sino- Sri Lanka relations are suspected by India and India shows her dislike to Sri Lanka with pressuring the Sri Lanka government through human rights violations on Tamils not only in regionally but also internationally. The bi-lateral relations India and Sri Lanka in the post-LTTE era are not amicable and trustful. The growing political issues have been spoiled the historical amicable relations of the two countries. It is imperative that India adopts a pro active policy towards Sri Lanka, in order to not only save the people but also for its own security reasons. Economy aid could be a big trump card in India's policy. Indian corporate houses have shown interest in investing in Sri Lanka. There is also a favorable mood in Colombo in allowing Indian houses to invest. India can use this leverage to not only develop the north and east that has been affected by the protracted war. The capacity of India to engage actively in peacebuilding in Sri Lanka is limited. Yet, it wants to maintain some leverage over the political process in order to ensure that Tamil politics remain pluralistic, that the government offers a political package of devolution to the Tamils, and more importantly to attempt to check the influence of China and Pakistan on the country. India's interests in Sri Lanka stem predominantly from geopolitical concerns and security needs. Economic and business interests are also important and create the need to maintain regional peace and stability. To that end, India has worked in favour of maintaining a strong bilateral relationship with Sri Lanka and in a majority of instances opposed multilateral initiatives. While this is driven partly by India's motivation to deflect any internationalization of its own internal conflicts in Kashmir, the north-east, and the Naxal affected states, it is also influenced by its desire to maintain autonomy, and to a degree control, over its relationship with its neighbours. Tamil Nadu politics and the close political, social and economic relationship between Tamils in Sri Lanka and India, have contributed to India's analysis that the relationship is best conducted through bilateral forums. To date, India's policy in Sri Lanka has focused on supporting humanitarian needs and reconstruction in the north east, while pushing the government and the TNA to talk about devolution, funding economic and infrastructure development throughout the country and promoting the integration of the two economies. While designed at least in part to support lasting peace and stability, such efforts will not yield meaningful reconciliation or devolution of power without a fundamental change in the way Sri Lanka. In the post-LTTE era, a perceptible change came over the Indian government's Sri Lanka policy. The new government led by Modi no doubt made a sincere effort to gain the Sri Lankan government's trust by restraining militant Tamil activity in India. This policy, of course, was part of the new leadership's overall effort to promote greater understanding between India and its neighbors. A long-term solution for all the problems needs intensive cooperation and agreement, which in the current situation seems a pipe dream. In this framework, India should work together with Sri Lanka for building win win achievements and prosperity in the regions of South Asia.

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Critical Analysis of the Novel Judas Golovlyov by M. Saltykov-Shchendrin

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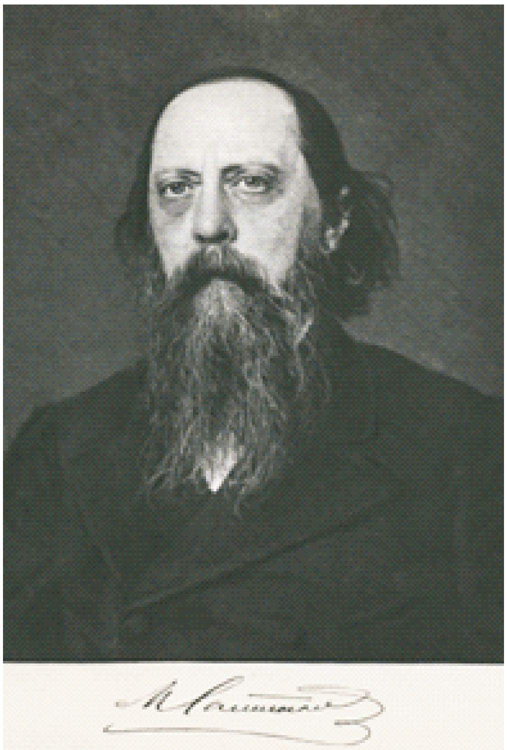
Abstract

The novel Judas Golovlyov written by M. Saltykov-Shchedrin is a classic Russian novel, which portrays a realist Russian Family and ideology in Post Petrine Russia. The novel is satirical and focuses on Judas, the third child of Arina Petrovna and the fall of the Golovlyov family due to greed and detachment from the past and their historical traditions and only focus on materialistic and quantitative objects, which destroys any value or purpose of their life. The novel is "plotless", the plot grows from the characters motives and choices and the consequences of their actions. The spoken language of the novel is both mimetic and satiric. It is a grim book about the realities of extreme wealth and greed and exploitation of people living in poverty and psychological degradation of people who have lost all sense of purpose due to their greed and paranoia.

Keywords: Judas, Golovlyov, Arina Petrovna, Russian Lifestyle, Greed.

Introduction

Mikhail Saltykov (pen name- N.SHCHEDRIN, hence Saltykov-Schchedrin) 1826-1889 was a major Russian writer and satirist of the 19th century. He was a man of talent and intelligence who disdained power and wrote occasional journalistic pieces tied together by a common subject - the corruption of provincial officials, greed and ineffectuality of liberals. In his satires, Saltykov strengths were parodies complemented by nuances of diverse stylistic level of Russian language, vivid imagination of twisted reminiscent and a moral outrage for injustice (EHRE1977).



The novel Judas Golovlyov by M. Saltykov is a grim book- "the gloomist of all Russian Literature ", Mirsky called it (EHRE 1977). The novel circumscribes the estate of THE GOLOVLYOVs, which is run by the iron-fisted matriarch Arina Petrovna. She is an old imperious,miser and vigorous lady of the estate, "who could read her people's innermost thoughts, to say nothing of their slightest gestures, at once scented troubles' '. The Golovlyov family's patriarch Vladimir Mikhailich Golovlyov had been known as "a shiftless and frolicsome man", in contrast to Arina, a serious business-minded woman. Vladimir led an idle and useless life full of idle boastfulness of knowing Barkov - (poet, translator, author of pronographic verses and poems) while being cooped in his study to compose the "so-called libertine verses", in addition he was an alcoholic and would waylay housemaids in corridors. Arina and Vladimir hated each other but still remained married for forty odd years, the husband called the wife "a witch" and "a devil" and the wife called the husband "a windmill" and "a stringless balalaika". Arina devoted all her energy to the estate. She was scarcely luckier in her children, and regarded her children as a burden, they were a part of a framework, a milestone in life that she accomplished, they didn't "stir a single chord of her inner being, which was taken up by numberless details of the practical life". She had four children, three sons and a daughter. The eldest son Stepan Vladimirich was also known as "Styopka the blockhead and Styopka the rascal". He was a disfavored child as he inherited his father's mischievousness, while being gifted,was most likely known as the clown or pariah in the family. Just like his father he lived an idle life, after getting his degree, he wandered from government office to office and to the law court in Moscow that he got in through his mother's connections, and returned back to his family house bankrupt and as an alcoholic. The second child was their daughter Anna whom Arina didn't favor either, because all the plans Arina had for her were ruined by the scandalous thing she did. Arina hoped to make her an unpaid book-keeper and secretary but she ran away from home and married Ulanov. Arina gave her a lump sum of thousand rubles and a miserable village with "thirty serfs" and a "displated house in which every window was draughty and every floorboard was rotten". In a couple of years the couple lost all their money and Ulanov feld leaving Anna with twin daughters: Annika and Lubinka, three months later Anna died and her twins were taken in by Arina, she wrote to her son Prophiry Vladimirich saying, "your sister died as disreputably as she lived, throwing two brats on to my shoulders". For Arina Petrovna considered all her duties done after she"chucked a cut" to her offsprings. The third child was Prophiry Valdimirich, and their fourth child was Pavel, both of them lived in Petersburg; the first was in civil service and second was in the army. Prophiry was married while Pavel was a bachelor. Prophiry was the only child that Arina had some feelings for other than disappointment, though it was more cognate to fear than affection. Prophiry Valdimirich was known as "Judas, Blood-sucker and Candid boys, all three names given to him in childhood by Styopka the blockhead". Even as a child Judas would cuddle with his "dear friend mama", he would sneak into Arina's room and sit in a corner and stare while she did her accounts. But Arina felt suspicious of him even as a child, "even at that time his intent stare seemed to her enigmatic, and she could not decide what precisely it held-venom or filial respect". Prophiry or Judas was a greedy and power hungry man who was a caricature of Arina's manners and would often talk about God and his teachings which were empty when it came to him. Arina's fourth child Pavel Valdimirich was an "apathetic, mysteriously sullen man whose character never expressed itself in action. He may have been kind but he never did a good turn to anyone; he may have brains but he never did anything particularly intelligent. He was hospitable but no one appreciated his hospitality; he readily spent money but it never did any good or gave any pleasure to anyone; he never wronged anyone but no one gave him credit for it."

Review of Literature

Other researchers have done research or literature review on the nineteenth century Russian society and it's realistic portrayal in the book. This paper focuses on the realist but psychological effect of power and guideless development of children, that in turn can be seen in their adulthood, a moral and corrupt lifestyle or rather trustless and fruitless lifestyle in other characters. Other researchers have also written about the Russian Post petrine and bureaucratic ideology like in this paper. This paper has taken heavy influences from those studies mentioned above, in describing the portrayal of the characters and their influences, on the society at large.

Findings

- Arina Petronova divides her estate and gives the largest share to her son Prophiry or Judas. The motif is common folklore, the folklorish accents in the novel are parodic rather than ominous. It would not have made a difference if Arina gave her inheritanc to Stepan or Pavel as one was an alcoholic and other incompetent. The novel gives the impression of men and women driven by inner fatality but are powerless to the external forces.(EHRE 1977).
- Like Saltykov' satire the novel is lotless the plot grows from the characters motives and choices and the consequences of their actions. The absence of plot does not stem from a lack of literary culture but rather it is a choice. The spoken language of the novel is both mimetic and satiric, catchng the rhythms for the common speech and inflating them to illustrate - the degradation of the Golovlyov (EHRE 1977).
- The novel is a critique of the Russian lifestyle of the nineteenth century, it is realistic in its approach and shows humans at the mercy of the consequences of their actions. After the death of Arina Petronova, Judas becomes the new patriarch of the Golovyov estate. 'tephan predicts that Judas would estroy the old witch nd uck ut her property.
- But if Arina is the embodiment of power, Judas is it' caricature. He moralizes parodies of traditional Russian Piety and exaggerates the civility and gentility of a Russian Aristocrat'EHRE 1977).
- For Stepan the days after returning to the estate, become a timeless infinite cycle. His past becomes right and bitter his imagination becomes dull and there are broken, incohesive fragments of images like his memory didn' hold any past. For him his present becomes a prison, the room in which he stays in becomes his sphere,he room, the stove, three windows in the walls, a squeaky wooden bed with flattened mattress, the table with a bottle standing on it, his thoughts couldn' reach any other horizons Time and space collapses for him, the history, hope for future and any desire vanishes, there is only present ndistinguishable nd awnless days The room becomes his coffin, as he psychologically degenerates into the abyss.
- 'The novel shows the mid century positivism, the realm of material objects and circumstances as an ultimate value. For Golovlyov such a reality is the ultimate horror. The reality of Golovlyov is empty of emotional context and devoid of spiritual value' (EHRE 1977).
- 'Arina' too finds the time collapsing, landscape turning into mists, thoughts disconnected and only remunitaing over the old insults and terrors of hieves, apparitions and devils While Pavel who also fears Judas' nake like capacityto crawl into others skin and exude pellbounding venom makes up fantasies of n

entire mock-heroic novel n which Judas is the victim and he is the aggressor who has the magical capabilities of invisibility'(EHRE1977).

- 'Judas, who is the object of everyone' fear, in turn starts to fear everything and everyone.His prayers have always been pure demonology, his power devised to ward off evil spirits. When he collapses he earth disappears from under his feeteople become dehumanizedand his nlimited imagination creates his imaginary reality f extreme power through which he is able to take revenge for all his insults and walk the earth invisible and impervious to harm'(EHRE 1977).
- The novel is a psychological analogue of disposition of the self (EHRE 1977), but it is also an account of power and greed. When is the right time to take responsibility for yourself if you never had good parenting growing upfiAt the end, it is always the orels of oneself which gives you true freedom, to make your own life choices and gives you strength to take responsibility for the choices one made.
- 'Golovlyovs lost in the emptiness creates petty dramas of persecution and revenge that the paranoid mind creates to substitute real life'EHRE 1977).
- 'The Golovlyov family estate is the embodiment of death, every character, after their guilt and finding their conscience after they're totally devoid they come to this place to die. Annika too returns to the estate to die as the mistress after corruption inBohemia. They return to their hated familial nest, for seeking punishment.'EHRE 1977).
- This book is a classic that is not talked about as much as other Russian classics, in the West. It portrays fundamental human nature and how it can collapse under our own choices, no matter how invincible we may think we are.
- The novel focuses on the fall of the family but characterizes how power would live beyond the characters, someone from far away has the eye on the estate.

Conclusion

he novel Judas Golovlyov, is a classic Russian novel that portrays the human evils, greed and hunger for power. This novel focuses on the nineteenth century realistic constitution of 'ost Petrine Russia'(Britannica 2022) and blind faith in it' philosophy. The novel becomes more and more relevant with years as in our capitalist society, we too follow insignificant materialist objects for our satisfaction until our psychological and physical wellbeing all collapses under the pressure and prison, we put ourselves in.

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- *THE NOVEL JUDAS GOLOVLYOV BY M. SALTYKOV-SHCHEDRIN*

The Spirit of New Theatre Movement in the play Look Back in Anger

Ms. Tanisha Dalal, Ms. Rishita Shukla, Mr. Harpreet Singh Saluja

Abstract

'Look Back in Anger' a modernist play written by John Osborne is a classic example of the Kitchen Sink Drama. This play has several characteristics which distinguish itself from the different forms of theatre before it. It can be compared against the works of playwrights like Samuel Beckett. The play focuses on the life in the 1950's England. This play brought about a revolution in the world of theatre. Movements like the Angry Young Man Movement, Kitchen Sink Drama, Realism was brought into the main stream theatre. The play tries to showcase the like of struggles of the protagonist 'Jimmy Porter'. Central issues of the play include: the struggles between the middle class with the upper-class, post war struggles, emancipation of women and the change in British Aristocracy. The paper covers the new theatre movement with the aid of Look Back in Anger.

Keywords: Look Back in Anger, Realism, England, etc.

Introduction

Look Back in Anger (1956) is a play written by John James Osborne. It is a realist play and it focuses on the marital struggles and life of a educated but dissatisfied middle- class young man 'Jimmy Porter' and his highly competent upper-middle-class wife Alison who is portrayed as impassive in nature. Some supporting characters of the play are: Cliff Lewis and Helena Charles.

About the Characters:

- Jimmy Porter

  Jimmy Porter is the play's protagonist. He is the angry young man who displays his frustration for the lack of emotions in his domestic life. Jimmy's character portrays a duality of both a hero and a villain. He is a hero as he expresses his unfiltered emotional and frustration about the prevalent social situation. He is also a villain as his anger proves to be very destructive to those around him.

- Cliff Lewis

  Cliff Lewis is a friend of Jimmy's and Alison's. He lives with them in their apartment. He a working-class Welsh man. Jimmy often likes to point out that he is common and uneducated. It is one of the primary reasons why Cliff keeps him as a friend. Cliff and Alison Have a strange physical affectionate relationship which is shown throughout the play.

- Alison Porter

  She is Jimmy's wife. She belongs to an upper-middle class family but is married into a working family. As the play progresses, the audience discovers that she is pregnant with Jimmy' s child. She leaves jimmy due to his destructive anger. She suffers a miscarriage and returns to Jimmy after this unfortunate ordeal.

- Helena Charles

  She is Alison's best friend. She lives with them while she is visiting for work. Helena also belongs to an upper-class family. She convinces Alison to leave Jimmy and then begins an affair with Jimmy. She is considered as the play's moral compass.
- Colonel Redfern

  He is Alison's father. He is a representation of the Britain's great Edwardian past. He has been a military leader in India and has retured to his family in England. He plays a vital role in Jimmy's and Alison's relationship and he accepts that it is due to his meddling that many problems had occurred in their relationship.

Summary of the Play:

Jimmy Porter is known to be a loud, obnoxious man, rude and verbally abusive to his wife, Alison. Alison belongs to an upper-class family that Jimmy detests and he scolds Alison for being too reserved and emotionless. Jimmy is college educated but works as a street vendor operating a candy stall with a partner, Cliff Lewis. Cliff lives with Jimmy and Alison and is close friends with them. When Jimmy pushes Alison while she is is ironing, she gets burned by the iron. Alison visits a doctor where it's revealed that she is pregnant. She asks the doctor if she could abort the pregnancy and the doctor dismisses the idea. When Jimmy leaves for work, Alison confides to Cliff that she is pregnant. She is scared of Jimmy's reaction her being pregnant, and reveals that she has not told him yet. Jimmy gets a visit from his childhood nanny, Mrs. Tanner, whom Jimmy loves and calls "Mom." Alison tries to tell Jimmy of the pregnancy but is frustrated when Jimmy insults her for being indifferent towards Mrs. Tanner. Alison tells Jimmy that her actress friend, Helena Charles, is coming to reside with them in their apartment. Jimmy hates Helena. In his anger, he curses Alison for her indifferent behaviour, and wishes the death of her child to break her cool demeanor. Helena arrives, and when she has had enough of Jimmy's bitterness toward Alison, she convinces Alison to allow her to call Alison's father, Colonel Redfern, and take her far away from Jimmy. Jimmy then gets word that his nanny has had a stroke. Jimmy begs Alison to go with him to visit his nanny but Alison goes with Helena to church. Jimmy visits his nanny at the hospital and is told that she is dying. Before Jimmy returns, Alison's father arrives and leaves with Alison. Helena remains at theie apartment. Jimmy returns and Helena tells Jimmy that Alison is pregnant. Jimmy remains indifferent to it. Then he calls Helena an evil-minded virgin and she slaps him. This passionate exchange leads to a kiss, locking Cliff from the flat. Jimmy and Helena live together in the apartment for a long time, apparently happy, with Cliff, while Alison stays at her family's home waiting deliver her baby. Cliff starts feeling left out due to his lack of closeness with Helena. At the candy stall, Cliff tells Jimmy that he has decided leave as he wants something better. Jimmy announces that he has decided to leave the candy business. As he is leaving Jimmy says that Cliff means more to him than Helena. Jimmy and Helena enter a railroad terminal pub where they find Alison seated at a table alone. Jimmy leaves and

Alison tells Helena she lost her child in pregnancy. Helena feels that she should leave Jimmy. Helena returns to the flat and tells Jimmy she is leaving him because she cannot stand the torment of their lives. Jimmy returns to the terminus and finds Alison waiting to return home. They talk about the lost child and Alison tells him never be able to have children. Jimmy and Alison reconcile.

Critical Analysis of the Play:

Kitchen Sink Drama:

From the 1950's to the 1970's witnessed the rise of a very important movement in Modern British Theatre: The Kitchen Sink Drama. They were nothing alike the forms of theatre preceding it. It has often been compared to other movements like avante garde theatre, theatre of the absurd etc.

Social Message or Ideology:

Look Back in Anger focused on the social situation prevalent in the post war England. Plays like Look Back in Anger were infamous for containing leftist ideology.

Working Class Setting:

Plays before LBA tend to focus on the aristocracy or the upper class of the society. LBA brought about a whirlwind of change and sought to highlight the real lives and social inequality of the working class. These people who were caught between the struggles of industry, power, social homogenization and politics.

Voice Against the Ruling Class:

Another new concept brought about by this play was the expression of uncensored emotion and dissatisfaction with the ruling class.

Angry Young Man:

Jimmy expresses his anger on the lack of social opportunities and the lack of emotions. He believes that domestic life repents him from achieving his goals. His rage and anger is channeled at people around him specially Alison.

Reflection of the Playwright's Life:

Look Back in Anger was the first of its kind play where the personal life and ideologies of the playwright were acted out on the stage. Osborne also expressed his pent-up frustration and social anger in this play.

Feminism:

Kitchen Sink Drama usually in the mid-20th century were showcased from the masculine point of view. This play was a trailblazer were the trials and tribulations of women were brought to the forefront. The beief that women are meant to serve the men of the household was challenged. The assumption that when conflicts arise, the men suffer and the women' s suffering is due to the man's was also challenged.

Depiction of Domestic Life:

Kitchen Sink Dramas are known for their anger and criticism towards the political, social and economic establishment. The play also depicted the intimate moments of the domestic life. In stark contrast to the classical or victrian drmas which were either comedy or dramas centererd around the public lives of socially known characters.

Realism:

Intimate spaces like the attic, kitchen and living spaces are shown in the play. The boundaries between domestic and public life were blurred creating a scene of realism. It has never been seen before the play Look Back in Anger.

Conclusion

The Play Look Back in Anger and other Kitchen Sink Dramas have changed the ways of the British Theatre. Many authors such as John Osborne, Shelagh Delaney, Arnold Wesker and John Arden have never claimed to be Kitchen Sink dramatist, but their plays contain elements of domesticity that resonates the British life of the period.

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A Case Study - Domino's: The 30 minutes Delivery Promise

Dr. Ajay Patil, Mr. Jeet Airen

Whenever it comes to order pizza online or rather enjoying pizzas with friends and family the only name which clicks in the mind of Indian consumers is Domino's Pizza. It was not at all easy for Domino's to survive and position them in a multicultural, multilingual country like ours. It is not a miracle of the '30 minutes pizza delivery promise' rather it is a sum total of various strategies which were adopted by this fast food giant a popular brand of Jubilant Foods, to bring about a noticeable difference in the organised fast food delivery business, nor it was not easy for Domino's to continue the success story. There was a time when Domino's had faced serious challenges and the sales were going down drastically.

In fact, there were a lot of reasons especially on the blogs of the company, whereby the customer's complaint about the taste and other things which they disliked in the Domino's Pizza. The CEO took charge of the customer dissatisfaction. He worked on to read and fixed each and every blog, complaint and feedback. Dominos took this positively as a challenge and submission to change that pizza delivery and production process altogether. Most of the customer's complained that the pizza is boring and tasteless and this was quite alarming.

The major strategic move available for Domino's was to choose to be truthful to the employees and to the consumers. Therefore, Mr. Patrick Boyle, CEO of the company addressed the people on the public media and took responsibility of all the miss happenings and dissatisfaction, following with a promise that he will change and fix everything soon. This was a great a strategic move of Dominos and was quite ethical too.

Focus group interviews were called for the loyal base of consumers, to record the direct feedback for what makes it a bad taste pizza and what good things can be adopted to make the taste best. The Management of Dominos along with the head chef of the organisation noted down all the important points. After gathering the feedback and diligently noting down various points in the research and development team made 18 months continuous efforts to bring out the blend of best tastes of pizza whereby each and every chef of dominos work out and made efforts to bring out the best quality pizza which consumers would actually like to have.

The problems of customer dissatisfaction was a by-product of their own promise of 30 minutes pizza delivery which actually compromised the overall preparation and deteriorate the taste and the overall supply chain. On the contrary the strategy which ones that heart they thought would bring out the best in their sales has now become a serious threat to them.

The next big challenge which was in front of dominos management and their Chef's was to assemble the pizza quickly after baking it so that the 30 minutes delivery promise can be kept. Thus, they all together brought into a serious change into the overall supply chain and made the pizza preparation quick than previously. This included a complete revamp in the overall process, inventory, assembly, storage and transportation of the pizza. This change was made for over 4200 stores across the globe which was not easy one to achieve and it very difficult to execute as well.

The Campaign “Oh Yes We Did It” was one campaign of its kind to promise the turnaround of Dominos. This campaign the documented criticism of their organisation from making terrible pizzas to make one of the most delicious and tasty pizzas around the world. They also focused on storytelling for the organisation. Domino's generally focuses on low investment retail outlets which are very small as compared to their competitors Pizza Hut which provides a big dining area on the contrary Domino's focuses more on online delivery and takeaways and have limited number of tables for customers those who wish to dine at the store. And under the aegis of 'Oh Yes We Did It' campaign along with various head chefs of dominos re-approached their harshest critics and made them taste the newly made pizzas which they actually re-engineered as per their comments. They then asked loyal consumers to re-post the experiences on the website this made them a company which seriously listens to the complaints of the customers. Thus, complete innovative new makeover of Dominos was appreciated by all the consumers and it again started gaining its market share and the loyal base of consumers. The sales of Domino's which were declining negatively by 3% have now shown an increase of 14.3%, which was all together a quarterly difference of 18% .Embracing criticism and converting it into a business opportunity made Dominos the market leader once again. Not only this stock prices left the big giants like Amazon, Netflix and Apple far behind and the stock price of 2000 percent in just 7 years.

There are a few takeaways in this case the very first is giving ears and serious thought to the customer complaints and criticism. This made Dominos revamp their overall process and bring about a change in their pizzas. Not only this they did it within time and saved their business from paralyzing. Secondly, they are understood that it is better to change and innovate as per the needs and feedback of the consumers and they did it right when it was most needed and they did it right before the consumers leave them. The most important thing which everyone needs to understand is to sense and satisfy your consumers and have good relationship with them.

Therefore, we can observe that 30 minutes pizza delivery dominos raised from his ashes and reinvented the whole process of their business by sensing and satisfying the consumers and making necessary changes in the product, re- engineering the overall process and execute it right across all the stores there and then on around the globe. Strategy which Domino's followed is quite unique and is one of its kind examples for the rest of the organised fast food retail chains.

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Critical Analysis of the Namesake by Jhumpa Lahiri

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Abstract

Jhumpa Lahiri's "The Namesake" is an exceptional story which explores the two generations of the Ganguli family. The first part of this diasporic novel beautifully deals with Ashima and Ashoke Ganguli's life in Cambridge, Massachusetts as immigrants. As Ashima struggles with dilemmas of cultural differences and starting her family with Ashoke and her newborn baby in a totally different country away from her own country and traditions. The second part focuses more on the story of Gogol Ganguli the protagonist and his search for his own identity as Gogol an Indian American boy named after his father's favorite Russian author Nikolai Gogol. The namesake which he inherits and strives to understand.

Keywords: Gogol, Namesake, Cultural Identity and Differences, Traditional roots, familial relations.

Introduction

Jhumpa Lahiri was born in London on July 11, 1967. Lahiri was born to Bengali Parents, and grew up in Rhode Island, USA is an American author and short-story writer. Her stories have appeared in many American journals and her first collection, Interpreter of Maladies, won the Pulitzer Prize 2000 for Fiction, The New Yorker Prize for the Best First Book, the PEN/Hemingway Award and was shortlisted for the Los Angeles Times Award.

Review of literature

Many researches have been done on 'The Namesake' which explores the themes and ideas of cultural identity, identity crisis and diaspora. This research paper discusses the in-depth summary and analyses of the characters.

Summary and analysis

The Namesake was written 2003 and was first published in part by the New Yorker in June 2003. The novel beings with the nine months pregnant Ashima Ganguli in the kitchen of a Central Square apartment, making herself a snack that she carves but she misses the native taste, the taste that she actually craves for. As Ashima is soon brought to the hospital. She hears enchanting conversations of American couples which she thinks that she can never have with Ashoke, that shows much more traditional values rooted to their relationship. Ashima is terrified by the idea of giving birth to her newborn in a totally different country without any relatives, customs and traditions she thinks of her family back in Calcutta, she eventually finds comforts in the Desh magazine that she brought with her, and the printed Bengali pages which gives her a sense of comfort in the off-white tiles of the floor and planes of the hospital. Ashoke is also quite nervous and as soon as baby is born, they are troubled to choose the name for the baby as there is a no letter from Ashima's grandmother in Bengali culture there is a tradition of having a pet name which is known as daknam which is taken by friends, family and other intimates. Every pet name is paired with a good name, a Bhalonam. The bhaolnam is generally chosen by the elders of the family, but for the time being Ashoke and Ashima decides Gogol after the famous Russian writer whose book of short stories helped save Ashoke's life many years ago in India when he was twenty-one.

Findings

- Jhumpa Lahiri portrays the deep connection to one's culture and tradition through the character from the beginning of the novel Ashima feels empty in a foreign land and misses her family and her native culture and shows concern for her son to be brought up in a foreign land, she mingles up with her Bengali friends and seeks conform with them, she soon realizes that "being a foreigner is a sort of lifelong pregnancy a perpetual wait, a constant burden, a continuous feeling out of sorts"(The Namesake page 49).Lahiri works often elucidates immigrant experiences of Indians especially of East Indians. Her work in particular The Namesake sheds light on Indian diaspora through the Ganguli Family.
- Gogol's name soon troubles Ashima and Ashoke as it starts to be used on every official document, to them it feels breaking a very important tradition which they have also been a part of and it greatly disheartens them but at the same time they felt helpless as Ashima's grandmother was not well and they could only wait for the letter which seems to be lost. So, when they have a second child, they make up their minds and names her Sonia which is her Bhalonam as well as her daknam. As Gogol starts to grow up, he gets accustom to this name when he enters elementary school, he does not want to change his name even though his parents decide on a new good name for him Nikhil which he doesn't like. Gogol soon turns 14, his father gifts him "The Short Stories of Nikolai Gogol" which he sets aside. '
- The Namesake' starts as he develops hatred towards his awkward name as he feels that it is neither Indian nor American but Russian that is not even related to him, he does not feel a sense of attachment or kinship to his name. He soon discovers that Gogol is not a name but surname of the Russian author not his first name that was Nikolai, he wishes that his parents could have named him something else, something

better that could have made him fit in with the Americans. The Ganguli Family decides to visit Calcutta for eight months. Gogol and Sonia face several inconveniences in their own native land and feels aloof from all the numerous relatives they meet, on the other hand Ashima and Ashoke are very delighted quite different from how they were back in America.

- The contrast between the parents and their children shows cultural differences and a sense of cultural identity which is also seen as Ashima and Ashoke celebrates Christmas and thanksgiving for their children trying to adjust themselves whereas Sonia and Gogol find Durga Puja and Bengali classes less enjoyable than thanksgiving. But they still try to inculcate their cultural values and traditions.
- Which also portrays Jhumpa Lahiri's own experiences with her Bengali parents growing up as an Indian-American kid.

As the story focuses more on Gogol Ganguli, we can clearly see that he feels detach from his Indian roots and he does not hang out with other Indian-American students when he enters high school and university and does not think of India as home, as his parents and their friends do, but as "India," like his American friends. Gogol was always afflicted by the embarrassment of his name. He always hated his awkward name which was neither Indian nor American name and the Namesake he never understood after he soon changes his legal name from to Nikhil, though he can't ignore a deep-rooted sense that he has somehow betrayed his parents, "It is as Nikhil ... that he grows a goatee, starts smoking Camel Lights at parties and, while writing papers and before exams, discovers Elvis Costello and Brian Eno and Charlie Parker" (The Guardian,2004)but to everyone who has ever known him, he will always be Gogol.

- After having a conversation with his father, he discovers the true meaning of the namesake. He feels awkward and very ashamed and says “I'm sorry, Baba” he suddenly feels guilty and angry for not knowing the true reason for his namesake Gogol asks him maybe out of guilt “Do I remind of you that nightﬁ”, “Not at all” is all his father replies “You remind me of everything that followed.” (The Namesake page 124)

Gogol gets into a relationship with Maxine, and spent some time with her family. He senses a familial continuity and a bond that he feels he and his parents will never possess the cultural difference between their families makes him wonder of his and his family's relation and their cultural identity. Ashoke dies from a heart attack which makes Gogol look back to all the memories he had with him. Soon after his father's death he starts to grow distant from Maxine and meets Moushumi a Bengali women who he has known since childhood and with their families' approvals they both get married to each other.

- He seeks a sense of comfort with Moushumi as they share the same cultural heritage, 'he realizes that their alliance is "fulfilling a collective, deep-seated desire" on the part of their families.' (The New York Times, 2003) But his relationship with Moushumi also doesn't work and they get divorce.

He and his family get busy with Sonia and Ben's engagement but Gogol starts to feel a sense of nostalgia as he enters his old room and seeing all the dusty volumes, he notices a book; with ivory pages the title says 'The Short Stories of Nikolai Gogol' which was gifted by his father on his birthday. The front page says, “the man who gave you his name, from the man who gave you yours” (The Namesake, page 288) is written with many quotations mark Gogol suddenly thinks back to the time when his father gave him this book a book which gave him the all the answers for his namesake, the namesake he cherished, hated, felt embarrassed of the name which made him question many things and mostly importantly a namesake which truly holds a deep meaning behind it. The book he never touched for several years; he finally begins to read it.

