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on
Business Trends Ensuring Growth, Sustainability, Innovation, Happiness and Well-being in the Next Normal

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Chief Editor: Dr. Prajakta Dhuru
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INNOVATIONS IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT IN INDIA

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Abstract
Logistics is traditionally driven by operational demands. Therefore, innovations are mainly based on direct customer requests. However, logistics service providers (LSPs) have started to realize the importance of proactive innovation to improve competitiveness. As they often lack internal competences and capacities, the open innovation paradigm (e.g. innovation contests) constitutes a promising way to improve their innovativeness.

For any industry, use of Information Technology (IT) and innovation is necessary in order to stay ahead in the competition. The logistics industry is a classic example of the birth and development of a vital new service-based industry. The industry has been transformed from the business concept of transportation to that of serving the entire logistical needs. The challenges of the modern technology-driven competition, globalization of manufacturing, shorter product life cycles, increasingly sophisticated customers needs and greater integration of technologies compelled the logistics industry to develop innovative strategies and processes. The main objective of this paper is to present a brief insight into the various cost saving technologies that were adopted by the Indian logistics industry (road, railways, ports and aviation) for improving the services. The paper gives a brief picture of the logistics industry in India. The aim of this paper is to evaluate the use of innovation contests as an open innovation initiative for LSPs. Opportunities and challenges for LSPs to conduct an innovation contest are analyzed.

Keywords: Innovation, Logistics, Supply chain, and Transportation.

Introduction
The Indian economy has been growing at an average rate of more than 8 per cent over the last four years (Srinivas, 2006) putting enormous demands on its productive infrastructure. Whether it is the physical infrastructure of road, ports, water, power etc. or the digital infrastructure of broadband networks, telecommunication etc. or the service infrastructure of logistics – all are being stretched to perform beyond their capabilities.

Interestingly, this is leading to an emergence of innovative practices to allow business and public service to operate at a higher growth rate in an environment where the support systems are getting augmented concurrently. In this paper, we present the status of the evolving logistics sector in India, innovations therein through interesting business models and the challenges that it faces in years to come.

Chandra and Sastry (2004) have pointed towards two key areas that require attention in managing the logistics chains across the Indian business sectors – cost and reliable value add services. Logistics costs (i.e., inventory holding, transportation, warehousing, packaging, losses and related administration costs) have been estimated at 13-14 per cent of Indian GDP which is higher than the 8 per cent of USA's and lower than the 21 per cent of China's GDP (Sanyal, 2006a). Service reliability of the logistics industry in emerging markets, like India, has been referred to as slow and requiring high engagement time of the customers, thereby, incurring high indirect variable costs (Dobberstein et. al, 2005).

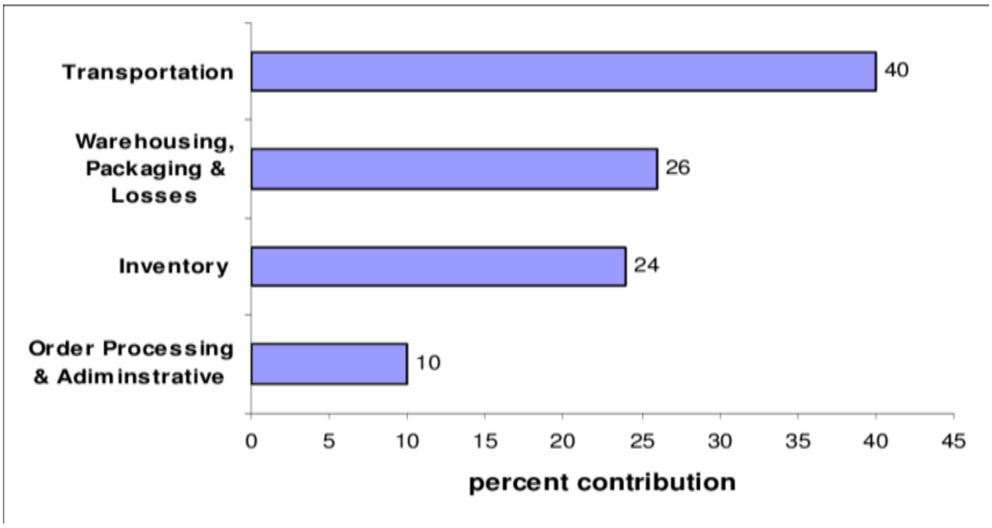
In 2020 alone, the Indian logistics and supply chain sector witnessed total funding of USD 454.2 Million, with early-stage start-up's claiming 45 percent of the funding. With the consistent and fast-paced growth, this investment is but the starting of a long and steady rise of the sector. Advancements in digital technologies, changing consumer preferences due to e Commerce, government reforms, and shift in service sourcing strategies are expected to lead the transformation of the Indian logistics ecosystem. Digitalization will improve the efficiency and performance in freight management and port operations. Warehouse automation will help achieve operational efficiencies to counter supply-chain cost pressures in the industry. Increased investment in infrastructure, last-mile connectivity, and emerging technologies are streamlining the logistics landscape in India. Online freight platforms and aggregators are on the rise in the Indian logistics market, given the need for low entry barriers and less capital investment compared to setting up of an asset-based business model. Manufacturing in India holds the potential to contribute up to 25%-30% of the GDP by 2025 which will drive the growth of the ware housing segment in India. The logistics market in India is forecasted to grow at a CAGR of 10.5% between 2019 and 2025.

Some Peculiarities of the Indian Supply Chains

The Indian logistics sector has typically been driven by the objective of reducing transportation costs that were (and often continue to be) inordinately high due to regional concentration of manufacturing and geographically diversified distribution activities as well as inefficiencies in infrastructure and accompanying technology. Freight movement has slowly been shifting from rail to road with implications on quality of transfer, timeliness of delivery and consequently costs except for commodities which over long distances, predominantly, move through the extensive rail network. More on the infrastructure issues later.

Figure 1 shows the relative value of transportation costs vis-à-vis other elements of the logistics costs in India. The transportation industry is fragmented and largely un organized – a large number of independent players with regional or national permits that carry freight, often with small fleet size of one or two single-axle trucks. This segment carries a large percent of the national load and almost all of the regional load. This fragmented segment comprises owners and employees with inadequate skills, perspectives or abilities to organize or manage their operations effectively. Low cost has been traditionally achieved by employing low level of technology, low wages (due to lower education levels), poor maintenance of equipment, overloading of the truck beyond capacity, and price competition amongst a large number of service providers in the industry. Often, one finds transportation cartels that regulate supply of trucks and transport costs. However, the long run average cost of transport operations across the entire supply chain may not turn out to below.

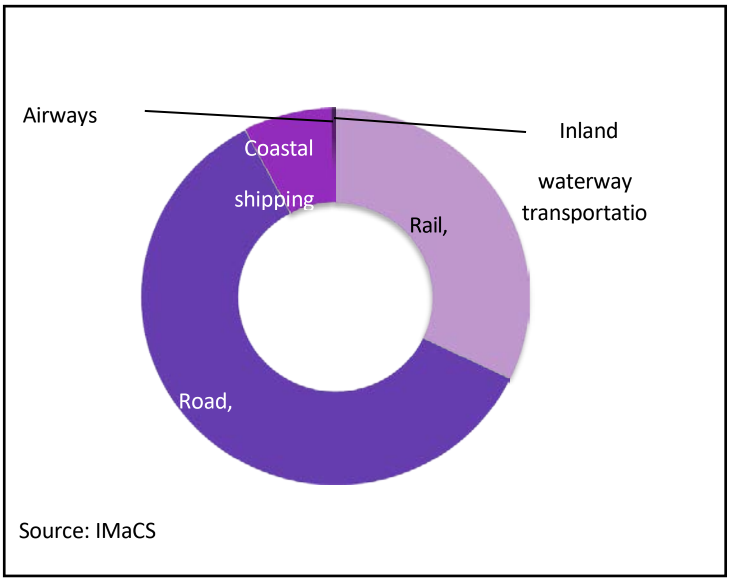
Figure 1: Elements of Logistics Cost in India



Source: logistics cost across different sectors of the Indian industry - Google Search

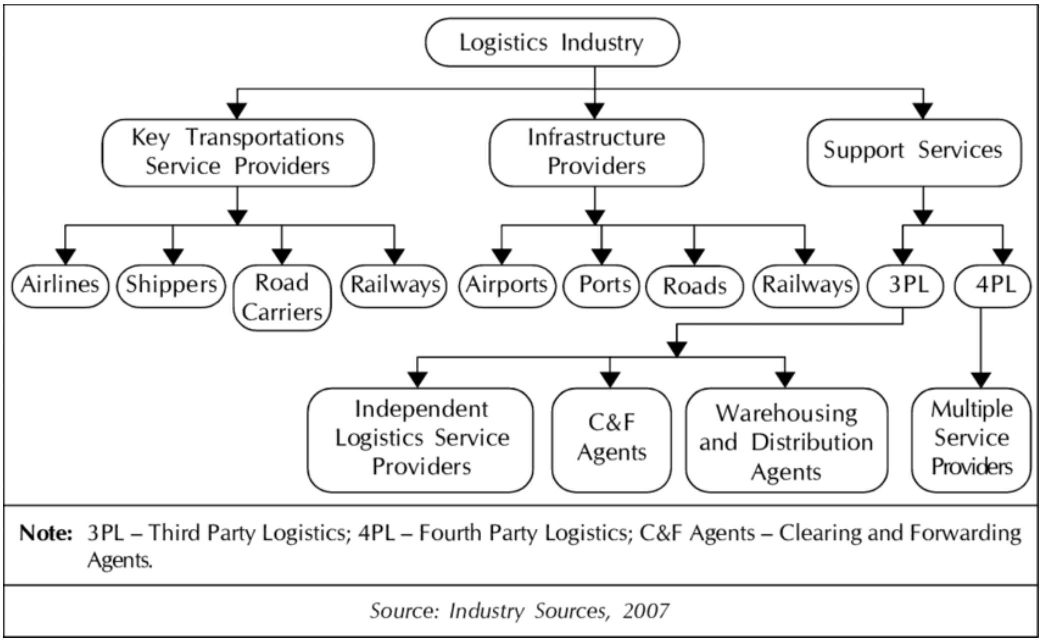
The contribution from the movement of goods including freight transportation and storage is about 90 per cent. Aggregate freight traffic is estimated at about 2-2.3 trillion tonne kilometres. Road dominates the mode of freight transport mix and constitutes about 60 per cent of the total freight traffic. Rail and coastal shipping account for about 32 per cent and 7 per cent, respectively, while the share of inland waterways transportation and air is less than 1 per cent each.

Figure 2: Total Freight Transport Modal Mix



Recently Used Technologies and Innovations Need of Innovation in Logistics

One of the most challenging aspects of understanding innovation in logistics management lies in the accepted wisdom that every product has its own unique value chain. Thus, innovation is primarily a 'pull phenomenon' for service providers in the logistics industry.4 The competition among industries to manage global supply chains cost effectively, created an opportunity for innovations. Innovation in logistics could improve internal efficiency within a logistics organization or could help serve customers better. The purpose of this paper is to understand the need of innovation in the logistics industry, therefore, we begin with a classification of the industry (Figure 3).



Source: indian logistics industry structure - Google Search

Internet of Things

The Internet of Things is a connection of physical devices that monitor and transfer data via the internet and without human intervention. IoT in logistics enhances visibility in every step of the supply chain and improves the efficiency of inventory management. Integrating IoT technology into the logistics and supply chain industries improves and enables efficiency, transparency, real-time visibility of goods, condition monitoring, and fleet management.

Artificial Intelligence

AI algorithms combined with machine learning support companies to be proactive in dealing with demand fluctuations. For example, AI-based forecasting solutions allow managers to plan supply chain processes and find ways to reduce operating costs. Self-driving AI and smart road technologies are affecting a positive shift towards delivery service automation. In addition, AI-based cognitive automation technology brings intelligence to automate administrative tasks and speeds up information-intensive operations.

Robotics

Integrating robotics into logistics increases the speed and accuracy of supply chain processes and reduces human error. Robots offer more uptime and increase productivity when compared to human workers. Robots, however, do not take up the jobs of humans but rather work collaboratively alongside them to increase efficiency. Physical robots, such as collaborative robots ("co-bots") and autonomous mobile robots (AMR), are used to pick and transport goods in warehouses and storage facilities. Moreover, software robots perform repetitive and mundane tasks that free up time for human workers.

Last-Mile Delivery

The last step of the supply chain, from the warehouse or distribution center to the customer, is often inefficient and also comprises a major portion of the total cost to move goods. Last-mile delivery is the most important part of logistics as it is directly related to customer satisfaction. However, last-mile delivery faces various problems including delays due to traffic congestion, customer nuances, government regulation, and delivery density.

Warehouse Automation

Warehouse automation increases efficiency, speed, and productivity by reducing human interventions. Pick and place technologies such as automated guided vehicles (AGVs), robotic picking, automated storage and retrieval (ASRS), and put-wall picking reduce error rates and increases warehouse productivity. Warehouses require a combination of efficient automation technologies in order to control their operational logistics costs.

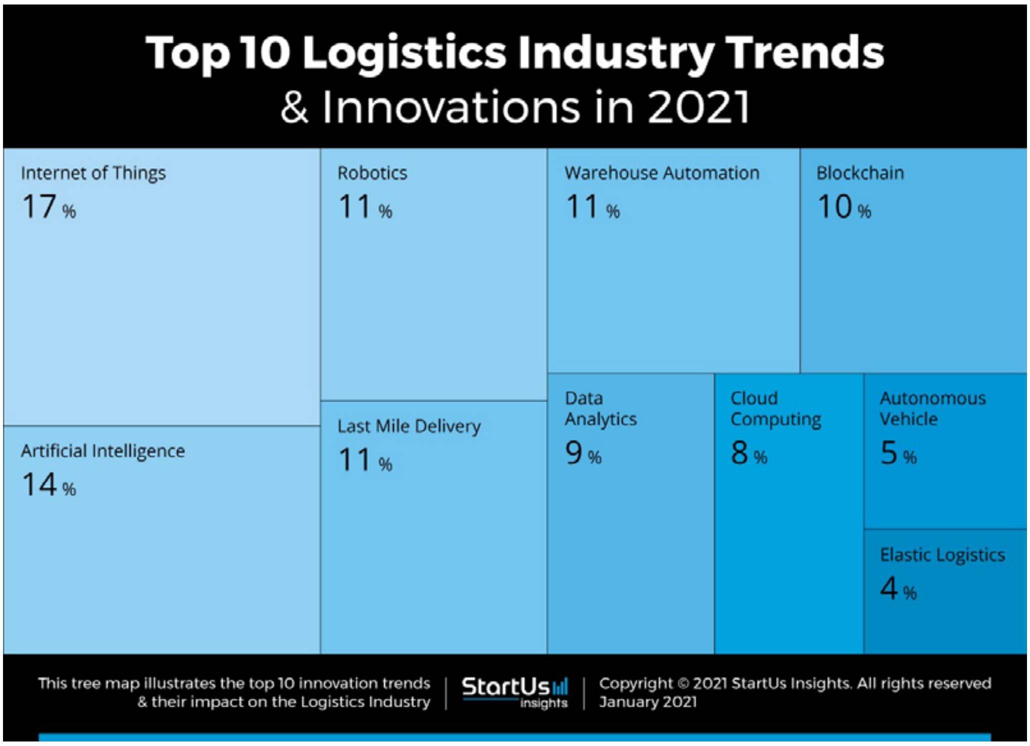
Blockchain

Blockchain offers security through an irrefutable decentralized ledger system and addresses pressing traceability and related challenges. This brings transparency of transactions to the entire logistics process. Moreover, smart contracts based on blockchain technology allow for quicker approval and clearance by reducing the processing time at checkpoints.

Big Data & Data Analytics

Data analytics provide actionable insights for the improvement of warehouse productivity, performance management, and optimal utilization of logistical resources. The data obtained from monitoring position and weather along with fleet schedules help optimize routes and delivery planning. The analysis of market data supports the further optimization of supplier pricing, inventory levels, and generation of risk management reports. Moreover, advanced analytics provide insights that help identify anomalies and offer predictive maintenance solutions.

Figure 4: Top 10 Logistics Industry Trends & Innovations in 2021 (startus-insights.com)



Source; Top 10 Logistics Industry Trends & Innovations in 2021 (startus-insights.com)

Cloud Computing

Cloud-based SaaS solutions for logistics companies allow for pay-per-use models that require low capital investment. This minimizes the risk and cost of maintaining the IT infrastructure. Cloud-based logistics solutions also address communication hurdles and allow companies to collaborate and share data in a secure way. In addition, cloud-integration allows data collection from management systems to analyze overall logistic processes. Finally, cloud-integrated logistics offers universal accessibility and is not confined to any physical space.

Autonomous Vehicles

Autonomous vehicles improve vehicle safety and deliver goods safely by eliminating human errors while driving. They increase the efficiency in the first and last-mile delivery as they are designed to work all day and all night. Moreover, autonomous vehicles improve fuel efficiency by using platooning techniques for long haul routes, reduce traffic jams, and optimize travel routes by taking advantage of AI-enhanced technology.

Elastic Logistics

Elastic logistics enables companies to handle supply chain operations with more efficiency during periods of fluctuation in demand. It helps upscale or downscale the supply chain operations, as required, according to the market demand. Elastic logistics thereby tackle the challenges facing supply chain companies including underutilization of vessels, constraints on warehousing, and overstocking.

Table 1: Recently Used Technologies in Surface, Marine and Aviation Sectors

Road Transport Sector	• Use of geo-synthetics in improving the performance of pavement overlays. • Introduction of Geographical Information Systems (GIS) based National Highways Information System (NHIS) to overcome the traffic and transportation problems. • Road Information System (RIS)5 for Golden Quadrilateral (GQ) project. The RIS comprises of computerized time-series database on the national highways information like traffic analysis, pavement condition, road inventory and asset condition.
Indian Railways	• Freight Operation Information System (FOIS), for controlling and monitoring the multifarious activities in freight operations. • Rake Management System (RMS) for handling commercial transactions. • RMS to track and manage freight wagons, freight-class locomotives and other operations of the freight system • Implementation of Terminal Management System (TMS) to provide information on freight at the freight terminals, status of the train and expected time of arrival and cost of the freight to the customers.
Marine Sector	• With an emphasis on cost reduction and to ensure optimum capacity utilization, there has been an increase in horizontal integration among the shipping liners.[6] • Use of IT like Internet services to improve supply chain process, enhance cooperation between freight carriers and their customers by enabling communication and eliminating the heavy procedures and regulations.[7] • Vessel Traffic Management System (VTMS) to provide effective guidance on navigation of ships, which is already installed at Mumbai, JNPT, Kolkata, New Mangalore and Mormugao ports. • Computerization of container handling operations like managing container traffic, major ports connectivity, etc. • Implementation of Radio Frequency Identification system for identifying the movement of ships wirelessly using radio waves.

Aviation Sector	• Air Traffic Management (ATM) to modernize air traffic control services. Under the ATM, the following services are to be provided such as, Air Route Surveillance Radars, Monopulse Secondary Surveillance Radars, Airport Surveillance Radars, Airport Surface Detection Equipment, Radar Data Processing Systems, Flight Data Processing Systems, Automatic Message Switching Systems, Automatic Self Briefing Systems, 12 VORs DVORs with Remote Monitoring and Maintenance facility collocated with High Power DMEs for uni-directional airways. • Communication, Navigation and Surveillance (CNS) to facilitate and support systems for air navigation. The CNS discharges the services like coordination among all concerned agencies and organizations, preparation of estimates, invitation of tenders, evaluation of technical and commercial bids, placement of orders of equipment and its subsequent installations, etc. • Electronic Data Interchange (EDI) to know latest information and status of export/import cargo via Internet. • Flight Data Processing System (FDPS) to achieve improved automation of air traffic services. • Automatic Dependence System (ADS) for enhancing the surveillance over Indian air space • There are also few other technologies that were proposed to be taken up for the development of the Civil Aviation Sector in the country, such as: – IT-based system to assess vehicular traffic volume for airport public access. – LED-based airport lighting and display technology. – Intelligent digital surveillance. – Integration techniques for information.
	– Information dissemination and online payments through Internet. – Radio frequency-based identification techniques. – Wireless information technologies. – Smart card technology. – Common use IT systems. – Online simulation of terminal congestion. – Electronic perimeter security system and intrusion prevention. – Explosive detection technology. – Satellite-based CNS/ATM systems

6 Horizontal integration has various forms such as operational arrangements on vessel sharing, slot sharing, consortia and strategic alliances. Consortia are agreements between liner shipping companies to operate jointly in services like technical, operational, or commercial coordination. Strategic alliances are emerged to provide combined services on various routes to shipping lines. In addition, these alliances were formed to increase efficiency and ensure better utilization of vessels through numerous arrangements.

7 In many developed countries, port information systems have been transformed into integrated logistics information systems through interconnected efforts with other logistics-related information systems. Some of the examples are INTIS at the Port of Rotterdam, ADEMAR at the Port of Le Havre, DAKOSY at the Port of Hamburg, SEAGH at the Port of Antwerp, and FCP80 at the Port of Felixstowe. Generally, the IT systems facilitate electronic submissions and clearance of shipping information.

Marine and Air Transport Sectors

Over the years it has been observed that around 90% of India’s external trade is moving by sea. With the economy growing at a rate of over 8% and positioning itself as manufacturing outsourcing base, new technologies are needed to be developed in the light of the emerging scenario in the Maritime industry. On similar lines, the air transport sector in India is also growing fastly and adopting new technologies for delivering qualitative services.

Innovations in Road Transport Sector

Over the last few years, India is experiencing the problem of traffic congestion owing to growth in vehicle population, which is growing at a rate of 8-9% per annum. To overcome the problem, the Government of India has come out with an ambitious program, i.e., Jawahar Lal Nehru National Urban Renewal Mission (JNNURM) for improvement of urban transport infrastructure in the country.

Generally, investments in the transport infrastructure, particularly in the highways, were being made by the Central or State governments in India.8 But as an innovative tool, now the Central as well as State governments are attracted towards the private sector owing to the managerial efficiency and consumer responsiveness. In this context, the government has laid down certain comprehensive policy guidelines for private sector participation in the road transport sector. On the policy guidelines front, the government has announced several incentives such as tax exemptions, duty free import of road building equipments and machinery, etc. As a result of the government’s initiative to involve the private sector in the infrastructure projects, the National Highway Development Program (NHDP) Phase III to Phase VII were taken up on the basis of Public Private Partnership (PPP) on Build, Operate and Transfer (BOT) mode or Annuity mode.

Innovations by Indian Railways

- As an experiment, by leasing out catering and parcel services, the Indian Railways (IR) has reduced catering and parcel losses of about Rs. 10 bn in 2005-06. The Railways has also enhanced wagon capacity by attracting private investments in the wagon investment schemes and siding liberalization schemes.

- While retaining the core activity of train operations, the IR awarded licenses to private parties for running container trains, which is likely to attract investment in wagons and construction of terminals in the coming years.

  The IR also plans to explore more PPP schemes with an aim to modernizing metro and mini metro stations with world-class passenger amenities, development of agro retail outlets and supply chains, construction of multimodal logistic parks, warehouses and budget hotels, expansion of network and increase in production capacity.

- The IR also constituted a PPP Cell to develop the policy framework to provide non-discriminatory level playing field to investors, prepare the bankable documents and set up a procedure for awarding partnerships through the open tendering system.

Innovations in the Marine Transport Sector
Radio Frequency Identification (RFID) system is commonly used to describe a system which transmits the identity of an object wirelessly, using radio waves. RFID consists of various components such as tags, tag readers, edge servers, middleware and application software.

RFID is nowadays extensively used in the retail and logistics sectors as a replacement for Universal Product Codes (UPC) or EAN Article Number Code, barcodes, having number of important advantages over the barcode technology. RFID is generally costlier than barcode and may for that reason, not be able to replace the barcode fully, but definitely it is more advantageous than barcode which is having a higher storage capacity. It is expected that almost all of our major ports will sooner or later implement RFID technology in all shipments.

Innovations by Aviation Sector
Electronic Data Interchange (EDI) is a standard format for exchanging business data. It is the inter-organizational exchange of business documentation in structured, machine-processable form over computer communication networks. In India, the EDI implementation agencies are Ministry of Civil Aviation and Airport Authority of India.

- Automation of cargo processing activities and online data capturing was introduced in 1999 at four metro airports, viz., Delhi, Mumbai, Kolkata and Chennai.

- The Airport Authority of India (AAI) is assisting automation of cargo processing activities at three non-metro airports such as, Bangalore, Hyderabad and Thiruvananthapuram.

Benefits from EDI
- Availability of latest information on status of import/export cargo to the trader via Internet.

- Drastic reduction in human power deployment by the agencies at the cargo terminal for processing of their consignments, which will ultimately reduce the transaction cost of import as well as exported cargo.

- Information on the AAI charges that are applicable for a particular consignment at any given time via Internet.

- Availability of information on the regulatory and the facilitating agencies, cargo handling systems and procedures, facilities available, AAI-prescribed charges/rates, dos and don’ts, etc.

Conclusions

Logistics, an extension of physical distribution management, usually pertain to the management of the materials and information stream of business, down through a distribution channel, to the end customers. In the Indian context, the scope and role of logistics have changed dramatically over the years. Logistics used to have a supportive role to primary functions such as marketing and manufacturing. But now the industry expanded to cover warehousing and transportation activities, purchasing, distribution, inventory management, packaging, manufacturing, and even customer service. More importantly, logistics management has evolved from passive, cost-absorbing function to that of strategic factor that provides unique competitive advantage. The global marketplace has compelled every industry to transform itself into a truly customer-oriented, service-focused enterprise, irrespective of the products and services it sells.

References:

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FACTORS AFFECTING DETECTION AND PREVENTION OF FINANCIAL FRAUDS IN BANKS: EVIDENCE FROM AN EMERGING ECONOMY

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ABSTRACT
Banks globally have a dire need for a more systematic and structured fraud risk management framework. In an emerging economy like India, the number of frauds discovered over the years continues to pose challenges towards creating effective fraud mitigating strategies. The study examines factors affecting fraud detection, prevention & response to various types of financial frauds in Indian banks. A total of 7 factors were extracted out of 34 items, with respect to the bank employees' perception on fraud detection, prevention, and response. After further examination of the factors, significant difference was found in the perception of challenges faced in fraud detection, prevention, and response within varied categories. The study can prove to be a foundation for gaining significant insights from banking stakeholders who encounter fraudulent incidents to the core.

***Keywords**: Banks; Frauds; Factors; Perception; Fraud Detection; Fraud Prevention.*

INTRODUCTION

During the last decade, global media significantly covered a lot of banking frauds. Though several laws aimed at restraining fraud were enacted, the challenges pertaining to their enforcement has delayed the intended impact. Financial frauds have emerged in various forms throughout the global financial history. One example can be the deficient knowledge about a complex financial product which triggered the collapse of US financial markets and ultimately the domino effect overtook the global financial crisis in 2008 (Gee & Button, 2016).

A holistic global frauds report of 125 countries was published by Association of Certified Fraud Examiners, which stated that the overall losses caused by financial frauds throughout the world are more than USD7.1 billion (Ogola, K'Aol, & Linge, 2016). Also, the South Asian region including India, suffered an average loss of USD 100,000 per year. The most critical challenge for banks remains in developing exhaustive fraud risk management controls to prevent and detect frauds (Boateng, Longe & Mbarika, Avevor & Isabalija, 2010) and hence determining factors affecting prevention, detection and response to bank frauds has become vital.