- “I knew,” Lahiri says, “that Gogol would end up washed up on the shores of his home, his childhood home, and that he would find a book, and that it would somehow save him and be too late to save him. I knew the book would be a link to his father, and that part of the scene would be about losing a parent and understanding a parent at the same time. Books don't necessarily save us, but they do take us out of ourselves. And that is magical and rewarding.” (Los Angeles Times, 2003) as said by Lahiri herself this is shows Gogol finally understands his own father the namesake which he hated and felt ashamed of now feels something very special to him just like it did when he first entered elementary school.

Conclusion

'The Namesake' by Jhumpa Lahiri a tale of the Ganguli family also reflects many things about Jhumpa Lahiri as she is quite similar to the character of Gogol as they are both Indian-American kids with Bengali parents as immigrants in the US. The prominent diaspora, Bengali culture searching of one's cultural identity, the domestic drama and familial relations all makes up the themes of this exceptional novel. As the review by Julie Myerson, The Guardian 2003quotes “fantastically readable, warm and profound…” is exactly how we can define The Namesake. It makes you believe the characters are real the great depth of characters and the privy of their thoughts makes you feel emotions the characters feel. Lahiri's way of telling story through Gogol is truly impeccable and exceptionally written.

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Application of Queuing Theory in Allocation of Ventilators during COVID-19

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Abstract

The coronavirus disease 2019 (COVID19) pandemic is pushing healthcare systems beyond, their limits. The load has increased tremendously on hospitals where the resources are minimal. This paper shows the applications of queuing theory in the field ofhealthcare. The paper summarizes a range of queuing theory results in the following areas: waiting time and utilization analysis, system design, and appointment systems. Here queuing models are used for estimating waiting time of a patient, utilization of service, models system design, and models for evaluating appointment systems. A queuing system helps minimizing the waiting time of patients and maximizing the utilization of the servers i.e. doctors, nurses, hospital beds, number of ventilators etc. Many hospitals during this pandemic have run short of ventilators—as well as respiratory therapists (RTs) who aretrained to operate them. Any patient who needs a ventilator might not be able to get one, endangering their survival.COVID-19 increasesthe arrival rate of ventilator patients, and these patients have longerlengths of stay, resulting in the rise in demand for ventilators.We construct and analyse two models designed to optimize queue sizes and patient waiting times to ensure safety.We propose a novel approach to predict how long the treatment cycle takes to diagnose and classify people already infected and to calculatethe number of ventilators and RTs needed to achieve atarget wait time—the average delay for a ventilator experienced by a new patient.

Keywords: Queuing Theory, COVID-19, Queuing Model.

Introduction

Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome. The first case was identified in Wuhan, China, in December 2019. The disease has since spread worldwide, leading to an ongoing pandemic. Itwas formally declared as disease identified by the WorldHealth Organization (WHO) on 11th February 2020. After the outbreak of COVID 19, over200 countries across the world have been affected.Hospitals have also come under the tremendous pressure due to the higher rate of infection,shortage of beds, number of ventilators and other facilities required for the treatment of patients, etc.The balance of patientsand resources is an important principlethat should be integrated with the preoperational plans. The allocation ofresources within the minimum time is a vital part of any preparedness plant. Our modelestimates the required ventilator and RT resources neededto achieve a target average expected wait time set by theuser. Planners can use this model toassess needs, allocate patients or resources efficiently acrosshospitals, or drive hospital protocol decisions.

Queuing Theory

Queueing theory was introduced by AgnerKrarup Erlang a Danish mathematician who studied telephone trafficcongestion problems in the first decade of the 20th century. He worked for Copenhagen Telephone Company during the period that telephone systemswere growing in complexity. Obviously, randomness is an integral part such a system. WhenARPANET was being considered, the pioneers of this precursor of the Internet used the queueingtheory advanced by Erlang and others to show that the system was feasible. Queueing theory continues to play a vitalrole in analyzing the functioning of the Internet. Queueing theory, also known as the theory of overcrowding, is the branch of operational research thatexplores the relationship between demand on a service system and the delays suffered by the users of thatsystem.

Literature Review

Queues are very familiar in our daily life. Waiting line or queues are in the schools, hospitals, fairs, libraries, banks, petrol pumps, theatres etc., we all have Queuing problems. Every human being waits in queues to buy a ticket ofrailway ticket, make a bank deposit in the bank counter, start a ride in a playground, etc. We havebecome familiar to huge amounts of waiting, but still get upset by unusually long waits.Great inefficiencies also occur because of other kinds of waiting than people standing in line likeAirplanes waiting to take off or landmay disrupt later travel schedules.Delayingservice jobs beyond their due dates may result in lost future business. Queueing models to provide the various types of queueing systems that arise in daily practice.

Methodology

I. Model Inputs

i. The average length of stay (days) on a ventilator for a non–COVID-19 patient: This value is used to calculate the composite arrival rate. In our example, we use a default value of 4.5 days (Agency for Healthcare Research and Quality, 2017).

ii. The average length of stay (days) on a ventilator for a COVID-19 patient: we use a default value of 11 days for this parameter (Li et al., 2020). This average length of stay should include both recoveries and mortalities.

iii. Arrivals per day, new non–COVID-19 patients needing ventilators.

iv. Arrivals per day, new COVID-19 patients needing ventilators.

v. The number of ventilators in the hospital.

vi. The number of RTs available per shift: This value represents the total number of staff who can serve as RTs at any given time in the hospital. We selected default values for these parameters based on current medical literature.

vii. Number of ventilators per RT: In our examples, we use a value of 4.88 ventilators per RT (based on California Society for Respiratory Care, 2016, p. 18).

Mathematically, the probability of wait, the average wait time, and the expected length of stay are related through the number of ventilators. With more ventilators, wait time decreases by lowering the chance that patients must wait. The average wait time equals the probability that a patient must wait at all multiplied by the average length of stay on a ventilator.

II. Example for a Hospital

This example shows inputs for the queuing calculations at an imaginary hospital. Table 1 shows the example inputs.The hospital has an average of 7 patients arriving per day, each with the length of stay of 9.1 days on a ventilator. We see that the hospital has more patients than it typically does and that those patients also require longer time on the ventilator. With an average of 7 patients per day, 9.1 days on a ventilator, the hospital can expect to reach an average census of 64 ventilator patients, possibly within a week, depending on conditions. Table 2 shows the example outputs. The target average wait time for a ventilator includes cleaning and repair time. Using an Erlang function with load = 9.1*7 and 67 ventilators, we find the probability of waiting to be 62 percent, meaning that new patients will have to wait on average 0.62*7.0*24 = 135.4 hours, which is almost certainly unacceptable. Patients must wait so long becauseof the variability of the number of arrivals needing ventilators and the increased length of time that the ventilator is required.

Table 1: Example Inputs for Queuing Calculations

Inputs	Value
Average length of stay (days) on a ventilator, non– COVID-19 patient	4.5
Average length of stay (days) on a ventilator, COVID-19 patient	11.0
Arrivals per day, new non–COVID-19 patients on ventilators	2.0
Arrivals per day, new COVID-19 patients on ventilators	5.0
Target average wait time for a ventilator, hours	2.0
Current number of ventilators	67

Table 2: Example outputs for Queuing Calculations

Output	Value
Average length of stay (days) on a ventilator for any ventilator patient	9.1
Arrivals per day, all new patients on ventilators	7.0
Expected steady-state census of patients	61
Probability of wait for new patients	64%
Desired number of ventilators for a two-hour target wait	85

To ensure that patients wait only about 2 hours on average, the hospital would need 85 ventilators. If the hospital had only 64 ventilators, any slight increase above the average arrivals or days on a ventilator would immediately force any newly arriving patient to wait. From this, the hospital analyst can calculate the required number of RTs using the hospital's preferred number of ventilators per RT. With this approach, the hospital analyst can calculate the maximum number of patient arrivals per day that the hospital could have with its current number of ventilators. Using the Erlang function with the current number of ventilators, the analyst (or program) simply increases the number of arrivals until the expected wait time reaches the target wait time.

III. Model Formation

In our model (an M/M/N queue where the first M identifies the arrival distribution, the second M identifies the server distribution, and N indicates the number of servers in this case ventilators), ventilator patient arrivals follow a Poisson process, and their lengths of stay on the ventilator follow an exponential distribution. We account for the differential arrival and use rates of non–COVID-19 versus COVID-19 patients. We want to determine the ventilators and respiratory staff necessary to satisfy a specified, expected target wait time E[Wait]Target. In general:

$$E[Wait]=P(Wait>0).E[Wait \mid Wait>0]$$

where the probability of waiting $P(Wait > 0)$ depends on the number of ventilators, the number of patients, and the length of time the patient typically needs on the ventilator; and the expected waiting time $E[Wait|Wait > 0]$ is a weighted average of the typical service time for non– COVID-19 and COVID-19 ventilator patients. Our assumptions conform to the Erlang C queuing model staffing (see Robbins, Medeiros, and Harrison, 2010). For a given composite arrival rate of patients λ, an average length of stay on a ventilator μ, and a number of ventilators N, define the offered load as $R = \lambda/\mu$ and the traffic intensity as $\rho = R/N$. For $N > R$,

We calculate λ and μ based on a composite of COVID-19 and non–COVID-19 patient arrival rates and lengths of stay, and N is the number of ventilators. We calculate the number of ventilators needed by finding the lowest value for N such that the expected wait time $E[Wait] \leq E[Wait]Target$. We refer to this value of N as the minimum number of ventilators needed to reach the target average wait time. The ventilators short equals the minimum number of ventilators needed minus the hospital's current number of ventilators. Given the input parameters, if the hospital has a surplus of ventilators, ventilators short is negative.

We determine RTs short in a similar manner, identifying the minimum number of RTs needed by using the model parameter number of ventilators per RT and dividing as follows: minimum number of ventilators needed / number of ventilators per RT. Then, the respiratory therapists short equals the RTs needed minus the number of RTs in hospital per shift.

Conclusion

In this Paper, we propose the use of a queuing model for planning hospital requirements for ventilators and RTs. A hospital analyst could implement the queuing model in a spreadsheet and use it to estimate the patient wait times given the current number of ventilators and RTs. The analyst can also use the model to estimate the required number of ventilators and RTs when arrival rates and lengths of stay change. Although the queuing model theoretically assumes steady arrival rates, the careful analyst could use forecasted changes in arrival rates at the hospital or regional level. This methodology could also assist planners who allocate scarce resources across states and regions.

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Block chain: An Overview and Futuristic Outlook

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Abstract

A block chain is a distributed database, typically in form of a digital ledger, storing information in a digital format. They are well recognised for their critical function in keeping a secure and decentralised record of transactions in cryptocurrency systems like Bitcoin. Distributed suggests that it is shared or co-owned by the cloud of participants. This means that it has no owner, and the responsibility of keeping and updating the data is shared. A database organises data into tables, but a blockchain, as the name implies, organises data into chunks (blocks) that are connected together. This data structure generates an irreversible data time line when applied in a decentralized manner. When a block's storage capacity is exhausted, it is closed and linked to the preceding block, resulting in a data chain known as the blockchain. All further information contributed after that newly added block is compiled into a new block, which is subsequently added to the chain once it is complete. When a block is completed, it becomes permanent and forms part of the chronology. Each block in the chain is assigned a time when it is formed. Each block on the chain comprises a number of transactions, and whenever a new transaction happens on the blockchain, a record of that transaction is added to the ledger of every participant. Distributed Ledger Technology refers to a decentralised database administered by several individuals (DLT). Since everything in a block is recorded there can be reference to another block in the sequence creating a blockchain. These cross-references make it incredibly difficult to tamper with and alter information on them. This makes them really useful for record keeping because hackers would need to change "every copy" of the records if they wanted to break into one block without having every copy reflect their touch-ups.

Keywords: Nodes, Miners, Invention, Types, Benefits, Future

Introduction

The blockchain's uniqueness is that it guarantees the accuracy and security of a data record while also building confidence without the need for a trusted third party. A Google Doc is an excellent comparison for comprehending blockchain technology. When we create a document and share it with a group of people, the document is dispersed rather than duplicated or transferred. This creates a decentralised distribution network in which everyone has access to the document at the same time. No one is locked out while another party makes modifications, and all changes to the document are tracked in real time, making them completely transparent.

Objectives of Research

1. To get an insight into the science behind blockchain.

2. To study about the benefits of blockchain and practical implications.

Elements of Blockchain

Blocks, nodes, and miners are the three main elements of blockchain.

- Blocks

Every chain is made up of numerous blocks, each of which contains three fundamental elements:

– **The data** embedded in the block.

– **nonce** - a 32-bit whole number.

When a block is constructed, a nonce is generated at random, which then creates a block header hash.

– **The hash** is a 256-bit integer that is associated with the nonce. It has to begin with a large number of zeros
(i.e., be extremely small).

A nonce creates the cryptographic hash when the first block of a chain is formed. Unless it is mined, the data in the block is regarded signed and irrevocably linked to the nonce and hash

- **Miners**

Miners utilise a technique known as mining to add new blocks to the chain.

A specialised software is used to tackle the very tough mathematical problem of creating a valid hash with a nonce. Every block in a blockchain has its own unique nonce and hash, but it also references to the hash of the block before it on the chain, making mining a block challenging, especially on large chains. Because the nonce is only 32 bits long and the hash is 256 bits long, there are approximately four billion nonce-hash combinations to mine before determining the correct one. When a miner discovers the "golden nonce," he or she adds their block to the chain. Making changes to any previous block in the chain entails re-mining not only the affected block, but all following blocks as well.

This is why it is so difficult to manipulate blockchain technology. It seems fair to call it "safety in mathematics," because discovering golden nonces takes a long time and a lot of processing resources.

When a block is successfully mined, all nodes in the network accept the change, and the miner is financially reimbursed.

- **Nodes**

One of the most important ideas of blockchain technology is node decentralisation. A single machine or entity cannot own the chain. Instead, the chain's nodes create a distributed ledger. A node is any form of technological device that maintains copies of the blockchain and keeps the network operating.

The integrity and trust of the blockchain are established by combining public data with a system of checks and balances. Blockchains, in a nutshell, are the scalability of trust through technology. Every node has its own copy of the blockchain, and in order for the chain to be updated, trusted, and verified, the network must algorithmically approve each freshly mined block. Because blockchains are transparent, every transaction recorded on the ledger can be easily scrutinised and probed. Each member is assigned a one-of-a-kind alphanumeric identification number, which is used to track their transactions.

Invention the Blockchain

In late 2008, a person or group going by the name Satoshi Nakamoto published a whitepaper detailing the concepts underlying Bitcoin, a new type of digital currency. Since then, every cryptocurrency has evolved from the concepts outlined in that article.

Nakamoto's objective was to develop digital money that would allow two strangers anywhere in the globe to interact online without the need for a third-party intermediary such as a credit card company or a payment processor like Paypal.

This necessitated a method that would avoid a vexing problem known as "double spending," in which a person may spend the same money twice. The solution is a network that continually verifies Bitcoin's travel.The blockchain is that network.Every Bitcoin transaction is saved and validated by a worldwide network of computers that is independent of any individual, organisation, or government. The blockchain is a database that stores all of this information. Bitcoins are'mined' through a massive, decentralised (also known as peer-to-peer) network of computers that is continually checking and safeguarding the blockchain's correctness. Miners are compensated with modest amounts of bitcoin in return for providing their processing power to the blockchain.

Every bitcoin transaction is recorded on the ledger, and fresh information is regularly accumulated in a "block," which is then appended to all previous blocks.

Types of blockchain networks

The most basic requirement or use of a blockchain is to conduct transactions or information exchanges across a secure network. However, how individuals use blockchain and distributed ledger technologies or networks varies depending on the situation.

A blockchain network may be built in a variety of ways. They can be

– Public
– Private
– Permissioned
– Consortium based

Take, for example, Bitcoin, which is how blockchain was first exposed to the general public. Bitcoin is a digital money that is traded using blockchain and distributed ledger technology. People from all around the world may become nodes, verify other nodes, and exchange bitcoins on this form of blockchain network, making it a public network.

But a bank will use a private blockchain network. It will be a password-protected network to which only the bank's approved members will have access. As a result, no one outside of this restricted network can access bank data. A network administrator will monitor a private network's limited and permitted nodes. The data transferred through a private blockchain network remains within the network. Any new node wishing to join a private network must first obtain authorization from the network administrator.

- **Public blockchain networks**

  A public blockchain, such as Ripple, allows anybody to join and contribute. Significant computing power is required, transactions have little or no privacy, and security is poor. These are critical factors for blockchain application cases in the industry and each blockchain must be selected according to the needs of the user.
- **Private blockchains**

  A private blockchain network, like a public blockchain network, is a decentralised peer-to-peer network. The network, on the other hand, is administered by a single organisation that selects who is authorised to participate, conducts a consensus method, and maintains the shared ledger.
- **Permissioned blockchain networks**

  A permissioned blockchain network is typically put up by businesses who create a private blockchain (public blockchain networks can be permissioned as well) This limits who is authorised to engage in the network and what transactions they may do. To participate, individuals must first get an invitation or authorization.
- **Consortium blockchains**

  The upkeep of a blockchain might be divided among several firms. These pre-selected entities determine who can submit transactions or access data. A consortium blockchain is ideal when all members must be granted authorization and share responsibilities for the blockchain.

Benefits of Blockchain Technology

- **More Transparency**

  The fact that the transaction log for public addresses is available to sight is Blockchain's most distinguishing feature. This adds an unparalleled layer of accountability to financial systems and organisations, making each sector of the corporation obliged to behave with integrity throughout the company's development, society, and consumers.
- **Increased Productivity**

  because of its decentralised nature, Blockchain eliminates the need for middlemen in many operations, such as payments and real estate, etc. By facilitating P2P cross-border payments using a digital currency, blockchain allows for speedier transactions than traditional financial institutions. Property management operations are made more effective by a standardised system of ownership records and smart contracts that automate tenant-landlord agreements.
- **Increased Security**

  Blockchain is substantially more secure than traditional record-keeping systems since each new transaction is encrypted and linked to the previous transaction. As the name suggests, blockchain is formed by a network of computers cooperating to validate a 'block,' which is then added to a ledger, producing a chain. Blockchain is a complicated series of mathematical numbers that, once produced, cannot be modified. Blockchain's immutability and incorruptibility safeguards it from manipulation and hacking. Because of its decentralised design, it has the unique property of being 'trust-less,' which means that parties do not need to trust one other in order to trade safely.

- **Improved Traceability**

  thanks to the blockchain ledger, each time an exchange of products is recorded on a Blockchain, an audit trail is out there to trace where the items originated from this can not only help exchange-related organisations enhance security and avoid fraud, but it can also help verify the legitimacy of traded assets. It may be used to follow the supply chain from producer to distributor in areas like medicine, or to offer indisputable proof of ownership in the art business.

- **Cost savings**

  The nature of blockchain improves transaction processing efficiency. It also simplifies reporting and auditing operations by reducing manual duties such as data aggregation and amendment. Financial institutions save money when they use blockchains, according to experts, since blockchain's capacity to simplify clearing and settlement translates directly into process cost reductions. In general, blockchain helps organisations save money by removing the middlemen — suppliers and third-party providers — who have traditionally handled the work that blockchain can do.

- **Speed**

  Because blockchain eliminates middlemen and substitutes the remaining human operations in transactions, it can handle transactions much quicker than previous systems. According to experts, blockchain frequently beats traditional methods and technologies in terms of speed. In some cases, a blockchain transaction can be performed in seconds or less. Walmart used blockchain technology to identify the origins of sliced mangoes in seconds, a process that previously took a week.

- **Innovation**

  Leaders in a variety of sectors are experimenting with and deploying blockchain-based technologies in order to solve stubborn issues and improve long-standing inefficient procedures. As an example of such innovation, Field suggested the use of blockchain to authenticate the information on job candidates' resumes. A high number of people fake their resumes, according to studies, leaving hiring managers with the time-consuming duty of manually checking the material. However, pilot initiatives that allow participating colleges to publish data about their graduates and degrees conferred on the blockchain, which can subsequently be accessible by approved hiring managers, assist to solve both issues: getting to the truth and getting to the truth swiftly and efficiently.

Future of Blockchain Technology

Contracts, transactions, and their records offer important structure in our economic system, but they have not kept pace with the world's digital revolution. They're like rush-hour traffic trapping a Formula One race vehicle. Blockchain technology has the potential to fix this issue. For example, although the transfer of a share of stock can today take up to a week, it might take seconds with blockchain. Blockchain technology has the potential to reduce transaction costs and eliminate intermediaries such as attorneys and bankers, transforming the economy. However, like with the adoption of other internet technologies, blockchain adoption would need extensive coordination and will take years.

The blockchain concept has proven to be a foundation on which a wide range of applications may be built. Although blockchain is still a young and fast evolving technology, many experts have compared its potential to transform the way we live and work to that of public internet protocols like HTML in the early days of the World Wide Web.

The Bitcoin Cash and Litecoin blockchains are quite similar to the original Bitcoin blockchain in terms of functionality. The Ethereum blockchain is a development of the distributed ledger concept, as it is not meant exclusively to manage digital money like the Bitcoin blockchain.

Experts consider the Ethereum blockchain to be a strong and extremely flexible computing platform that allows programmers to quickly create a variety of blockchain-based apps.

For example: let's take a charity that wishes to donate money to a thousand people every day for the next year. It would simply take a few lines of code with Ethereum to accomplish this. Perhaps you're a game designer who wants to build objects like swords and armour that can be exchanged outside of the gamefi Ethereum is built to achieve the same thing.

Blockchain has long been linked with cryptocurrencies, but the technology's transparency and security have seen rapid use across a variety of fields, much of which can be traced back to the creation of the Ethereum blockchain.

In late 2013, VitalikButerin, a Russian-Canadian developer, published a white paper proposing a network with normal blockchain capabilities but one significant difference: computer code execution. As a consequence, the Ethereum Project came to be. The Ethereum blockchain enables programmers to create complicated programmes that can interact with one another, such as tokens to represent any sort of digital asset, ownership management, and functionality based on a set of computer instructions.

Tokens can be music files, contracts, concert tickets, or even commodities like art, gold, and even real estate. Non-fungible Tokens (NFTs) have recently acquired traction. NFTs are tokens that may be used to prove ownership of one-of-a-kind items. NFTs and Ethereum solve some of the current concerns plaguing the internet. As everything becomes more digital, there is a greater need to mimic physical characteristics such as scarcity, uniqueness, and proof of ownership. They can only have one official owner at a time and are safeguarded by the

Ethereum blockchain, which means that no one can modify the ownership record or establish a new NFT.

NFTs have been used to trade digital tokens associated with a digital file. Ownership of an NFT is typically associated with a licence to use the underlying digital asset, but it does not usually provide the buyer copyright. Some agreements only allow for personal, non-commercial use, but others allow for commercial use of the underlying digital content. NFTs have grown in popularity because they enable a new generation of digital creators to buy and sell their works while obtaining proper credit and a fair share of the profits.

Conclusion

The use of blockchain technology is not limited to the trading of cryptocurrency. Blockchain is being used by big-name enterprises, government agencies, and charitable organisations to streamline old procedures and create new business models. The usefulness of blockchain originates from its capacity to transfer data across entities in a quick and secure manner, without requiring any one institution to bear responsibility for data security or transaction facilitation. Because of its distributed and decentralised nature, this technology may provide several benefits to enterprises in a variety of industries. New applications for blockchain have increased the technology's potential to pervade other industries such as media, government, and identity security. Thousands of businesses are currently studying and producing goods and ecosystems that are totally based on the new technology.Blockchain is disrupting the current state of innovation by allowing firms to experiment with cutting-edge technologies like peer-to-peer energy distribution and decentralised news delivery. The ledger system's applications, like the notion of blockchain, will only expand as technology progresses. But the future of blockchain and its practical implications are still questionable.

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An Analysis on the Issues of Quality in Higher Education

Dr. Rakesh Agrawal, Ms. Anisha Anil

Abstract

In the present scenario education plays vital role in the world. In everywhere the value of higher education is increasingly day by day. Last few years the quality of education improved very much. Organizations aware in the field of higher education. The quality assurance of higher education has become an important global trend. Due to rapid expansion of higher education system every organization which has some extra qualities grows every day. Such as public and private institutions, cross border institutes and distance educational organizations. But in last few years because of globalizations the level of academic frauds increasing regularly. The frauds are Diploma Mills; fly by night providers, bogus institutions, and unauthorised organizations. Because of all above the reasons the demand of trustworthy organizations increasing that can establish confidence using quality assurance methods. There are so many ways we can use to improve the quality in higher education system. Quality assurance is both a national and institutional responsibilities refers to policies and programmes. We must prove the external and internal quality of education system. Fulfilling the own purpose and the standards that apply into the higher education system in general or professionals. Quality assurance is linked to professional mobility and a growing number of regional and international integration processes. This raises the need for more effective mechanisms for the professional recognition of higher education credentials. There are strong expectations that quality assurance mechanism will ensure continuous quality control and improvement.

Keywords: Higher Education, New Education Policy, Quality Assurance in Education

Introduction

Education has ever been looked at Indian culture as a holistic effort since time immemorial. Today, the Higher Education is controlled and maintained by the University Grant Commission (U.G.C) in India. They keep the quality of education on par with the international standards, which is a heritage India acquired since the British occupation. Since then all fields of education remained up-to-date in quality and quantity. Medical education, engineering education or any type of professional education be it, it remains so even now.

Policy makers and educators in each country have to think how to reform aims of system in Higher Education. In facing the fast changing environment many policy makers and educators get confused with uncertainties and ambiguities and lose their directions in the rapid globalization, which has driven numerous educational changes in the different parts of the world. There is urgent need of a comprehensive framework for understanding the impact of rapid developments and advancing implication for innovations especially in Higher Education System.

Objectives

The aim of Higher Education System is to develop the faculties as leaders and citizens, who will creatively contribute to the formation of a global society with multiple developments in Technological, Economic, Social, Political, Culture and Learning aspects. The rises of a global society driven by technology and communication developments are shaping the entire Higher Education System. An intelligent person with a broad range of skills and knowledge is to apply to competitive information based society.

Role of Faculties and Students in Higher Education System

Faculties have to play the most crucial role for their students all around development like a sculptor who can mould the clay with his hands and achieve any desirable shape. In the survey the response of students for the teacher is that, they are the most important part of education; they guide the student for the achievements of their goal. The role of faculty is to delivering the education, motivating and shaping the students into the right direction for light to lead the students spiritually, mentally, logically and psychologically.

The success of teachers is reflected in the performance of their students. Thus the significance of students is no less than teachers. In the survey the response of students to their role is crucial role. In order to become a perfect Citizen of our country, Student life is the first phase because their role is very important to change the country from developing to developed the students. Students are the products of teachers and their development depends on the environment, which is in their educational institutions. They play a key role in the development of nation. Highly educated students can prove beneficial for their country. Students should study sincerely and realize the troubles that their parents are taking. They should realize their responsibilities towards the nation; this will help in building up a good society. They are the building blocks of any educational system. Students should be discipline, respectful and honest, humble in their approach. They should be loyal towards whatever they do.

Stakeholders of Higher Education and their role in Quality Assurance

The Stakeholders of higher education institutions are bound to government, management, principal, faculties, non-teaching staff, students, parents, allumni and the public at large.

The main thrust of Indian higher education is to provide educational opportunities to maximum students. As a result there has been a continuous increase in the number of higher education institution in our country. At present there are more than 3000 university level institution and about 1600 colleges in India. Indian higher education system is the third largest in the world behind the U.S.A and china. The basic principles for traditional higher education system were creation and transmission of knowledge. In the emerging higher education scenario the education institution have to face a lot of competitions from other education providers both domestic and aboard.

Analysis

As per the analysis done following were the outcomes of the research:

- **Challenges**

  The quality assurance of higher education has become an important global trend. Due to rapid expansion of higher education system every organizations, which has some extra qualities grows every day. But in last few years in higher education system because of globalization organizations have to face many challenges. To face these competitions

Higher education institutions are bound to follow the market principles while uploading the core values of education like national development; internationals standards value system, accessibility, equality & quality. An all-encompassing& embarrassing effort to create a quality culture is the prior need of the hour.

- **Expectations**

  Students only prefer those institutions, which can offer them meaningful education through the updated syllabus & need-based courses enabling them to face the challenges of the competitive world. The higher education system should develop to the following manner:

  - The institutions give emphasis to build-up the leadership quality amongst the students through the extracurricular and co - curricular activities.
  - To arrange the personality development for the students through the counselling enters, mentor system, coaching and other training programs.
  - The easy accessibility of ICT (Information and Communication Technology) enabled facilities offered to them by those institutions for progression to higher studies and employment.
  - Infrastructure facilities
  - Faculty profiles
  - Modern teaching tools
  - Support facilities like computer centres and playground, grievance-readdressed, mechanisms, career counsellingcentres& other academic amenities available in institutions.

- **Achievements**

  UGC is pursuing a forward looking strategy for the developments of human resources which will not only meet the demand for skilled human power, but will also safe the nations interest at the global level. The journey of education system from the first day of the use of black board till today when computers are in common use has tremendous changes in the teaching & undergone system.

  - Use of information technology to ensure uniformity in addition to teaching material
  - Maintain standards of education across semi urban and urban India. .
  - UGC network centers (UGC - NRC) scheme provides colleges -- like computers with internet connectivity, multimedia teaching, e-Journals, consortium.
  - Training and development program for the faculties.
  - Academic staff in colleges to work as nerve centres - to create net savvy & computer literate faculties, orientation & refresher course in computer & internet usage for faculties.
  - Promotion of a relevant education like skill oriented, value added and add-on-course

- Multiple degree programs like undergraduate degrees, post-graduate degrees and various diploma courses etc.

Conclusion

Information highway is the need of hour and UGC has traversed a long way towards the up gradation and overall quality enhancement of the institution of higher education & this mission can achieve consummation when the various institution across the country fully comprehend and upgrade themselves conforming to the requisites expectations as lade in the information highway. The majors taken by the UGC are extremely commendable and it will not be exaggeration to say that India is progressing although not at very fast pace. But with firm footsteps towards becoming a global hub in the field of highereducation.

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Application of Operation Research in Decision Making in Government Planning

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Abstract

It is the primary responsibility of the government to cater to the needs of the citizens and OR as a science helps in making accurate decisions without any judgement and biasness. A methodology of operations research ensures the accuracy of the policies and activities executed by the government. In this paper, we have shown how operations research tools help the government to cover all the aspects necessary for decision making, budgeting, and economic development and project scheduling. This paper also shows how governments of different countries like China and South Africa use operations research in their decision making and development of their economy. OR is not free of any difficulties and restricts the government from applying the OR tools to itsmaximum.

Keywords: Operation Research, Government, Decision making, Planning, Public services.

Introduction

Recently, ISRO (Indian Space Research Organization) developed its 2nd lunar exploration mission Chandrayaan-2 which would improve our understanding of moon, help us in doing discoveries and would encourage more such voyages. But we know such missions need good research which in turn requires huge funds which are ultimately allocated by the Government. For e.g., our government allocated around 9918 crores rupees to ISRO for the year 18-19 and it's a huge amount. All this process seems quite simple but in reality, requires lot of efforts. Govt. don't allocate funds as demanded by Department of Space but use effective OR techniques before doing so. This is one of the examples which shows how important Operations Research is in today's life and specifically in working of Government.

Sometimes, it also happens that government has to make important decisions like if it wants to continue with the loss-making PSUs or not. Air India, BSNL are loss incurring units and govt. have to decide if it is in the greatest interest to shut these companies or to continue with these for social welfare of the people.

Time and again such problems occur in front of the Govt. and decisions are to be taken so that maximum benefit is achieved. Decision Making is important not only in govt. but everywhere like in business, engineering, economics etc. But unfortunately, we are not always naturally inclined to make the best decisions and fortunately, we have Management Science which serves the role of helping people to make more informed and logical decision.

Roles of Management Science

1. **Subduing Emotion:** One of the roles of management science in decision making is to subdue human emotion. Human emotion can get in the way of decision making. For example, a person might be emotionally attached to a project that logically will not be profitable; management science tools can be used to identify the rational decision of which project to abandon.

2) **Evaluating Complex Situations:** Often, a decision will involve a complex web of causes and effects. The human brain simply cannot handle so much data. Management science offers methods for arranging this data in a way that it can be interpretedeasily.