Consequently, the aim of this study is to shed light on important policy questions such as the extent of actions taken to curb frauds, identification of core issues and providing new insights that might encourage regulators and stakeholders to proactively prevent and detect financial frauds. Using a sample of Indian Banks, evidence was found that the approach of bank management towards fraud detection and identification of potential red flags across, factors and different processes may be specifically helpful in case of bank frauds. Further, the analysis suggested the presence of various challenges as perceived by banking stakeholders for fraud detection as discussed in the upcoming sections.

LITERATURE REVIEW

Reurink (2018) studied the literature and assessed the effect of misrepresentation and deceitful practices on the exhibition of 24 banks in Nigeria. The paper prescribed that the banks in Nigeria needed to fortify their inner control frameworks and the administrative bodies ought to improve their supervisory job. Zhou & Kapoor (2011); Costa & Wood (2016); Gee, J., & Button (2019); explored the factors affecting assessment of financial cost of frauds, asset misappropriation and the role of auditors and management in pointing out the same. Bhasin(2016) examined the mechanism through which the expertise of internal auditors can be integrated to detect and prevent frauds. The study stated that while factors like poor job practices, ineffective employee training and weak internal control systems were found to be most significantly enhancing the chances of occurrence of frauds, timely and strict audit practices played an integral role in their reduction. A similar study by Enfoe, et.al. (2016) revealed that frequently administering the audit practices remarkably led to revelation, deterrence, and depletion of prevalent frauds in the organizations.

Swain & Pani (2016) disclosed that frauds predominantly occurred due to inadequacy of supervision of senior management and technological loopholes in online banking systems. Costa & Wood (2016) created a theoretical framework explaining the most frequent causes of corporate frauds. The findings of the study highlighted significant factors describing characteristics of the fraudsters as identified by their peers, behavioral red flags alarming the fraudulent acts of individuals. Dantas, Costa, Niyama & Medeiros, (2014) stated that the level & compliance of regulations was found to be the highest in developed nations. It was significantly revealed that Brazil had the highest level of regulatory confirmation than the international average. Subbarao, (2009) analyzed the bank frauds & scams in India.

A study by Khanna & Arora, (2009) revealed that lack of training, overburdened staff, competition, low compliance level are the main factors affecting bank frauds in India. On a similar note, Sood & Bhushan, (2020) indicated that lack of training, overburdened staff, competition, low compliance level were the main reasons for bank frauds. Another research by Kundu and Rao, (2014) highlighted that Bank frauds occur due to ignorance, situational pressures, and permissive attitudes. They found that frauds were difficult to detect in time and employees who worked in the bank for more than 10 years found preventive controls to be very few and detection techniques to be extremely challenging. A survey report on bank frauds by Deloitte (Milan, 2018) identified a few similar factors affecting fraud detection, prevention, and response, like lack of oversight by the manager on deviations from existing processes, Business pressure of targets, untrained staff, and lack of forensic analytics tools to identify potential red flags.

RESEARCH METHODOLOGY

To examine the approach of employees towards fraud detection, prevention & response to bank frauds, primary data was collected via structured questionnaires. Nominal scale was used to measure demographic variables such as age, gender, highest education, to name a few. Except for demographic data, the research used Likert rating scale that generated interval data. 460 respondents were approached, and the response rate of the survey turned out to be 85%. The final sample size was reached at 385 respondents. Exploratory factor analysis was run using Principal Component Analysis for extracting factors out of the items. The scale was developed with 34 statements devised from the literature concerning employees' perception regarding banking fraud, prevention, and response.

A pilot study was carried out with a sample size of 40 bank employees to establish the validity and reliability of the research instrument used. After the initial screening was done, the respondents were asked to express their agreement of disagreement regarding the variables selected and the items used to measure those variables. This drill helped in checking the face validity of the questionnaire and resulted in the modification and deletion of a few items from the research instrument. After the initial screening of the questionnaire, the responses collected were used to carry out a reliability analysis using tools like Cronbach's Alpha. The results are mentioned below.

Table 1 Reliability Statistics using Cronbach's Alpha

Cronbach's Alpha	**N of Items**
.951	34

KMO & Bartlett's Test of Sphericity

It depicted the sample was adequate for applying factor analysis and for conducting further research. The KMO scores of individual measurement items were found to be satisfactory with all values are greater than 0.5.

The value for this test was found to be highly significant at $p<.01$ with a chi-square value of 10915.449 at 561 degrees of freedom and indicates that the correlation matrix is not an identity matrix and there are some relationships found between the variables.

Table 2 KMO & Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.883
Bartlett's Test of Sphericity	Approx. Chi-Square	10915.449
	Df	561
	Sig.	.000

Both the Kaiser-Meyer-Olkin and Bartlett's test of sphericity were calculated and the values exceeded the benchmark given by Hill (2011) as depicted in the above table. Thus, the data was found to be fit for applying factor analysis.

DATA ANALYSIS & INTERPRETATION

Demographic Profile of the Respondents

Figure 1: Age

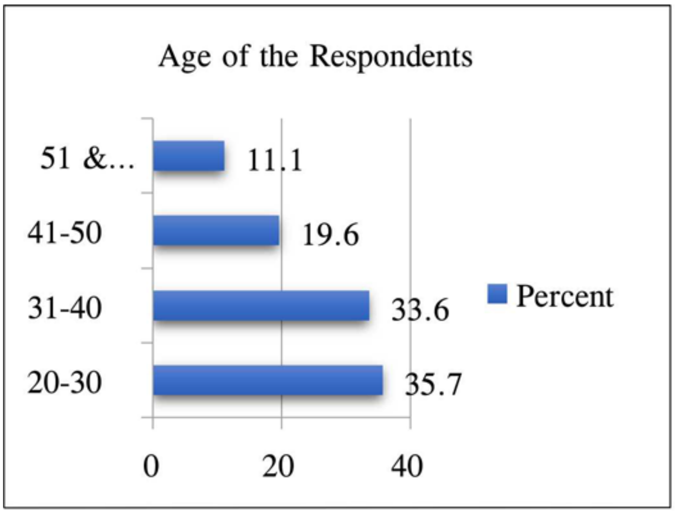


Figure 2: Gender

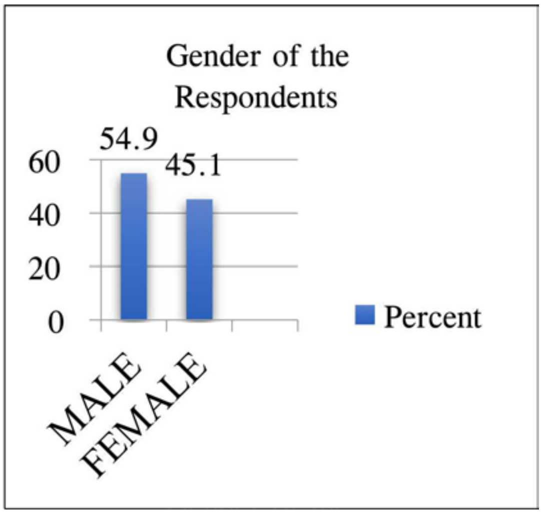


Figure 3: Education

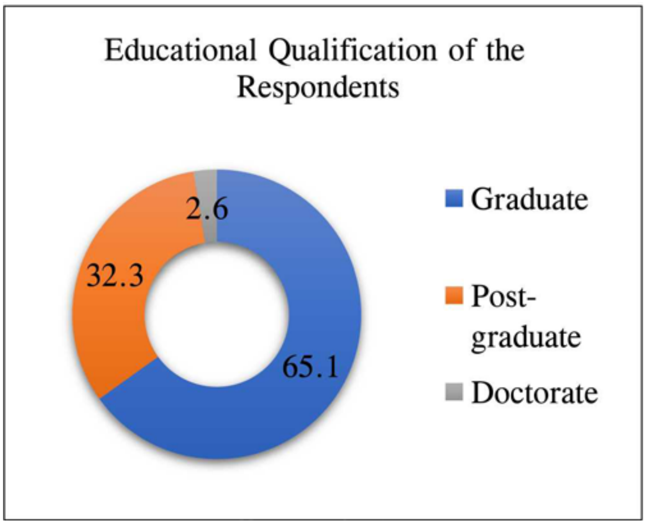
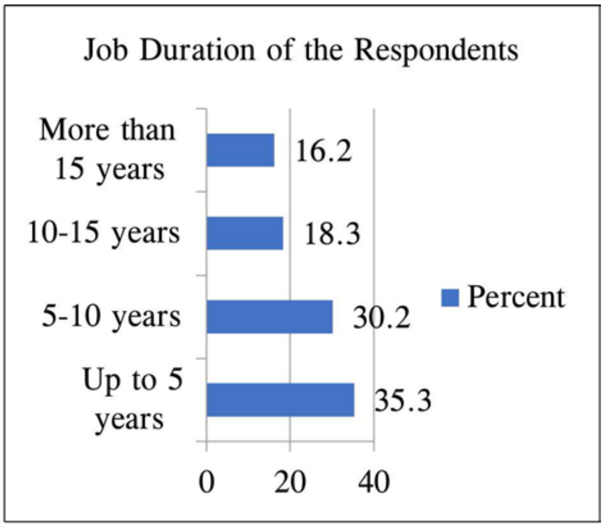


Figure 4: Job Duration



Total Variance Explained

Using Varimax rotation, a total number of seven factors were extracted through principal component analysis. Table 3 depicts the total variance explained by the factors extracted including their Eigen values, percentage of variance and the cumulative percentage of variance explained after rotation.

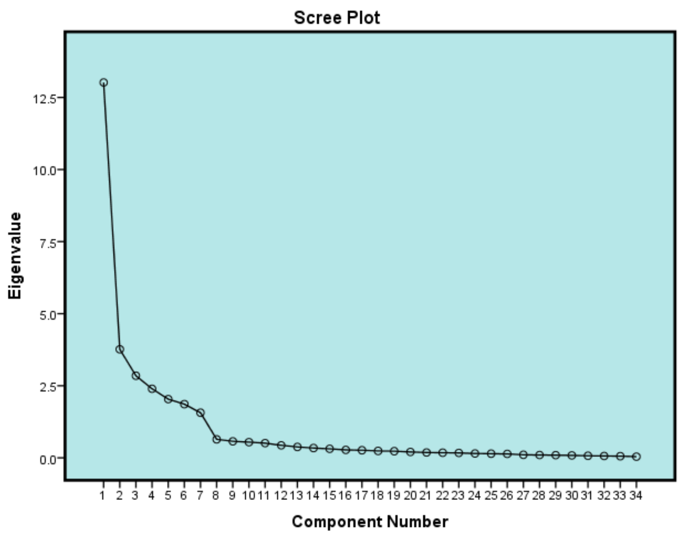
Table 3 Total Variance Explained

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.018	38.290	38.290	13.018	38.290	38.290	4.627	13.609	13.609
2	3.765	11.074	49.364	3.765	11.074	49.364	4.283	12.598	26.207
3	2.847	8.374	57.737	2.847	8.374	57.737	4.190	12.322	38.530
4	2.394	7.041	64.778	2.394	7.041	64.778	4.028	11.847	50.376
5	2.036	5.987	70.765	2.036	5.987	70.765	3.757	11.050	61.427
6	1.861	5.474	76.239	1.861	5.474	76.239	3.315	9.751	71.178
7	1.565	4.604	80.843	1.565	4.604	80.843	3.286	9.665	80.843
8	.640	1.884	82.727						
9	.573	1.686	84.413						
10	.545	1.602	86.015						
11	.511	1.503	87.518						
12	.434	1.278	88.796						
13	.378	1.112	89.907						
14	.340	.999	90.906						
15	.312	.917	91.823						
16	.274	.806	92.629						
17	.263	.774	93.403						
18	.239	.702	94.105						
19	.230	.677	94.782						
20	.204	.600	95.382						
21	.185	.543	95.925						
22	.177	.519	96.444						

23	.170	.501	96.946						
24	.149	.439	97.385						
25	.143	.420	97.805						
26	.135	.397	98.202						
27	.105	.308	98.510						
28	.097	.285	98.794						
29	.092	.270	99.064						
30	.084	.248	99.312						
31	.071	.210	99.522						
32	.064	.187	99.709						
33	.057	.167	99.876						
34	.042	.124	100.000						
Extraction Method: Principal Component Analysis.									

The percentage of variance column shows the variance explained by the individual factors extracted. It can be stated that the very first factor is the most important factor as it accounts for the greatest variance (13.609%) explained in the dataset. The second and third factor explained 12.598% and 12.322%, respectively and so on. Figure 5 displays the scree plot. It is representing the factors above Eigen value 1.

Figure 5: Scree Plot



Naming the Extracted Factors

7 factors in total were extracted out of 34 items. All the factors extracted out of the analysis are explained in detail below:

Factor 1 Likelihood of stakeholders to commit bank fraud

Factor 1 discloses the respondents' perception on the likelihood of various banking stakeholders to commit bank fraud. It has the largest variance (13.609%) of all the other factors.

Factor 2 Banking operations' vulnerability to fraud

Factor 2 was named 'vulnerability to fraud' disclosing which banking operation was most vulnerable to fraud risk and explained 12.598% of the variance.

Factor 3 Motivation to commit fraud

Factor 3 explained 12.322% of the variance and identified the primary motivation for a fraudster to commit the crime.

Factor 4 Detection of bank frauds

Factor 4 explained 11.847% variance and examined the statements depicting fraud detection in commercial banks.

Factor 5 Accountability for Fraud Prevention

'Preventing Accountability' label was assigned to factor 5 and it explained 11.050% of the total variance.

Factor 6 Response to Bank Frauds

Factor 6 explained 9.751% variance. This factor covers five items which indicated the response of various stakeholders to bank frauds.

Factor 7 Challenges faced in Fraud Detection, Prevention and Response

The last factor explained 9.665% variance. This factor covers 6 items combining the various challenges faced by bank employees in fraud detection, prevention, and response.

Factor Loadings, Communalities and Cronbach's Alpha Results

The benchmark value of the factor loadings was set as 0.7 which was considered as 'very good' for factor analysis to be done (Comrey& Lee, 1992; Hair et al. 2010). The criteria for factor extraction were twofold, i.e., based on Eigen value and average communalities as per Kaiser's criterion. The average communality was found to be greater than the standard value of 0.7 for the Kaiser's criterion to be accurate(Field,2009).

The factor loading, communalities and Cronbach's alpha value of each of 7 factors which have been extracted and the results confirm reliable degree of internal consistency among all the dimensions as all the Cronbach's alpha values are above the limit of 0.7 as suggested by Shellby, (2011). The average factor loading of all items of the factors were above 0.5 (Appendix A). All the items of the data are loaded strongly on their respective factors and the data reduction process was conducted to address the issue of construct validity.

Analysis of Variance

After extraction of factors, in the next step, mean difference analysis was performed using one way ANOVA. It is an analytical tool used to determine the significance of factors on measurements by looking at the relationship between a quantitative "response variable" and a proposed explanatory "factor." For this study, one way ANOVA is applied using the following steps:

1. Framing hypothesis to assess whether perception of bank employees varies with demographic variables like age, gender, education and job duration.
2. Calculation of means for extracted factors.
3. Applying one way ANOVA with respective factor means as 'dependent variable' and demographic variables as 'independent variables'.
4. Interpretation of result

Mean difference analysis of the factors extracted

Mean difference analysis of Likelihood of stakeholders to commit bank fraud

H01: There is no significant difference in perception of bank employees regarding likelihood of stakeholders to commit bank fraud with respect to demographic variables

HA1: There is significant difference in perception of bank employees regarding likelihood of stakeholders to commit bank fraud with respect to demographic variables.

Table 5 Likelihood of stakeholders to commit bank fraud

DEMOGRAPHIC VARIABLES	CATEGORIES	MEAN	F VALUE	P VALUE	REMARKS
AGE	20-30	4.085	1.20	0.310	H01 accepted
	31-40	4.187			
	41-50	3.978			
	51 & above	4.215			
GENDER	Male	4.091	0.320	0.572	H01 accepted
	Female	4.139			
EDUCATION	Graduate	4.124	0.540	0.583	H01 accepted
	Post Graduate	4.063			
	Doctorate	4.333			
DURATION	Less than 5 years	4.086	0.377	0.769	H01 accepted
	5-10 years	4.172			
	10-15 years	4.050			
	More than 15 years	4.125			

Likewise mean difference analysis was done for all the 7 factors, out of which for 6 factors, the P values in all the varied categories was greater than 0.05 therefore, the null hypothesis (H01) was not rejected. For factor number 7, **'Challenges in Fraud Detection, Prevention and Response', the null hypothesis was rejected** as the perception of bank employees regarding challenges faced in fraud detection, prevention and response significantly varied with age, gender and job duration as shown in table below.

Table 6: Challenges in Fraud Detection, Prevention and Response

DEMOGRAPHIC VARIABLES	CATEGORIES	MEAN	F VALUE	P VALUE	REMARKS
AGE	20-30	3.156	2.701	0.045	H07 rejected
	31-40	2.852			
	41-50	2.924			
	51 & above	2.744			
GENDER	Male Female	3.083 2.827	5.461	0.021	H07 rejected
EDUCATION	Graduate	3.027	1.084	0.339	H07 accepted
	Post Graduate	2.874			
	Doctorate	2.711			
DURATION	Less than 5 years	2.763	3.579	0.014	H07 rejected
	5-10 years	2.820			
	10-15 years	2.943			
	More than 15 years	3.185			

To investigate further with respect to the perceptions of which age groups differ, results from Tukey test have been interpreted in table 7.

Table 7 Results of Tukey Test for Mean Challenges with respect to age groups
Multiple Comparisons

Dependent Variable: MEANCHALLENGES Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
20-30	31-40	.30489	.12700	.079	-.0228	.6326
	41-50	.23223	.15342	.430	-.1637	.6281
	51 &	4.4124	.19598	.004	-.0933	.9181
31-40	20-30	-.30489	.12700	.079	-.6326	.0228

	41-50	-.07267	.15823	.968	-.4810	.3356
	51 &	.10752	.19977	.950	-.4080	.6230
	20-30	-.23223	.15342	.430	-.6281	.1637
	31-40	.07267	.15823	.968	-.3356	.4810
	51 &	.18019	.21752	.841	-.3811	.7415
51 & ABOVE	20-30	-.41242	.19598	.004	-.9181	.0933
	31-40	-.10752	.19977	.950	-.6230	.4080
	41-50	-.18019	.21752	.841	-.7415	.3811

Source: SPSS Output

Furthermore, perception also varies with respect to gender and job duration. With respect to gender, perceptions of male and female employees differ significantly. Therefore, the null hypothesis (H0) is rejected. Since there were only 2 groups here, post hoc test was not performed.

Further, the perception of employees who have spent more than 15 years on the job varies significantly from those who have spent less than 5 years and or 5-10 years on the job. Analyzing the mean scores, it was seen that the mean score for employees with less than 5 years job duration is 2.76 implying that most respondents in the group do not agree with the statements. Employees with more than 15 years on the job feel that the challenges are inherent which is evident from their mean score (3.18).

RESULTS & DISCUSSION

A total of 7 factors were extracted out of 34 items, with respect to the bank employees' perception on fraud detection, prevention and response namely; likelihood of stakeholders to commit bank fraud, banking operations' vulnerability to fraud, motivation to commit fraud, detection of bank frauds, accountability for fraud prevention, response to bank frauds, and challenges in fraud detection, prevention and response. Significant difference was found in bank employees' perception regarding the challenges faced in fraud detection, prevention and response within the categories of different demographic variables. Bank employees' perception regarding the challenges faced in fraud detection, prevention and response significantly varied with age. 20-30 age group had somewhat neutral perception on challenges in fraud detection, prevention and response.

The age group 51 & above had strong agreement regarding presence of these challenges. Since majority of the challenges included in the study were related to usage of technology in one way or other, the finding is supported by a survey conducted by Anderson & Perrin, (2017) which concluded that older adults belonging to age group 50 and above face unique barriers to adoption, ranging from physical challenges to a lack of comfort and familiarity with technology. Another recent study by Bhasin, (2016) pointed out that employees belonging to age groups of 50 plus reported having no interest in learning about new technologies. With respect to gender, perceptions of male and female employees on challenges in fraud detection, prevention and response differ significantly. Males found most of the challenges to be more severe than females. Several previous studies are evident in this aspect as well. A research study by Hershbein& Kahn, (2018) stated that women employees in major companies were more adaptive to use of technology at work.

Perception of employees on challenges in fraud detection, prevention and response who have spent more than 15 years on the job varies significantly from those who have spent less than 5 years and or 5-10 years on the job. Employees with less than 5 years job duration did not consider the challenges to be severe in detection, prevention and response to bank frauds. Employees who spent 5-10 years on the job have somewhat neutral perception towards these challenges whereas; employees with more than 15 years on the job feel that the challenges were inherent**.** Studies by Bhasin, (2016) ; Bhasin & Rajesh, (2018) also contemplated that the substantially larger proportion of experienced employees stated challenges related to technology related frauds in the Indian banking sector to be extremely severe due to a remarkable shift in the service delivery model with greater technology integration in the banking industry.

To conclude, the overall approach of bank management towards fraud detection involved a strong KYC and credit appraisal process, due diligence on the documentation received and verification procedures in case of loans and advances as well as monitoring of usage of funds by the borrower and forensic analytical tools to identify potential red flags across different processes which may be specifically helpful in case of cyber frauds.

The approach of bank management towards primary accountability of preventing frauds was focused collectively on the role of customers, bank management and auditors, provided each of them remain vigilant and updated. The approach towards factors associated with response to bank frauds was found to be significantly focused on allocation of adequate funds to deal with fraud related risk, ‘Use of case based system to track control deficiencies, in house development and consultation from third parties/ experts’ and ‘Usage of analytics and Artificial Intelligence to track cyber frauds.

Apart from this, the responses of bank employees were indicative of the presence of challenges associated with fraud prevention detection and response to bank frauds. After thorough analysis of data, various challenges were identified like ‘difficulties in fraud detection due to introduction of new technology/ digital channels’, ‘lack of forensic analytics tools to identify potential red flags of frauds’, ‘lack of preventive measures enforcement & timely response due to understaffing of the branch’, ‘lack of timely detection of frauds due to delay in training provided to bank employees’ and ‘lack of adequate availability of updates in bank operations to encounter frauds due to change in technology’.

PRACTICAL IMPLICATIONS

Considering recent banking frauds, Indian economy suffered to a great extent which served as the prime motivation to carry out this detailed study on financial frauds in the Indian banking system and examining frauds from different perspectives. The study is useful to the banking stakeholders as it serves as a reality check to analyze the current withstanding of these institutions with regard to their current compliance level and to determine the further steps to be taken in order to prevent frauds from occurring in future. The study provides some major insights citing the frequently occurring frauds, reasons behind the frauds and their nature. Bank customers can use the findings to improve their knowledge related to these frauds and take necessary precautions. Proper use of research findings on bank frauds can aid to increase profitability, business, decrease payouts, legal hassles, and most significantly improve customer satisfaction. The study point outs the need for senior bank managers to provide training to bank employees in the right direction at the right time and using the right tools to cater to the challenges faced by bank employees.

LIMITATIONS & SCOPE FOR FUTURE RESEARCH

The study suffers from some limitations. Due to limited resources and time, the geographical scope of the study was limited to a single country and only 4 banks were selected to extract data. Also, usage of factor analysis limited the scope till identification and exploration of factors. A good understanding of the known threats and controls, industry standards, and regulations can guide banking institutions to secure their systems by design and implementation of preventative, risk-intelligent controls. Early detection, through the enhancement of programs to detect both emerging threats and the fraudster's moves, can be an essential step towards containing and mitigating losses. **First*ly***, an interesting area of research can be the identification and coping mechanisms of various difficulties faced by bank employees. Resilience may be more critical as destructive attack capabilities gain steam. ***Secondly,*** to enhance the generalization of the results, the scope of the study can be widened by picking more banks and increasing the sample size. Future research can be conducted by extending this geographical scope. ***Lastly,*** the study does not elaborate upon the behavioral aspect of frauds, the researchers can further explore this segment in depth as this would further facilitate the formation of effective mitigating and prevention strategies of bank frauds.

CONCLUSION

Banks are marching through an increasingly difficult scenario with increased financial frauds and low recoveries. It is largely facilitated by a tidal wave of compliance regulations lapses, thereby directly affecting the existence & growth of these institutions. The potentially greater impact from frauds is reputational damage and diminished customer and investor confidence. These issues have the potential to impact the trust customers have with their bank and in worst cases, it may lead to an overall systemic crisis. A significant aspect to enhance accountability and transparency within the banks may prove to be an effective mechanism to enable and empower the employees to raise and voice their concerns internally in an effective manner when and if they discover any malpractice. As per the factors identified in the study, banks need to take a comprehensive view of their and relook at their anti-fraud measures.

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APPENDIX A

Factor Loadings, Communalities and Cronbach's Alpha Results

Factor No.	Factor Name	Items	Factor Loading	Cronbach's Alpha
Factor 1	**Likelihood of stakeholders to commit bank fraud**	Customer are most likely to commit a fraud	0.838	0.917
		Junior and middle level employees are most likely to commit a fraud	0.89	
		Senior Management are most likely to commit a fraud'	0.834	
		Third party associates including contractors, vendors, suppliers, agents, etc. are most likely to commit a fraud.	0.79	
Factor 2	**Banking operations' vulnerability to fraud**	Customer service is most vulnerable to fraud risk	0.873	
		Loan Disbursement is most vulnerable to fraud risk'	0.847	
		Online Banking is most vulnerable to fraud risk	0.859	
		Diversion of funds meant for working capital most vulnerable to fraud risk	0.788	
		Accounting Procedures most vulnerable to fraud risk	0.835	
Factor 3	**Motivation to commit fraud**	Ability to improve his/her financial position	0.833	
		The confidence of not being caught in the act	0.803	
		Rationalization for being treated unfairly by the organization	0.877	
		Pressure to maintain social statusvia extra income	0.887	
		Poor Salary and Incentive Policy	0.863	0.944

Factor 4	**Detection of bank frauds**	By the operations manager or senior management on deviations from existing processes	0.711	0.937
		A strong KYC and credit appraisal process	0.769	
		Due diligence on the documentation received and verification procedures	0.8	
		Monitoring of usage of funds by the borrower	0.835	
		Forensic analytics tools to identify potential red flags across different processes	0.767	
Factor 5	**Accountability for Fraud Prevention**	The primary accountability of preventing frauds lies with Auditors	0.809	0.92
		The primary accountability of preventing frauds lies with Middle level managers	0.82	
		The primary accountability of preventing frauds lies with Senior Management	0.739	
		The primary accountability of preventing frauds lies with Customers	0.811	
Factor 6	**Response to Bank Frauds**	There is enough commitment from my bank at large to address fraud risk	0.815	
		My bank has allocated adequate funds to deal with fraud related risk	0.826	
		My bank uses case management system to track control deficiencies identified by monitoring tool	0.865	

		My bank uses In house mechanism with consultation from third parties/ experts’	0.857	
		My bank uses Analytics and Artificial Intelligence in response	0.848	
Factor 7	**Challenges faced in Fraud Detection, Prevention and Response**	New technology/ digital channels make fraud detection difficult	0.738	0.859
		There is lack of forensic analytics tools to identify potential red flags across different processes	0.822	
		There is understaffing of the branch	0.796	
		There is lack of training provided to bank employees	0.87	
		No updates in bank operations with change in technology	0.849	
		Bank employees do not want to wrongly accuse someone	0.692	

TO STUDY HR ANALYTICS USING POWER BI

INTRODUCTION

Data analysis is a process of inspecting, cleansing, transforming, and modelling data with the goal of discovering useful information, informing conclusions, and supporting decision-making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, and is used in different business, science, and social science domains. In today's business world, data analysis plays a role in making decisions more scientific and helping businesses operate more effectively. Depending on the stage of the workflow and the requirement of data analysis, there are four main kinds of analytics – descriptive, diagnostic, predictive and prescriptive.