3) **Overcoming Biases:** Humans are naturally inclined to have biases. Often, people aren't even aware of these biases. Biases can be very simple, such as a subjective preference for the colour yellow rather than the colour blue. Management science removes human biases from the decision-makingprocess.

So, Management Science/ Operations Research is a discipline that deals with the application of advanced analytical methods to help make betterdecisions.

Through this research paper, we want to show how Operations Research has become a part of almost every govt. activity and planning. Since a country depends a lot on govt. and its activities, therefore study of OR in govt. is crucial.

Research Objectives

The following research paper has been formulated with the objectives as stated below: -

1. To understand how Operation Research can be used as an effective tool to solve real life problems and how effective and accurate it is in decision making and thus see if Operational Research can be proved to be the preferable method for thesame.
2. To find how Operations Research is used in Government planning and decision making and to look at the scope of Operation Research in various public services provided by the government and hence find out the effectiveness of the policies implemented.
3. To describe how Operation Research is linked to various government all around the globe and hence understand the relationship between the two and thus understand the level of dependency ofboth.
4. To elaborate on how efficient has the use of Operation Research has been in implementation of the various public policy and hence evaluate its performance over theyears.
5. To outline different challenges faced by government while using OperationResearch.

Research Methodology

The research methodology used is secondary research wherein we went through various research papers, articles and journals which helped in collecting various data which is incorporated in the researchpaper.

As a part of primary research, we spoke to a government official who is working in this field which helped in getting information on the real-life implication of Operation Research which turned out to be much different than the theoretical explanation of Operation Research.

Literature Review

The various research papers focused on how Operation Research can be used for effective planning in the government in various sectors like public service distribution like electricity, water, vaccines and medications, etc. These papers aim at understanding the effectiveness of Operation Research in various government sectors.

Most of these papers show a contrast between the theoretical aspect of operational research and the real-life implications of the same. Also, they focus on various challenges faced by government in implication of these OR models and the reasons that lead to poor implications of these. Hence, they focus on the importance of Operational Research in government. They also speak of various models which can help implement and find optimal solution to economic and social problems.

A. Economic Planning and Decision Making.

Economic development refers to a multi-dimensional process involving major changes in social structure, popular attitudes and national institutions (E.g.Niti Aayog) as well as acceleration of economic growth, reduction in income inequality and eradication of absolute poverty, reduction in unemployment and improvement in material welfare.

1) Business Decision Tool: Business leaders and policy makers are using OR techniques to assist them in decision making in ways that directly or indirectly lead to poverty alleviation and economic development. For example, OR tools are used in optimal facility location, product design and manufacturing, inventory control, capital investment, and manpower planning. When a CEO of a company makes a right decision, the effect could be increased productivity, increased profit, pay increases for workers, provision of bonuses to workers or gaining new market share that might require newhiring.

2) Planning and Scheduling: Two specific OR project planning and scheduling techniques are the Critical Path Method (CPM) and the Program Review and Evaluation Technique (PERT). The CPM was developed by Morgan Walker at DuPont, while James Kelley, Jr., invented the PERT at Remington Rand. Successful completion of these projects contributes to job creation, community empowerment, most importantly, meeting the economic goals that led to the implementation of the projects in the first place. CPM, and PERT contributed immensely to the timely completion of the World War II ManhattanProject.

3) Project Analysis and Evaluation: In an era of scarce resources, policy makers demand accountability. They want to make sure that scarce resources are not wasted, projects are efficiently completed on time, and projects' goals are achieved. They are also interested in how lessons learned from one project can be used to improve the implementation of other projects in the future. OR is one of the tools that can be used to achieve these goals. For example, a linear or nonlinear programming could be used to construct and analyse different implementation scenarios or policy alternatives. Depending on the nature of the model, sensitivity analysis could be performed to see how changes in problem inputs affect the solution. This analysis could assist in a comparison of expected outcomes to actual outcomes, and hence determine the effectiveness of the project in meeting expected developmentgoals.

B. RationalBudgeting

1) Rationalism: From the late1950s the government began to play an activist role in economic and social development, formulating new policies and with increased level of expenditure. (Fozzard, 2001) Rationalist approach is where the policies are related to clearly specified goal. These goals are defined through a problem analysis and once the goals are defined, the technicians look for ways of implementing them through policies. This implementation is monitored andevaluated

2) Planning, Programming and Budgeting System (PPBS): This was an approach of resource allocation introduced in USA in mid 1960s where resources would be allocated based on their contribution to the policy objectives. This was because the rationalist approach required a link between the policy objectives and the resource allocations. This technique relied on quantitative techniques of spending decisions. However, many analysts also emphasized on using methods derived from operations research like linear programming, systems analysis and decisiontheory.

Hence, various operation research techniques were used along with PPBS in order to allocate the budget funds to various sectors. However, PPBS had its own set of limitations and hence was eradicated by the 1980s.

C. Allocation of Public Health Services.

Operation research can help deal with a lot of issues in public health system, disease prevention and control along with community issues. The typical model of health program consists of inputs (necessary basic resources for services-technical and financial), processes (programme activities such as training, logistics, etc.), outputs (results at the programme level-services, service use), outcome (results at the level of target population- behaviour , practices) and impact (ultimate effect of project in long-term); OR typically tries to modulate inputs and processes in programmes and aims to measure the desired changes in outputs, outcomes and impact.

There are two approaches for OR in public health

1) Secondary Data Analysis: This refers to analysis the past data that already exists and using this data to full potential and hence finding out gaps by reviewing these data sets. Here, the program managers play a very important role as they can help guide the Operation Research (OR) process. A lot of useful and effective solutions and allocation solution have been derived through this technique over the years. The major advantage of this method is that it is easy to derive data in the least possible time as the reports are generated and maintainedregularly.

2) Primary Level Research: There are 4 types of OR research studies involved in this approach. These methods are often linked to each other. They are as follows:-

   a) Exploratory Study: They are carried out to know the extent of a problem and hence, help in problem identification which is the first step in this method. Typically, these studies employ qualitative methods as well as interviews, group discussions and also quantitativestudies.

b) Intervention Study: This study usually works on randomised variables. Randomised experiments yield highest level of evidence on effectiveness and efficiency of new service delivery options, giving best choice for implementation to program managers and policymakers.

c) Economic Analysis: The last step in the evaluation is usually the economic analysis by costing and calculating cost effectiveness ratios and looking for cheaper optimal outcomes as health distribution programs are often supposed to be operating in scareresources.

d) Monitoring And Evaluation: Monitoring and evaluation have been two significant aspectof OR (M'OR'E) today. Monitoring basically refers to as a process of looking after inputs, processes and output in programmes and evaluation is outcome/output evaluation. This method requires data collection on a continuous basis and the effectiveness of various programs implemented have to be measured. It uses a set of pre-defined indicators which track the progress of the program. Hence this allows space for feedbacks and midcoursecorrections.

Hence OR is a distinctive instrument leading to maximum benefit to health systems and programs end user at lowest cost. Translating the outcomes of OR will eventually better healthcare system for public that is accessible, affordable, available and acceptable.

D. Use of OR in Analysis and Evaluation of Govt. policies andschemes

It is a known fact that resources are scarce and hence it is essential that Government evaluate and analyse its policies and schemes so that resources are not wasted and project's goal is achieved.

Conclusion

Operation Research has played a major role for governments across the globe. In this paper, we consider some of the ways in which government have used OR tools for project planning and scheduling, project analysis and evaluation, prediction of food and energy needs and efficient distribution of water and electricity. However, OR is used in various other public sector units such as transport, aviation industry, defense sector, etc. In each case, we discussed how each activity contributed to economic development and planning. However, OR as a tool for finding the optimal solution has proven to be efficient and accurate. Despite this, OR has not been used to full potential in India. This is because various challenges are faced by government in proper use of OR. Some of which include lack of knowledge on part of government officials, no proper development and system management as compared to other countries, ignores qualitative variables which are sometimes crucial, etc.

hence, effective implementation can be ensured only when we combine human capital with technology. We hope that knowledge of how OR can be used for economic development and poverty alleviation will encourage people across the globe, especially those from poor and developing countries, to think creatively of how they could use OR tools to assist their governments in development projects in their communities. In short, OR plays a major role in uplifting economies and ultimately the lives of theircitizens.

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An Analysis of Working Capital of Selected Textile Industry

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Abstract

Working capital in general practice refers to the excess of current assets over current liabilities or we can say capital used for daily expenses is working capital. The management of working capital is concerned with the tribulations that arise in attempting to manage the current assets, current liabilities, and inter-relationship between them. In India Textile industries are facing challenge in managing trade-off between liquidity and profitability as well asfinding difficulty in getting adequate amount of short term fund at reasonable cost. Requirement of working capital also varies with the nature of business, its size and level of operation. Certain mechanism that business needs to apply to maintain liquidity is also highlighted in our research work.

Keywords: Working capital, Finance, Textile Industry.

Introduction

Working capital is a soul of business as a soul without a body never works the same way without working capital business activities never run. Crucial matter need to manage correctly as it is very essential for survival and growth of business.Working capital management is an important area of finance. The job of a finance manager is to create value for shareholders. However, the value creation process demands the undivided attention of the finance manager on long-term as well as short-term investment and financing decisions. Working capital is a financial metric of operating liquidity that describes the amount of cash tied up in operations and defines the short-term condition of a company. A positive working capital position is required for the continuous running of the company's operations to pay short-term debt obligations and to cover operational expenses. A company with a negative working capital balance is unable to cover its short-term liabilities with its current assets. Working capital is calculated by the following formula:

Working capital = Current Assets less Current Liabilities.

The formula includes three notable balance sheet accounts which all have a direct effect on the business, namely accounts receivable, accounts payable and inventory. These accounts are often referred to as the three areas of working capital.

- Accounts receivable: Money owed to the company for products and services that have been delivered to customers but not yet paid for.
- Inventory: the raw materials, work in progress goods and finished goods that are ready or will be ready for sale. Inventory represents the key asset to most businesses as the turnover of inventory is a primary source of revenue generation and subsequently earnings for the shareholders, owners of the company.
- Accounts payable: money owned to supplies for goods and services that the company has purchased on credit.

Nature of Working Capital

- It is used for purchase of raw materials, payment of business expenses and wages.
- It is highly fluctuating capital of business.
- Working capital enhances liquidity, solvency, creditworthiness and goodwill of the business entity.
- Working Capital helps improve the morale of top level management and their efficiency reaches at the highest.
- It facilitates in growth of the business entity and helps in maintaining operational efficiency of non-current assets.

About the Indian Textile Sector

The Indian textile industry is one of the largest in the world with a large raw material base and manufacturing strength across the value chain. Textile industry of India provides ample job opportunities both for skilled and unskilled workforce. India is one of the largest producers of cotton and jute in the world. Textile industries hold 2nd position in terms of production of silk in the world. Indian textile produces 19/20thof the world's hand-woven fabric. The Indian technical textiles segment is estimated at $16 billion, approximately 6% of the international market.

A textile is the largest single industry in India (and amongst the biggest in the world), accounting for about 1/5th of the gross production by secondary sector of economy. It generates direct employment to approximately 2 crore people. Textile and clothing exports account for 33.33% of the gross value of country's export. There are 1,227 textile mills with a spinning capacity of about 29 million spindles. While yarn is mostly produced in the mills, fabrics are produced in the power loom and handloom sectors as well. The Indian textile industry continues to be predominantly based on cotton, with about 65% of raw materials consumed being cotton. The yearly output of cotton cloth was about 12.8 billion m (about 42 billion). The manufacture of jute products (1.1 million metric tons) ranks next in importance to cotton weaving. Textile is one of India's oldest industries and has a formidable presence in the national economy inasmuch as it contributes to about 14 per cent of manufacturing value-addition, accounts for around one-third of our gross export earnings and provides gainful employment to millions of people. They include cotton and jute growers, artisans and weavers who are engaged in the organised as well as decentralised and household sectors spread across the entire country.

Our textile industries, currently estimated at around US$ 108 billion, are expected to reach US$ 223 billion by 2021. The textile industry is the second largest employer after agriculture, providing a livelihood to over 40 million people directly and 60 million people skilled and unskilled workers indirectly. The Indian Textile Industry contributes to 7% of industry output in terms of value, 2% of India's GDP, and 15% of the country's export earnings. Contribution of the organized sector (Mill Sector) accounts for only 3.34% of fabric production & the remaining 96.66% of the fabric is being produced and manufactured by the unorganized textile sector. The power loom sector contributes to maximum fabric production of the county at 61.32% after that hosiery sector contributes 22.71% and then the handloom sector at 11.28%.

Literature Review

Geevetha R and Shivaranjini S (2018) there is a relationship between the working capital and GST. The importance of his research shows that there is a requirement of an increase in the working capital which causes a simultaneous increase in the short-term borrowings affecting the growth of the textile industry. Due to the increased working capital requirements, there is a concurrent effect in the increase in the short term borrowings and the finance cost. The entities are forced to go in for short-term borrowings to finance their working capital. A huge portion of the working capital is locked up in the form of Input-tax credit receivable and a maximum portion of it becomes irrecoverable.

Jothi. K. &Geethalakshmi A (2016) this study tries to the financial position of the selected textile companies using statistical tools like ratio, mean. Working capital represents a large portion of the total investment in every textile company. To raise the capital costs and scarcity of funds the area of working capital management assumes added importance. A textile company's profitability and liquidity are deeply influenced by the way its working capital is managed. The main aim of working capital management is to arrange the needed funds adequately from the proper sources.

Ramjot Singh & Dr. Kusum Gupta (2015) Longer the processing period of manufacture, the larger is the amount of working capital required. The longer the manufacturing time, the more raw materials and other supplies have to be carried for a longer period in the process with a progressive increment of labour and service costs before the finished product is finally obtained. Working capital in general practice refers to the excess of current assets over current liabilities. Management of working capital, therefore, is concerned with the problems that arise in attempting to manage the current assets, the current liabilities, and the inter-relationship that exists between them. The purpose of this study is to examine the changes in the working capital requirements in the textile industry

Abhilash Rai (2014) Working capital management involves the relationship between the firm's short-term assets and short-term liabilities. The study found current ratio, quick ratio, and cash ratio have a positive relationship with profitability and the current total asset has a negative relationship with profitability. The study shows that a slight delay in the collection period may hurt the working capital as well as the profitability. So the Firms must make an effort to reduce the number of days their accounts receivables remain uncollected, which boosts their profitability.

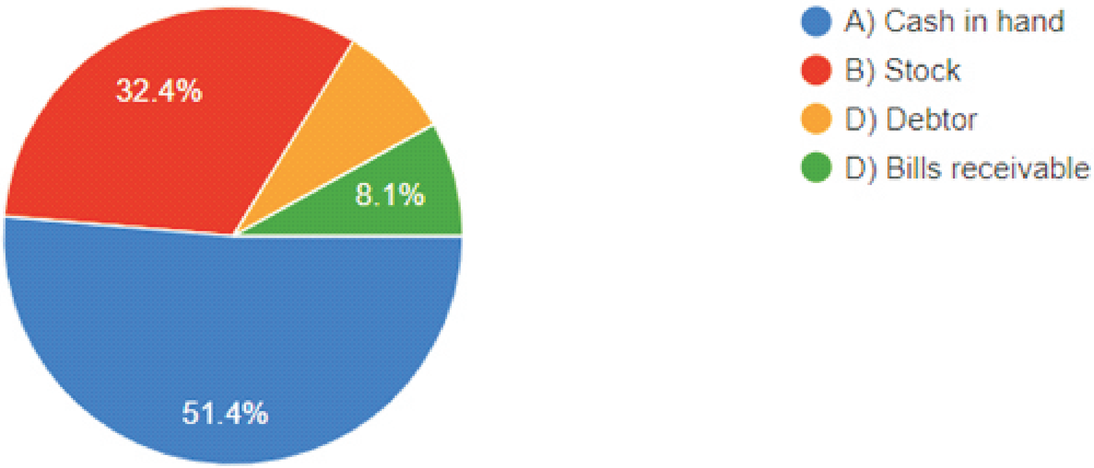
Research Objective

The nucleus of our study is to analyse the working capital of textile industries of the country. A rigorous analysis was conducted to assess the changing requirements of short-term finance and its subsequent impact on the profitability of notable textile industries. It focuses on the various dimensions of working capital and its components. The objectives of the study are:

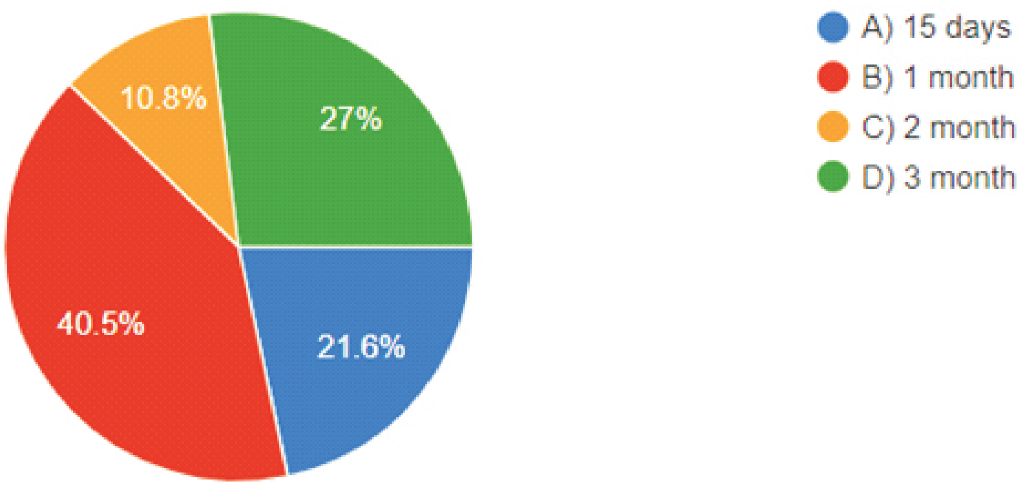
- To examine the efficiency of working capital management practices of the selected firms in textile industry.
- Assessing the challenges of textile industries in arranging short term capital.
- Analysis on various sources to meet the requirement of working capital of textile industry.

Research Findings

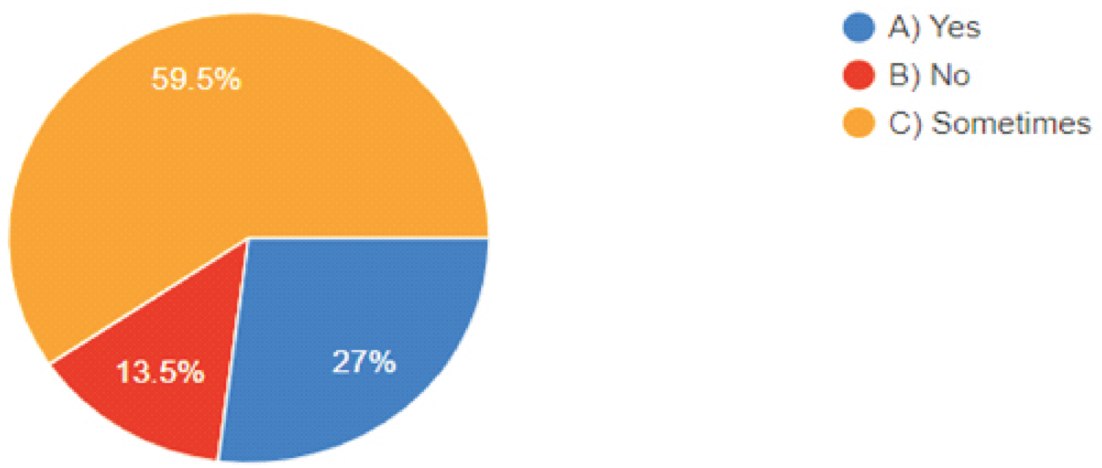
- Maximum amount of working capital is required for cash and cash equivalent because major day to day expenses need to be paid in cash. 32.4% of working capital is kept for inventory.



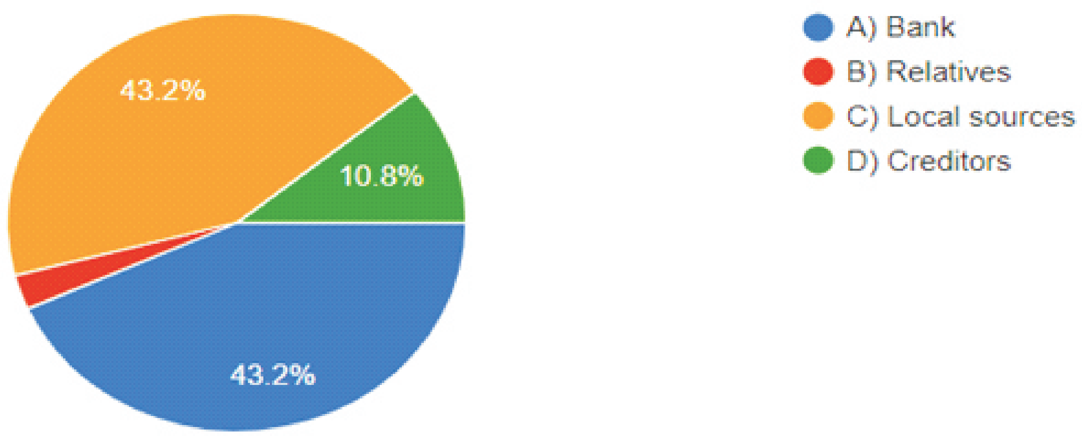
- Requirement of working capital varies from business to business as well as depend upon the scale of operation and market scenario. Minimum duration of cash requirement to meet day to day expenses was 1 month.



- It was found that most of the time textile units found difficulty in getting sufficient amount of working capital for their business.



- It response to sources of generating fund for working capital it was observed that mostly textile industries get finance from formal source (banks and financial institutions) as well as from money lenders, hundies etc.



Limitations of Study

- Sample size cannot always be a correct indicator of the whole population.
- Research is confined to selected textile industries.
- It is based only on textile and its associated sectors.

Conclusion

In this modern era, it is very significant to have funds to operate the business of textile. Businesses must keep a sufficient amount of working capital to run the business of textile companies efficiently. Through this study, we try to find how difficult it is for firms to cope with the changing requirements of the external business environment. While assessing the challenges of textile industries in arranging short term capital we found that in spite of many schemes available for easy finance many business found difficulty in getting timely and adequate fund for working capital. Textile industries are still depended on informal sources for financing their working capital requirement. Banks and financial institutes need to take proper care regarding the sanctioning of short term funds to textile business because it is one the major revenue and employment contributing industry of country.

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A Study of Students' Perception towards Online Classes

Dr. Deepali Gupta, Ms. Riya Gore, Ms. Shruti Lalwani, Ms. Yogita Thakur

Abstract

Educational institutions (schools, colleges and universities) in India are currently based only on traditional methods of learning, that is, they follow the traditional set up of face-to-face lectures in a classroom. Although many academic units have also started blended learning, still a lot of them are stuck with old procedures. The sudden outbreak of a deadly disease called Covid-19 caused by a Corona Virus (SARS-CoV-2) shook the entire world. The World Health Organization declared it as a pandemic. This situation challenged the education system across the world and forced educators to shift to an online mode of teaching overnight. Many academic institutions that were earlier reluctant to change their traditional pedagogical approach had no option but to shift entirely too online teaching and E-learning. This research studies the online learning benefits for the students, also effectiveness of online learnings and challenges faced by the students while studying through online mode.

Keywords: Educational Institutions, Covid-19, Online Teaching, e-learning

Introduction

Education is the medium that enhances our skills, knowledge and potential towards learning. As stated by WHO, the coronavirus disease has been originated in China and travelled to India and the rest of the world in 2019, has become a pandemic in March 2020 due to the higher risk of its impact on countless sector. The implications of covid-19 have been projecting a dire situation for economic, agriculture, manufacturing, tourism and education in different economies. At the same time countries are at different points in covid-19 infection rates which resulted in closures of schools, colleges and institutions by mid-March, nearly 75 countries have executed and declared the termination of educational institutes.

Educational institutes over the world have been closed due to the pandemic. Almost every education centre has moved towards the online platforms including zoom, Google classroom, Google meet etc, to upkeep the academic activeness in progress.

Online classes are the classes which one can have from any part of the world without even present physically to the place. E-learning one of the finest and the flexible way of learning. But to the students' perception, how far the online learning is convenient that should be taken into consideration. The present research is done to assess the effectiveness of the online learning and challenges faced by the students studying through online classes.

Objectives of Study

To analyse the students' attitude towards the online learning is the main objective of the study. In order to achieve the objective, the following points were lay out:-

1. To find out the effectiveness and benefits of online learning.
2. To find out the challenges faced by the studentsstudying through online classes.

Literature Review

In order to find out the research gap of the research work following literature have been reviewed -

Sahu, Namita (2021) Attitude of Undergraduate Students Towards E-Learning in Covid Era; This study was conducted to study the attitude of undergraduate students towards e-learning in the COVID era. Main objectives of the study were to compare the attitude of boys and girls towards online learning and to compare the mean scores of bachelors of arts, science and commerce. The study was limited to Gangadhar Meher University, Odisha and the sample size was 180 samples. The study compared the different attitude of students towards e-learning.

Gagandeep Kaur (2021) Online Education During Covid 19: Challenges Faced by Higher Education Students; Research was conducted at Desh Bhagat University, Delhi on attitude towards e – learning among school teachers in relation to their efficiency and technostress. Conclusion of the research was Most of the primary as well as secondary school teachers have medium level of self-efficacy.

Nandan and Akansha (2020) 'A Comparative Study of Academic Performance, Anxiety, Study Habits and Attitudes among High School and Intermediate Students in Pre COVID 19 Condition' and after covid condition was done. The study was limited to Bahraich district of eastern Uttar Pradesh. The main objectives of the study wereto know the academic performance of the students andto examine the anxiety among the selected students. The conclusions were that Almost half of the students, irrespective of the class, had average anxiety.

Research Gap

After reviewing the related researches, the researchers found the following research gap -

1. No such kind of research has been conducted in the state of Madhya Pradesh.
2. No past researches have studied about both positive and negative outcomes of e-learning, also not observed the effectiveness of online classes.

Therefore, it was necessary for setting a conclusion by letting maximum people give their genuine experience and identify the benefits, effectiveness and challenges while studying through online classes.

Research Methodology

Area of study

Our survey is conducted with some of the eminent colleges of Indore, Madhya Pradesh. All the students of the colleges were under graduated and recorded their genuine experiences. The survey is conducted on the following 9 prestigious colleges of Indore of different regions:

1. St Paul Institute of Professional Studies
2. Acropolis Institute of Management Studies and research
3. Softvision College
4. PMB Gujrati Commerce College

5. Prestige Institute of Management and Research
6. Shri Vaishnav College of Commerce
7. Shri Vaishnav Vidyapeeth Vishwavidyalaya
8. Government ITI Indore
9. Institute of Management Studies, DAVV

Population and Sample size

Our survey covers all the population of under graduated college students of Indore city. Total 110 responses were collected through all the different colleges mentioned above.Thus, the sample size of the study is 110. All the students throughout the targeted population were adults (18 above) and submitted their responses generously and kindly.

Data collection

The data was collected through primary mode of collection through self-structured Questionnaire. The questionnaire was developed after reviewing the previous related research work.

The questionnaire was divided into 3 parts. Part A consist the questions related to *Quality of Online Learning*, Part B consistthe questions related to *Availability of Network and Connections* and Part C consist the questions related to *Efficiency*.

The data was collected through online mode through google forms without physical contact according to the protocols of covid-19 without any risk.

Sample Technique

The technique used in selecting sample was convenient sampling. Questionnaire was sent through social media to the students of different colleges through WhatsApp and Facebook. Therefore, responses from a good number of students were collected.

Tools applied

Tools applied are the different methodologies applied for measuring parameters in research. In present research we have used following tools:

- To understand the numerical values in more implicit way we used percentage analysis.
- To Microsoft office Excel 2013 were used to make graph and for doing percentage analysis.
- Through the google forms total number of estimated answers percentage was measured to draw the findings of each and every question after that final conclusion was drawn.

Limitations

1. Our research is limited to the colleges of Indore.
2. The sample may also not be the true representative of the whole population because the way towards the online learning may differ person to person.

Data analysis

1.	Do you think there is face to face interaction with teachers while attending online classesfi		
	Particulars	Responses	Percentage
	Yes	54	49%
	No	56	51%
	Total	110	100%
2.	Do you find your doubts get clarified while attending online classesfi		
	Yes	58	53%
	No	52	47%
	Total	110	100%
3.	Do you think that you are getting personal attention during online classesfi		
	Yes	42	38%
	No	68	62%
	Total	110	100%
4.	Do you get study environment at homefi		
	Yes	43	39%
	No	67	61%
	Total	110	100%
5.	Are you satisfied with online teaching and notesfi		
	Yes	61	55%
	No	49	45%
	Total	110	100%
6.	Do you find proper network connection while attending online classesfi		
	Yes	59	54%
	No	51	46%
	Total	110	100%
7.	Do you feel disturbance and distraction with mobile and notificationsfi		
	Yes	75	68%
	No	35	32%
	Total	110	100%
8.	Do you find proper accessibility of time and place while having online learningfi		
	Yes	53	48%
	No	57	52%
	Total	110	100%

9.	Did you find your technical skills to be enhancefi		
	Yes	72	65%
	No	38	35%
	Total	110	100%
10.	Do you find it easy in arranging online gadgetsfi		
	Yes	73	66%
	No	37	34%
	Total	110	100%
11.	Online learning is more conductive to cheating during test or examfi		
	Strongly agree	28	25%
	Agree	33	30%
	Neutral	29	26%
	Disagree	15	14%
	Strongly disagree	5	5%
	Total	110	100%
12.	Do you think learning online reduces the quality of communication between learnersfi		
	Strongly agree	38	35%
	Agree	38	35%
	Neutral	19	17%
	Disagree	11	10%
	Strongly disagree	4	4%
	Total	110	100%
13.	Is e-learning mode effective for youfi		
	Strongly agree	12	11%
	Agree	24	22%
	Neutral	44	40%
	Disagree	21	19%
	Strongly disagree	9	8%
	Total	110	100%
14.	What online mode of teaching do you preferfi		
	PPT	32	29%
	MS word	1	1%
	Digital board	18	16%

	E-books	1	1%
	Google classroom	55	50%
	Total	110	100%
15.	Do you feel any increase in savings as your expenses for room rent, petrol etc have decreased while attending online classesfi		
	Strongly agree	27	29%
	Agree	34	31%
	Neutral	30	27%
	Disagree	16	15%
	Strongly disagree	3	3%
	Total	110	100%

Objective based finding

Objective 1: To find out the Benefits and effectiveness of online learning

1. Maximum number of students are satisfied with the online material and notes and also their doubts get clarified during the online classes.
2. Through online learning, maximum students find improvement in their technical skills.
3. For attending online classesarranging the online gadgets is the major task for the students and the maximum numbers of students found it easy to arrange the online gadgets.
4. According to the present study, major students find online learning effective.
5. To conduct online classes, source of online learning is main task. In the present research we find, maximum number of students prefer GOOGLE CLASSROOMas comfortable source.
6. In the study we find that through online learning, maximum number of students are able to save their money in form of petrol saving and the students who live outside Indore is not required to take room here therefore, increase in saving by reducing the room rent expenses, Conveyance expense and canteen expenses were seen.

Objective 2: To find out the challenges faced by students through online study

1. Maximum number of students faced problem regarded personal attention during online classes.
2. Proper study environment at home is the biggest problem faced by maximum number of students while attending online classes.
3. Maximum students have faced challenge towards proper network connection while attending online classes.
4. Disturbance and distraction with mobile notifications is the main problem faced by maximum number of students during online classes.

5. Maximum number of students think that online learning is more conductive to cheating during test or exam.
6. Maximum number of students agreed that online learning reduces the quality of communication between learners.
7. Maximum number of students does not find proper accessibility of time and place for attending the online classes.

Conclusion:

An in-depth study and research were conducted on "A STUDY OF STUDENT'S PERCEPTION TOWARDS ONLINE CLASSES".Our research indicates the problems faced by students and how online learning was beneficial to them. In a world powered by digital technology, online education has gained tremendous popularity in recent years. And it's likely here to stay for the long term.Learning virtually from anywhere allows us to pursue study without having to commute to a physical campus.

For clear concepts, face-to-face interaction is essential to get clarified all doubts. Clarifying all doubts with personal attention plays a vital role in ensuring a better understanding of concepts.

In today's world, technical skills are critically important in every sector. Research has shown that while attending online classes, network is one of the most essential aspects. Consistency and concentration are also essential for concept building. Place and time are vital for effective study.Online learning may be the right choice if one is self-motivated and have strong time management skills.

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A Comparative Study on Impact of Corona on Traditional Market and E-Commerce

Dr. Jyoti Bathra, Mr. Swayam Singhal

Abstract

Corona is a group of enveloped virus which is highly contagious which came in India in January 2020 and after that in three months it widely spread which led to the first lockdown. There are currently 8 different types of corona have been found in people, including those responsible for SARS, MERS and COVID-19 epidemics. The last found variant omicron is still in research and there is very less information available but by preliminary evidence it is found that there may be an increased risk of reinfection with Omicron (i.e., people who have previously had COVID-19 could become reinfected more easily with Omicron), as compared to other variants of concern, but information is limited. Traditional business is a locally established business where most customers are from the locality or of the same city. It requires a physical establishment (place for the store or business) and it requires huge investment because of the infrastructure, rent, maintenance of stock of products by which a huge amount remains blocked in business, etc. It has a limited customer base and time of operation and is difficult to expand. E-commerce business is a business operated online through web sites and apps. Since there is no requirement of infrastructure, renting and buying office in online business it requires less investment and also there is no need to keep all products in stock so, there is less blockage of money in business.

Keywords: Corona, COVID- 19 virus, E-Ccommerce, Traditional Business.

Introduction

Corona is a contagious disease and its first case was found in Wuhan, China, in December 2019 and in India the first case was found on 27 January 2020. It transmits very fast and the incubation time for COVID-19 ranges from 1-14 days, most commonly being around 5 days. Also, firstly it shows the symptoms of common cold and fever so it becomes difficult to identify it. Ever since, the corona virus positive cases are increasing at a rapid rate and hence the lockdown also got extended.

Phase 1: 25 March 2020 – 14 April 2020 (21 days)

Phase 2: 15 April 2020 – 3 May 2020 (19 days)

Phase 3: 4 May 2020 – 17 May 2020 (14 days)

Phase 4: 18 May 2020 – 31 May 2020 (14 days)

Phase 5: (only for containment zones): 1 June 2020 – 30 June 2020.

E-commerce business is taking place when buyer and seller conduct their business transactions with the help of internet. The term electronic commerce or e-commerce refers to any sort of business transaction that involves the transfer of information through the internet.

E-Ccommerce is an online platform to order goods or request for the services through websites or applications. It requires less investment as there is no need of infrastructure or maintenance of goods in stock but it requires employees for web designing and other activities. During the lockdown it is noted after getting permission to operate and start providing services and goods it entered into a boom period. Nowadays more and more people are using e-commerce for its convenience and easy to access facilities. 84% growth is recorded in e-commerce. Traditional business is a business established locally and mainly deals with customers of same locality or city. It takes huge investment and a huge amount is retained in business for the maintenance of stock. Many traditional businesses suffered heavy losses except grocery stores, pharmaceutical industry, and business that provide service or goods of daily needs. During the lockdown it is seen that traditional business plummeted very much and most of the stores except stores providing daily need good or service were closed and also many stores were closed because of the losses suffered during lockdown. It is also recorded that more than 10,000 registered companies have been shut down and there can be more companies which were shut down but were not recorded because they were unregistered. For example: D-Mart, Reliance JioMart, Walmart, etc.

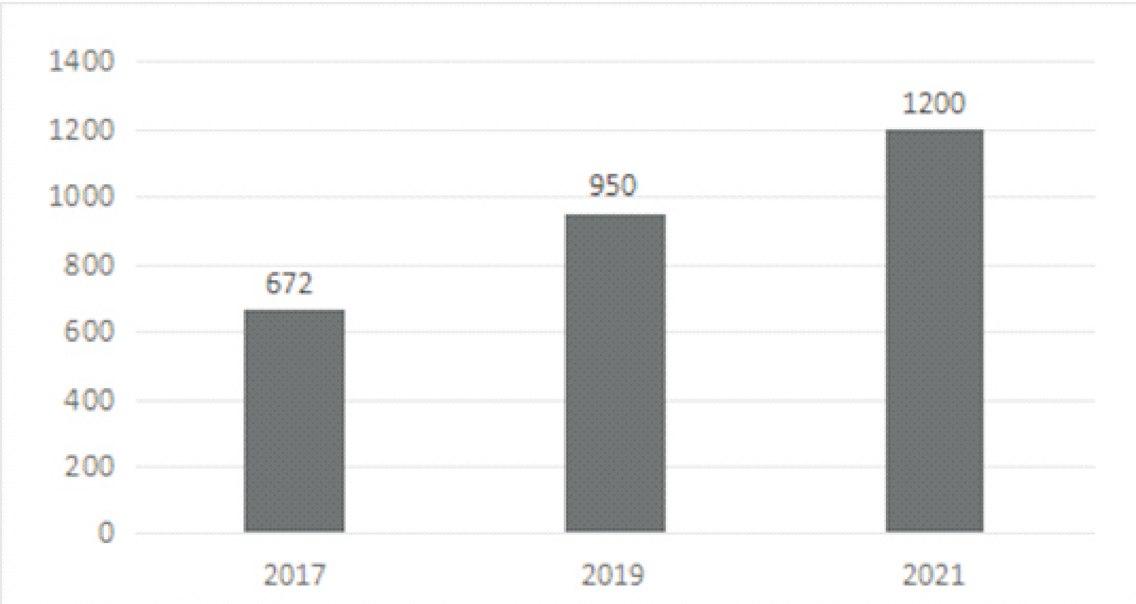

Figure 1 Retail market in India (US$ Billion) 2017-2021

Figure 1 highlights the development of retail market between 2017 and 2021. In 2017, retail market totalled to approximately 672 billion US dollars. In 2019, retail market rapidly increased to 278 billion dollars, representing a percentage increase of 29.26 percent. In the following year, 2021, retail market sales continued increasing to an overall amount of approximately 250 billion dollars. The percentage increase for 2021 was respectively 20.83 percent compared to 2017. Within three years, retail market increased by 44 percent, highlighting the growth potential of online retail in the future. The global retail industry's significant ongoing changes can also be noticed when analysing the percentage share e-commerce has on all retail salesin the world.

Literature Review

Anam Bhatti et al. (2020), in his research titled “E-commerce trends during COVID-19 Pandemic”, examines that e-commerce grew due to corona virus. E-commerce is becoming a substitute source and considered top in this condition and consumers bought in superstore traditionally. Meanwhile we want to comprehend their efficiency to stability both cost and benefits as well as connected actions in coming upcoming.

Himanshu Koshle, Rabab Kaur, Ruchi Basista, (2020) studied about the topic “Breakdown of Business and Workers in India: Impact of Corona Virus”, concluded that the corona virus affects sectors like tourism, aviation, hospitality and trade will face the primary brunt of the severe travel, assembly and activity curbs imposed by the governments across the globe, followed by a wider impact on other sectors as economic activity stalls.

Victor Fabius, Sajal Kohli, Björn Timelin, and Sofia Moulvad Veranen, (2020) studied about the topics, “How COVID-19 is changing consumer behaviour - now and forever”, in their study conclude that COVID-19 is changing the way how consumers behave across all spheres of life, including shopping and consumption such as: Surge in e-commerce, preference for trusted brands, decline in discretionary spending, trading down larger basket, reduced shopping frequency, shift to stores closer to home, polarization of sustainability.

Shaip Bytyçi, Venet Shala, Besime Ziberi, Ervin Myftaraj, (2021) in his research titled “Transforming Traditional Business into online: The Impact of Covid-19 Pandemic on Consumer Behaviour”, concludes that the COVID-19 pandemic imposed the need for online shopping, thus consumers were obliged to fulfil their basic needs via online shopping. The habits gained during the pandemic make people raise their confidence in regard to online shopping, thus it is of great interest and a great base for further recommendations.

Objectives

The objectives of present study are:

1. To study consumer behaviour before, during and after lockdown because of corona.
2. To understand the present status and trends of traditional business and e-commerce due to corona.
3. To study the challenges faced by traditional business and e-commerce.

Research Methodology

Collection of data: In this research the data collection method used is secondary data collection method from different journal and websites.

Hypothesis

There is a significant difference between traditional business and e-commerce during the lockdown.

Research Analysis

According the data given below it is found that people prefer e-commerce than traditional business and the category of product they purchase on e-commerce.

Table 1 Mean Comparison before/ after the outbreak

Product	Mean before the outbreak	Mean after the outbreak
Groceries	4.6	4.48
Fashion	2.68	2.79
Gifts	3.12	3.19

Accessories	3.74	3.88
Household supplies	4.51	4.21
Skin care products	4.38	4.56
Fitness/ wellness products	4.97	4.9

In this section, we will interpret that the descriptive statistics of the frequencies of the conceptual variables through mean. We can conclude that the habits of consumers during the lockdown e-commerce suggest the local businesses develop new sales strategies and move from traditional sales to e-commerce based on the arithmetic mean, so we accept the hypothesis.

Findings

- While doing this study it was found that about 70% start-ups were affected and about 12% had to shut down their operations because of this, many entrepreneurs and businessman which were doing business offline shifted to online platforms with same products and some even found the opportunity to introduce new products.
- Businesses like tourism, restaurants, hotels, etc. whether online or offline, which were non-essential, suffered heavy losses and some were even on the verge of shutting down.
- India's e-commerce industry will grow 84 percent to 111 billion dollar by 2024 as it gains from demand created by the corona virus pandemic's impact, said a report on 10 March 2021 by “The 2021 Global Payments Report by World pay FIS”.
- In response to a query on state-wise data around registered companies that have gone out of business during FY2020-21, Union Minister of State for Corporate Affairs Anurag Thakur replied “A total of 10,113 companies during the year 2020-21 (from the month of April 2020 to February 2021) have been struck off under Section 248 (2) of the Act. MCA has not run any drive to strike off companies soul motto during 2020-21”.
- During the first lockdown the IT sector was facing some negative impacts but after that the IT sector entered into a boom period even in second lockdown.
- The consumer behaviour towards e-commerce changed in a positive way.
- More consumers became aware of e-commerce and its benefits and also people started to buy products from nearby shops than the shops which are far from their home.
- Many businesses added a new range of products and also started dealing in new line of products.

Limitation

- The literature is very less on impact of corona on traditional business and e-commerce studies are conducted.
- The data required is not very accurate because of lack of recorded information.
- The scope of study was very vast and as the research time was limited.

Conclusion

From the study we conclude that consumer behaviour changed towards e-commerce and traditional businesses adopted new techniques and increased the use of technology in their business. The impact of corona during the first lockdown on businesses was huge as they were not able to adapt because of sudden lockdown but during the second lockdown the impact was very minor as they have found new ways of dealing with it. The growth of e-commerce entered into a boom period while the growth of traditional business was still slow.

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A Study of Changing Attitude of Customer towards E- Banking – After Covid19

Dr. Suvarna Lapalikar, Ms.Sakshi Raghuvanshi

Abstract

Now a day e-banking services plays a vital role in economic development in turn helps the government in collecting the tax, since every transaction is done through online no chance of fraudulent activities. Through e-banking, a customer can access his account and conduct many transactions using his computer or mobile phone. Electronic banking has many names like e-banking, online banking internet banking or virtual banking. COVID-19 has given a significant boost to the digitalisation of banking as well as many segments of life. Even before the pandemic, online banking was an integral part of banking but during the pandemic it forced people to keep social distance and this made people think more about e-banking. During and after covid-19 people found the online facilities as more comfortable as offline. The study analyse that changing attitudes of the customer towards e-banking after covid-19.

Keywords: E-Banking, Covid -19, Customer's Attitude, etc.

Introduction

Electronic banking is defined as "Delivery of bank's services to a customer at his office or home by using Electronic technology can be termed as Electronic Banking." E-banking has become an important part of the banking organization in India. Before the 90's, the traditional model of banking i.e. branch-based banking was prevalent, but after that non-branch banking services were started. The credit of launching internet banking in India goes to firstly ICICI Bank. E-banking is a modern conception of banking and it is an extensive business opportunity of banks than normal banking. We all know every work in thebank branch done by employees is online on the internet but e-banking is a concept in which the bank gives online access to the customer of his account on the request of customers. E-banking is a wide-reaching entity that can workeverytime andeverywhere on the internet. The various services offered are Internet banking, SMS banking, ATMs, mobile banking, e-cheques, UPI, and debit/credit cards.

Covid 19 pandemic in India is part of the world wide pandemic which created a gigantic change all around the world.Retail banks face growing challenges during the pandemic as e- banking has become the only way to work.With the high penetration of the internet e-banking have become more familiar. The restricted circumstances , social distancing and lockdown made made the e-banking more attractive people use it more after covid19.As covid-19 has created a shock on the various arena of business, E-services is the new strategy offered in different sectors to rehabilitate the business. So, it is significant to study the impact of covid-19 on customer's attitudes towards online banking and it is also help in knowing the future scope o the digital facilities.

Objective of the Research

1. To know the effectiveness of E- Banking after covid-19.
2. To know changing attitude of customer towards e-banking after covid19 .

Literature Review

Chauhan, V. &Chaudhary, V. (2015) focused on understanding the concept of internet banking and its benefits from the perspective of consumers as well as banks and the current scenario of internet banking.

RaniVeena, RaniAnupam, (2018). E-banking has the potential to transform the banking as it offers many benefits which can never be obtained by traditional banking. E-banking ensures conservation of valuable time which is involved in banking transactions. The quality with which banks provide their services to their customers is utmost importance today. In today's world of competition every organization has to concentrate on its service quality in order to stand in the market.

Mayank Jindal and Dr. Vijay Laxmi Sharma (2020) Usability of Online Banking in India during Covid-19 Pandemic. The purpose of this study is to assess the contribution of online banking to stop the pandemic of Covid-19. A survey has been done to achieve the objectives of this paper. It is found that online banking playing an important role in the Covid 19 period to protect the people. People felt completely safe from the COVID 19 virus in the online payment of bills and recharge of prepaid mobiles and dish T.V..

Mrs. Ani Smriti and Mr. Rajesh Kumar (2021)The present study has been undertaken to describe the present status of e-banking in India and examine the challenges & opportunities of e-banking. With the help of e-banking, the banking sector is gaining customer satisfaction and loyalty. Banks should provide their customers with convenience, meaning offering service through several distributions channels and the availability of online services becomes easier for the customer.

Research Methodology

Data for the present study have been collected from secondary source. The secondary data were collected from various publications of economic reviews, Different journals , websites, Internet, news papers etc.

Comparison of Customer Attitude towards e- Banking before & after Covid-19

Tables-1

Customer Attitude towards E-Banking before and after Covid19

Rating	Before Covid19		After Covid19	
	Frequency	Percentage	Frequency	Percentage
Always	13	17%	29	39%
Very often	15	20%	24	32%
Sometimes	17	23%	13	17%
Rarely	18	24%	4	5%
Never	12	16%	5	7%
Total	75	100%	75	100%

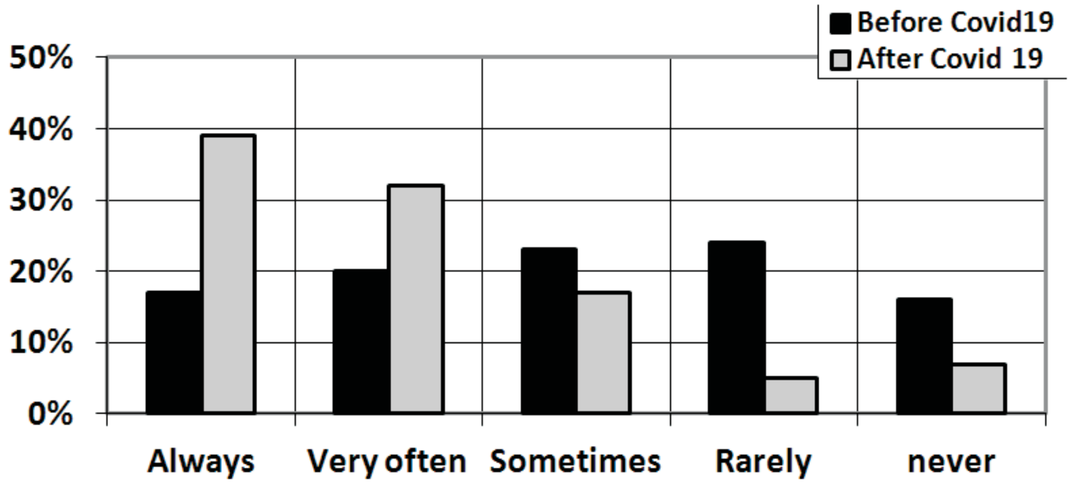

Table 1 shows the frequency of using e-banking facilities before and after Covid 19. Before Covid 19, among the 75 respondents 13(17%) respondents are always making use of e- banking facilities, 15 (20%) respondents said that they very often use e-bankingservice, 17 (23%) replied that they are using the e- banking services sometimes, 18 (24%) respondents were rarely using e- banking services and 12 (16%) replied that they never used the e-banking facilities. Whereas afterCovid 19, out of 75 respondents 29 (39%) said that they are using the e- banking services always to do their banking transactions, 24 (32%) replied that they are very often users of the e- banking facilities, 13 (17%) respondents are using the e- banking facilities sometimes for their banking activities, 4 (5%) are rarely using the e- banking services and 5 (7%) answered that they are not using the e-banking services even in Covid days. Peoples are feeling very well while using E-banking.

Conclusion

Banking sector plays a important role in the development of any country indian banking sector is helping hand of the nation and its people. Above studies shows that after covid19 the indian banking sector has completely transformed and the benefits of e- banking have become opportunity for the bank to manage there banking business in a better way.

There are several major challenges and issue facing the e- banking like difficulty in implementation of global technology , customer Awareness, the trust factor , less internet penetration in indian bank context, customer satisfaction etc. The rapid development of e- banking services after covid carries risks as well as benefits . Hence , it is the responsibility of the banker to recognize , manage and to address banking institutions in cautious and sensible way according to the fundamental characteristics and challenges of E-banking. There is need to have more innovative solutions so that the challenges can be solved and opportunities can be availed efficiently by the Indian banks.

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Risk and Return Analysis of selected Auto, Pharma and IT Sector Companies during the year 2018-2021

Dr. Ravi Vyas, Mr. Aakash Vijayvergiya, Mr. Ayush Choudhary

Abstract

Today, in this era, everyone wants extra income. So, for that purpose, there are many alternatives available, and in regard to this, Share Investment is one of the option available. But, as far as Share Investment is concerned every individual is anxious about the returns of it. With the change of the situation in one's life in the context of COVID, the investments have also adopted some new normal. Investors now a days are much concerned with the amount of risk involved in the share market and on the other hand they also want better returns. The risk and return analysis related with any sector reveals the risk involved with that sector. So, in view to this, the objective of the present study is to analyze the risk and returns of selected sector companies basically Automobile sector, IT sector and Pharmaceutical sector and to analyze and compare the performance of these companies. In this study the researchers have found that under Inter sector comparison, the Automobile sector is performing good whereas, in intra sector comparison Bharat Immunological & Biologicals Co. Ltd. is performing respectable.

Keywords: Risk, Return, Stock Market, Treynor, Beta, Alpha, RSQ, SD, Sharpe, CAPM, etc.

Introduction

Risk is the likelihood that an outcome will not be as expected, particularly in relation to returns on investment in finance. However, there are other types of risk, such as investment risk, market risk, inflation risk, company risk, liquidity risk, and so on. In the context of investing, risk is the level of uncertainty an investor is willing to accept in terms of the future returns they expect from their investment. Risk tolerance, on the other hand, is the amount of risk that investor is willing to take with an investment, and it is usually decided by factors such as age and disposable money.

So, with every type of investment or business, there is always some level of risk involved. Risk is a big issue to evaluate and comprehend before going into the market, whether it's the risk of increased inflation or a volatile stock (or even as a business or corporation). And, in recent years, with trade wars and shaky interest rates, it appears that risk is becoming a more frequent issue when it comes to investing your money - or even establishing a business.

Return is determined as a percentage by adding the income and the change in value, then dividing by the starting principle or investment amount. Divide the percentage return by the number of years you've held the investment to get the annualised return. For example, if you purchased Rs.25 for a stock that paid no dividends and sold it for Rs.30, your profit would be Rs.5. However, because the 20% gain is split by five years rather than one, your annualised return would be 4% if you held the stock for five years before selling for Rs.30 a share. You may compare the returns produced by different assets or investments you have held for different periods of time using percentage returns and yearly percentage returns. The presence of risk does not imply that you should not invest;

rather, you should be aware that each investment has some risk, which should be taken into account when determining whether the projected returns are worthwhile. As a result, the larger the investment's risk, the higher the return. Because return is stated as a percentage and relates to the profits or losses earned from an investment, whilst the risk factor is linked to the return's volatility. As a result, while evaluating the appropriateness of any investment, you must be aware of both the expected returns and the associated risk. Your financial objectives will determine the best risk-return mix. Some people choose a low-risk, consistent income stream, while others are willing to take on greater risk in exchange for the possibility of bigger profits. So, key investment idea is the link between risk and return.

Objective

- To analyze the investment in selected Auto, Pharma and IT sector Companies.
- To compare inter and intra sector risk and return analysis of selected Companies
- To understand how to use ratios like Alpha, Sharpe, and Treynor etc.

Literature Review

In 2009 study, Vikkraman, P., & Varadharajan, P. said Automobile Industry is a very important sector that propels economy and is the fastest growing sector and also plays a major role as a catalyst in developing the transport sector in one hand and helping industrial sector on the other.

The risk and return analysis linked with any industry reveals the intricacies involved with the particular industry which facilitates investment and right balance between both and helps Investor to take key decisions.

In 2011 study, Zhou, Z., & Yang, S. said the empirical works related to risk and return analysis of pharmaceutical industry is rarely found but as the pharmaceutical industry is considered of high profitability and competition, we come up the idea of investigating how the stock return movements behave in pharmaceutical industry around the world.

The main objectives of this paper was to anaylse stock returns of pharmaceutical industry of its its own and with world markets, historical pattern trend and impacts of macroeconomic variables on the stock returns of a wide range of pharmaceutical companies. And by examining samples Researchers have found out the mentioned objectives.

In 2015 study, Ren, F., & Dewan, S. said This study was an attempt to diagnose the risk& return profile of equity stocks of IT companies. Motivated by the wide dispersion in the returns on the use of information technology (IT) across industries, Researchers had conducted an industry-level examination of IT return and risk, focusing on the moderating role of industry competition, regulation, and technological change. Researcher's results shed light on factors that drive variation in IT performance across industries, and provide useful industry-level performance benchmarks of the return and risk impacts of IT investments.

In 2017 study, Shetty, P. S., & Devaraj, K. said One of potential industry considered by the investors for investment in this decade is the Indian Pharmaceuticals industry. This market is the third largest in terms of volume and thirteenth largest in terms of value, as per a report by Equity Master. Even though the pharmaceutical industry is doing well, it doesn't come up to the level of market returns. The objective of the study was to analyse the risk and returns of investment made in the Indian pharmaceutical industry. This study was done by selecting a stock of the pharmaceutical sector listed in NSE in examining samples, Researchers have found out the mentioned objectives.

In their study, BHASKAR, D., & SRINIVAS, G. (2020) said Automobile industries provide technical backbone to developed and developing economies and in order to improve the importance of the firm risk and return should be examined keenly. This study showed risk and return analysis of some selected auto companies and applying statistical tools to it which precisely shows relationship between risk and return and finally proving there's a relation between risk and return of the most effective company among the selected company.

In 2021 study, Bantwa, A., & Ansari, F. U. said This study was an attempt to diagnose the risk& return profile of equity stocks of selected Indian IT companies listed on IT Index of NSE. Risk and return analysis play a most important role while making any investment decisions. The risk return profile of selected IT companies had been examined on various parameters including the absolute return, abnormal return, required rate of return as per CAPM model, volatility of return, systematic risk and risk adjusted return. Researchers found that the Companies have offered highest rate of return.

Research methodology

This research paper is a descriptive one, which obtains its data mainly from secondary sources. Researcher selected Auto, Pharma and IT sector which includes the following Companies:

MARUTI, TATA, CIPLA, BIBCLBO (Bharat Biotech), TCS, WIPRO

These companies opening and closing share prices day wise was taken from authorized sources. Yahoo Finance Website was visited for this purpose. Risk and Return analyse was conducted by using Capital Asset Pricing Model (CAPM) as described by esteemed scholars. Researchers used various important CAPM ratios like Alpha, Sharpe, Treynor, RSQ etc. were calculated.

The shares opening and closing prices were taken for the period of 3 years from April 2018 to March 2021. The data was edited, tabulated and processed as required to conduct the financial tests.

An inter-Sector and Intra-Sector analysis was conducted by the researchers. This comparison would be helping potential and present investors to take investment decisions in the selected companies and also give them insight for the selected sector's market conditions.

Risk and Return relationship

Higher the average return, better it is performing in according to the average benchmark return. Further, high annualized return of the shares goes according to with the annualized benchmark return.

A high Beta (β) values signifies higher risk for the share than the market and vice-versa. The stock with high Beta (β) value needs to outperform for the return in the market.

Co-efficient of determination R- *Squared shows* how a security behaves or moves against the benchmark index. High R- *Squared*, correlates highly with the benchmark index and vice versa.

Sharpe ratio depicts excess returns earned above risk-free return.

Per unit of standard deviation values of schemes indicate better performance. It explains existence of satisfactory returns in opposition to the level of risk involved.

Treynor ratio represents the surplus return earned over risk-free return per unit of Bets (β) value.

It shows that these stocks were very well performed against the Bets (β) risk.

High Jensen's alpha (α) values indicate better performance and vice-versa. It is the risk-adjusted performance measure that signifies the average return of the stock above or below to that was predicted by the benchmark return.

Result and Discussion

As per the objective of the study, the Intra sector comparison of selected sector companies are calculated hereunder. The data of Maruti Suzuki and Tata Motor was taken for the intra sector CAPM analysis.

Table 1: Intra Sector comparison of Automobile Sector Shares

Ratios	MARUTI	TATA
Alpha	-0.30	-0.23
Beta	1.16	1.65
Sharpe	3.15	8.61
Treynor	-0.47	0.21
RSQ	0.42	0.36
SD	5.14	7.98
Annualize SD	37.04	57.55
Average	-0.05	0.16
Annualize Return	-2.68	8.37
Return's Sum	-8.03	25.11

From table 1, On the comparison of the average return with the average benchmark return and further annualized return of the shares with the annualized benchmark return it was observed that Tata showed an impressive growth more than the benchmark return.

The Tata's stock showed high Beta (β) risk as compared to Maruti's stock. High R- *Squared* value was observed in Maruti's shares over Tata's shares.

The Sharpe ratio was more than 1 in both the companies; however, Tata's Sharpe ratio is more than Maruti's share which is indicating better returns of Tata's shares depicts excess returns earned above risk-free return over Maruti's share.

The high SD value is not considered good, here is observed that Maruti's SD is low than that of Tata's. It explains existence of satisfactory returns in opposition to the level of risk involved

High Treynor ratio represents share is more suitable for investment. Maruti's Treynor's value is negative and Tata's value is positive it shows surplus return earned over risk-free return per unit of Bets (β) value.

High alpha (α) values indicate better performance and vice-versa. Here, both the companies are having negative alpha value. It means the returns may not be according to the market's performance in future.

So, it is can conclude that in intra-sector comparison Tata is performing well over maruti because it will give more return with less risk and will be profitable in long run but if an investor wants less risk and returns in short term, Maruti would be a better choice.

Table 2: Intra Sector comparison of Pharma Sector Shares

Ratios	CIPLA	BIBCL.BO
Alpha	0.24	0.98
Beta	0.67	0.77
Sharpe	4.96	10.75
Treynor	0.04	0.02
RSQ	0.17	0.04
SD	4.65	10.66
Anuualise SD	33.55	76.88
Average	0.33	1.11
Annualize Return	17.36	57.52
Return's Sum	57.09	172.57

From table 2, On the comparison of the average return with the average benchmark return and further annualized return of the shares with the annualized benchmark return it was observed that BIBCLBO showed an impressive growth more than the benchmark return.

The BIBCLBO's stock showed high Beta (β) risk as compared to Cipla's stock. High R- Squared value was observed in Cipla's shares over BIBCLBO's shares.

BIBCLBO's Sharpe ratio is more than Cipla's share which is indicating better returns of BIBCLBO's shares depicts excess returns earned above risk-free return over Cipla's share.

BIBCLBO's SD is higher than that of Cipla's. it does not go in the favor of BIBCLBO

High Treynor ratio represents share is more suitable for investment. BIBCLBO's Treynor's value is less than BIBCLBO.

High alpha (α) values indicate better performance and vice-versa. BIBCLBO's alpha value is higher than Cipla's. It is concluded that in Pharma sector BIBCLBO (Bharat Biotech) is giving return far more than Cipla but if an investor wants less fluctuation in returns, Cipla shares are advisable.

Table 3: Intra Sector comparison of IT Sector Shares

Ratios	TCS	WIPRO
Alpha	0.48	0.14
Beta	0.60	0.67
Sharpe	3.83	4.96
Treynor	0.02	0.06
RSQ	0.23	0.18
SD	3.65	4.53
Anuualise SD	26.32	32.66
Average	0.56	0.24
Annualize Return	29.21	12.32
Return's Sum	87.63	36.97

From table 3, On the comparison of the average return with the average benchmark return and further annualized return of the shares with the annualized benchmark return it was observed that TCS showed an impressive growth more than the benchmark return.

The Wipro's stock showed high Beta (β) risk as compared to TCS's stock. High R- *Squared* value was observed in Wipro's shares over TCS's shares.

Wipro's Sharpe ratio is more than TCS's share which is indicating better returns of Wipro's shares depicts excess returns earned above risk-free return over TCS's share.

Wipro's SD is higher than that of TCS's. it does not go in the favor of WIPRO

High Treynor ratio represents share is more suitable for investment. TCS's Treynor's value is less than Wipro.

High alpha (α) values indicate better performance and vice-versa. TCS's alpha value is higher than Wipro's.

So, it is concluded that TCS is better in IT sector than Wipro based on the collective analysis of table no. 3.

Table 4: Inter Sector Comparison of selected companies

Ratios	MARUTI	TATA	CIPLA	BIBCL.BO	TCS	WIPRO
Alpha	-0.30	-0.23	0.24	0.98	0.48	0.14
Beta	1.16	1.65	0.67	0.77	0.60	0.67
Sharpe	3.15	8.61	4.96	10.75	3.83	4.96
Treynor	-0.47	0.21	0.04	0.02	0.02	0.06
RSQ	0.42	0.36	0.17	0.04	0.23	0.18
SD	5.14	7.98	4.65	10.66	3.65	4.53
Anuualise SD	37.04	57.55	33.55	76.88	26.32	32.66
Average	-0.05	0.16	0.33	1.11	0.56	0.24
Annualize Return	-2.68	8.37	17.36	57.52	29.21	12.32
Return's Sum	-8.03	25.11	57.09	172.57	87.63	36.97

Automobile Sector has beta value more than 1, it means they are riskier, because they have more reactivity and react instantly. While, Pharmaceutical Sector and IT Sector has moderate beta value, i.e. lower than 1. It means, Automobile Sector companies will give good return in the long run, while Pharmaceutical and IT sector companies may give good return in the short run. If Sharpe ratio is more than risk free rate it is better so, The Sharpe is more in Pharmaceutical and Automobile Sector and in IT Sector It is less than the risk-free rate. In Automobile Sector Treynor is negative, so it the worst as per this criterion. While in Pharmaceutical and IT Sector, Treynor is Below 1 but not negative. So, here the Treynor is moderate. SD shows the spread of risk.SD is highest in the Automobile and Pharmaceutical sector, it means it has more deviations and unexpected returns. So, as per this criterion it is comparatively riskier. While, SD is moderate in IT Sector. So, it has Stable returns because the spread is less.

So, it is concluded that IT sector is good to invest as it is less risky and less volatility is there in it.