For the purpose of this paper, we focus on HR as a branch of data analytics. HR analytics is the process of collecting and analysing Human Resource (HR) data in order to improve an organization’s workforce performance. The process can also be referred to as talent analytics, people analytics, or even workforce analytics. Having data-backed evidence means that organizations can focus on making the necessary improvements and plan for future initiatives, with the ability to answer important organizational questions without any guesswork. This research is based on such foundational beliefs. Several data analytic parameters and concepts have been explored and analysed based on employee data of a simulation company. After objective-wise testing, and using Power BI as the data analytics tool, visual reports and table reports were drawn that gave meaning to the huge chunk of bland numbers. Analysis were drawn and this simulation company was further recommended for actions plans based on data analysis and visual observation and numbers.

REVIEW OF LITERATURE

The research papers referred for the purpose of this research adhered to get a better understanding of the adopted objectives. There are quite a number of researches dedicated in finding out the falling motivation of the employees. Srivastava & Das (2013), describes an attitude as a positive or negative feeling or mental state of readiness, learned and organized through experience that exerts specific influence on a person’s response to people, objects and situations. A person’s attitude is decisive of their motivation to work in the workplace also. Motivation dictates actions and actions at job dictate results.

Gordon (1981) researched on the relationship between length of service and employee performance rating in large industrial corporations. Rating scales are used in performance management systems to indicate an employee's level of performance or achievement. These may motivate the employees to do better by showing them the mirror reality or just lose their importance over the year to be ceased to standard procedures other than being sources of betterment. Job satisfaction and organizational commitment are two key attitudes that are the most relevant to important outcomes (Sarker, Crossman & Chinmeteepituck, 2003). People develop positive work attitudes as a result of their personality, fit with their environment, stress levels they experience, relationships they develop, perceived fairness of their pay, company policies, interpersonal treatment, whether their psychological contract is violated, and the presence of policies addressing work–life conflict. The job attitudes, job involvement and job satisfaction were chosen due to the fact that the research focusing on part-time workers mainly chose to investigate the effects on job satisfaction and job involvement. This made it easier to select studies for the review and gives the opportunity to select papers based on quality criteria as well (Waal, 2016).

OBJECTIVES

- To study the recruitment channels adopted across various departments of the company
- To study if being a full-timer or part-timer employee affect the motivation to meet KPIs
- To study the relationship between length of service and year rating
- To study the relationship between length of service and awards won

FINDINGS & DATA ANALYSIS

Objective 1-

To study the recruitment channels adopted across various departments of the company Recruitment channels are the channels or sources from which an employee is recruited. Coming up in the world of analytics is a new branch of study- **Recruitment analytics**. It is a combination of data and predictive analysis that provides real-time information to help you hire faster. A rather basic analysis of the company was done for the purpose of this report. For all the departments of this fictious company, namely- Analytics, Finance, Human Resources, Legal, Operations, Procurement, Research and Development, Sales & Marketing, and Technology; an analysis was done to find-

a) Which of the three most used recruitment channels- Sourcing, Referred and Other, used the most
b) How the different departments acquired most of their recruits

Back to report | COUNT OF EMPLOYEES BY RECRUITMENT CHANNEL AND DEPARTMENT

Recruitment Channel	Analytics	Finance	HR	Legal	Operations	Procurement	R&D	Sales & Marketing	Technology	Total
other	1330	621	571	241	2596	1748	243	4067	1661	**13078**
sourcing	972	467	458	189	2077	1242	189	3158	1209	**9961**
referred	17	3	56	15	91	30	8	90	141	**451**
Total	**2319**	**1091**	**1085**	**445**	**4764**	**3020**	**440**	**7315**	**3011**	**23490**

Fig. 1: Power BI dashboard table report of objective 1

As was observed and tabulated, most hires were from **Other Sources**. Based on research, these are usually- social media platforms like- Facebok, Instragram etc; or social networking and job hunting websites like- LinkedIn, Naukri, MonsterJobs, etc. Following Others, was **Sourcing** as the preferred channel.

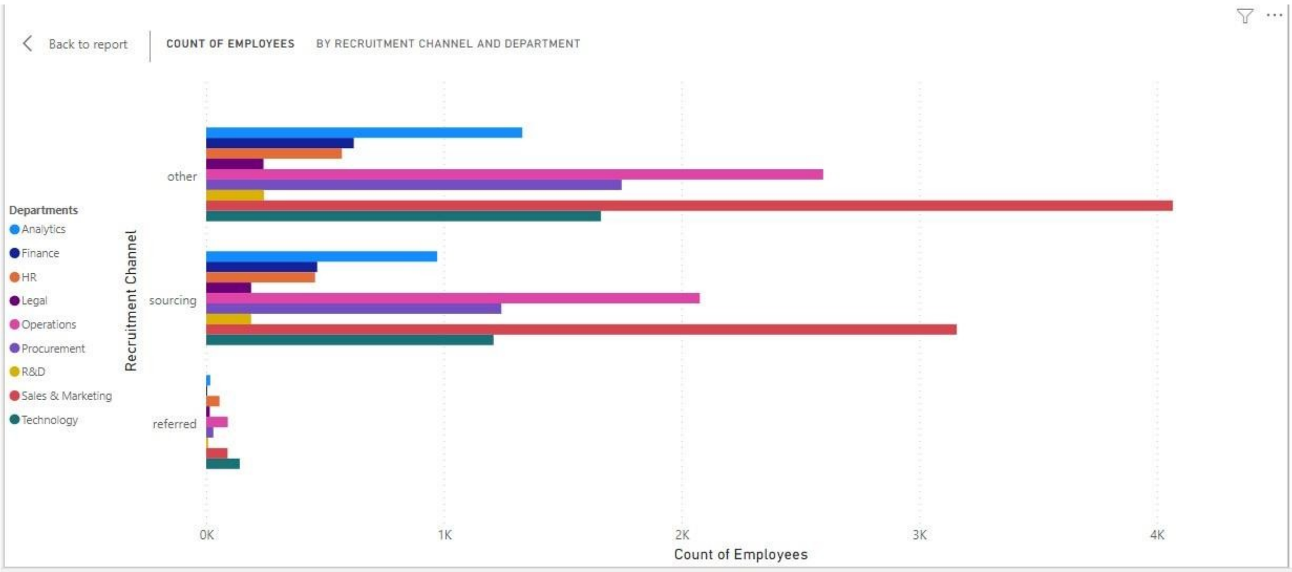


Fig.2: Power BI dashboard visual report of objective 1

According to the table, Sales & Marketing as a department had the highest hiring of 7315 employees in total- most, 4067 of them from Others as a channel. Sales & Marketing have been the highest recruiter in all the channels, followed by Operations and Procurement. Technology however, has the highest recruits from Referred as channel- 141 employees. And this seems only logical as the technical skills have to be recommended and accounted for by another, preferably a previous employer or a person in authority.

Objective 2-

To study if being a full-timer or part-timer employee affect the motivation to meet KPIs

Employees are hired on basis of the time and work they contribute to the company. In matters of time, a full-time employment is usually considered between 30-40 hours a week, while part-time employment is usually less than 30 hours a week, in other words- a full-time employee is, for a calendar month, an employee employed on average at least 30 hours of service per week, or 130 hours of service per month. Employees/ interns are also hired on hourly basis whenever required.

Key performance indicators (KPIs) are measurable values that determine how effectively an individual, team or organization is achieving a business objective. Organizations use KPIs to help individuals at all levels focus their work towards achieving a common goal. KPIs also help businesses understand whether they're spending utilizing their time, and budget and talent on the right strategies, tasks and tools in order to achieve its goals.

Having established the ground for this objective, the main analysis of this objective is to analyze if the employment type, i.e. being a full-time employee or a part-time employee, anyway affect the performance or the motivation decreases to meet the KPIs on time and in full zeal.

For the purpose of this objective, *hypothesis testing*, assuming status quo as H0 or null hypothesis, was done on excel as a *statistical tool*; and the *statistical test* used for the mathematical analysis was- *Correlation.* Following is the testing and result-

H0: There is no relation between meeting KPIs and being a FT/PT employee

H1: There is relation between meeting KPIs and being a FT/PT employee
Decision rule: reject H0 if p >= 0.05, and accept H1
Test: Correlation

Result:

	KPIs_met >80%	*FT/PT*
KPIs_met >80%	1	
FT/PT	-0.003910137	1

Table 1: Correlation output table for Objective 2

p= - 0.00391 < 0.05

Hence, H0 is accepted, there is no relation between meeting KPIs and being a FT/PT employee. The p-value relation is also weak and negative. A negative correlation is a relationship between two variables that move in opposite directions. In other words, when variable A increases, variable B decreases. A negative correlation is also known as an inverse correlation. Two variables can have varying strengths of negative correlation. The variable A could be strongly negatively correlated with B and may have a correlation coefficient of -0.9. This means that for every positive change in unit of variable B, variable A experiences a decrease by 0.9. As another example, these variables could also have a weak negative correlation. A coefficient of -0.2 means that for every unit change in variable B, variable A experiences a decrease, but only slightly, by 0.2.

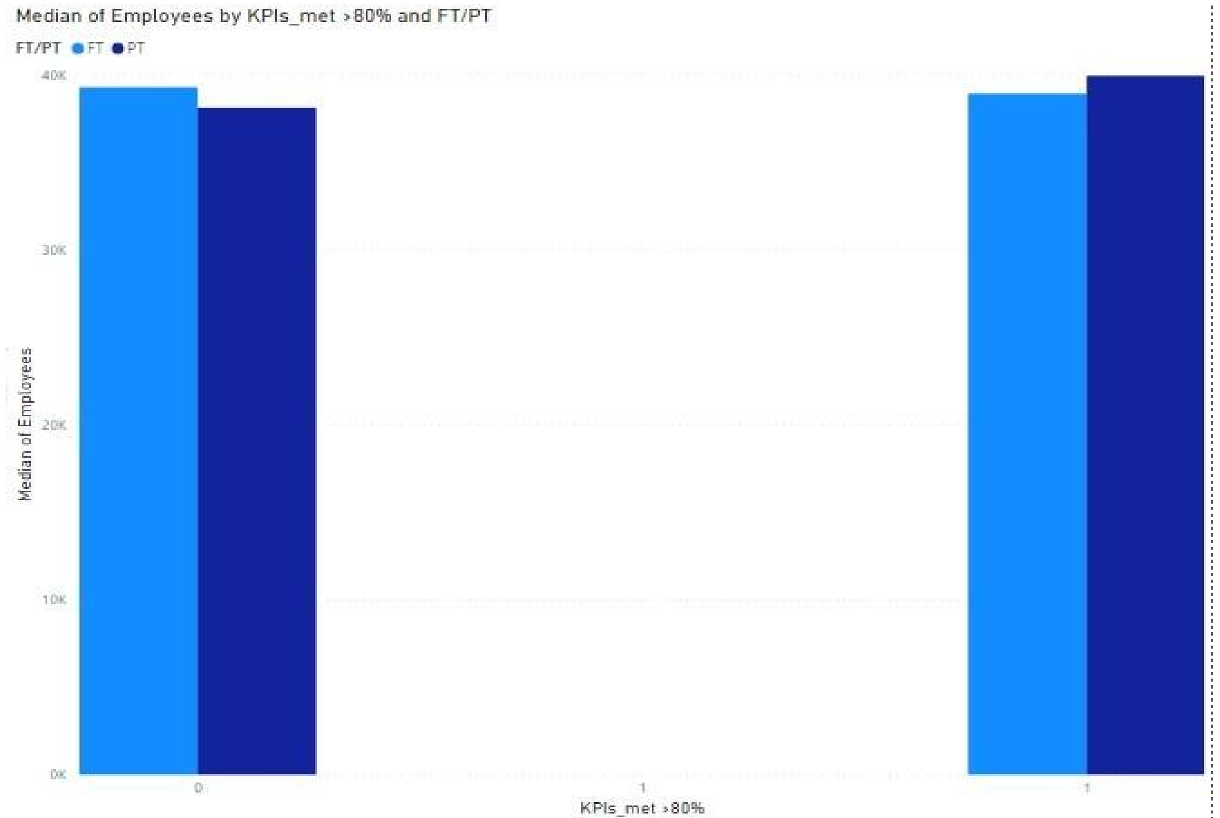


Fig. 3: Power BI dashboard visual report of objective 2

KPIs_met >80%	FT	PT	Total
0	39273	38113	**38847**
1	38917	39931	**39204**
Total	**39136**	**38658**	**38964**

Fig.4: Power BI dashboard table report of objective 2

According to the table, number of part-time employees who met their KPIs by >80%, is more than the full-time employees who met their KPIs, by a value of 1014. Quite inversely, the full-time employees who have not met their KPIs are more than those part-time employees who have also not met their KPIs. The visual graph of *clustered column chart* has been taken on a median of the full-time and part-time employees in order to maintain objectivity and balance. The visual just goes on to support the hypothesis that the fact that an employee is full-time or part-time doesn’t affect his/her ability to meet their KPIs.

The next two objectives are focused on employee performance as a measure of their length of service and their duration in the company. These phenomena may also be linked to their job attitudes.

Objective 3-

To study the relationship between length of service and year rating

The overall length of service is the total time spent at a job or some other socially beneficial activity, regardless of the nature of the activity and the length of the intervals between work periods. Rating scales are used in performance management systems to indicate an employee's level of performance or achievement. These scales are commonly used because they provide quantitative assessments, are relatively easy to administer and assist in differentiating between employees.