Conclusion

Taking the results and discussion into consideration, it is concluded that the best companies which is performing as per the parameters is Tata i.e. Inter sector and Intra sector BIBCL.BO is performing well. The riskier company to invest will be Maruti and the Companies which we can consider without seeing are Wipro and TCS because these are IT sector companies of which the services run 24/7 and did not majorly be impacted by any deformity. We can also refer that Cipla is a moderate performer in the selected companies as per the data analysis.

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The Laser Technology: New Trends in Communication and Space

Dr. Arvind Jain, Mr. Shubham Shinde, Ms. Tisha Mamtani, Mr. Gautam Mehra

Abstract

The invention of the laser in 1958, there has been tremendous advances in both laser science and technology as well as in their various applications (Schawlow and Townes, 1958). The laser now covers the wavelength from the X-rays to the micropores, where it interacts with other sources of combined radiation such as crystals. The use of lasers also covers a wide range of disciplines: science, remote control, tracking, detection, information transfer and production, industrial processing, protection, medicine and surgery. In some areas, the introduction of lasers can be heralded as a "killer" technology, completely displacing an existing technology; in other areas it may be a new domain technology that has uncovered applications not previously thought of; in still other areas , laser technology could fill a niche unoccupied by any other technology. It remains to be seen whether lasers have contributed to a revolution or are part of the gradual development of the information age Society relies on at least three different activities in the information age: The first is the creation of information, the second is the transmission of information, and the third is the manipulation of information.

Keywords: Laser, Communication, Space.

Introduction

A laser is a device that emits light through an optical amplification process based on the stimulated emission of electromagnetic radiation. The word "laser" is short for "light amplification by stimulated emission". The first laser was built in 1960 by Theodore H. Maiman at Hughes Research Laboratories based on the theoretical work of Charles Hard Townes and Arthur Leonard Shavlov.

A laser differs from other light sources in that it emits coherent light. Spatial coherence allows a laser to be focused on a narrow spot, enabling applications such as laser cutting and lithography. Spatial coherence also allows a laser beam to remain narrow over large distances (collimation), enabling applications such as laser pointers and lidar. Lasers can also have high temporal coherence, which allows them to emit light with a very narrow spectrum. Alternatively, temporal coherence can be used to produce ultrashort light pulses with a broad spectrum but with durations of just one femtosecond.

Lasers are used in optical drives, laser printers, barcode scanners, DNA sequencing instruments, fiber optic semiconductor chip manufacturing (photolithography) and free-space optical communications, laser surgery and skin treatments, cutting and welding materials, military and legal surveillance equipment for marking targets and for measuring distance and speed, and in laser-illuminated displays for entertainment. Instead of light-emitting diodes (LEDs), semiconductor lasers in the blue to near UV range have also been used to excite fluorescence as a white light source. This allows for a much smaller emission area due to a laser's much higher irradiance and avoids the waste that LEDs suffer; such devices are already used in some car headlights Lasers in communications and information processing.

Lasers in Communications

The explosion in the use of lasers in communications has been driven by a simultaneous improvement in the quality of the medium through which light energy is transmitted and by a greater understanding of laser sources, detectors and related phenomena that allow us to know the properties of customized materials. and devices. For the economical operation of optical fiber light wave systems for the transmission of information, two parameters are very important, which are sometimes combined. First, it is the maximum data transfer rate, which is itself limited by the capabilities of the associated lasers, detectors and electronic components. The second is the maximum distance a bit stream can be transmitted over a fiber before a repeater is needed. Thus, the properties of the optical fiber contribute to the second parameter. The relevant properties of glass fibers are absorption losses and chromatic dispersion. A suitable measurement standard for an information transmission system is the product of bit rate and distance, which is the distance between repeaters at a prescribed bit rate. The introduction of light wave systems is causing a dramatic shift in the rate at which channel capacity has increased over the past 100 years.

Fiber optic cable is the primary mode of communication, in part because the propagation of light through the fibers allows multiple signals to be transmitted with high quality and low losses. Light signals can be modulated with information sent via either light emitting diodes or lasers. Lasers have significant advantages in that they tend to be monochromatic and allow for better pulse shape retention over long distances. If a better pulse shape can be maintained, communications can be transmitted at a higher rate without overlapping pulses. Oganyan mentions a tenfold advantage of laser modulators.

Fiber phone drivers can be solid-state lasers the size of a grain of sand and consume up to half a million watts. However, they can send 50 million pulses per second over the connected telephone fiber and encode over 600 simultaneous telephone conversations (Oganyan).

Lasers in Space

One of the most common uses of lasers in space is in environmental and remote sensing. In this application, a laser stationed on a satellite can orbit the Earth (or other celestial bodies such as the Moon or Mars) and direct a series of short optical pulses at the surface. These pulses are then reflected off the surface, and the reflected pulses are captured by the satellite containing the laser. Since the speed of light is precisely known, the time it takes for the light pulses to leave the laser/satellite, travel to the surface and return, as well as the distance from the satellite to the surface can be measured. A three-dimensional topological map can be created by repeatedly sending pulse trains from the satellite to the earth's surface.

Laser Défense Systems in Space

The prospect of using lasers in space as part of an overall United States strategic defense plan gained significant support in the early 21st century. In this scenario, lasers would not be a directed energy source in an offensive attack, but the lasers would be used primarily in a defensive mode to target, track, and identify potentially dangerous threats, which may take the form of intercontinental ballistic nuclear missiles. The types of lasers used would vary widely depending on the functions to be performed by the laser. For example, small, low-power lasers would be used to implement optical radar functions, determining the location and speed of moving targets in space.

Conclusion

Scientists and engineers around the world are studying these and other applications of lasers in space, not only to consider and test the feasibility of specific applications, but to continue developing advanced laser systems so that these applications can thrive. What will the latest laser

applications bring to spacefi How will these apps change the way people livefi No one can be completely sure, but the new uses that will be discovered will only be limited by the human imagination.

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The Apparel Retail- Literature Review

Prof. Garima Shrivastava Jain, Ms. Tisha Bhatia, Ms. Titiksha Marathe

Abstract

The Apparel Industry consists of companies that design and sell clothing. Product categories include everything from basics to luxury and superfluity items. Traditionally, apparel companies were wholesalers, selling large quantities of goods to retailers, which then marked-up items and sold them to consumers at a profit. However, most apparel companies now have both types of operations. Shoppers want to quickly find what they are looking for online, and demand fast processing and shipping. Although clothing is a basic need, people have wide discretion as to when they update their wardrobes and how much they spend.

Whether they're shopping online or in a physical store, Millennials – defined as consumers who are ages from 22 to 37 – have high expectations and hopes for their purchases. They want a pleasant, customer-based shopping experience with their ideal outcome. They don't want to waste their time, and they don't want to overspend. And, unfortunately for apparel retailers, this group isn't fiercely loyal to brands.

Keywords: Retail, Apparel Retailer, Apparel Industry.

Introduction

Retail is all around us. It infuses our life. It comes from an old tradition and is rooted in the social fabric. In the 21st century we are witnessing a renewal in an industry as old as humanity itself. An activity which remained under the shadow of its big brothers (manufacturing and whole selling) since a long time is finally recognized for the role it plays in delighting the consumers. The glow and flexibility of this area of activity in the 21st century assures us that the "retailing era cometh" (here comes the era of retailing).

Retail has the quickest cycle time from idea, to implementation, to assessment and refinement of any industry. The pace is exciting Retail industry in India is one of the fastest growing retail industries in the world. It is the largest among all industries accounting to around 10 per cent of the country GDP and employs around 8 per cent of the workforce. India has seen a drastic shopping revolution in terms of format and consumer buying behavior. The retail development in India is taking place not only in major cities and metros, but also in Tier-II and Tier-III cities. The purchasing power of Indian consumer is growing in categories like apparels, cosmetics, shoes, watches, beverages, food and even jewelry.

The Apparel retail Industry in India has an invincible presence in the economic life of the country. Apart from providing one of the basic necessities of life, the apparel industry also plays an important role through its contribution to industrial output, employment generation, and the export earnings of the country. It helps to contribute about 14 per cent to industrial production, 4 per cent to the GDP, and 16.63 per cent to the country's export earnings (Ministry of Textiles, 2005), which includes a massive number of people from less privileged sections of society. In India, the apparel sector is the second largest provider of employment after agriculture. Thus, the growth and all round development of this industry has a direct bearing on the improvement of the economy of the nation.

The Retailing

The term retailing is believed to be derived from the French word “retailer” which means “a piece of” or “to cut up”. The reference is probably towards the function of retailing which is to buy in bulk from the supplier and sell in smaller units to customers. (Banerjee, M., & Mishra, M. (2017)

Definitions of Retailing

Kotler states- “Retailing encompasses the business activities involved in selling goods and services to consumers for their personal, non-business use. A retailer or retail store is any business enterprise whose sales volume comes primarily from retailing.” Retailing surrounds the business activities involved in selling goods and services to consumers for their personal, family, or household use. It includes every sale to the final consumer-ranging from cars to apparel to meals at restaurants to movie tickets. Retailing is the last stage in the distribution process.

“Retailing encompasses the business activities involved in selling goods and services to consumers for their personal, family or household use.” It includes every sale to the final consumer- ranging from cars to apparel to meals at restaurant to movie tickets. Retailing is the last step in distribution process. (Berman and Evans 2009)

“Retail is any business that directs its marketing efforts towards satisfying the final consumer based upon the organization of selling goods and services as a mean of distribution.”- David Gilbert 2008.

Research on Retail

Retail is not only an necessary part of our economic structure but also shaped up by, our way of life, while the trading of good is always been a part of traditional societies, the buying and selling of products has become much more formalized and brand dominated activity now a days. The power of individual retail organization is growing; they are now comparable with, and even bigger than, many manufacturers, which indicates the growing dominance of the retailers (Gilbert 2008).

Retailing has now become a key growth area. There has been an attitude change in the way the Indian consumer thinks about shopping. What, where and how they buy is now the big question.

Over the last decade, there has been a significant evolution in his psyche, a change that has been carefully recorded and documented by behavioural experts. Retail industry is a dynamic one as it tries to satisfy changing customer profile and their needs with time. The stores change their format, style of presentation and assortment i.e. variety and depth of merchandise as per the requirements of the customers (Arif Sheikh 2008).

The retail concept is emerging drastically with new formats like general stores, supermarkets, malls, hyper markets and specialty stores. The industry is at inflexion point, where the growth of organized retailing and rise in consumption levels by the Indian population is turning towards a higher growth flow. Retail industry in India is being driven by strong income growth, changing lifestyles and favourable demographic patterns. Now the Indian consumer is enjoying world class shopping experience. Shopping in India has witnessed a revolution with the change in the consumer buying behaviour and the whole format of shopping also altering.

Calculated reasons for these trends could be the rapid state of change in Indian market structures due to technological advancements, changing competitive positions, expectations, and varying consumer behaviours. The consumer needs differ widely across the country. Therefore various strategies are adopted for different regions and different products. (Shravan 2015, Grewal 2017).

Retail sales are at their highest point in history. India has occupied the top projected rankings for retail growth in the Global Retail Development Index Report (GRDI) and leads in potential profitability for retailers ahead of other international markets, such as China, the Ukraine, and Vietnam. (A. T. Kearney, 2018). Indian retail is one of the fastest growing markets in the world due to economic growth and is the world's fifth largest global destination in the retail space. Factors such as Healthy economic growth, changing demographic profile, increasing disposable incomes, changing consumer tastes and preferences are driving growth in the organized retail market in India. Rapid urbanization with increasing purchasing power has led to growing demand. Foreign retailers are continuously entering the Indian market. Introduction of Goods and Service Tax (GST) as a single unified tax system to provide a level-playing field to stakeholders, the government is planning to coordinate policies of retail, FMCG and e-commerce within a single policy framework. Demand for Western outfits and readymade garments have been growing at 40–45 per cent annually. (Indian Brand Equity Foundation 2018). Organized Retail Penetration in India is low (7 per cent) compared with that in other countries, indicating strong growth potential for organized retail in India. The organized retail in India is growing at a CAGR of 20-25 per cent per year. It is estimated that organized retail penetration share would reach 10 per cent by 2020.

There have also been positive moves on the policy front, in areas related to ease of doing business, promoting start-ups, rationalizing the tax structure and administration, and opening up more areas for foreign investment through the automatic route. The government is extensively stepping up infrastructure spending. Even after so many positive moves there are some issues come to the front. For a occasion, capital investment will take time to revive, given stretched corporate balance sheets, low capacity utilization, (at only 72.5% in the organized industrial sector) and competition from imports.

Mukesh D. Ambani Chairman and Managing Director Reliance Industries Limited, says that the retailers have now adopted multi-channel strategy and have integrated “offline-online” models to truly differentiate the customer experience. Retailers now operates on multiple store concept model to serve different customer needs and offers best shopping experience to consumers with consistent choice, quality, value and convenience. The companies are focusing on the State-of-the-art retail infrastructure and supply chain providing solid foundation for growth.

The retail mix across channels remains an important domain. Multi-channel retailing is moving to omni-channel retailing. Online-offline channel mixture leads to channel unity rather than channel primitive. Most retailers have employed a symmetrical unity where the online channel carries additional assortment items, termed “the long tail."(Peter,2015).

The hyper competitive intensity in retail sector is the mangers' concern to develop ways to keep their customers happy and make them loyal and influence them by attracting new ones. It's important for the retailers to provide the quality service to achieve customer satisfaction, delight and commitment. The service quality dimensions which are of utmost importance for the retailers consisting of surroundings and layout, salespeople, merchandise, convenience, services, value and customer care. These dimensions are used to evaluating retailer quality performance.

The development of brands in India is at a very different stage than comparable changes in retail evolution in the developed countries. India's growing and prosperous populations have attracted the attention of global and domestic brands product brands as well as retail firm brands. in India, single-brand foreign retailers (e.g., Swarovski, Nike) in luxury and specialty categories are concentrated in modern clusters such as shopping malls. At the same time, Indian retailers have been able to respond to the growing affluence by developing and marketing their own retail brands in new product categories such as jewellery (e.g., Tanishq) and apparel (e.g., Pantaloons), and locating the outlets in varied retail environments. Private brands have grown at a much earlier stage of India's retail evolution. Protected by public policy, and attracted by the large size of the price-conscious and value conscious market segments, Indian retailers have introduced private labels in many product categories. (Dholakia 2012)

The Apparel Retail

Apparel industry is one of the most important sectors of the Indian economy with regard to investment, revenue; trade and employment generation all over the world. It covers all companies that are largely engaged in producing various types of garments viz. kid's clothing, men's clothing and women's clothing. Perception of the modern formats started mostly in the apparel sector followed by huge investment commitment by the indigenous corporate giants in the top 100 cities in India. Around 2010 the influx of the international brands and stores shaped the lifestyle of transforming India. The store formats include malls, specialty stores, departmental stores, discount stores or the factory outlets, supermarkets, hypermarkets, convenience stores and the category killers in the form of multi-brand stores. The most popular format that has been adopted earliest in the Indian markets are the malls in the metro cities (Basu 2015). The apparel industry in India has been substantially diversified on the basis of fashion, climate, region, culture and fiscal factors. Over the past years there have been radical changes in the general retailing business in apparel retailing which was once strictly a made-to-order market for clothing which has now changed to a ready-to-wear market.

Indian apparel sector has taken a ideal shift. The growth and rising of urbanization has given rise to fashionable gen-next consumers having attitude of spending huge amount of money to look trendy. Indian apparel industries have been the single largest net foreign exchange earner among all the products in the country's export basket (Texmin 2005).

As per the report by Deloitte 2018, the apparel and accessories retailers remained the most profitable of the sectors represented in the Top 250 in FY 2016. The sector posted a composite net profit margin of 6.2 percent and a return on assets composite of 6.4 percent, results almost twice that of the Top 250 overall. Most of the world's largest apparel and accessories retailers have expanded internationally. In FY2016, foreign market operations accounted for 35.1 percent of the sector's composite retail revenue.

With a move towards more organized retailing, an increase in the range of products, a change in the consumer mindset, and a large base of consumers, retailing in India is headed towards a new age. The continued economic improvement, population growth, policy transformation, cultural parameters and globalization have induced significant changes to the apparel retailing environment. (Hale Pete 2008) Consumer opportunity in India is large, growing, and relatively underserved. International apparel retailers can and should explore these opportunities by creating regional strategies and infrastructural logistics.

We see a steady rise in income levels coupled with favourable demographics and greater drill of organized retail. This bodes well for the branded apparel business, which is poised for strong growth in the coming years. Many big apparel companies are well positioned to exploit this growth with its strong brands, distribution reach and product offerings across various categories and price points for varying consumer needs.

The Indian apparel industry has evolved rapidly over the past few years. Some of the major shifts can be seen such as Women and Youth have emerged as two important new demographic segments driving demand for younger, casual and more fashionable products. Women's wear business has been gaining heights and demand for casual wear was seen to be growing faster than the industry. Rapid growth of digital ecosystem with improvement in telecom infrastructure, penetration of smart phones and rapid growth of social media is changing the way consumers interact with fashion category and shop for their clothes. E-Commerce is evolving as a significant channel with consumer shift being aided by deep investments in marketing and discounting by E-Commerce players. Entry of international brands has created greater choice for consumers at the higher end of the market. At lower price points, value fashion retailers have been rapidly expanding their retail footprint, offering good quality, fashionable products at affordable prices to the fast growing middle class which is upgrading from unbranded products. (Annual report “Aditya Birla Fashion and. Retail Limited” 2016). The Company's Business Strategy is to offer Indian consumers' needs in fashion, style and value across wearing occasions in Apparel through strong brands and high-quality consumer experience with the ultimate purpose of delivering superior value to all stakeholders.

Traditional Indian clothing habits have been supported by tailors and dressmakers, rather than through the purchase of manufactured, ready-to-wear apparel but this category is significant in the modern outlet sector, small, owner-operated stores with customer relationships that sometimes exist across generations, continue to survive and prosper. The modern outlets have more adaptive strategic styles. They have come up with many innovations that hark back to traditional Indian styles of merchandising and buying including on-premise tailors to customize ready-to-wear apparel. (Dholakia 2012)

The increased availability of foreign apparel brands and diverse retail formats has affected Indian consumers' preferences, value perception, and purchase behaviour. The middle-class segment consists largely of young adults with a strong demand for mainstream fashion and a favourable attitude toward western brands and styles Because of increased market exposure, they are becoming more demanding and sophisticated, increasingly seeking for design and quality, brand names, and store atmosphere in their product and brand choice. Such a large and sophisticated home demand promotes a large profitable market while pushing domestic and foreign retailers for better products and services. (Mann 2010)

India remains one of the last frontiers of modern retailing. Conquering the country will always be a challenge, given the issues of the supply chain and consumer readiness, as well as complexities associated with a vast market. The success of an international apparel retail firm attempting to enter the Indian market is more likely to depend on various factors like mode of entry through franchising, joint venture or licensing, employment of the workforce available in India across the supply chain, utilization of local and regional sourcing options, investment in improving infrastructural support to make supply chain efficient and modification of the apparels to reflect proximity to Indian customs and culture. The companies offering premium and modified fashion clothing to the Indian market will gain a greater market share. (Batra 2009)

Customers value an integrated Internet store and that online–offline channel union leads to more favourable behaviour toward apparel retailer and its Internet store. The effect of union on consumer attitudes and intentions, suggest that managers from brick-and-click retailers should feel confident in using the union as a means of achieving a competitive advantage in the marketplace (Herhausen 2015).

The apparel companies are modifying their business practices to tap the emerging trends in the new apparel world. The fast-changing fashion has led to a conception in the design. The companies are strengthening the brand as customer centric and now targeting to the micro customer segment. The apparel companies are moving towards the sustainable fibres due to increasing demand for the sustainable products, at the same time the digital technologies are expected to embrace the overall productivity and efficiencies. (Ashoka and A.T.Kearney Analysis 2017)

The consumers' knowledge of social and environmental issues in the production of apparel has increased over time. The knowledge and attitudes of apparel environmental issues were positively related to environmentally responsible apparel-purchasing behaviour. Consumers express willingness to purchase ethically but do not wish to be inconvenienced in order to do so. Consumers need to be convinced that their purchase behaviour can make a difference in ethical terms in order to be persuaded to buy. (Kozar 2012)

It is observed that now days the consumers have a strong self-identity as environmental, organic, and socially responsible consumers. For example many consumers are interested in purchasing organic cotton apparel agreed that organic farming is good for the environment. This suggests that consumers would be receptive to marketing messages that place an emphasis on the environmental benefits of purchasing the apparel (Hustvedt 2008).

Consumer Behavior and Apparel Retail

The need to understand retail customers led to the application of the ordinary consumer behaviour research in the retailing context (Puccinelli et al., 2009). Behaviour of retail consumers also mutually referred as the customer or shopper in literature, are observed within the framework of a simple stimulus–response model where the consumers undertake extended, limited or routine decision making depending on the task to be accomplished (Berman et al., 2011). Retail consumer behaviour research concentrate on a wide array of issues specific to retail in the changing times to theoretically understand typical problems like those of retail shopping pattern, retail store choice, retail consumer perception and others. Recent changes in retail forms and newly emerging retail markets compels timely modification and combination of the existing theories to address concurrent retail market challenges (Kim and Kincade, 2006). Tailored studies addressing the inherent heterogeneity across retail landscapes (Hollander, 1964) mark retail research in modern times.

One of the most critical factors determining the success of apparel retailers in India is the ability to gauge trends in consumer purchase decisions. The Indian apparel consumer is undergoing an evolution and is rapidly adapting to international fashion statements. Increasing disposable incomes, exposure to international events and fashion icons, and rising confidence levels are driving the changes in the consumer purchase behaviour. Various factors such as Style, Quality, Price, Variety, Appeal, Brand Name and Referral Group are important for the consumers while buying the apparels. People go for retail apparel brands mainly to keep themselves fashionable with latest designs available. They are more quality conscious and comparatively less price sensitive. (Lahiri 2010)

Various factors such as merchandise, sales people, convenience, promotion, brands and the physical evidences contribute for the apparel store image and hence towards the customer satisfaction and the frequency of visit in the apparel stores. A favourable store image is required for not only satisfied customers but to increase customer patronage The service is equally important in the apparel retail and additional services may be needed to retain and get new consumers and this would give the retailer a competitive edge (Roy 2013).

The strength of ethnic identification was a significant predictor of cultural apparel consumption and attribution of emotions and meanings to the consumption. Further, consumption of cultural apparel perfectly mediated the influence of strength of ethnic identification on consumers' attributions of emotions, and partially mediated this influence on consumers' attributions of meanings. (Veena 2007)

Conclusion

The Apparel Industry is fragmented and highly competitive. There are a number of major players, but there are also countless niche stores and private companies that cater to specific demographics. Too, general merchandisers and foreign companies bring more competition to the sector. Consequently, companies in the Apparel Industry need to be nimble and highly efficient in order to survive. Having the right product is also

essential; fashion trends change frequently, and companies need to adapt to varying consumer tastes quickly.
Apparel sales at the retail level tend to be highly seasonal, with the majority of revenue booked during the holiday and back-to-school periods. Industry analysts review total year-to-year sales to identify trends. Notably, market watchers focus on "comparable-store" sales, which indicate the year-to-year performance of locations open for a year or more. Sales-per-square-foot is another important metric that measures how efficiently a retailer utilizes its floor space.

Although clothing is a basic need, people have wide discretion as to when they update their wardrobes and how much they spend. When times are good, apparel sales are usually brisk. Whether they're shopping online or in a physical store, Millennials – defined as consumers who are ages from 22 to 37 – have high expectations for their purchases. They want a pleasant, customer-based shopping experience with their ideal outcome. They don't want to waste their time, and they don't want to overspend. And, unfortunately for apparel retailers, this group isn't fiercely loyal to brands.

In spite of the industry's challenges and its recent ups and downs, analysts are optimistic for the near future of the retail apparel industry. Apparel retailers that succeed will be those that remain flexible in as many areas as they can. One of the most important places for flexibility is in the supply chain, analysts say. Retailers that can react quickly when consumer tastes change, and can deliver the products consumers want quickly, will experience the greatest growth.

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Analyzing the Role of Social Networking Sites in the Development of Student's Career

Prof. Vidhi Paryani and Kundan Tayde

Abstract

With restricted movement out of home, the internet has turn out to be the one thing we all hinge on-- whether for entertaining, schooling, education or work. Indians are apparently reading, contributing and persuading on social media. According to Nielsen, the total volume of Covid-19 related chats reached 22.3 million on March 24 in the country. The present-day study is positioned in this perspective to observe the influence of Social Networking Sites on interpersonal associations and relations of college pupils and also to create an outline which can release the college students' usage pattern of SNS. 120 college students were selected for creating primary data; questionnaire methods were used for the held purpose. In the present study the idea of social linkage and social networking sites are clarified in detail through sociological standpoint. It was originated that the increased practice or the more number use and increased hours devoted in the use of SNS has effect on interpersonal associations and relations of college students, predominantly with the members of their family. It was also established that due to the accessibility and handiness of SNS the communication amid college students and their members of family, between college students and their friends has improved. The study focuses on the usage pattern of SNS, the purpose of students in the usage of SNS, the aggregate time they spend, their favoured SNS, the dependability and reliability of online friends and much more thought-provoking aspects have been shared out keeping the scientific research as base. It offers a viewpoint for exploring the technological implications on society during the pandemic.

Keywords: Covid-19, interpersonal relationship, social networking sites

Introduction

Social media buzz remarkably initiated bustling mid-January with the first news of the outburst of the novel corona virus in Wuhan district of China. The updates related to pandemic tailed by campaigns such as Karo Namaste, must usage of hand sanitizer and masks, to Safe Hands Challenge triggered the usage of social media during the restricted living.

Social media dimensions doubled over in the same period as social distancing and quarantining turn out to be the new standard. There was a drop in store visits and increase in online shopping. Market exploration firm Nielsen said social media volume saw a gigantic 50X gush between January and March in India in the wake of Covid-19 pandemic. The figures shows that social media buzz picked up from 0.4 million in January and 1.6 million in February to a surprising figure of 20.3 million till March 24.

In India, the implication or the usage of Social Networking Sites is relatively alarming. The increased inclination of the youths towards these networking sites is due to the communication and entertainment these sites are providing to this generation. Subsequently this cliques the framework of the study in order to examine into this phenomenon further. Interpersonal relationships are the basis for culture, learning and social development and advancement. Consequently, it is vital to evaluate how extremely these Social Networking Sites are influencing the interpersonal relationships in the midst of college students.

India has constantly positioned a great value on personal relationships cultivating, safeguarding and transferring it to the next generation. Customs and beliefs are the most basic modules of Indian society and these fundamentals only outline the nature of interpersonal relationships that one is tangled in. Yet a radical transformation has been observed in this area. A comprehensive and critical study is thus required not only to recognize the condition better but also to make available with the denominators along there solutions. Social Networking Sites are like a drug to the present-day generation and is undoubtedly distressing the interpersonal relationships among college students.

In this era, “communication” has developed as the most prevalent term. Today the communication uprising has brought people organized irrespective of the geographical boundaries. Social media has transformed and reformed the world. The speedy and massive acceptance of these technologies is changing the way one finds his or her life partners, how we access information from the news, and how we become politically aware. The young people are more likely to use social media than older people. The growth in social media use over the last decade has, of course, come together with a great upsurge in the amount of time that people spend online.

Literature Review

Since the last decade the habit of using Social Networking Sites midst the college students is growing rapidly around the world and Social Networking Sites have markedly become a insignificant part of their lives (Gemmill and Peterson; 2006). The youth today is eager to know the technical advancements, latest trends and they agree to take these changes with an open mind. In comparison to any other age group of people the usage of Social Networking Sites among college students is more. This is principally because college students are more likely to be fascinated by the new technology and Social Networking Sites in particular.

In India also, many studies have approved to this phenomenon and hence today the usage of SNS has become an inherent part of students' lives in Indian society. The EDUCAUSE statistics shows that the percentage of students who said they never practice the use of SNS has fallen from 25% to 11% in 2008 (Alexander; 2006). Additionally, in the research studies of Chernigo Barnett and Ellis (2007), Subrahmanyam and Lin (2007), Valkenburg and Peter (2006) and Huong (2008) it has been originate that the college students are using Social Networking Sites at a higher rate than older people.

Tiffany A and et. al., (2008) loads of present-day young adults are habitual of using social networking sites. However, little is identified about how much, why, and how they use these sites. In this study, 92 undergraduates finished a diary-like measure each day for a week, writing daily time use and answering to an events checklist to evaluate their use of the popular social networking site, Facebook. At the completion of the week, they also completed a follow-up survey. Results showed that students use Facebook nearly 30 min all through the day as part of their daily routine.

Pratyasha Jain (2011) in the paper concentrated to find out the responses whether the social networking sites are boon or bane for today's world. Social networking websites like Orkut, Facebook, MySpace and YouTube are becoming more and more prevalent and widespread becoming part of daily life for a growing number of people. Because of their features, young people are attracted to social networking sites. No doubt these SNS provides employment, marketing, personal growth, sharing of information but the most prevalent danger through often involves online predators or individuals.

Geetanjali Naidu & Sunil Agrawal (2013) In today's tech savvy world social media has become a very beneficial tool in buying behavior decision making it is inducing customer in a forceful manner. Now customer/consumer is taking help of social media concerning buying or procuring of any product. Social media like face book twitter Skype are playing an important role in buying behavior decision making. Now in today's scenario social media like Blogs, LinkedIn, face book, twitter, Skype, etc. are frolicking a very significant role in consumer buying behavior decision making process directly and indirectly. In modern era of revolution in managing social media becomes influential and cost free approach to promote product to consumer. According to the survey India's 75% youth are using social media for sharing their thought and views and remark and observation in different areas of country.

Objectives of the study

1. To analyze the growth in the number and the pattern of impact of Social Networking Sites on college going students, particularly on their changing interpersonal relationships.
2. Examine the relationship between the usage of SNS and changing life styles, attitudes and behaviour of college youth,
3. Understand the perceptions and feelings of families about the changes taking place in the behaviour and attitudes of their children.
4. Review the influence of SNS on choice of profession, marital partners and other key decisions in the life of college students.

Research Methodology

This study predominantly uses descriptive research design. In order to collect data from the respondents, a well-structured questionnaire is used as research tool to collect the relevant data. The questionnaire was designed keeping in view the purpose of the study. The questionnaire mostly consists of close-ended questions framed to obtain relevant information on various aspects of usage of Social Networking Sites.

The first segment of the questionnaire produced 'Demographic data' containing general information about the respondents. It covers characteristics like gender, age, educational qualification, type of family, etc. The next section of the questionnaire aims on questions specific to the research topic like, most used Social Networking Sites, purpose, time spent on Social Networking Sites, functions, communities/groups joined, security issues, and impact of Social Networking Sites on their interpersonal relationships, lifestyles, attitudes and behavior. The researcher used the following statistical methods to analyse the primary data of the research: Frequency, Percentage, Measures of Central Tendency, and Correlation.

Hypothesis

Ho1: There is no significance difference between the increased hours spend on SNS during lockdown on the quality time spent during the same period with the family.

Ho2: The increased hours spend on SNS during lockdown on has not impacted the personal life with family members during the same period.

Findings and Analysis

Table 1. Demographic factors

Sr. No.	Factor	Responses
1.	**Gender**	
	a) Male	35.3%
	b) Female	64.7%
2.	**Age**	
	a) 17 – 19	62.2%
	b) 20 – 22	25.2%
	c) 23 – 25	5.9%
	d) above 25	6.7%
3.	**Educational Qualification**	
	a) Under- Graduate	
	b) Post-Graduate	
4.	**Stream**	
	a) Arts	5%
	b) Commerce	84.9%
	c) Science	10.1%
5.	**Type of Family**	
	a) Joint	34.5%
	b) Nuclear	60.5%
	c) Extended	5%
6.	**Occupation of Father**	
	a) Job in Government Sector	13.4%
	b) Job in Private Sector	29.4%
	c) Self Employed	50.4%
	d) Others	6.8%

7.	**Occupation of Mother**	
	a) Job in Government Sector	2.5%
	b) Job in Private Sector	19.5%
	c) Self Employed	5.9%
	d) Homemaker	68.8%
	e) Otherr	11.3%

The above table clearly mentions that there are 64.7% female respondents and remaining 35.3% are the males. Around 62.6% of the respondents belong to the age group of 17 to 19 years followed by 25.2 % belonging to the age group of 20 - 22 years. Just 5.9 % of the respondents belong to the age group of 23 – 25 years and 6.7 % of the respondents using social networking sites are above 25 years. The statistics clearly shows the increased and alarming use of these sites during Covid-19 by the young age group belonging to a tender young age. The figure shows decline in the other two categories of age as they become more serious about their studies at post-graduation levels. Again a rise in the use of networking sites can be noticed in the age group above 25 years as now for their careers the feel the need to communicate & get their doubts solved by taking advices from their seniors and other experts on the social networking site like Linkdin etc. The trend of searching life partners through these sites is also at an increasing pace in our country.