This objective was tested mathematically by using hypothesis testing, excel as the statistical tool and Correlation as the statistical test. Following is the test-

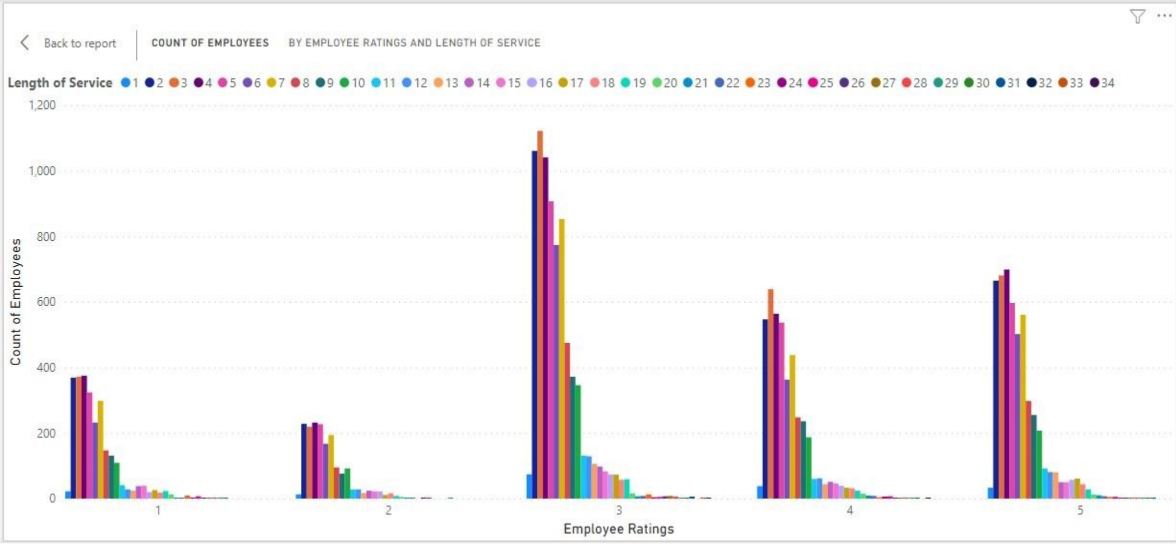
H0: There is no relation between length of service and year rating
H1: There is relation between length of service and year rating
Decision rule: reject H0 if p >= 0.05, and accept H1
Test: Correlation **Results:**

	year_rating	*length_of_service*
year_rating	1	
length_of_service	0.003046513	1

Table 2: Correlation output table for Objective 3

p= 0.03 < 0.05

Hence, H0 is accepted, there is no relation between previous year rating and length of service. Using Power BI, the visual dashboard for this objective looks as follows-



According to the visual of *clustered column chart*, most the employees, a number of 7921 have an average rating of 3, as that is the most stacked cluster, followed by the highest rating of 5. Number of employees getting a perfect 5 is 5097. The length of service years falls between 1 year to 34 years of service, and the graph depicts the data of 23491 employees of the company. Highest number of employees in length of service class is 3033, and this is in the 3 years of service class.

To conclude from the observation, most of the employee performance is average. However, the second description to this list, is that, the employees are a perfect five too! Which means given the small difference, the company employees have a potential to get a 5-rating for their performances as well! On the other hand, it is observed that a high number of employees fall within 3-years of service strata. Which means, the employees don't last longer than 3-years in the company, and the company has a low retention rate for employees working since 3-years. Nonetheless, this can also be seen as an opportunity, as the most number of employees have been in the system since three years, assuming it takes 6 months1 year for employees to reach there 100% productivity, and are very much aligned with the system and their work. The company can use this as an opportunity to get most out of and use this army of potential employees, who are not old enough to be exhausted and demotivated with the perpetuity, and aren't new that they don't know work and won't add to productivity.

Objective 4-

To study the relationship between length of service and awards won

Employee recognition is the timely, informal or formal acknowledgement of a person's behaviour, effort, or business result that supports the organization's goals and values, and exceeds the employee's superior's normal expectations. Recognition has been held to be a constructive response and a judgment made about a person's contribution, reflecting not just work performance but also personal dedication and engagement on a regular or ad hoc basis, and expressed formally or informally, individually or collectively, privately or publicly, and monetarily or non-monetarily. Taking time to recognise employee achievements helps foster engagement, increases productivity, and reduces tension in the work environment. Leading a team can often be a challenging task let alone ensuring all staff are engaged. Employees who work at companies that have strong recognition programs and engaging environments bring significant improvements to the business. Making an effort to acknowledge employees empowers them and can help create a positive company culture, increase your revenue and more. This objective explores the possibility of this reward receiving by the employees somehow linked to their years of service. It is only natural an assumption that the longer you stay in a company, higher are the chances of garnering awards over the years. Another factor that rules this assumption and situation is the motivation of the employee. Over the years, employees become complacent, and don't strive to work, prove themselves or hustle as same as they did when they were new in the system.

Following is the mathematical calculation for this objective conducted using hypothesis testing, excel as the statistical tool and Correlation as the statistical test.

H0: There is no relation between length of service and awards won by an employee during tenure
H1: There is relation between length of service and awards won by an employee during tenure
Decision rule: reject H0 if $p >= 0.05$, and accept H1
Test: Correlation

Results:

	length_of_service	*awards_won*
length_of_service	1	
awards_won	-0.042083168	1

Table 3: Correlation output table for Objective 4

$p = -0.0420 < 0.05$

Hence, H0 is accepted, there is no relation between length of service and awards won by an employee during tenure. Using Power BI, the visual dashboard for this objective looks as follows-

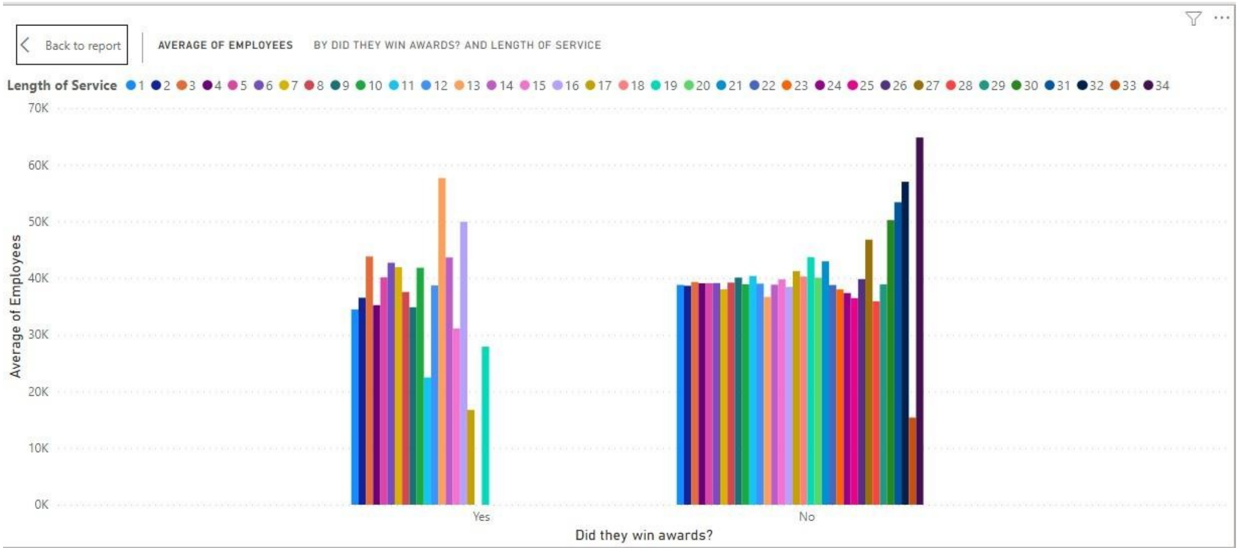


Fig. 6: Power BI dashboard visual report of objective 4

As is seen, in the *clustered column chart*, there is not much difference in award winning between the employee on the basis of their length of service years, spanning from 1 to 34 years of service. Also, observed is the fact that most of the employees have not received any awards. This could either mean that the employees do not work as hard, or that the competition and bar set for getting these awards is too high. Another thing to note is- the first spike of award getting it from the 3rd year of service. From the analysis of the last objective, this was the year that most of the employees exited the company. It is thus safe to assume that after accomplishing a feat, the employees leave the company as they might feel that there is nothing more or better to do for them there. And since the company is bad and low at retention, they don’t stay more. The highest graph of not getting an award by an employee lays in the longest tenure, or lays within the class of 34 years, i.e. the maximum tenure in the company. This implies that the oldest employees of the company, have received the least awards.

RECOMMENDATIONS

Recommendations to this simulation company would be-

1. Objective 1 gives the department wise mapping of the recruitment channels. The company can use this information, facts backed with evidence and data, to hire better. A lot of money is involved in hiring and training employees yearly. With low retention rate of this company, as observed further, they can be smart about hiring and hire better. Also, a tailored method and in-house program can be invented that will cater to specific departments in particular. Thus, meeting the specific needs and hiring methods/channels in mind while filing for a specific department.
2. The commendable rating method already adopted and in-practice by the company, perfectly looks after keeping the morale high of the company employees. However, an in-depth analysis of the charts and data, it has been observed that hidden there is a lot of potential. For the second highest rating it that of 5, after 3. This suggests that the employees have great potential to make this 5-point the highest number, meaning the highest number of employees can fall under this category of 5-point if trained and nurtured well!
3. Another employee recognition technique used by the company is that of award giving. It a great initiative. Sadly, so, it does not have a high turnout- of over 20,000 employees, only about 600 of them have ever received an award. So, employees can be encouraged to work for them. Also, the awards can be made lucrative enough for employees to want.

LIMITATIONS OF THE PROJECT

Simulation is a technique which describes a process by developing a model of that process, and then performing experiments on the model to predict the behaviour of the process over time. A simulation model is a simplified representation of real life situations, which allows the understanding and solution of a problem to be achieved by a trial and error approach. However, this type of a model has limitations. They are as follows-

- Simulation generates a way of evaluating solutions but does not generate solutions themselves. As is observed here, there are data, not solutions.
- Simulation is not precise. It does not yield an answer but merely provides a set of the system’s responses to different operating conditions. In many cases, this lack of precision is difficult to measure.
- It is a trial and error method that may produce different solutions in repeated runs.

- The difficulty in finding the optimal values increases due to an increase in the number of parameters.
- Analysing motivation and employee psyche based on numbers and data is not only difficult, but also unyielding. Concepts like these need human understanding and ground-level action/ solutions.

Furthermore, there limited access to data and no means of adding new datum. The analysis was done on theoretical reading of books, research articles and journals; and not on real-life corporate experience. Time constraints and the lack of experience to the Power BI tool also proved to be a hindering factor.

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A STUDY OF RELATIONSHIP BETWEEN INVESTMENT OBJECTIVES AND DEMOGRAPHICS VARIABLES

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Abstract

Almost everyone owns a portfolio of investments. Numerous avenues of investment are available today. One can either deposit money in a bank account or purchase a long-term government bond or invest in the equity shares of a company or contribute to a provident fund account or buy a stock option or acquire a plot of land or invest in some other form. Individuals usually save to meet their long term objectives. This study analyzes the demography of investors and their investment objectives in selected districts of Karnataka. The study has considered 385 respondents. Primary data was collected through a structured questionnaire. Independent Samples Test and ANOVA have been computed. The results suggest that the investment objective of the respondents varies significantly based on various demographic factors.

Key Words: Investment, Portfolio, Investment avenues, Capital market, Liquidity.

1. Introduction

A developing country like India needs a very high rate of investment to accelerate its economic growth. Investment acts as a crucial determinant to achieve the target of higher expansion. In simple terms Investment means money that is spent now with the hope of availing some good returns in future. Individuals usually save to meet their long term objectives like children's education, children's marriage, construction of house, status and prestige, health care, repayment of debts, to meet contingencies, tax savings, retirement, vacations and so on.

Almost everyone owns a portfolio of investments. Numerous avenues of investment are available today. One can either deposit money in a bank account or purchase a long-term government bond or invest in the equity shares of a company or contribute to a provident fund account or buy a stock option or acquire a plot of land or invest in some other form.

To attain customer goal on investment, a wide range of investment options have been evolved in the financial world in the recent past. But at the same time, it has brought more complexity regarding risk, return and objective leading more confusion in the investment decision. Limited knowledge of the investors and the inability to understand the financial market trend acts as an obstacle in investment. Thus, financial planning and wealth management solution has gained more importance, and this paper will help them understand the impact of demographic variables on the investment preferences of entrepreneurs.

2. Review of Literature

Verma (2008) studied the effect of demographics and personality on investment choice among Indian investors. The most popular investment avenue amongst professionals, students and the self-employed was mutual fund. It was found that the level of education has a positive correlation with the understanding of investment complexities.

Dakshayani, G. N. (2014) an investment is always made with a certain specific objective in mind. Investment process generally starts with understanding the investment objectives and then framing out the investment policy. This study aspires to investigate the perception towards equity and other alternative investment avenues in AnandRathi in Bijapur city, Karnataka. The study revealed that "16% of the investors prefer to invest in short-term avenues, 32% of the investors prefer to invest in long-term investments and 58% invest in both the avenues. Investors who have invested in equity personally follow the stock market frequently."

Lokhande, M. A., (2015) most of the investors, particularly rural area is found unaware of investment avenues and rules and regulations. Despite the remarkable growth of the economy and the increase in the income level of people, the pace of saving mobilization is lower in India. The study attempted to find out the awareness of rural investors about various investment avenues, their preferences, and considerations for investing money. A sample of 300 respondents was selected from four villages from Sillod block of Aurangabad district, Maharashtra. The study disclosed that "there was no significant difference in the awareness level of rural male and female investors and their educational qualifications. The investment preference order of the respondents indicated towards secured investment attitude. Bank deposit, gold and jewellery, real estate were popular investment avenues for the majority of the investors."

Shukla, N. S. (2016) analyzed investment preference of working women of north Gujarat region. The researcher also attempted to determine Women's awareness of different investment alternatives and the factors affect their investment decision. Primary data was collected through questionnaire from 100 respondents. It was found that working women invest in various investment avenues. The results of the Chi-Square test show that there is no relationship between education with investment while there is a significant relationship between Age and Income.