The education level in India has improved manifolds as the statistics clearly shows that 68 % of them are presently pursuing their graduate degree followed by 32% of them achieving their post graduate degrees. Most of them belong to the commerce stream (84.9%) followed by science (10.1%) and arts (5%)

Nowadays this has really become a debatable topic that today's youth is persuaded towards these sites as most of the parents both father & mother are not able to spend the quality time with their children backed by the increasing trend of nuclear families due to various reasons. Joint and expanded families are losing their status in the modern era.

The relaxation in the policies of the government has clearly increased the development of entrepreneurship in India as 50.4 % of the respondent's father owe their own business. The status of woman has also improved over a decade.

Figure 2 clearly states that 56.3% of the youths visited these SNS on daily basis for at least less than an hour during the quarantine period to be in touch and communicating with the family members and friends. 17.6% of the youth accessed these social networking sites on weekly basis. On the basis of the reports by Neilsen previously there used to be a huge difference in the use of internet during weekdays and weekends. The restricted movement from house resulted in the increased overall traffic on weekday-weekend basis, the report noticed an increase of 73 percent in users during weekdays and a 65 percent increase over the weekend.

Figure 1: How frequently and for how many hours the SNS is used

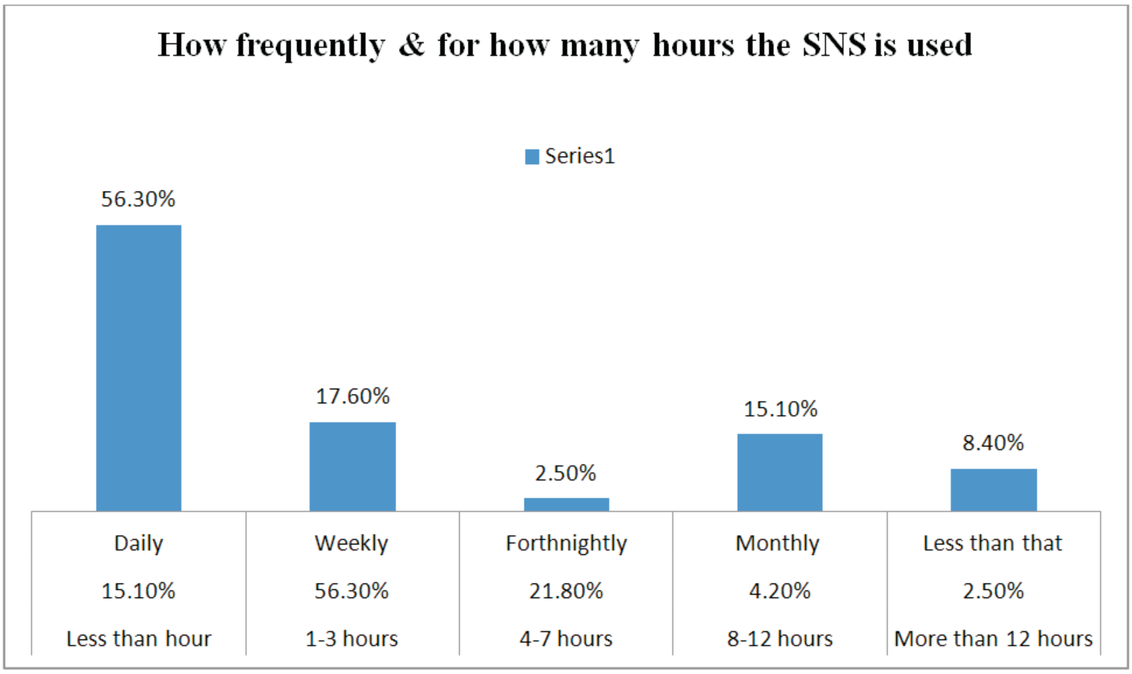

Table 2. Correlation

			[The lockdown has increased the number of hrs you spend on SNS]	[Because of SNS it was possible for you to spend quality time with your family during Lockdown]
Spearman's rho	[The lockdown has increased the number of hrs you spend on SNS]	Correlation Coefficient	1.000	.127
		Sig. (2-tailed)	.	.170
		N	118	118
	[Because of SNS it was possible for you to spend quality time with your family during Lockdown]	Correlation Coefficient	.127	1.000
		Sig. (2-tailed)	.170	.
		N	118	118

The calculated sig value is .170 which is greater than .05 which forces us to reject our null hypothesis which means that although the number of hours spend on SNS has increased but not communicating with the family members but rather for entertainment, fun with friends or for many other reasons. Although the correlation coefficient is positive but is very weak as the value stands at .127 only.

Table 2. Correlation

			[The lockdown has increased the number of hrs you spend on SNS]	[The usage of SNS has negatively impacted your personal life with your family]
Spearman's rho	[The lockdown has increased the number of hrs you spend on SNS]	Correlation Coefficient	1.000	.163
		Sig. (2-tailed)	.	.078
		N	118	118
	[The usage of SNS has negatively impacted your personal life with your family]	Correlation Coefficient	.163	1.000
		Sig. (2-tailed)	.078	.
		N	118	118

The calculated sig value is .078 which is greater than .05 which again forces us to reject our null hypothesis which means that the personal life with family was negatively impacted due to the increased use of social networking sites. Although the correlation coefficient is positive but is very weak as the value stands at .163 only.

Some other findings

1. The introduction of the government's Digital India initiative hand in hand with the increasing internet penetration over the recent years, resulted in the country's digital population amounting to approximately 688 million active users as of January 2020. The traffic in the world's second largest internet market at this stage was largely dominated by mobile internet users.

Limitations of the Study

1. Research was done through convenient sampling method and only 119 samples were taken for the same
2. In the research only bivariate spearman's correlation is applied. Furthermore test could have been applied in view of various grouping & giving the result about particular objectives only.
3. The samples for this research is collected from Indore region only.

Conclusion

The 'Internet' which is understood as the indication of the Information Technology (IT) revolution cannot be preserved just as an innovation. It is to be seen as an intermediate that has redefined the very meaning and importance of interpersonal relationships. The individual can easily develop acquaintances and keep linked with persons or groups with whom no face-to-face communication is done or essential. Hence, Social interface today has acquired a new sense. This impact of these sites can be very strongly noticed in the Indian society, which has always taken pride in its intra-family associations and relations. Subsequently, the growing usage of social networking sites has a foremost impact on interpersonal relationships of students. These impacts are so widespread that they attracted the attention of social scientists worldwide. Virtual friends have taken the place of friends and youth today find it easier to communicate, and share their feeling with these virtual friends. This has resulted creating distance in the family relations and ultimately becoming the reason for increased depression and suicidal tendency in the young generations. Therefore, the proposed study makes an attempt to fill in this gap, to some extent, by concentrating on the impact of Social Networking Sites on college students in India.

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Intellectual Property Rights is based on Ethical Values: Their Close Interconnectedness to Each Other and World View of Science

Dr. Sr. Alice Thomas

Abstract

Intellectual property rights (IPR) as are known has come into existence in order to protect the hard work done by the inventors. Ethical values are must in everyday life including business and IPR is no exception. This paper throws light on general ethical values and entails the basic principles accepted in our cultural tradition, particularly relevant to the ethics of research involving human subjects; the principles of respect for persons, beneficence and justice. IPR and ethical issues revolve round the scientific world views and their impact on value system, machine-view of the universe and mathematical view of scientific knowledge. Worldview plays an important in forming the value system. In the case of MPN worldview this is quite obvious. Reaction from the Scientific World: Relativistic – Quantum Mechanical Revolution and Scientific Values a Mixed Bag are also significant aspects. Each entity needs to imbibe that IPR is not only a policy matter but an ethical issue. If this is done that strict implication of IPR rules and its adherence may not be needed. There is a need to understand that IPR is nothing but an ethical issue.

Keywords: Value System; Behavior; Mechanical Philosophy of Nature, Worldview, Intellectual Property Rights (IPR)

Introduction

The very concept of intellectual property rights is based on ethical values since justice, which is a fundamental value,acknowledge that the author/inventor has invested much effort and labour to produce the product and so he/she deserves due reward. On the other hand, while exercising one's intellectual property rights, one should use his/her ethical sense- looking for the maximum good for the maximum number of persons. For instance, take a medical patent. In many cases, the inventor has already made pots of money from the product. In such cases the inventor can make the product available in poor countries at a lower price so that many poor people can benefit from it.

Ethical Values

Ethical values help humans to find meaning in life and provide guidance and direction in their behavior and interactions with others and the world. Generally, it is believed that God and religion are the source of values. However, many scholars are proposing a non- religious, naturalistic origin of values. Although these naturalistic explanations help us get a clear understanding of the origin and role of values, they remain superficial and unsatisfying.

Ethical values supply goal and direction to life and provide humans something to live for. They also give meaning and worth to our life. Value system plays a crucial role in setting the expectation levels of humans since they tell humans what to aspire for. They provide a code of conduct in our dealings with our fellow humans. It goes without saying that sound values are necessary for the harmonious and healthy functioning and development of a society.

Some general ethical values are honesty,integrity, promise-keeping loyalty,fairness, justice,caring,respect for others,law abiding etc.

But every branch of science and business, in fact every branchof human life has evolved an ethical code to be practiced in that branch. For example, the general ethical principles of psychologists formulated by the American Psychological Association (APA) in 1981 are: -

1. **Competence:** The maintenance of high standards of competence is a responsibility shared by all psychologists in the interest of the public and the profession.
2. **Moral and legal standards:** Psychologist's moral and ethical standards of behavior are a personal matter to the same degree as they are for many other citizens, except that these may compromise the fulfillment of their professional responsibilities or reduce the public trust in psychology and psychologists
3. **Public statements:** In public statements psychologists represent accurately and objectively their professional qualification, affiliations and functions as well as those of the institutions or organizations with which they or the statements may be associated.
4. **Confidentiality:** Psychologists have a primary obligation to respect the confidentiality of information obtained from persons in the course of their work as psychologist.
5. **Professional relationships:** Psychologists act with due regards for the needs, special competencies and obligations of their colleagues in psychology and other professions. They respect the prerogatives and obligations of the institutions or organizations with which their other colleagues are associated.
6. **Welfare of Consumer:** Psychologists respect the integrity and protect the welfare of the people and groups with whom they work.
7. **Assessment Techniques:** In the development, publication and utilization of psychological assessment techniques, psychologists take every effort to promote the welfare and best interests of the client
8. **Research with human participants:** The decision to undertake research rests upon a considered judgement by the individual psychologist about how best to contribute to psychological science and human welfare.
9. **Care and use of animals:** An investigator of animal behavior strives to advance our understanding of basic behavioral principles and / or to contribute to the improvement of human health and welfare.

Basic Ethical Principles

Now we consider the three basic ethical principles. Three basic principles, among those generally accepted in our cultural tradition, are particularly relevant to the ethics of research involving human subjects; theprinciples of respect for persons, beneficence and justice.

1. **Respect for persons:** Respect for persons incorporates at least two ethical convictions, first that individuals should be treated as autonomous agents and second, that persons with diminished autonomy are entitled to protection. The principles of respect for persons thus divides into two separate moral requirements, the requirement to acknowledge autonomy and the requirement to protect those with diminished autonomy,

   To respect the autonomy isto give weight to autonomous person's considered opinions and choices while refraining from obstructing their actions unless they are clearly detrimental to others. Respect for the immature and the incapacitated may require protecting them as they are incapacitated.

   Some persons are in need of extensive protection. The extent of profession offered should depend upon the risk of harm and likelihood of benefit. The judgement that any individual lacks autonomy should be periodically reevaluated and will vary in different situations.

2. **Beneficence:** Persons are treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well being. Such treatment falls under the principle of beneficence. Two general rules have been formulated as complementary expressions of beneficent actions (1) do no harm and (2) maximize possible benefits and minimize possible harms. As with all hard cases, the different claims covered by the principle of beneficence may come into conflict and force difficult choices.

3. **Justice:** Who ought to receive the benefits of research and bear its burdensfi This is a question of justice,in the sense of fairness in distribution or what is deserved. An injustice occurs when some benefit to which a person is entitled is denied without good reason or when some burden is imposed unduly. Another way of conceiving the principle of justice is that equals ought to be treated equally.

Scientific world views and their impact on value system

Meaning of MPN

MPN was theofficial philosophy of Newtonian science or classical science which lasted from 17th to the 19th century. From the second half of the 19th century it began to go out of popularly and in the first quarter of 20thcentury it was practically abandoned. The basic idea of MPN was that the science of mechanicscould explain all phenomena of our experience, including all physical biological and mental activities. It could explain adequately and accurately physical movements like walking, running, jumping, etc. biological activities like respiration, digestion, blood circulation, reproduction, etc. and mental activities like sensation, thinking, liking, disliking etc. In other words, according to MPN, all phenomena of our experience could be explained in terms of the laws, principles and methods of the science of mechanics. All activities of our experience are mechanical activities coming under the purview of the science of mechanics like those inside a complex machine. All phenomena of our experience can be accounted for in terms of matter, motion and interaction between material bodies. The working of a clock can be explained as a result of the movement of its different material parts acting under the influence of various forces, following well- known laws of mechanics. The claim was that in a similar way all the activities inside the human body could be explained mechanistically.

Some Important Aspects of the MPN World view

It can be seen that this view became a world view shaping our perspective of the nature of the world and determining the type of knowledge we obtained of the universe.

1. **The Machine-View of the Universe:** The universe was looked upon as a gigantic machine, governed by the laws, principles and methods of Mechanics. Natural phenomena, such as the process of birth, growth and death of plants and animals, for instance can be explained like the activities in a machine.
2. **Animals as Machines:** In this view animals and other living organisms were all nothing but complex machines. According to this view, basically an animal and a robot were the same; the only difference was that the animal was far more complex.
3. **The Human Body a Machine:** Continuing along this line it was claimed that the human body also was a complex machine, the most complex one. All the activities going on within the human body were considered mere mechanical activities, albeit being highly complex.
4. **Mathematical View of Scientific Knowledge:** Since in mechanics mathematics occupied a central position, in MPN also mathematics had a very special place. Mathematical knowledge, with its characteristic exactness, accuracy, clarity and objectivity was looked upon as the paradigm of knowledge. All true knowledge was expected to have mathematical qualities. Naturally forms of knowledge expressed in myths, stories etc., were frowned upon.

Some Values Emerging from the MPN Worldview

Worldview plays an important in forming the value system. In the case of MPN worldview this is quite obvious, as can be seen below.

1. **Superiority of Reason:** In the world of MPN reason reigned supreme, where the rational was deemed better, superior, and desirable. In this world humans became mere rational machines. Almost two millennia ago the great Greek philosopher Aristotle had defined humans as “rational animals.” Many have criticized Aristotle's definition for its narrow and rationalistic bias, but by conjoining rationality with animality he had admitted that humanity involved more than mere rationality. However, MPN reduced humans to mere rational machines. In their view everything human did have a reason behind itnothing came by chance or accident. The Rationalism of the Enlightenment, which as Robert Audi and others point out, looked upon reason as the “unique path to knowledge,” was closely linked to this view.
2. **Exactness, Accuracy, Precision, etc., as Values to Be Sought after:** Since MPN emphasized mathematical qualities, exactness, accuracy, precision, objectivity, and predictability became important values to be sought after in life. In many respects they can lead to unhealthy tension and unwanted frustration. For instance, when dealing with humans, particularly in human relations, understanding and

tolerance rather than accuracy and precision may be more important.

3. **Degrading of Feelings and Emotions:** In a world dominated by reason and mathematical precision as well as clarity, feelings and emotions will not find much importance. In fact, whatever refers, to feelings and emotions may be deemed inferior. Expressions of such feelings, particularly external expressions, may be considered a sign of weakness. This indeed was the case in the world of the MPN.

Some Important Consequences of MPN

1. **Overemphasis on Sense Observation and Sense Data:** Since this world was dominated by empirical science, an overemphasis on what was observable and empirically validate able was a natural outcome. Observation or at least observability became the most assured criterion of validity. In a way this world subscribed to the view "seeing is being," and "being true is being observable." All these views eventually led to extreme empiricism and positivism.
2. **Degrading of Human Dignity:** From our discussion above it is clear that human dignity was the principal causality in this world of MPN. This came about because a number of MPN ideas led to dehumanization and degrading of humans. Humans were reduced to the level of commodities. This gave rise to a feelingless, mechanical universe in which humans were treated as lifeless machines, albeit complex and sophisticated, where success and productively became the decisive criteria. What it led to was an impoverished world without concern for humans and human values. This was a world without a human face. Science in this case became a source of impoverishment and inhumanness.
3. **Triumph of Materialism:** In addition to an overemphasis on sense observation and sense data, this view gave rise to the thinning (and gradual extinction) of the boundary between the material and the spiritual... Since many activities like sense knowledge, thinking, etc.,were claimed to be explainable mechanistically, there was very little room left for the spiritual dimension. With matter-spirit, body-soul distinction under serious threat the stage was set to usher in wholesale materialism. In fact, a large number of scientists who subscribed to this view turned out to be staunch materialists.
4. **Triumph of Atheism and Rejection of God:** It was only natural that many of the above serious consequences and implications led to the resurgence of atheism and consequent rejection of God. A typical case was the response of Laplace to the emperor Napoleon, when he said," Sir, I have no need of that [God] hypothesis." Laplace had given a copy of his *Celestial Mechanics* to Napoleon, who after going through the volumes, remarked that it made no reference to God. It was on this occasion that Laplace made this often –quoted remark.
5. **Remnants of MPN Today:** Although MPN began to collapse from the second half of the 19th century and almost ceased to be a viable world view of science, in some areas in some form or other it is found even today. For instance, surgery basically consists in removing an affected, harmful part, often to be replaced by an artificial one. The treatment for acidity is to give an alkaline(antacid) product to neutralize

the acid, as is done in the chemistry laboratory.

Reaction to the MPN Value System

There was strong reaction to the MPN value system, first from non-scientific corners, most conspicuously in the form of Romanticism, and later from science itself, in the form of Relativistic Quantum Mechanical Revolution.

Reaction from non- Scientific Fields

We will consider two outstanding humanists who reacted forcefully to the mechanistic worldview and value system of classical science. Johann Wolfgang Goeth (1749-1832) and Rabindranath Tagore(1861-1941).

a) Johann Wolfgang Goethe

Goeth, a German polymath, was considered to be the greatest literary figure in the history of Germany. He fiercely opposed certain aspects of Newtonian science. For instance, he opposed Newton's analytical approach, and endorsed the holistic approach, and endorsed the holistic approach. He was averse to all rigid boundedness to external laws and conventions. Instead he strongly advocated spontaneity and inner authenticity, Against MPN's glorification of rigid reason he emphasized intuition. In Goethe's, view, “Science and art belong to the whole world, and before them vanish the barriers of nationality.” Newton's theory of colours and his analysis of the rainbow, etc., are well known. Goethe published his own theory in his book, Theory of Colours, in 1810. However, unlike Newton's, his book was not much of a success in the scientific world since it lacked theoretical fertility – it did not lead to new findings and applications. Goethe's reaction did have a point, and science needs to take it seriously. At the same time this case shows that although Newtonian science in some ways went into excesses, which had to be countered firmly. It did achieve a lot, and had much to offer.

b) Rabindra Nath Tagore

Rabindra Nath Tagore, India's Nobel Prize –winning poet and humanist, and Albert Einstein had a series of interactions on this issue of the mechanistic, rigidly law-bound-view of the universe. Tagore was very much disillusioned with science because of its mechanical view of the universe. He aired some of these views in his conversation with Einstein in 1930. It may be noted that, although Einstein was one of the most creative geniuses in history, in some ways he remained a conservative, particularly towards the latter part of his career. For instance, he was firmly committed to the view that the laws of nature were deterministic, and he opposed the Copenhagen view of indeterminacy in nature, as enshrined in the Uncertainty Principle of Werner Heisenberg and the Complementarity Principle of Niels Bohr. Rejecting all forms of chance occurrence of natural phenomena, he subscribed to the law of strict cause-effect in natural phenomena and to the mechanical worldview of science. Tagore was dissatisfied with such a mechanical, feelingless view of nature. In his view, the drama of human existence involved the constant harmony of chance and necessity. He advocated freedom and flexibility, in opposition to rigid causal determinism; creativity and newness, in opposition to emphasis on permanence and immutability. To illustrate his point, he gave the example of music and Indian singers, who dared to deviate from the classical path to bring in individual innovation and creativity.

Reaction from the Scientific World: Relativistic – Quantum Mechanical Revolution

It is interesting to note that opposition to the mechanical view of nature and natural phenomena came not only from advocates of arts and humanities, but also from science itself, particularly from the most creative, startling and successful theories like Relativity and Quantum Theory. Many fundamental claims of Newtonian science were challenged and shown to be untenable and unnecessary. For instance, it was thought that immutability was a threat to stability since what changes frequently cannot remain stable. But the Theory of Evolution shows that reality can change without upsetting stability. Newton had based his theory on a number of absolutes like, absolute space, absolute time, absolute mass, absolute motion, etc, But Relativity showed all these to be relative to a frame of reference. It was claimed that reality was definite and determinate, but wave-particle duality questioned this. As we have seen, Newtonian science claimed to assure certainty and exactness. But this was challenged by Heisenberg's Uncertainty Principle. It was believed that science was capable of giving complete and unambiguous explanation of phenomena, but this was questioned by Niels Bohr's Complementarity Principle. Several Newtonians and others had predicted the final victory of science, and the end of science; but science is ever facing new challenges to be resolved. There were other similar cases as well. In fine, practically every claim made and every criterion imposed by the mechanistic view seem to have been shaken up and shown to be in need of radical reconsideration, at least in the physical sciences, since in the biological sciences certain elements of it still linger on.

Scientific Values a Mixed Bag

Our discussion of the worldview of Newtonian science shows that it did present a set of values, but the values it gave were a mixed bag since they contained helpful as well as harmful ones. This can be said of science in general. Some of the helpful values emerging from science are: Concern for objectivity and impartiality (rising above personal and emotional considerations), concern for details(nothing is left for luck, every item and person counts), concern for accuracy and exactness(no haphazard approach), concern for success(performance-based approach), concern for efficiency and effectiveness(using the best means in the best way to get the best results), concern for practicality(a pragmatic approach), openness to change (not imprisoned in the past, ready to try out new ways), freedom to differ(encouragement to plurality of views), and openness to responsible criticism(criticism not looked at as an attack, but as an invitation to self examination). On the other hand, some of the harmful values accompanying science are Overemphasis on reason (undermining of legitimate feelings and emotions), dehumanization (commodification of humans, violation of human dignity), over emphasis on success (favouring the successful, insensitive to the less successful), and consumerism (negligence of deeper values, use-and-throw mentality). Humanity and the universe can be better served if ways and means can be found and implemented to maximize these helpful values and to minimize the harmful ones.

Intellectual Property Rights

Intellectual property rights are the rights given to persons over the creations of their minds. They usually gave the creator an exclusive right over the use of his/her creation for a certain period of time. Intellectual property rights are legal rights that provide creators to protection for original work, inventions,scientific developments, artistic works and so on. There are 4 types of intellectual property rights.They are patents, trademarks, copyrights and trade secrets.

"Ethics" asa principle that guides our society on what is "good" or "bad" fuels controversies on all scientific disciplines. Being at the crossroads between scientific innovations and public policy, the field of intellectual property appears to embrace many of the tensions created by exclusiveness on the fruits of human mind.Although neoclassical economic theory bestows intellectual property rights(IPR's) with the function to promote innovation for the benefit of society this theory has been put to the test by new institutional economics, empirical studies, and IP scholars, who have voiced growing concerns on IPR's negative effects on innovation and social welfare. Some current examples that illustrates worries on societal welfare are related to difficulties of accessing protected innovations, such as medicines and food products.The territorial application of IPR's may also hinder people's fundamental rights to benefit from information and culture in a globalizedworld. Some exampleare access and use of copyright protected films, video on demand, literary works etc.

Other concerns may arise from increasing litigation, strategic use of IPR's to drive away competitorsand abuse or misuse of rights. These situations may waste resources instead of making a positive contribution to innovation. Technological advancements may pose further challenges. Their impact on societal welfare will depend on the object and scope of protection. The potential of 3-D printing to improve biomedical tools, for examples will be determined by the uses allowed under IPR's

Now let us examine the ethical issues associated with information technology property. Intellectual property represents the property of your mind or intellect.

It can be an invention,trade mark, original design or the practical application of a good idea. In business terms, this means your proprietary knowledge- a key component of success in business today. It is often the edge that sets successful companies apart and as world market becomes increasingly competitive, protecting your intellectual property becomes essential (Common Wealth of Australia 2005). Though many studies have examined ethical positions on intellectual property, little work has been performed on the overall concept of property associated with the information age, including hardware,software,data and communications infrastructure.

Property rights

Traditionally, property rights both physical and intellectual, have been guaranteed in the US and many other countries constitutions. Even the United Nations in Article 17 of its Universal Declaration of Human Rights (1948) states:

a) Everyone has the right to own property alone as well as in association with others.

b) No one shall be arbitrarily deprived of his property

Due to the fundamental nature of these rights, the ethical views of individuals on information technology property. Due to the fundamental nature of these rights, the ethical views of individuals on information technology property issues hold important significance. Property in the Information Age is a complex concept involving many diverse topics. Ethical issues that affect information technology property abound. Protecting property rights has become difficult with the rise of intellectual property and the increase in violations of electronic physical property through electronicinvaders such as viruses and worms.

The importance of ethical issues in the use of information technology holds high relevance for both business and researchers. Numerous research studies have been performed to assess the influences of various factors on information technology ethical decisions. The economic impact of IT behavior is staggering Calazzo and Cente (2004) note many instances of IT ethics shortcomings. They note surveys that have shown that 45% of IT professionals acknowledge engaging in unethical behavior. Another study recorded a 69% acknowledgement rate. They note a 1955 study that suggested worldcode software privacy losses were estimated at $ 8 to 12 billion and a 1999 study that reported that 50% of all software in use in 1996 was illegally copied. In 1998, they note that 98% of software in China was illegally copied. Dean (2005) discusses the impact and importance of software piracy and intellectual property violations suggesting a $billions negative impact on taxes and reduction of 1.5 million jobs due to piracy.

Understanding the influences on unethical IT behavior can have major returns of addressed, Peterson (2002) notes the importance of improving computer ethics citing many of the recent problems with unethical behavior including software piracy, virus development and illegal access estimated at costing corporations' losses of billions of dollars per year. Security measures can have some impact in reducing losses but suggest that individual ethical behavior can be improved. If ethical behavior can be improved, the losses and crimes can be reduced saving corporations millions of if not billions of dollars.They suggested that in order to improve IT ethics an overlooked and potentially effective deterrent is the identification of unique and situational characteristics of IS personnel who act ethically/unethically. Identification of unique characteristics could lead to the formation of more effective ways of solving the problem of unethical use of or inappropriate use of computers. The methods to improve behavior after identification include education and organizational environment.

Information technology property decision making are important ethical issues. Two demographic factors affect ethical decision making – age and gender. Age has often been shown to affect ethical decision-making Vitell(2003) found that older individuals more readily follow ethical norms. As a result, age will significantlyaffect views on information technology property issues. A large body of research has investigated the impact of gender on ethical decision-making Loch and Conger (1996) note" elves likely to consider a behavior as unethical". Thus, gender will significantly affect recognition of the importance of property ethics issues. Towards intellectual property issues. Programmes should more directly target younger employees.

Conclusion

Intellectual property right and ethical values are directly proportionate to each other. Rather the former is dependent upon the latter. Rest (1986) suggests that "moral education programs designed to stimulate moral judgement development do produce modest but significant gains. With identification of problem areas, programmes can be instituted to improve ethical awareness, education and enforcement. It is evident that if each entity imbibes that IPR is not only a policy matter but an ethical issue then strict implication of IPR rules and its adherence may not be needed. There is a need to understand that IPR is nothing but an ethical issue. In other words, ethical values and ethical principles are significant in the management of IPR. Diverse forms of IPR call for different action, behavior, planning, and approaches and involvement of persons with different disciplines of knowledge like mathematics, physics, chemistry, law, information technology, medical science andbusiness management.

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Trends in Electric Mobility and its challenges in India

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Abstract

Majorly, petrol price hike is a major issue in recent times for all Indians. The best possible alternative for that is Electric Vehicles. The EV trend is on a good hike in these recent days. This alternative has several benefits which have been mentioned in this research and it also brings with it some limitations which also have been mentioned. This research appraises the trends in electric mobility along with challenges. It highlights some basic information which all consumers of automobile sectors need to know and also includes suggestions to the consumers, sellers and the government are provided which if followed can bring a big change to the EV industry in India. This is for the reason that people should be aware about all the related aspects to the electric mobility.

Keywords: EV, petrol, Electric Vehicles, etc.

Introduction

The transport sector accounts for 18% of total energy consumption in India. This translates to an estimated 94 million tonnes of oil equivalent (MTOE) energy. If India were to follow the current trends of energy consumption, it would require an estimated 200 MTOE of energy supply annually, by the year 2030 to meet the demand of this sector. At the moment, this demand is being met mostly through imported crude oil, which therefore makes this sector vulnerable to the volatile international crude oil prices. Moreover, the sector also contributes an estimated 142 million tons of CO2 emission annually, out of which 123 million tones is contributed by the road transport segment alone.

Keeping in view the climate change commitments made by Government of India during the Conference of Parties (COP) 21 Summit held at Paris to reduce emission intensity by 33- 35% by 2030 from 2005 levels, it is pertinent to introduce alternative means in the transport sector which can be coupled with India's rapid economic growth, rising urbanization, travel demand and country's energy security. Electric mobility presents a viable alternative in addressing these challenges, when packaged with innovative pricing solutions, appropriate technology and support infrastructure and thus, has been on the radar of Government of India.

The Electric Vehicle industry in India is far behind, with less than 1% of the total vehicle sales. Currently, Indian roads are dominated by conventional vehicles and have approximately 0.4 million electric two-wheelers and a few thousand electric cars only. The Indian EV industry has been on the back seat due to various challenges. Availability of adequate Charging Infrastructure is one of the key requirements for accelerating the adoption of electric vehicles in India. In this regard, Ministry of Power has issued “Charging Infrastructure for Electric Vehicles – Guidelines and Standards” mentioning the roles and responsibilities of various stakeholders at Central & State level, for expediting the development of public EV charging infrastructure across the country. Ministry of Power has designated Bureau of Energy Efficiency (BEE) as the Central Nodal Agency (CNA) for the National-level rollout of charging infrastructure in the country.

Objectives of the study

Future lies in developing ways to reduce consumption of oil as it is a scare resource and is not environment friendly as it promotes pollution. Developing and encouraging alternate solutions to mobility is need of hour, thus objective of this study to know the Trends and study challenges in Electric Mobility in India.

Review of literature

Sarode, N. & Sarode, M. (2020) in their researc, have mainly discussed about the Battery Technology and the problems with associated with it. Also a detailed research is done on the initiatives taken by the Indian government. The research is concluded with the point that this technology is introduced late in India, and the battery related and also some other limitations like speed etc. are the major reason for the small EV market in India.

Benjamin, K. (2017) in his research, he expands and integrates a theory of Auto mobility with one of science and technology (Actor Network Theory) and one about social acceptance and user adoption (UTAUT). The author has done research interviews with social theorists. He has presented the three theories deemed most relevant by respondents. Based largely on the original interview data supplemented with peer-reviewed studies, he proposes a conceptual framework of user acceptance consisting of motile pleasure, sociality, socio-technical commensurability, and habitual momentum. He concludes with implications for research and policy.

Wang, Z. (2013) his research is mainly based on the charging related problems and awareness. In order to adapt the matching and planning requirements of charging station in the electric vehicle (EV) marketization application, with related layout theories of the gas stations, a location model of charging stations is established based on electricity consumption along the roads among cities. And a quantitative model of charging stations is presented based on the conversion of oil sales in a certain area. A highlight for the research is the area which mentions that the number of EVs and the energy consumption of EVs bring more significant impact on the number of charging stations than that of vehicle type proportion, which provides a basis for decision making for charging stations construction layout in reality.