Pandey, N. S., and Kathavarayan, P., (2017) this study was based on the analysis of saving and investment behaviour of college faculty members in Puducherry region. The investigation was conducted through primary data with a sample of 113 respondents. The study confirms that difference between age, gender, education, marital status and income shows difference towards investment preferences. Most of the respondents prefer GPF/CPF, life insurance, postal office and their awareness towards investment avenues is also high.

Senthil, D., (2019) studied influence the investors while making investments with special reference to

Neyveli Township. Primary data was collected through a self-construction questionnaire from 200 respondents. Frequency analysis, mean and standard deviation, and ANOVA have been used to analyse the data. The study found that the regular income, security for income, safety, children education, risk protection, purchasing of a new asset, debt-free life, children marriage, luxury lifestyle, parental care, home loan, tax benefits, vacation planning, retirement plan, future return and charity influences the investor. Further, age and gender do not influence investment.

3. Research Methodology

3.1 Objectives of the study

- To study the objectives of investment.
- To study the association between demographic variables and investment objectives.

3.2 Hypotheses

H1: Age has an influence on the investment objective.

H2: Gender has an influence on the investment objective.

H3: Caste group has an influence on the investment objective.

H4: Marital status has an influence on the investment objective.

H5: Education has an influence on the investment objective.

H6: Income level has an influence on the investment objective.

H7:Profession influences the investment objectives.

H8: Saving Percentage has an influence on the investment objective.

H9: Family size has an influence on the investment objective.

H10: Number of dependents has an influence on the investment objective.

3.3 Sources of Data

The secondary data was collected through various journal and websites. Primary data was collected through a structured questionnaire to study the impact of demographic factors like age, gender, caste, marital status, education level, income level, profession, saving percentage, family size and number of dependants on investment preferences.

3.4 Population

The entrepreneurs in the age group 21 to 65 years from the selected districts of North Karnataka were considered as the population for this study.

3.5 Sampling Method

For this study, Multistage Random Sampling Method has been deployed. In the first step, four districts from the north part of Karnataka were selected randomly, andthen responses were collected from the respondents randomly.

The districts thus selected are:

1. Bagalkote
2. Belagavi
3. Vijayapur
4. Hubli-Dharwad

Primarily the researcher has selected 4 districts randomly from north Karnataka. Then from each district, two taluka were selected randomly. Further, from each taluka two banks were selected. The researcher encountered practical difficulties in approaching all the wards due to the widespread geographical divisions. Further, a sample of 25 respondents from 2 banks in each taluka was taken randomly. At the end of the data collection, it was observed that nearly 15 interview schedules were incomplete. Thus, the study was confined to 385 respondents.

3.6 Sample Size

A sample of 385 is considered for the study. The sample size is determined using the formula given below.

$$n = p(1-p)\left(\frac{z}{e}\right)^2$$

Where,

n = Sample Size

Z= Z value from the standard normal distribution for the confidence level desired by the researcher. For this study, the researcher has assumed a 95% confidence level. Then from the standard distribution tables, the Z value is 1.96.

p = Frequency of occurrence of something expressed as a proportion (0.50)

e = Tolerance error or margin of error or confidence level.

For this study, the researcher has assumed tolerance error 0.05.

4. Data Analysis and Interpretation

4.1 Demographic Profile

Following is the assessment of demographic factors. In this study, age, gender, caste, marital status, education level, annual income, saving percentage, family size, and a number of dependants are considered to study the demographics.

Table 1: Demographic Profile

Variable	Categories	Frequency	Percentage
Age category	21 to 30	193	50.1%
	31 to 40	111	28.8%
	41 to 50	52	13.5%
	51 to 60	25	6.5%
	61 and above	4	1.1%
Gender	Male	284	73.8%
	Female	100	26.0%
	Others	1	0.2%

Caste Group	SC	36	9.4%
	ST	48	12.5%
	OBC	143	37.1%
	General	158	41.0%
	Others	0	0.0%
Marital status	Married	258	67.0%
	Single	119	30.9%
	Separated/divorced	3	0.8%
	Living with partner	0	0.0%
	Widow/widower	3	0.8%
	Refuse to answer	2	0.5%
Education level	Illiterate	14	3.6%
	Primary	10	2.6%
	Secondary	13	3.4%
	Higher education	25	6.5%
	Undergraduate	87	22.6%
	Graduate	187	48.6%
	Post Graduate	49	12.7%
Profession	Business	157	40.8%
	Service	129	33.5%
	Student	30	7.8%
	Housewife	26	6.8%
	Looking for work	2	0.5%
	Retired	2	0.5%
	Others	39	10.1%
Annual income	Less than 250000	145	37.7%
	250001 to 500000	113	29.4%
	500001 to 1000000	92	23.9%
	Above 1000000	35	9.0%
Savings percentage	0-5	56	14.5%
	6-10	78	20.3%
	11-15	187	48.6%
	16-20	32	8.3%

	21-25	15	3.9%
	26-30	7	1.8%
	31-35	6	1.6%
	Above 35	4	1.0%
Family size	Single	17	4.4%
	2-4 members	203	52.7%
	5-7 members	155	40.3%
	More than 7	10	2.6%
Dependents	1	57	14.8%
	2	221	57.4%
	3	52	13.5%
	4	37	9.6%
	More than 4	18	4.7%

From the table, it can be observed that more than 50% of the respondents are in the age group of 21 and 30. Majority of the respondents were male (74%). Based on the caste, the respondents were 41% of general merit, and 67% of the respondents were married.

4.2 Assessment of demographic factors influencing the Investment objective of the respondents

Following is the assessment of demographic factors influencing the investment objective of the respondents. In this study age, gender, caste, marital status, education level, profession, income level, saving percentage, family size and number of dependants are considered to study the demographics.

4.2.1 Association between age and investment objectives

The influence of demographic factor like age on investment objectives is analysed by using One-Way ANOVA as given below:

Table2: Descriptive

	N	Mean	Std. Deviation
21 to 30	193	3.6249	.73165
31 to 40	111	3.6703	.66846
41 to 50	52	3.4808	.63247
51 to 60	25	3.4600	.74162
61 and above	4	3.3500	.17321
Total	385	3.6049	.69926

Table 3: One-Way ANOVA results: Investment Objective

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.137	4	.534	1.094	.359
Within Groups	185.623	380	.488		
Total	187.761	384			

A one-way ANOVA was conducted to compare the effect of age at investment objective. The test was conducted to check if there is any change in behaviour with respect to the investment objective among respondents of different age groups.

It was found that there was no significant effect of age on investment objective at the p< 0.05 level for the five conditions [F (4, 380) = 1.094, p = 0. 359].

Looking at the description table, it can be interpreted that the respondents in the age group of 31 to 40 (M = 3.6703, SD = 0.66846) had higher investment objective. Though there was very little difference among the rest of the groups, the least risk was felt by the respondents with the age group of 61 and above (M = 3.35, SD = 0.17321).

4.2.2 Association between gender and investment objective

The influence of demographic factor like age on investment objectives is analysed by using Independents sample test as given below:

Table 4: Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Investment Objectives	Male	284	3.5824	.69163	.04104
	Female	100	3.6770	.71828	.07183

Table 5: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Investment Objectives	Equal variances assumed	.718	.397	-1.165	382	.245	-.09461	.08124	-.25433	.06512
	Equal variances not assumed			-1.144	167.930	.254	-.09461	.08273	-.25792	.06871

The Sig. (2-Tailed) value is .245. This value is less than .05 (p> 0.05), it was interpreted that there was no significant difference between the male and female respondents on investment preference.

4.2.3 Association between caste and investment objective

One-Way ANOVA is used to analyse the influence of caste on investment objectives as given below:

Table 6: Descriptive

	N	Mean	Std. Deviation
SC	36	3.3000	.84211
ST	48	3.7500	.66748
OBC	143	3.6483	.61218
General	158	3.5911	.73201
Total	385	3.6049	.69926

Table 7: One-way ANOVA results

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.656	3	1.552	3.229	.023
Within Groups	183.105	381	.481		
Total	187.761	384			

Table 8: Multiple Comparisons

Tukey HSD						
(I) Caste	(J) Caste	Mean	Std.	Sig.	95% Confidence Interval	
Group	Group	Difference (I-J)	Error		Lower Bound	Upper Bound
SC	ST	-.45000*	.15285	.018	-.8444	-.0556
	OBC	-.34825*	.12927	.037	-.6818	-.0147
	General	-.29114	.12803	.106	-.6215	.0392
ST	SC	.45000*	.15285	.018	.0556	.8444
	OBC	.10175	.11564	.815	-.1967	.4002
	General	.15886	.11425	.506	-.1360	.4537
OBC	SC	.34825*	.12927	.037	.0147	.6818
	ST	-.10175	.11564	.815	-.4002	.1967
	General	.05711	.08002	.892	-.1494	.2636
General	SC	.29114	.12803	.106	-.0392	.6215
	ST	-.15886	.11425	.506	-.4537	.1360
	OBC	-.05711	.08002	.892	-.2636	.1494
*. The mean difference is significant at the 0.05 level.						

Table 9: Homogeneous Subsets

Tukey HSD			
Caste Group	N	Subset for alpha = 0.05	
		1	2
SC	36	3.3000	
General	158	3.5911	3.5911
OBC	143		3.6483
ST	48		3.7500
Sig.		.081	.562
Means for groups in homogeneous subsets are displayed.			
a.Uses Harmonic Mean Sample Size = 64.586.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

A one-way between subjects' ANOVA was conducted to compare the effect of caste on Investment objectives. There was a significant effect of caste on Investment objectives at the $p < 0.05$ level for the four conditions [F (3, 381) = 3.229, p = 0.023].

Post hoc comparisons using the Tukey HSD test indicated that the mean score for the caste group SC (mean = 3.3000, SD=.84211) is different from ST (mean=3.7500, SD=.66748) and OBC (Mean=3.6483, SD= .61218).

Further, table 4.76 of Homogeneous subset shows that caste group General and SC are grouped together because they do not differ from each other. Similarly, caste group General, OBC and ST are grouped together.

4.2.4 Association between marital status and investment objective

The influence of marital status on investment objectives is analysed by using One-Way ANOVA isgiven below:

Table 10: Descriptive

	N	Mean	Std. Deviation
Married	258	3.6430	.67407
Single	119	3.5328	.75567
Separated/divorced	3	3.9000	.17321
Widow/widower	3	3.0333	.50332
Refuse to answer	2	3.4000	.84853
Total	385	3.6049	.69926

Table 11: One-Way ANOVA results: Investment Objective

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.319	4	.580	1.188	.316
Within Groups	185.441	380	.488		
Total	187.761	384			

A one-way between subject's ANOVA was conducted to compare the effect of marital status on investment preference in various conditions. The test was conducted to check if there is any change in investment preference among respondents of different marital status.

It was found that there was no significant effect of age on investment preference at the p<0.05 level for the five conditions [F (4, 380) = 1.188, p = 0.316].

4.2.5 Association between education and investment objective

The influence of education on investment objectives is analysed by using One-Way ANOVAis given below:

Table 12: Descriptive results with the education of respondents: Investment Objective

	N	Mean	Std. Deviation
Illiterate	14	3.3643	.86167
Primary	10	3.6100	.58963
Secondary	13	3.3000	.85538
Higher education	25	3.1280	.63870
Undergraduate	87	3.4839	.60768
Graduate	187	3.7497	.63181
Post Graduate	49	3.6592	.88221
Total	385	3.6049	.69926

Table 13: One-Way ANOVA results: Investment Objective

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.046	6	2.174	4.704	.000
Within Groups	174.715	378	.462		
Total	187.761	384			

Table 14: Multiple Comparisons

Tukey HSD						
(I) Education level	(J) Education level	Mean Difference	Std. Error	Sig.	95% Confidence	
					Lower	Upper
Illiterate	Primary	-.24571	.28149	.976	-1.0801	.5887
	Secondary	.06429	.26186	1.000	-.7119	.8405
	Higher	.23629	.22694	.944	-.4364	.9090
	Undergraduate	-.11962	.19577	.996	-.7000	.4607
	Graduate	-.38545	.18838	.387	-.9439	.1730
	Post Graduate	-.29490	.20603	.785	-.9056	.3158
Primary	Illiterate	.24571	.28149	.976	-.5887	1.0801
	Secondary	.31000	.28596	.933	-.5377	1.1577
	Higher	.48200	.25438	.485	-.2721	1.2361
	Undergraduate	.12609	.22701	.998	-.5468	.7990
	Graduate	-.13973	.22066	.996	-.7938	.5144
	Post Graduate	-.04918	.23591	1.000	-.7485	.6501
Secondary	Illiterate	-.06429	.26186	1.000	-.8405	.7119
	Primary	-.31000	.28596	.933	-1.1577	.5377
	Higher education	.17200	.23247	.990	-.5171	.8611
	Undergraduate	-.18391	.20216	.971	-.7832	.4153
	Graduate	-.44973	.19500	.244	-1.0278	.1283
	Post Graduate	-.35918	.21210	.621	-.9879	.2696
Higher education	Illiterate	-.23629	.22694	.944	-.9090	.4364
	Primary	-.48200	.25438	.485	-1.2361	.2721
	Secondary	-.17200	.23247	.990	-.8611	.5171
	Undergraduate	-.35591	.15428	.243	-.8132	.1014
	Graduate	-.62173*	.14478	.000	-1.0509	-.1926
	Post Graduate	-.53118*	.16710	.027	-1.0265	-.0359
Undergraduate	Illiterate	.11962	.19577	.996	-.4607	.7000
	Primary	-.12609	.22701	.998	-.7990	.5468
	Secondary	.18391	.20216	.971	-.4153	.7832
	Higher	.35591	.15428	.243	-.1014	.8132
	Graduate	-.26582*	.08823	.044	-.5274	-.0043

	Post Graduate	-.17528	.12143	.778	-.5352	.1847
Graduate	Illiterate	.38545	.18838	.387	-.1730	.9439
	Primary	.13973	.22066	.996	-.5144	.7938
	Secondary	.44973	.19500	.244	-.1283	1.0278
	Higher education	.62173*	.14478	.000	.1926	1.0509
	Undergraduate	.26582*	.08823	.044	.0043	.5274
	Post Graduate	.09055	.10911	.982	-.2329	.4140
Post Graduate	Illiterate	.29490	.20603	.785	-.3158	.9056
	Primary	.04918	.23591	1.000	-.6501	.7485
	Secondary	.35918	.21210	.621	-.2696	.9879
	Higher education	.53118*	.16710	.027	.0359	1.0265
	Undergraduate	.17528	.12143	.778	-.1847	.5352
	Graduate	-.09055	.10911	.982	-.4140	.2329
*. The mean difference is significant at the 0.05 level.						