Khurana, A. et al. (2020) In their articleexamines the different factors that affect a consumer's adoption of an EV. The respondents of the study are existing car owners in India. The data were analysed using Structured Equation Modelling (SEM). Attitude (ATT) emerged as a strong mediator, influencing the adoption of electric cars. Also some discussion is done about the government initiatives. Still the general awareness which the general public wants to read is missing in the research.

Goel, S. et al. (2021) having their main focus on the EV vehicle's customers, in this research, the researchers have given very relevant information about what a customer actually wants to know while purchasing a product. The research pointed all the major aspects related to all the possible challenges and barriers in EV.

Research Methodology

The study is qualitative and descriptive in nature and considers the information of the previously available literature and is based on the secondary data i.e facts & figures and recent research articles published in various Journals through various articles published in News-papers, Magazines, and Websites etc. which further helped in the reviewing and mentioning the recent trends and challenges in electric mobility in Indian and they're on providing suggestions.

Trends in Electric Mobility

Electric vehicles technology came into existence since 1837 in Scotland by Robert Anderson. He made a first electric crude vehicle which works on both electric motor and crude engine. After that many scientist performed different research and invented different electric vehicle. Each vehicle would have more improvement compared to previous electric vehicle.

Scientist made improvements in battery technology, electric motor which improved efficiency and speed of vehicle day by day. But after some years internal combustion engines (IC Engines) were introduced in automobile sector due to which speed of vehicle became more than the speed which electric vehicle were giving. So, due to this IC engines technology, there was a break to electric mobility technology and scientist started their research on IC engine vehicles.

After many years due to excessive use of crude oil, fossil fuels and natural gas by fuel vehicles there was depletion in this fuels sources. This made automobile sector's to introduce electric mobility technology again. Electric vehicles were used in many nations earlier.

But in India electric vehicles were introduced in the year 2011 by Mahindra electric mobility Ltd with Revai electric car. This car was equipped with lead-acid battery which gave range of 80km per charge. Its top speed was 80km/h. After this, Mahindra introduced different electric vehicles in India.

Government in India is implementing different policies to make people aware about using electric mobility's. Government has started 'National Electric Mobility Mission' (NEMM) from the year 2020. In this mission government is going to introduce electric vehicle to people and increase usage of electric vehicle in India. For this government has also introduce 'Faster Adoption and Manufacturing of Hybrid and Electric Vehicle' (FAME) in which they have taken some measures for reducing cost of electric vehicle and increase its sale in India. This will increase awareness about importance of electric vehicle in India.

Batteries for Hybrid and Plug-In Electric Vehicles :-

Thousands of researchers are working on the battery technology of electric vehicles. They have come up with many alternatives which are under test. Below mentioned are some of these alternatives: -

Lithium-Ion Batteries- Lithium-ion batteries are currently used in most portable consumer electronics such as cell phones and laptops because of their high energy per unit mass relative to other electrical energy storage systems. They also have a high power-to-weight ratio, high energy efficiency, good high-temperature performance, and low self-discharge. Most components of lithium-ion batteries can be recycled, but the cost of material recovery remains a challenge for the industry. Research and development teams are ongoing to reduce their relatively high cost, extend their useful life, and address safety concerns in regard to overheating.

Nickel-Metal Hydride Batteries- Nickel-metal hydride batteries used routinely in computer and medical equipment, offer reasonable specific energy and specific power capabilities. Nickel-metal hydride batteries have a much longer life cycle than lead-acid batteries and are safe and abuse tolerant. The main challenges with nickel-metal hydride batteries are their high cost, high self-discharge and heat generation at high temperatures, and the need to control hydrogen loss.

Lead-Acid Batteries- Lead-acid batteries can be designed to be high power and are inexpensive, safe, and reliable. However, low specific energy, poor cold-temperature performance, and short calendar and cycle life impede their use. Advanced high-power lead-acid batteries are being developed, but these batteries are only used in commercially available electric-drive vehicles for ancillary loads.

Challenges in Electric Mobility in India

Electric mobility started getting importance in India but less than expected as people were expecting more improvement from it. Indian scientists are doing research to improve factors that makes electric vehicle compatible for daily usage. The electric vehicle having more efficiency is expensive which cannot be afforded by common people.

Also on an average electric vehicle requires minimum 8-9 hours to charge from 20% to 80% moreover range of such electric vehicle is very less which make it incompatible for daily usage. And also in India there are less charging stations where people can charge their electric vehicle when they are travelling long distances. Due to these parameters there are fewer sales of electric vehicles in India.

Electric vehicle require more charging time and less range due to less improvement in battery technology. First battery introduce for electric vehicle was lithium-ion battery in roadster battery electric vehicle (BEV). But lithium-ion battery was having less capacity due to which range of electric vehicle were less. Later engineers performed various research and made improvement in battery technology.

To reduce charging time, rapid chargers were introduced due to which battery was charged in less time. But in some nations rapid charging is provided only by charging stations of electric vehicles. In India there are less charging stations compared to other nation due to which people cannot charge their vehicle for more time and use it daily.

Findings and Conclusion

Electric mobility technology is introduced late in India compare to other countries, and Indian people are finding difficult to adjust with this new technology. As if they buy an electric car they cannot use them for daily basis or to travel for a long distances. The reason behind this is poor battery technology which provides less range and requires more time to charge completely. And also, there is shortage of charging stations in India where people can charge their vehicles. Planning now by states and utilities to build infrastructure for charging electric vehicles will go a long way. Various technique about the battery technology are explained and about its alternatives as the need of the hour.

To conclude the discussion, study also find that Government is also trying to promote green energy by introducing electric vehicles but due to limitations of this technology in India there is less impact of it. People are also having some myths like using electric vehicle in rainy atmosphere or area having water logging is dangerous. Due to these misconceptions or lack of knowledge about electric mobility technology there is less usage of electric vehicle in India.

Suggestions

In order to ensure that India doesn't fall further behind in the EV industry, Government must consider and implement these four recommendations, ahead of India's first global mobility summit, where electrification of the transport sector will be a major focus:

1. The Government needs to ditch unrealistic targets and focus on introducing EV production quotas for automakers.
2. An integrated government body is needed to develop India's EV ecosystem.
3. State and local governments must be incentivized to build public charging stations based on their specific requirements.
4. The Government should consider lowering taxes on the imports of EVs for a few years to increase consumer awareness and choice.

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A Comparative Study on Box Filters on Impulse Noise In Digital Image Processing

Mr. Anantha Raj Manoj, Mr. Mayank Soni, Mr. Mohini Thakur

Abstract

Box filtering is largely a kind of image filtering technique that has been used to speed up many computation-in depth operations in image Processing and computer vision. They've the advantage of being fast to compute, but their adoption has been hampered by means of the reality that they gift severe restrictions to clear out production. It's far certainly a convolution filter, which is a commonly used mathematical operation for image filtering. A convolution filter out provides a method for multiplying two arrays to provide a 3rd one. In box filtering, image sample and the clear out kernel are multiplied to get the filtering end result. The filter kernel is like a description of ways filtering is going to show up; it certainly defines the kind of filtering.

Keywords: Box filter, Gaussian filter, Impulsive noise.

Introduction

Digital images play a vital role in all areas of our everyday applications. Image processing is an area that maintains to develop, with new applications being evolved at an ever growing tempo. The images which can be accumulated from diverse image sensors through noisy images due to the fact imperfect devices and hassle with information acquisition technique introducing interference. A number of the reasons which causes noises are poor sensors, defects in optical lenses, motion of the item, incorrect cognizance, atmospheric turbulence, temperature of the surroundings and poor light levels. Moreover, transmission errors and compression introduces noise. So the data can degrade in terms of quality [1]. Thus, it is necessary to denoising the data, before images data is analyzed. Denoising technique is useful to get efficient output from corrupted data. It still remains a challenge for researchers. This paper presents a review of some noise models and various existing image denoising techniques. Image Denoising is an important technology in image analysis and the first step to be taken before images are analyzed [2].

Literature Survey

Filtering is a technique for modifying or enhancing an image. Spatial domain operation or filtering (the processed value for the current pixel processed value for the current pixel depends on both itself and surrounding pixels). Hence Filtering is a neighborhood operation, in which the value of any given pixel in the output image is determined by applying some algorithm to the values of the pixels in the neighborhood of the corresponding input pixel. A pixel's neighborhood is some set of pixels, defined by their locations relative to that pixel. The some of the Techniques of Filtering Techniques are as follows:

2.1 Median Filter:

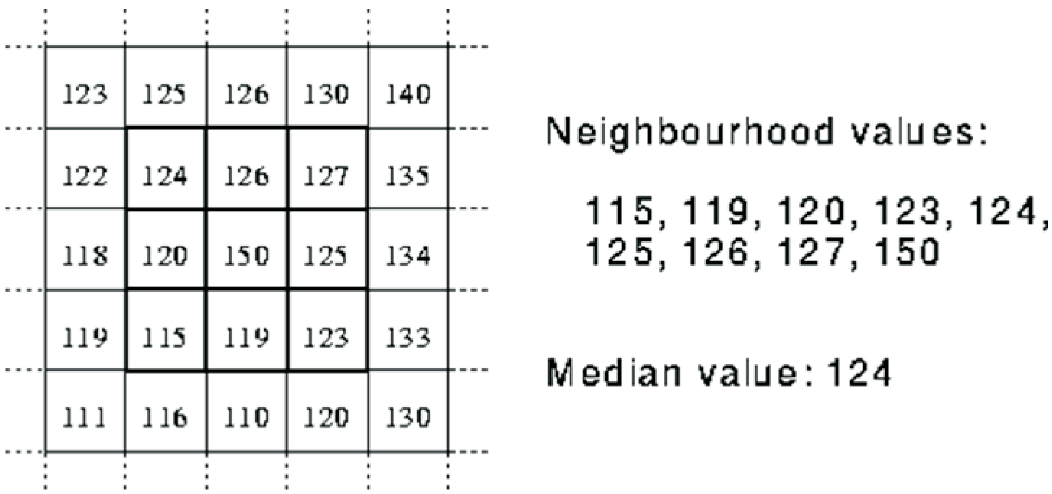
2.1.1 Introduction:

Each imaging system suffers with a common problem of "Noise". Unwanted data which may reduce the contrast deteriorating the shape or size of objects in the image and blurring of edges or dilution of details in the image may be term as noise [3].it may be due to one or more of the following reasons:

1) Shortcomings of image acquisition devices
2) Image developing mechanism
3) Due to environment
4) Physical nature of the system

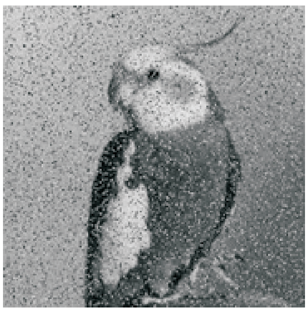
2.1.2 Basic principle of median filter:

The median filter is a sliding-window spatial filter. The median filter is normally used to reduce noise in an image, somewhat like the mean filter. However, it often does a better job than the mean filter of preserving useful detail in the image. This class of filter belongs to the class of edge preserving smoothing filters which are non-linear filters [5]. This means that for two images A(x) and B(x). The median is calculated by first sorting all the pixel values from the surrounding neighborhood into numerical order and then replacing the pixel being considered with the middle pixel value.

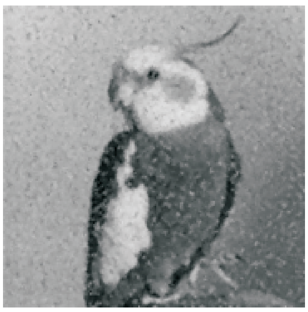


$$median[A(X) + B(X)]\ 6 = median[A(X)] + median[B(X)]$$

If we apply the different size of the filter kernel - 3x3, 5x5, or 7x7 of median filter, the result will be as follows.



Impulse noise with 20%



Median filter with 3X3 kernal

Median filter with 5X5kernal

Median filter with 7X7kernal

Impulse noise with 50%

Median filter with 3X3 kernal

Median filter with 5X5 kernal

Median filter with 7X7 kernal

2.1.3 Advantages of Median filter:

1) No need to generate new pixel value.
2) Easy to implement.
3) Since the median is less sensitive than the mean to extreme values (outliers), those extreme values are more effectively removed.

2.1.4 Disadvantages of median filter:

1) Median filter is not good for all types of noise, it is very good only for removing salt and Pepper noise.

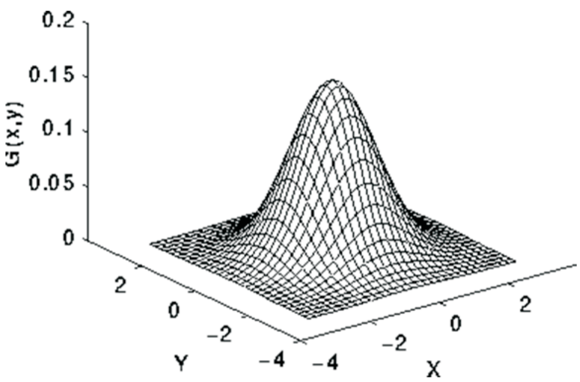
2.2 Gaussian filter:

The idea of Gaussian smoothing is to use this 2-D distribution as a point-spread function, and this is achieved by convolution. Since the image is stored as a collection of discrete pixels we need to produce a discrete approximation to the Gaussian function before we can perform the convolution.

In 2-D, an isotropic (i.e. circularly symmetric) Gaussian has the form:

$$G(x,y) = \frac{1}{2\pi\sigma^2} e^{-\frac{x^2+y^2}{2\sigma^2}}$$

-D Gaussian distribution with mean (0,0) and **σ = 1**



A suitable integer-valued convolution kernel that approximates a Gaussian with a **σ** of 1.0 can be represented as.

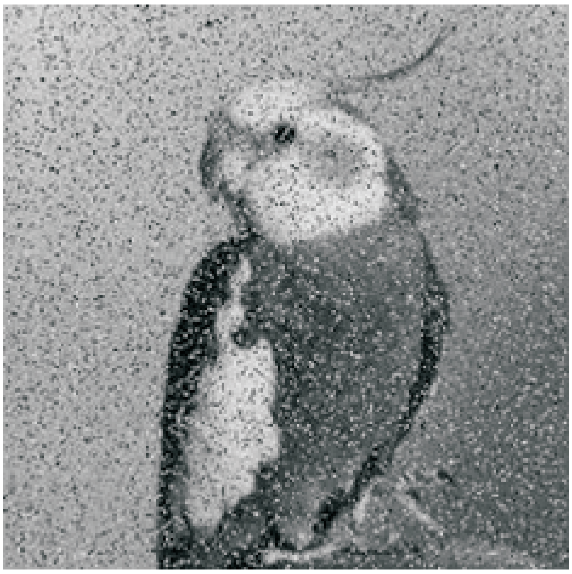
$$\frac{1}{273}\begin{bmatrix} 1 & 4 & 7 & 4 & 1 \\ 4 & 16 & 26 & 16 & 4 \\ 7 & 26 & 41 & 26 & 7 \\ 4 & 16 & 26 & 16 & 4 \\ 1 & 4 & 7 & 4 & 1 \end{bmatrix}$$

It is not exactly the mask to approximate a Gaussian. Because the value of the Gaussian varies non-linearly across the pixel.

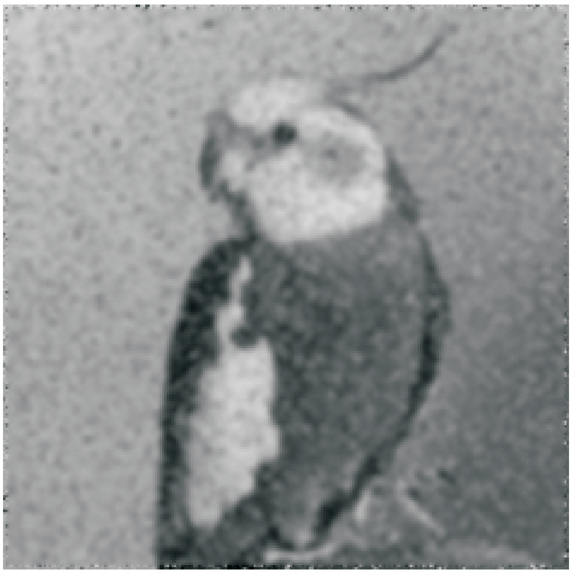
Example:

Let us consider the kernel as

1	2	3	2	1
2	4	5	4	2
3	5	6	5	3
2	4	5	4	2
1	2	3	2	1

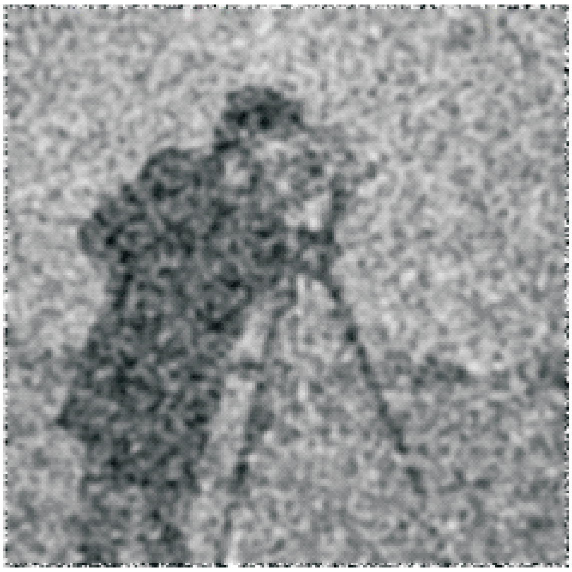


Impulsive Noise of 20%



Gaussian Result

Impulsive Noise of 50%



Gaussian Result

However this Gaussian filter used for impulsive noise to denoising the images leave the images as blur pictures and take away noise. The gradation of smoothing decided by the quality eccentricity of the Gaussian. [5].

2.2.1 Application of Gaussian filters:

1) It defines a probability distribution for noise or data.
2) It is used in mathematics.
3) It is a smoothing operator.

2.2.2 Algorithm of Gaussian Filter:

The filter can be understood as taking a pixel as the average value of its surrounding pixels. From value perspective, it's a smoothing. On graphic, it's a blur effect. The center point will lose its detail. If the value range is very large, the blur effect is very strong. Normal distribution is an acceptable weight distribution model. On graphic, normal distribution is a Bell-shaped curve, the closer to the center, the bigger the value. [6]

2.2.3 Advantages of Gaussian filter

1) Gaussian smoothing is very effective for removing Gaussian noise
2) The weights give higher significance to pixels near the edge.
3) Computationally efficient.
4) Rotationally symmetric.

2.2.4 Disadvantages of Gaussian filter

1) It takes much time.
2) It reduces details.

Conclusion

This paper we are able to present a comparative study of two different digital image denoising approaches. As images plays a vital role in this digital era, image denoising is an important pre-processing task to produce better results on image processing and analyzing. Every technique regarding denoising has its own characteristics; merits and limitations are discussed in this paper. The effect of the denoising sometime not only leads to denoising but also leads to create blur in the image. Amongst all the pictorial representation of the different algorithm results we are able to compare that the Gaussian filter is resulting better but if you consider the Median filter for the 20% of impulse noise median filter with 7X7 produced the best result. The further extension of the paper can be done as a comparative study in the means of finding the result through the tools like PSNR.

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An Analysis of Contribution of Women Entrepreneurs in STEM Related Formation of Intellectual Property

Prof. Rachel Pawar and Ms. Alisha Raj

Abstract

Science, technology, engineering, and mathematics (STEM) fields are remarkably significant for innovation and technological development, which in turn are seen as key drivers of social and economic growth. Similar definition can be applied to the role of entrepreneurship. There is participation of both the genders men and women in STEM activities but according to the results, there also exists some gaps between men and women involvement in the STEM activities. This research focuses on the innovation, development, growth and roles of women in STEM activities as an entrepreneur and also in the formation of intellectual property. Highlighting the struggles faced by women entrepreneurs and for the suggesting measures to overcome the stated gap between the men and women involvement in the STEM entrepreneurship activities.

Keywords: STEM, Entrepreneurship, Gender Gap

Introduction

Intellectual property rights concede “flight to the imagination” to the mind and give the absolute rights to the investors to use an innovation for a certain period of time. Within the law, women are still not treated as equal to men in many fractions of the world. From possessing land to procuring heritage, now women are at a stumbling block. Stronger intellectual property safeguards can help this edge off. When the Intellectual property rights are strongly safeguarded, the rights of the women are safeguarded. As well as it is also crucial for economic growth. Science, Technology, Engineering and Mathematics, called as STEM, bestow significantly to innovation and entrepreneurship. “Entrepreneurship also contributes towards growth and innovation. In spite of having some advancement over the last years, the duo, Entrepreneurship and STEM communities continue to pick up the threads by men” (Beede et al. 2011; Minniti et al. 2005; Kelley et al. 2017). The two approaches has been put forwarded by the literature, this were the complementary structures in order to showcase the constancy by which women can pursue the STEM training and can occupy themselves in commercialization in STEM firms. First one recommends that internal motivations, give rise to the women to do the training and professional work in the fields other than STEM fields. And the second one recommends that external barriers which includes the key to have financial capital for the training, gender gaps, non flexible institutional structures demoralize the women to participate in STEM training and entrepreneurship, also reducing their participation in commercialization activities. This barrier badly affects the development process in women's life. This paper shows the innovation among the women in STEM training and also identifies the gender gap as well as finding the best future opportunities for themselves. According to Institute for Women's Policy Research, “Progress towards gender and racial/ethnic equity in innovation would also benefit society. Diverse contributions are essential to identifying and developing solutions to the pressing problems confronting individual communities and the world more broadly. A array of unique standpoints offer invaluable perspectives for innovation. By integrating more women and people of color into the innovation ecosystem, we will benefit from the contributions of more talented inventors and the ideas, products, and solutions they can develop if provided the opportunity."

Objectives

This study is primarily a peak into the various challenges and factors that pose challenges exclusively for women entrepreneurs in the STEM related start ups. Nevertheless, post identification of the said challenges based on the available studies the study will try to outlines solutions or coping mechanism to increase women contributions and participation in STEM entrepreneurial activities so as to give it the necessary push not only for the betterment of the women community but also for the society as a whole.

Identifying Stem fields

According to the Standard Occupational Classification Policy Committee (SOCPC), STEM workers and entrepreneurs are identified based on the STEM occupational classification. Here, the data says that STEM fields are based on STEM occupations of high mass of employment. Social science occupations were excluded so that the main focus is on the study of occupations with significant ability in commercialization activities.

According to National Science Foundation, 2013, "Rates of women in STEM vary by field, with women earning about 40-50 percent of degrees in agricultural and physical sciences but only 18-19 percent of degrees in computer science and engineering."

In the analysis of CTI data (Centre for Talent Innovation), it was found that 52% of the highly qualified women has quitted their jobs in STEM fields.

Some Women had perceptions of themselves, and had decisions about themselves, and their performance is stereotype threat or a fear of confirming stereotypes about one's groups (Steele & Aronson, 1995). This theory has been used to explain lower levels of performance on math tests by women as compared to men. They not only deal with gender discrimination but also have a fear of confirming their stereotypes thinking.

STEM and Entrepreneurship

Entrepreneurship is seen as a tool for growth, innovation and employment. Women had been now seen as successful entrepreneur and they have the most fitting qualities to prove it. More and more women are coming forward to become entrepreneur even though entrepreneurship is full of risks but it creates independence, flexibility and freedom and opportunities. Although having many advantages, there are some factors that affect the entrepreneurs in two categories – economic factors and social factors. Economic factor includes lack of access to the market, lack of raw materials, lack of capital, lack of marketing knowledge; lack of production/storage space, poor infrastructure and insufficient power supply. Social factor includes lack of social acceptability, gender gaps, attitude of other employees and relations with the work force."Many entrepreneurs and, in particular women, tend to steer clear because of lack of information, and conditions such as high transaction costs and interest rates averaging above 35 per cent per annum"."Most of the women entrepreneurs

(54%) belonged to the age group of 36 and above followed by the age groups of 26-35 (28%) and16-25 (18%) in that order" Hisrich et al. It says the women entrepreneur has to be 35 years of age when she starts her first business. According to prior research, women start to think about becoming an entrepreneur in their 30's due to an economic pressure and demand and family issues like their children are growing.

Literature Review for STEM and Women Entrepreneurs

Women have been belittled in STEM educational trainings and also in STEM employment (Mavriplis et al. 2010). Also, to the low levels of women in STEM degrees, it has been seen that women were pushed out in various stages of their career development.

STEM Entrepreneurship requires high amount of investment, and male entrepreneurs are known for raising funds higher than the correspondent female (Alsos et al. 2006). Women entrepreneurs are forced to make use of their own personal funds than men. As a result, women become unsuccessful as compared to their men counterparts. According to the Harvard Business Review, "women entrepreneurs are able to acquire only around 2% of total venture funding, although they own 38% of all US businesses." Women under STEM fields are considered as "leaky pipeline."As Blickenstaff (2005) explains: "This pipeline leaks students at various stages: students who express interest in science careers sometimes change their minds when applying to colleges and universities and select other areas of study.

Challenges faced by STEM Women Entrepreneurs

1. **Education:** Education is the most important "human capital" thing that develops skills and abilities to achieve the goals for successful carrier.
2. **Self – Efficacy:** "Self-efficacy is formed by one's collection of skills, experiences, and assets and is the belief in one's ability to perform and to achieve goals (Bandura 1997; Kasouf, Morrish, and Miles 2013)." "Individuals with high self-efficacy pursue more challenging careers and display higher staying power in those pursuits (Markman, Balkin, and Baron 2002)." Women are said to have low self efficacy and low self confidence within them as compared to the men counterparts which in turn is the biggest challenge, they have to face for themselves. Unless and until they have urge to do something for themselves with their self efficacy and confidence, they are unable to cope up with any situation that comes in their way. The greater the self efficacy, the more will be the positive relationship between the women and her successful carrier.
3. **Access to financial capital:** According to Coleman and Robb. "The dual challenges of experience and networks, both of which we have discussed, 'spill over' into the area of financial capital, exacerbating the challenges women entrepreneurs face in that area."
4. **Lack of Knowledge:** There is lack of proper knowledge about intellectual property rights or patents/copyrights.

5. **Gender gap:** "Entrepreneurship in STEM areas requires high amounts of investment, and male entrepreneurs are known to raise higher levels of funding than their female counterparts (e.g., Alsos et al. 2006)."

6. **Network:** The important aspect to run a business is to have the ability to have network or to have ability to socialize with people. But there are only few women who come out from their comfort zone and mingle up with people and so unable to make a positive relationship with their customers.

Solutions to cope with the challenges

1. Being able to overcome low self efficacy and low level of confidence is a necessary trait for women entrepreneurs. Having a good support system from family and friends who know your goals will help. As they can furnish with the right direction and can boost up the morale.

2. There are many ways to get access to financial capital, from traditional bank loans to family and friends to kick start with the new venture. Also, be sure to consult an attorney who can give the right advices.

Implications of women entrepreneurs contribution to STEM entrepreneurship

1. Education plays a significant role in entrepreneurship as it provides numerous ways to enhance our skills necessary for opportunity, and the ability to establish a business.

2 Currently, the Government of India has introduced some schemes to help the women to find the necessary environment to start new venture. Some of them are as follows: Khadi and Village Industries Commission, Training of Rural Youth for Self Employment, Entrepreneurial Development Program, Management Development Program, Women's Development Corporations, Marketing of Non-Farm Products for Rural Women, Assistance to Rural Women for Non – Farm Development, Stand Up India.

Conclusion

An entrepreneur often in a pot there they have to regulate and take up responsibility is both for their personal (family) roles or so-called traditional responsibilities and their professional or inspirational responsibilities. There is no doubt that STEM fields are so important all over the world for growth and innovation. Nevertheless, women are still belittled and glass ceiling and sticky floor still exists for them. To pull out gender gap and to encourage gender equality in STEM fields and encouraging women to participate in STEM entrepreneurship is not only about filling the gender gap and having the equality but it is also about attracting the most talented and deserving ones to control the economic growth of the country. Inviting ideas and creativity from different people with different cultural, backgrounds, religions, caste, can create innovation, technological development, growth for individuals or for group of individuals. It helps in making a well-rounded environment. When mixed with entrepreneurial skills, dealing in with STEM fields can turn into high growth potential for a firm that offers a solution to surpass the challenges and creating job opportunities for women.

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Ministry of Information and Broadcasting
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Budget Series #3

Impetus to Education Sector in Union Budget 2022-2023

Slew of measures to benefit students; boost employment opportunities

Allocation for Education Sector up 12 per cent

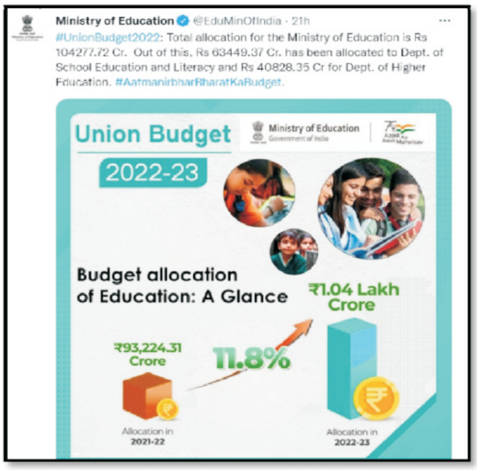
Total Expenditure on Education nearly doubles in last 7 years to Rs. 6.97 lakh crore

February 08, 2022

"For the progress of any country, education should not only be inclusive but should also be equitable."

-Prime Minister Narendra Modi[1]

The Union Budget 2022-23 has given a major push to the education sector with a total allocation of **Rs 1,04,278 crore, which is an increase of nearly 12 per cent over the previous year.**



[1]https://pib.gov.in/PressReleasePage.aspx?PRID=1752750

The key proposals in the Budget are as follows:[2]

Digital University

- **Digital University** to be set-up toprovide access to studentsacross the country for world-class quality universal education withpersonalised learning experience at their doorsteps
- To be madeavailable in different Indian languages and**Information and Communications Technology(ICT)** formats
- Tobe built on a networked hub-spoke model, with the hub building cuttingedge **ICT expertise**
- The best public universities and institutions in thecountry to collaborate as a network of hub-spokes

AVGC Promotion Task Force

- **AVGC promotion task force** to be setup to help realise the potential of the **Animation, Visual effects, Gaming and Comic (AVGC) sector** to employ youth
- Task force to help build domestic capacity for serving our markets as well as meet global demand
- To help in experimental learning for the students and professionals

National Skill Qualification Framework

- Skilling sectorpoised for major transformation.
- Budget 2022-23 to give fillip to this process by improving employability of the students
- Skill sector to be reoriented to promote continuous skilling avenues, sustainability and employability
- **National Skill Qualification Framework (NSQF)** to be aligned with dynamic industry needs

Virtual Labs & Skilling e-Labs

- **750 virtual labs** in Science and Mathematics to beestablished for promotion of crucial critical thinking skills and creativity
- **75 skilling e-labs** for simulated learning environment to be set-up in2022-23
- High-quality e-content in all spoken languages to be developed for delivery via internet, mobile phones, TV and radio through **DigitalTeachers**
- A competitive mechanism for development of quality e-content to be established to equip digital teachers with tools of teaching and facilitate better learningoutcomes

[2] https://www.indiabudget.gov.in/doc/budget_speech.pdf

PM eVIDYA

- **PM eVIDYA** unifies all efforts related to digital/online/on-air education to enable multi-mode access to education
- To impart supplementary teaching and to build a resilient mechanism for education delivery, **'One Class-One TV Channel' Programme to be expanded 12 to 200 Television Channels**
- This step will enable all states to provide supplementary education in regional languages for classes 1-12 and help to compensate the loss of two years of formal education due to the pandemic
- It will particularly benefit children in the rural areas and those from Scheduled Castes &Scheduled Tribes and other weaker sections.

Digital Ecosystem for Skilling and Livelihood (DESH-Stack)

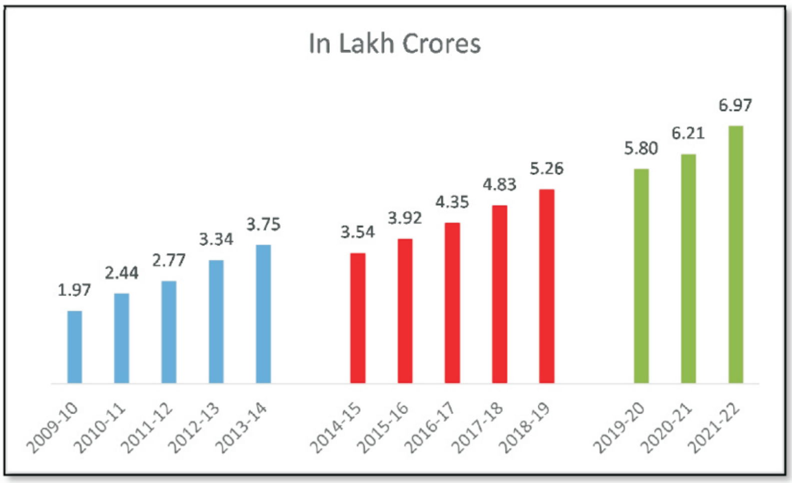
- **DESH-Stack e-portal**will be launched, which aims to empower citizens to skill, reskill or upskill through on-line training
- The portal will also provide API-based trusted skill credentials, payment and discovery layers to find relevant jobs and entrepreneurial opportunities[i]

GIFT City

- To facilitate availability of high-end human resources for financial services and technology, **world-class foreign universities and institutions to be allowed in theGIFT City**
- These Universities will offer courses in **Financial Management**, **FinTech, Science, Technology, Engineering and Mathematics**free from domestic regulations, except those by IFSCA

Expenditure in Education Sector sees Significant Rise: Nearly doubles in last 7 years

In the last seven years, the total expenditure by the Central & State governments on the education sector has almost doubled, from **Rs. 3.75 lakh crore in 2013-14to Rs. 6.97 lakh crorein 2021-22.**



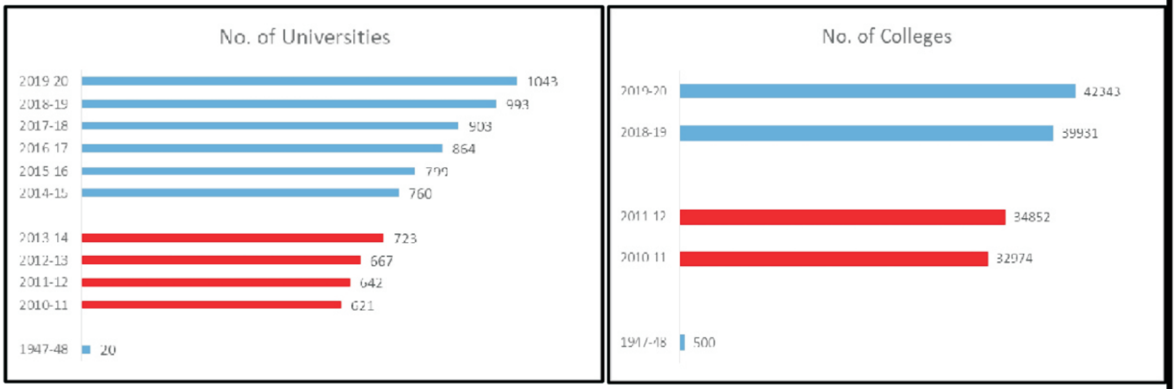
(Figure 1: Combined expenditure on Education by Central and state Governments)[3]

Key Takeaways from Economic Survey 2021-22

Establishment of Universities and Colleges:Nearly 320 Universities added over last six years

Establishment of new institutions for higher education has been a major focus area of the Centralgovernment.The steady increase in the number of universities, and the discernible rise in the number of colleges between 2014-15 and 2019-20 is a testimony to the Government's priority.

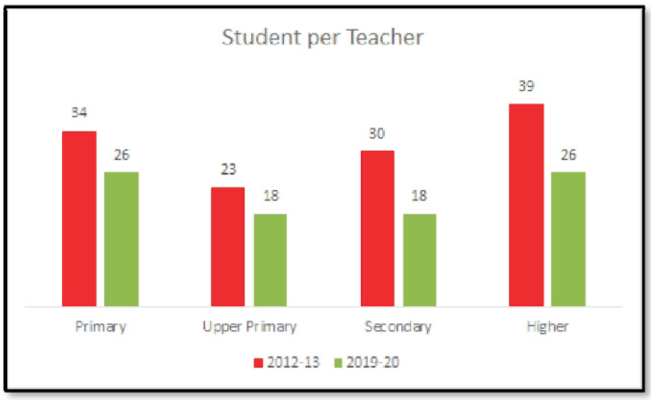
[3] https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap10.pdf



(Figure 2: No. of Universities & Colleges in India)[4],[5]

Marked Improvement in Student-Teacher Ratio in last 7 years:

One of the major achievements in the last seven years has been a **substantial reduction** in number of students per teacher and that indicates **better attention and improved satisfaction** among students.In the primary classes while there used to be one teacher for 34 students in the year 2012-13, by 2019-20 the figure improved to one teacher per 26 students. Similarly, the ratio improved from 1:23 to 1:18 for Upper Primary; from 1:30 to 1:18 for Secondary and 1:39 to 1:26 for higher classes.



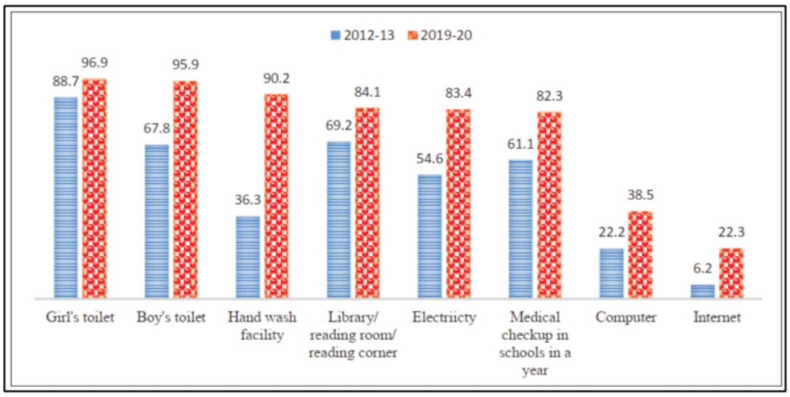
(Figure 3:No. of Students per Teacher)[6]

[4] https://www.education.gov.in/sites/upload_files/mhrd/files/statistics/AISHE2015-16.pdf
[5] https://aishe.gov.in/aishe/viewDocument.action?documentId=277
[6] https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap10.pdf

Basic Amenities – Across the board improvement in last 7 years

With a vision to improve overall experience of education, the Central Government has been committed to increasing the number of facilitiesavailable in educational institutions. The total number of government schools having basic facilities has also increased. The proportion of Government schools with girls' toilet has gone up from 88.7% in 2012-13 to 96.9 % in 2019-20, while the proportion of schools with boys' toilet has increased from 67.8% to 95.9% in the same period. There is a significant rise of 54% in the number of Government schools with handwashing facilities. Share of schools with supply of electricity and with the provision for medical checkups has also seen a substantial rise, as evident from Figure 4.

Priority to drinking water and sanitation in schools under **JalJeevan Mission andSwachh Bharat Mission** as well as under SamagraShiksha Scheme have been instrumental in providing required resources and creating these assets in schools. As on **19.01.2022**, under JalJeevan Mission 8,39,443 schools were provided tap water supply. Under the Information & Communication Technology (ICT) component of the SamagraShiksha Scheme, Government supports the establishment of smart classrooms, and ICT labs in schools, including support **for hardware, educational software and e-content for teaching.**38.5% of Government schools were equipped with computers and 22.3% with internet connections in 2019-20, up from 22.2% and 6.2% respectively in the year 2012-13.



(Figure 4: Percentage of Government school with various basic facilities)[7]

[7] https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap10.pdf

Comprehensive Investment in Medical Education

The Government of India has given a nod to as many as **157 new medical colleges in India since 2014 and has invested a total of Rs. 17,691.08 crore on these projects.**

On completion, nearly 16000 undergraduate medical seats would be added. Of these, 6500 seats have already been created with the functioning of 64 new Medical Colleges.

Under the Centrally Sponsored Schemes (CSS), the Central Government has also provided about Rs. 2,451.1 crore for upgradation of existing state government or central government medical colleges to increase MBBS seats in the country.

Government of India has relentlessly pursued the aim of cultivating more human resources through Centrally Sponsored Schemes (CSS) that seek to address not only the issues of equity in medical education and but also geographic disparity in availability of medical care.

Under the **Centrally Sponsored Scheme for Establishment of new Medical Colleges attached with existing district/referral hospitals**, medical colleges are established in Districts which do not have either a Government or private medical college. Preference is given to underserved / backward / Aspirational Districts.

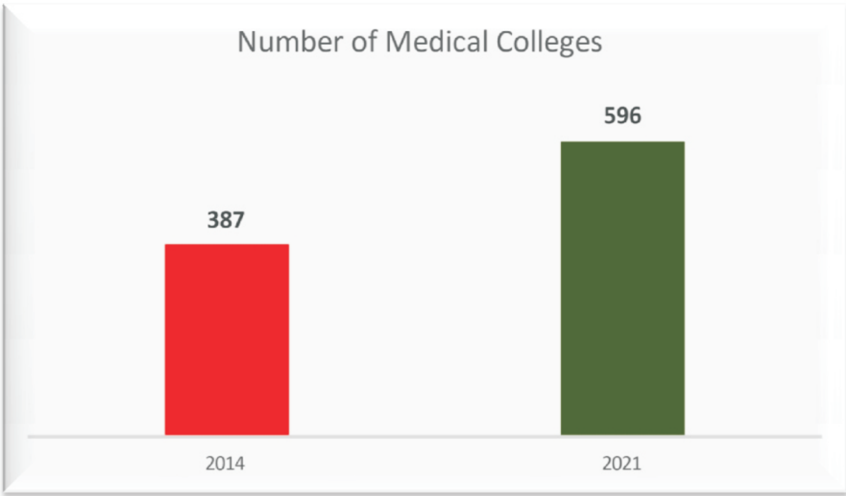
Under three phases of the scheme, 157 new medical colleges have been approved, out of which 63 medical colleges are already functional. Of the 157 new colleges that are being established under the Centrally Sponsored Scheme, 39 are being set up in Aspirational Districts.

Phase	Launched	No. of Medical Colleges planned	No. of Functional Medical Colleges	States/UTs covered	Outlay per college	Total Outlay	Central Share	Central Share released
I	January 2014	58	48	20	189 Cr	10,962 Cr	7541.1 Cr	7541.1 Cr
II	February 2018	24	8	8	250 Cr	6000 Cr	3675 Cr	3675 Cr
III	August 2019	75	8	18	325 Cr	24,37.41 Cr	15,499.74 Cr	6719.11 Cr

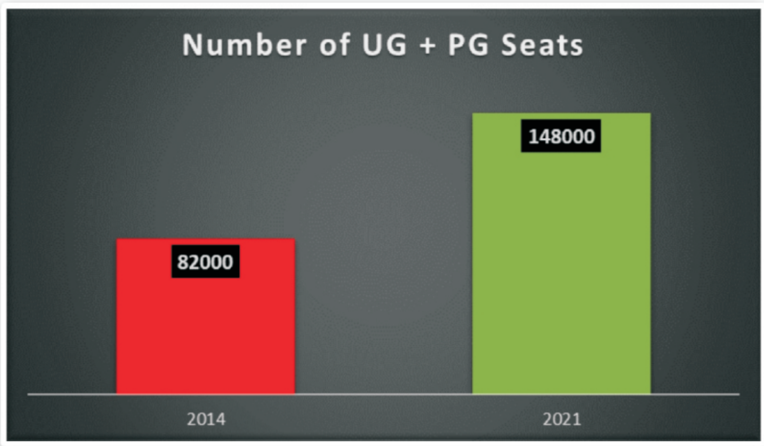
(Figure 5: Percentage of Government school with various basic facilities)[8]

[8]Ibid

In 2014, the country had 387 medical colleges. **In the last seven years, this number has gone up to 596. This is an increase of 54%**[9]

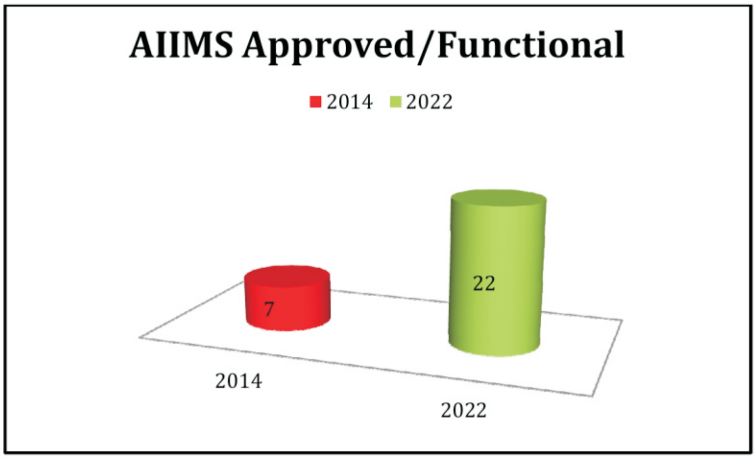


In 2014, India had around 82 thousand medical Undergraduate and Postgraduate seats**. In the last seven years, this number has gone up to around 1 lakh 48 thousand seats.** This is an **increase of about 80%.**[10]



[9] https://pib.gov.in/PressReleasePage.aspx?PRID=1789398
[10] https://pib.gov.in/PressReleasePage.aspx?PRID=1789398

The **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)**, a Central Sector Scheme that seeks to address imbalances in availability of tertiary care hospitals and improve medical education in the country, received a fresh impetus to fulfil Prime Minister Narendra Modi's vision of **quality medical education in the underserved States**. Many **new All India Institutes of Medical Sciences are being set up** under the Pradhan Mantri Swasthya Suraksha Yojana. So far, **setting up of 22 new AIIMS** has been approved under the scheme.[11] This includes 10 AIIMS sanctioned during 2017-18 or thereafter. **Six of the approved AIIMS** i.e. Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh are **fully functional**. Remaining 16 new AIIMS are in various stages of construction.[12]



New AIIMS under construction under PMSSY[13]

S. No.	State/UT	Location of AIIMS to be set up under PMSSY	Approved cost (Rs. crore)	Date of Cabinet Approval
1.	Andhra Pradesh	Mangalagiri	1618	7.10.2015
2.	Assam	Guwahati	1123	24.05.2017
3.	Bihar	Darbhanga	1264	15.09.2020

[11] https://pib.gov.in/PressReleasePage.aspx?PRID=1719809
[12] https://pib.gov.in/Pressreleaseshare.aspx?PRID=1694435
[13] https://pib.gov.in/Pressreleaseshare.aspx?PRID=1694435

4.	Gujarat	Rajkot	1195	10.01.2019
5.	Haryana	Rewari	1299	28.02.2019
6.	Himachal Pradesh	Bilaspur	1471.04	03.01.2018
7.	Jammu & Kashmir	Samba, Jammu	1661	10.01.2019
8.		Awantipora, Kashmir	1828	10.01.2019
9.	Jharkhand	Deoghar	1103	16.05.2018
10.	Maharashtra	Nagpur	1577	7.10.2015
11.	Punjab	Bathinda	925	27.07.2016
12.	Tamil Nadu	Madurai	1264	17.12.2018
13.	Telangana	Bibinagar	1028	17.12.2018
14.	Uttar Pradesh	Rae Bareli	823	5.2.2009 (Revised Cost Estimate approved on 10.7.2017)
15.		Gorakhpur	1011	20.07.2016
16.	West Bengal	Kalyani	1754	7.10.2015

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- https://www.education.gov.in/sites/upload_files/mhrd/files/statistics/AISHE2015-16.pdf
- https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap10.pdf

Further Reading:

- Finance Minister's Union Budget Speech 2022:
  https://www.indiabudget.gov.in/doc/budget_speech.pdf

AG/RC/SA

Effects of Different Leadership Styles on Employee's Performance in Organisation

Dr. Mahesh Joshi, Ms. Pranjali Jain

Abstract

This study looked at the impact of leadership style on employee performance in an organisation. Because there was no specific case study used, no specific sample technique was used, and no questionnaires have been used. This study draws on a variety of previous studies done by other researchers, allowing us to compile relevant data on leadership styles and employee performance. During the course of this study, five key leadership styles were discussed: authoritarian, democratic, laissez-faire, transactional, and transformational. We looked at how subordinates perform under each of the aforementioned leadership styles, as well as whether or not they are motivated to work. It was also discovered that management styles had an impact on employees' performance. Although some researchers have concluded that transactional leadership alone may not be the best in all situations, a blend of both transactional and transformational leadership styles would yield better results, this study found that democratic leadership was the best form of leadership style.

Keywords: leadership style, employee performance, transformational leadership, etc.

Introduction

Leadership styles are categories that describe how a person acts when leading a group. When the occasion calls for it, a smart leader knows how to shift from one style to another. Anyone with the necessary talents can be a leader, regardless of their position in a company or organisation. A leader provides a sense of purpose to one's actions that goes beyond the earnings or the data at the end of the year. Successful leaders, on the other hand, share one quality. They exert pressure over others around them in order to get the most out of the organisation's resources, particularly its most important and valuable ones. Political movements and social transformation can be sparked by great leaders. They can also inspire others to create, invent, and perform. Various authors have proposed identifying many different leadership styles as exhibited by leaders in the political, business or other fields. Knowing your leadership style may also remove the need for getting feedback.

Objective of the study

The aim of this paper is to investigate how different leadership styles affect staff productivity. This report would examine the various styles and make recommendations for additional research.

Leadership styles

The characteristic behaviours of a leader when directing, motivating, guiding, and managing groups of people are referred to as leadership styles. Political movements and social change can be initiated by great leaders. They can also inspire others to create, invent, and perform. Leadership styles are natural patterns that evolve with time and with effort. It is more than just a position of power. Leadership style also influences how strategies and plans are implemented, taking into account stakeholders' expectations and the team's well-being. Each leadership style has its own set of limitations, allowing you to spot areas where you can improve ahead of time. This is crucial because some employees, even in an anonymous poll, are hesitant to speak up.

Kurt Lewin, a psychologist, and a group of researchers identified three main leadership styles in 1939: autocratic, democratic, and laissez-faire. They tested these three leadership styles on a group of school children tasked with completing a craft project in order to see how they reacted to them. Aside from that, there are two other leadership types to consider: transformational and transactional leadership.

Autocratic leadership style

Autocratic leadership, often known as authoritarian leadership, is defined by individual authority over all decisions and little involvement from members of the group. Autocratic leaders usually make decisions primarily on their own opinions and judgments, and they rarely listen to suggestions from their followers. The task would be performed under careful supervision by the group led by an authoritarian. Researchers discovered that while children were less creative under authoritarian leadership, they were still productive.

Some experts suggest that because this leadership style resembles that of a dictator, it can be harmful rather than beneficial in the long run. It results in low employee morale, which in many situations can lead to attrition. In cases where a company is constantly changing or facing a crisis, autocratic leadership will be beneficial. Because of its streamlined management structure and capacity to make quick decisions, it will be able to react to situations more quickly than other leadership styles.

Democratic leadership style

Democratic leadership or participative leadership is a type of leadership in which group members play a more active role in decision-making. This learning approach has been determined to be one of the most effective, leading to increased productivity, better contributions from group members, and increased group morale, according to researchers. Employees meet to discuss and resolve issues by allowing everyone to participate in decision-making. While this approach emphasises group equality and free exchange of ideas, the democratic leader remains in place to provide direction and control.

Democratic leadership suits leaders who emphasise adaptability and flexibility. When a leader is working with highly trained or experienced personnel, democracy leadership is frequently most successful. It helps the leader to capitalise on the individual talents and strengths of the employees while also benefiting from the combined power. It's best used when a department or business is aiming to make operational improvements, or when a leader or management is trying to solve a problem, either individually or in a group.

Laissez-Faire leadership style

Laissez-faire leadership, also known as delegative leadership, is a leadership style in which the leader stays out of the way and lets the group make decisions. According to studies, this is the type of leadership that results in the lowest productivity levels among group members. The leadership style can have both positive and negative aspects. There are some circumstances and places where laissez-faire leadership is the best option.

Autocratic leadership is the total opposite of laissez-faire leadership style. In other words, as long as an employee's activities do not have a negative impact on the organisation, they are free to use their own abilities and ideas to finish the assignment as they see fit. These work situations are great for those who are not just resourceful and forward-thinking, but also clever, dependable, and confident in their abilities. For industries that value innovation and originality, this leadership style can be quite beneficial.

Businesses that benefit from laissez-faire leadership include:

1. Advertising firms
2. social media start-ups
3. Departments of research and development
4. Firms that create products
5. Companies that participate in venture capital

Transactional leadership style

Someone who values order and structure are referred to as a transactional leader. In positions of responsibility in an organisation, they have formal authority. Transactional leadership is a leadership style in which leaders use both rewards and penalties to encourage followers to comply. This type of leadership style works well in an organised workplace with well-defined processes and roles that have particular tasks to complete. With self-motivated personnel, this results-oriented strategy works well. Middle and senior management in a medium or big organisation generally utilise transactional leadership. In the majority of cases, the company is well-established and is not looking for change.

Max Weber, a German sociologist in the 20th century, studied leadership styles extensively and classified them into three categories: traditional, charismatic, and rational -legal or bureaucratic. One of the most well-known authors to promote Weber's theories was political scientist James McGregor Burns. Both transactional and transformational leaders, according to Burns' 1978 book Leadership, must be moral and have a greater purpose. After World War II —, the transactional leadership style became popular in the United States. The government was focused on rebuilding at the time, and maintaining national stability required a high level of structure.

Transformational leadership style

Transformational leadership is a leadership style that can motivate others to make beneficial changes. Transformational leaders are usually energetic, enthusiastic, and passionate. These leaders are not only concerned and involved in the process, but they are also focused on ensuring that each member of the group succeeds. James Macgregor Burns, a leadership specialist and presidential biographer, was the first to establish the concept of transformational leadership. Transformational leadership, according to Burns, occurs when leaders and followers push one other to higher levels of motivation and job satisfaction.

When a leader's behaviour motivates and inspires people to perform above their perceived capabilities, this is considered to be transformational leadership. Individuals are influenced by transformational leadership to accomplish unexpected or extraordinary achievements. It offers workers control over specialised jobs and the capacity to make decisions after they've been trained. This results in a positive shift in the mindsets of the followers and the organisation as a whole. Four unique behaviours, commonly known as the four I's, are typically displayed by transformational leaders. Inspirational motivation, idealised influence, intellectual stimulation, and individualised consideration are examples of these behaviours.

Table 1

Leadership styles showing different traits, effectiveness, pros and cons

Leadership style	Characteristics	Effectiveness	Pros	Cons
Autocratic	limited input from stakeholders Highly structured environment Clearly defined rules and processes	Rarely effective	Highly structured environment Good for quick decision making Can help in conflict situations	Restricts creativity and innovation Can lead to low morale within the team Not suitable for firms having a collaborative culture
Democratic	Encouraging members to share their ideas Fostering confidence Rewarding creativity	Most effective	Increased staff productivity Increased job satisfaction Support diverse ideas	Shows a lack of expertise Not effective in crisis Every opinion does not get values
Laissez-faire	Hands-off approach Decisions are left to employees Accountability falls to the leader	Sometimes effective	Faster decision making Employees get ample room for personal growth No micromanagement	Confusion in the team due to unclear goals Can make leaders less accountable Must have competent team members
Transactional	Focused on short-term goals Tend	Sometimes effective	Favourable in crisis management	Motivation only through rewards

	to be inflexible Opposed to change		Clear structure Sense of fairness	Lacks long-term goals No scope for further development
Transfor-mational	Trust in team members Ability to inspire participation Openness to new thinking	Sometimes effective	Encourages creativity Breaks monotony Gives freedom to team members	Regular feedback is essential Not always detail oriented Can result in employee burnout

Conclusion

This study demonstrates the relationship between employee performance and leadership styles, different studies have been conducted to examine the relationship between employee performance and the leadership style in place in different settings. The different leadership styles discussed above proves that knowing your leadership style can put you on the path to become a more effective leader. Whether you lead a large or small team, your leadership style has a significant impact on how your direct reports perceive you and how well your team collaborates to achieve your company's objectives. Those who can switch between leadership styles are the most successful. Knowing when and how to use different approaches has always been a key component of effective leadership. Self-awareness is the most crucial leadership talent you can develop; understand what works and what doesn't. We'll be able to move between five most common corporate leadership styles as needed, and set ourselves and our team up for success, if we understand them.

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Online Pharmacy in India- A SWOT Analysis

Dr. Stafard Anthony, Mr. Hrithilk Dulani

Abstract

This descriptive study attempts to explore the market share and consistency of online pharmacy model in India. A SWOT analysis helps in determination of various factors affecting the acceptance of online pharmacy model. Across the globe also online pharmacy is increasing due internet penetration, consumer convenience and price benefits. Paper concludes that online pharmacy will bridge the gap of providing easy and faster access of medicine to the consumers over the click of a finger.

Keywords: Online Pharmacy, SWOT Analysis, Pharma Consumers, etc.

Introduction

Online pharmacy is an internet platform which provides drugs in both lawful and unlawful manner. Pharmacy is an art and science which is related to preparation of standardized dosage of drugs for a specific usage while the term pharmacology refers to a stream of knowledge of drugs with special emphasis on their usage for treatment of diseases . The preparation of dosage can be done in the form of capsules, tablets, solutions and powders. India's Digital market is booming and being catalysed by lower pricing and easy availability of smartphones, 4-G internet connectivity and speeding application ecosystem. The number of Indian internet subscribers and number of downloads stood at about 560 million (56 crores) and 12.3 billion in a year in 2018 which is second to none but China. The total time invested by Indians on social media is 17 hours in 7 days which is greater than the average time of the social media users in both China and the United States. India is experiencing a high rate of internet growth coupled with an increased adoption of digital platforms. Online pharmacy includes E-health sites, websites of pharmacy shops and various internet links which show a hybrid dashboard of different pharmacy. Currently there is a boom of e-commerce, online shopping in all sectors and their product lines in India. Online pharmacy includes sale of prescription and non-prescriptions drugs. The concept of online pharmacy has been in the world prevailing since last two decades only. 3000 online pharmacies are estimated to exist at present globally. The Indian consumers are also inclined & diverted towards online pharmacy and the craze is increasing day by day.

SWOT analysis of Online Pharmacy:

Strength

The concept of online pharmacy is expanding rapidly across the globe. The reasons catalyzing this advancement is rapid expansion of internet technology, increase usage of mHealth solutions, transition of from doctor's clinic to self-health management, consumer ease of payment on internet and online merchandising. Online pharmacy allows the users purchase the medicine just on the touch of the fingertip, the complete process is very convenient and user friendly. Online pharmacy provides a generalized platform for patients at all circumstances to access the medicine purchase may it be elderly person, specially challenged or residing in a remote location, practically in all scenarios the user can access the information about drugs and medicines with associated services over online pharmacy applications or websites. Online pharmacy are more likely addressing the users who have chronic diseases like cardiac arrest and diabetes because the purchase can be planned and regularized but for the acute diseases the users res till preferring physical pharma stores. Along with sale of drugs and medicines online pharmacy provides options for consultation, online diagnosis and digital storage of health records. Physical store pharmacies have higher costs; due to many intermediaries involved in the sale of pharmaceutical drugs before customers buy them while online pharmacies have been offering more effective alternatives to their prescription drugs for online customers. Online pharmacy will cater for manufacturing and supply in bulk by selling on the online; thus, reducing the cost of medicines. Physical pharmacies require much inefficiency, such as small-scale storage of medicines; unlike internet pharmacies that produce in bulk and store in warehouses.

Weakness

According to a 2015 study by The Associated Chambers of Commerce of India (Assocham), as much as a fourth of domestic drugs sold could be spurious or substandard. Sales of fake drugs are especially high in the National Capital Region (NCR), according to the Assocham study. Apart from the problem of fake drugs, several offline pharmacies do not consistently follow storage rules related to temperature, humidity and handling of medicines. Many do not have trained pharmacists dispensing medicines. The absence of human touch also plays a vital role for Indians users of online pharmacy. While purchasing medicine from physical store the input from the salesperson and a brief discussion over the medicine ensures the authenticity and creates a relax state of mind that whether the medicine is right or condition of the disease. The rise in online pharmacy has also been reflected in the rise in illegal sales, and the situation has reached a critical point. As per Legit Script, only 3% of online pharmacy websites in China comply with local laws and regulations. This means that 97% of online pharmacy in China operate somewhat illegally and most likely with hazardous practices. Websites are not managed by professionals; they sell false and “not to be sold” drug without any proper prescriptions.

Opportunity

According to IQVIA, India's pharmaceutical market is expected to swell from $20 billion now to $35 billion by 2025 if current growth trends continue. And the online business is expected to grow sevenfold to $3.7 billion by 2022 according to Frost & Sullivan forecast. According to Red-Seer Consulting, India's eHealth market, led by the online pharmacy group, is estimated at $16 billion over the next five years, from its current market size of $1.2 billion. Consumer are considering online pharmacy as a single window for accessing all their medical requirements form drug purchase to lab test and medical consulting. The count of eHealth usage is estimated to boom from 4.3 million to 60 million by 2025, where online pharmacy will act as trigger for users to explore and interact with eHealth benefits. In addition, a higher prevalence of lifestyle diseases such as diabetes and cardiovascular disorders, together with increased cancer, will boost the use of healthcare and online pharmacy.

Threats

In an order dated 28 November, India General Drug Controller (DCGI) V.G. Somani directed all states and territories of the Union to ban the sale of medicinal products via unlicensed online platforms until draft rules for regulating e-pharmacies are finalized and confirmed. A report of CLSA states that the distribution of drugs in India is not organized, with more than 80,000 distributors and around 8.5 lakh brick-and-mortar outlets, which is create a strong group competition against online pharmacy sellers. Coverage of all pin codes is also essential for online pharmacy players as it enable them to provide uniform service delivery to user at all geographical location and also allows them to do the delivery in a timely manner. There are many cases already encountered in India which states the receiver of medicines by users exceeding the expiry date. The online pharmacy vendor has to create a model where the probability of delivering medicines in shell life must be 100%. The user of online pharmacy belongs to group which are very much active in social media and blockings and any such instance which shows that out of expiry date medicine are delivered through online pharmacy can create a big negative buzz over the various social media platforms.

Exhibit 1: SWOT analysis Chart

Strength	**Weakness**
• Increasing Internet technology • Increase use of m-health solution • Ease of payment condition • Reduced Mobile data tariff	• Problem of Fake drugs • Non trained pharmacist • Sale of Drugs without prescription • Improper storage of drugs
Opportunity	**Threat**
• High rise in pharmaceutical market from \$20 billion dollar to \$35 billion dollar • Multiple offering with drug sale like Lab consultation, gadget sale • Increase in lifestyle disease like diabetes and cardiovascular disorders	• Competition to online pharmacy from physical retail store • Partial coverage of all pin codes • No expiry date check • Unstructured grievance handling system

Source: Prepared by author

Conclusion

Online pharmacy contributes the country economic development with enhanced growth of pharmaceutical sector and also provide tangible benefits to the consumers. The unprecedented growth of online pharmacy is result of digital revolution. By managing the technological intervention in a proper way and under proper regulatory control the online pharmacy has a great scope of for the pharmaceutical retail industry. In addition, Internet-transactions are well associated to resolve key known issues in pharmacy retail for legitimacy tracking, medicine traceability, and prevention of abuse, addressing non-use, tax loss, and consumer empowerment value-services in healthcare, all of which are key national development zones. In addition, this would also make it possible for doctors to adopt online pharmacy in a major way, which would, in effect, address the significant problem of inaccuracies due to misreading of physician handwriting as well as documenting of data for public health planning. Online Pharmacy benefits the consumers with high degree of convenience and reasonable price. The growth of online pharmacy in India depends upon (1) continuing growth of digital revolution (2) consumer interest must be served i.e. safety, authencity and faster access (3) proper unbiased protocols (4) Positive operational model with transparency and ethics. Under the Digital India initiative, the Internet and broadband services are being expanded to every remote corner of the country. This could act as a strong pillar to significantly improve awareness and access of Online Pharmacy.

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