Table 15: Homogeneous Subsets

Tukey HSD			
Education level	N	Subset for alpha = 0.05	
		1	2
Higher education	25	3.1280	
Secondary	13	3.3000	3.3000
Illiterate	14	3.3643	3.3643
Undergraduate	87	3.4839	3.4839
Primary	10	3.6100	3.6100
Post Graduate	49	3.6592	3.6592
Graduate	187		3.7497
Sig.		.141	.315
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 21.499.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error			

A one-way between subject's ANOVA was conducted to compare the effect of education level on investment objectives in illiterate, primary, secondary, higher education, undergraduate, graduates and postgraduates. The test was conducted to check if there is any change in investment preference with respect to the education among respondents.

It was found that there was a significant effect of education level on investment preference at the $p < 0.05$ level for the five conditions [$F(6, 378) = 4.704$, $p = 0.000$].

Post hoc comparisons using the Tukey HSD test indicated that the mean score for the respondents of education level of graduate ($M = 3.7497$, $SD = 0.63181$) was significantly different with the respondents with higher education ($M = 3.1280$, $SD = 0.63870$) and under graduates ($M = 3.4839$, $SD = 0.60768$). Similarly, education level of Post graduate ($M = 3.6592$, $SD = 0.88221$) was significantly different with the respondents with higher education ($M = 3.1280$, $SD = 0.63870$).

It can be interpreted from the description table that the respondents who had the education of graduate had higher investment objective. Though there was very little difference among the rest of the groups, the least risk was felt by the respondents who had pursued higher education.

Further,table 15 of Homogeneous subset shows those respondents with secondary, illiterate, undergraduate, primary and postgraduate can be groupedtogether. Similarly, the respondents with illiterate, undergraduate, primary, postgraduate and graduates can be groupedtogether.

4.2.6 Association between Profession and investment objective

The influence of the profession of respondent's on investment objectives is analysed by using One-Way ANOVA is given below:

Table 16: Descriptive

	N	Mean	Std. Deviation
Business	157	3.6497	.68375
Service	129	3.6845	.72645
Student	30	3.5333	.74941
Housewife	26	3.3577	.81002
Looking for work	2	4.5500	.63640
Retired	2	3.7000	.56569
Others	39	3.3282	.40389
Total	385	3.6049	.69926

Table 17: One-Way ANOVA results: Investment Objective

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.665	6	1.278	2.681	.015
Within Groups	180.096	378	.476		
Total	187.761	384			

Table 18: Multiple Comparisons.

Tukey HSD						
(I) Profession	(J) Profession	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower	Upper
Business	Service	-.03481	.08202	1.000	-.2780	.2083
	Student	.11635	.13754	.980	-.2913	.5240
	Housewife	.29199	.14615	.418	-.1412	.7252
	Looking for work	-.90032	.49118	.527	-2.3563	.5557
	Retired	-.05032	.49118	1.000	-1.5063	1.4057
	Others	.32148	.12350	.128	-.0446	.6876
Service	Business	.03481	.08202	1.000	-.2083	.2780
	Student	.15116	.13991	.934	-.2636	.5659
	Housewife	.32680	.14838	.297	-.1131	.7667
	Looking for work	-.86550	.49185	.576	-2.3235	.5925
	Retired	-.01550	.49185	1.000	-1.4735	1.4425
	Others	.35629	.12613	.073	-.0176	.7302
Student	Business	-.11635	.13754	.980	-.5240	.2913
	Service	-.15116	.13991	.934	-.5659	.2636
	Housewife	.17564	.18495	.964	-.3726	.7239
	Looking for work	-1.01667	.50409	.406	-2.5109	.4776
	Retired	-.16667	.50409	1.000	-1.6609	1.3276
	Others	.20513	.16762	.885	-.2918	.7020
	Business	-.29199	.14615	.418	-.7252	.1412
	Service	-.32680	.14838	.297	-.7667	.1131
	Student	-.17564	.18495	.964	-.7239	.3726
	Looking for work	-1.19231	.50650	.221	-2.6937	.3091
	Retired	-.34231	.50650	.994	-1.8437	1.1591
	Others	.02949	.17476	1.000	-.4886	.5475
	Business	.90032	.49118	.527	-.5557	2.3563
	Service	.86550	.49185	.576	-.5925	2.3235

	Student	1.01667	.50409	.406	-.4776	2.5109
	Housewife	1.19231	.50650	.221	-.3091	2.6937
	Retired	.85000	.69025	.882	-1.1961	2.8961
	Others	1.22179	.50044	.184	-.2617	2.7052
	Business	.05032	.49118	1.000	-1.4057	1.5063
	Service	.01550	.49185	1.000	-1.4425	1.4735
	Student	.16667	.50409	1.000	-1.3276	1.6609
	Housewife	.34231	.50650	.994	-1.1591	1.8437
	Looking for work	-.85000	.69025	.882	-2.8961	1.1961
	Others	.37179	.50044	.990	-1.1117	1.8552
	Business	-.32148	.12350	.128	-.6876	.0446
	Service	-.35629	.12613	.073	-.7302	.0176
	Student	-.20513	.16762	.885	-.7020	.2918
	Housewife	-.02949	.17476	1.000	-.5475	.4886
	Looking for work	-1.22179	.50044	.184	-2.7052	.2617
	Retired	-.37179	.50044	.990	-1.8552	1.1117

Table 19: Homogeneous Subsets

Tukey HSD			
Profession	N	Subset for alpha = 0.05	
		1	2
		3.3282	
		3.3577	
		3.5333	3.5333
		3.6497	3.6497
		3.6845	3.6845
		3.7000	3.7000
			4.5500
		.963	.125
Means for groups in homogeneous subsets are displayed.			
a.Uses Harmonic Mean Sample Size = 6.297.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

A one-way ANOVA was conducted to compare the effect of different professions with investment objectives. The test was conducted to check if there is any change in investment objective among respondents of different professions.

It was found that there was a significant effect of the profession on investment objectives at the $p< 0.05$ level for the seven conditions [F (6, 378) = 2.604, p = 0. 17].

It can be interpreted from the description table that the respondents who are looking for work had higher investment objective. Though there was very little difference among the rest of the groups, the least risk was felt by the respondents in another category.

Further, table 19 of Homogeneous subset shows those respondents under the professional category of others, housewife, students, business, services and retired can be groupedtogether. Similarly, the respondents under the professional category of students, business, services, retired and looking for work can be grouped together.

4.2.7 Association between Income level and investment objective

The influence of Income level of respondent's on investment objectives is analysed by using One-Way ANOVA is given below:

Table 20: Descriptiveresults with the Income level: Investment Objective

	N	Mean	Std. Deviation
Less than 250000	145	3.5283	.68503
250001 to 500000	113	3.5558	.63414
500001 to 1000000	92	3.6217	.65831
Above 1000000	35	4.0371	.90784
Total	385	3.6049	.69926

Table 21: One-Way ANOVA results: Investment Objective

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.690	3	2.563	5.423	.001
Within Groups	180.071	381	.473		
Total	187.761	384			

Table 22: Multiple Comparisons

Tukey HSD

Annual income	(J) Annual income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than 250000	250001 to 500000	-.02748	.08627	.989	-.2501	.1951
	500001 to 1000000	-.09346	.09163	.738	-.3299	.1430
	Above 1000000	-.50887*	.12947	.001	-.8430	-.1748
250001 to 500000	Less than 250000	.02748	.08627	.989	-.1951	.2501
	500001 to 1000000	-.06599	.09654	.903	-.3151	.1831
	Above 1000000	-.48139*	.13299	.002	-.8246	-.1382
500001 to 1000000	Less than 250000	.09346	.09163	.738	-.1430	.3299
	250001 to 500000	.06599	.09654	.903	-.1831	.3151
	Above 1000000	-.41540*	.13653	.013	-.7677	-.0631
Above 1000000	Less than 250000	.50887*	.12947	.001	.1748	.8430
	250001 to 500000	.48139*	.13299	.002	.1382	.8246
	500001 to 1000000	.41540*	.13653	.013	.0631	.7677

*. The mean difference is significant at the 0.05 level.

Table 23: Homogeneous Subsets

Tukey HSD

Annual income	N	Subset for alpha = 0.05	
		1	2
Less than 250000	145	3.5283	

250001 to 500000	113	3.5558	
500001 to 1000000	92	3.6217	
Above 1000000	35		4.0371
Sig.		.846	1.000
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 72.481.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

A one-way ANOVA was conducted to compare the effect of respondents with different income level on investment objectives. The test was conducted to check if there is any change in investment objectives among respondents of different income level.

It was found that there was a significant effect of income level on investment objectives at the $p< 0.05$ level for the four conditions [$F (3, 381) = 2.563$, $p =.001$].

Post hoc comparisons using the Tukey HSD test indicated that the mean score for the respondents having income level above 1000000 (M = 4.0371, SD = 0.90784) was significantly different with the respondents having income level of less than 250000 (M = 3.5283, SD = 0.68503), 250001 to 500000 (M = 3.5558, SD = 0.63414) and 500001 to 1000000 (M = 3.6217, SD = 0.65831).

It can be interpreted from the description table that the respondents who had income above 1000000 had higher investment objective. Though there was very little difference between the rests of the group, the least risk was felt by the respondents having an income level of less than 250000.

Further,the table23 of Homogeneous subset shows those respondents under the annual income group of less than 250000, 250001 to 500000, and 500000 to 1000000 can be groupedtogether. Further, those respondents having annual income above 1000000 can be grouped separately.

4.2.8 Association between saving percentage and investment objective

The influence of saving percentage of respondents on investment objectives are analysed by using One-Way ANOVA is given below:

Table 24: Descriptiveresults with the saving percentage: Investment Objective

	N	Mean	Std. Deviation
0-5	56	3.3054	.76192
6-10	78	3.6462	.76544
11-15	187	3.7096	.56513

16-20	32	3.7500	.64056
21-25	15	3.2800	.76644
26-30	7	3.9143	.16762
31-35	6	2.7000	1.26807
Above 35	4	2.9750	1.35739
Total	385	3.6049	.69926

Table 25: One-Way ANOVA results: Investment Objective

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.636	7	2.377	5.236	.000
Within Groups	171.125	377	.454		
Total	187.761	384			

Table 26: Multiple Comparisons

Tukey HSD						
(I) Savings percentage	(J) Savings percentage	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0-5	6-10	-.34080	.11800	.078	-.7005	.0189
	11-15	-.40427*	.10263	.002	-.7171	-.0914
	16-20	-.44464	.14930	.061	-.8997	.0104
	21-25	.02536	.19587	1.000	-.5717	.6224
	26-30	-.60893	.27009	.322	-1.4322	.2143
	31-35	.60536	.28941	.422	-.2768	1.4875
	Above 35	.33036	.34869	.981	-.7325	1.3932
6-10	0-5	.34080	.11800	.078	-.0189	.7005
	11-15	-.06347	.09081	.997	-.3403	.2133
	16-20	-.10385	.14144	.996	-.5349	.3273
	21-25	.36615	.18995	.533	-.2128	.9451
	26-30	-.26813	.26583	.973	-1.0784	.5421
	31-35	.94615*	.28543	.022	.0761	1.8162
	Above 35	.67115	.34539	.522	-.3816	1.7239

	0-5	.40427*	.10263	.002	.0914	.7171
	6-10	.06347	.09081	.997	-.2133	.3403
	16-20	-.04037	.12889	1.000	-.4332	.3525
11-15	21-25	.42963	.18080	.256	-.1215	.9807
	26-30	-.20466	.25937	.994	-.9952	.5859
	31-35	1.00963*	.27943	.008	.1579	1.8613
	Above 35	.73463	.34045	.380	-.3031	1.7723
	0-5	.44464	.14930	.061	-.0104	.8997
	6-10	.10385	.14144	.996	-.3273	.5349
	11-15	.04037	.12889	1.000	-.3525	.4332
	21-25	.47000	.21082	.337	-.1726	1.1126
	26-30	-.16429	.28112	.999	-1.0212	.6926
	31-35	1.05000*	.29973	.012	.1364	1.9636
	Above 35	.77500	.35730	.373	-.3141	1.8641
	0-5	-.02536	.19587	1.000	-.6224	.5717
	6-10	-.36615	.18995	.533	-.9451	.2128
	11-15	-.42963	.18080	.256	-.9807	.1215
	16-20	-.47000	.21082	.337	-1.1126	.1726
	26-30	-.63429	.30839	.445	-1.5743	.3057
16-20	31-35	.58000	.32544	.633	-.4120	1.5720
	Above 35	.30500	.37913	.993	-.8506	1.4606
	0-5	.60893	.27009	.322	-.2143	1.4322
	6-10	.26813	.26583	.973	-.5421	1.0784
	11-15	.20466	.25937	.994	-.5859	.9952
	16-20	.16429	.28112	.999	-.6926	1.0212
	21-25	.63429	.30839	.445	-.3057	1.5743
	31-35	1.21429*	.37483	.028	.0718	2.3568
	Above 35	.93929	.42228	.340	-.3478	2.2264
	0-5	-.60536	.28941	.422	-1.4875	.2768
	6-10	-.94615*	.28543	.022	-1.8162	-.0761
	11-15	-1.00963*	.27943	.008	-1.8613	-.1579
	16-20	-1.05000*	.29973	.012	-1.9636	-.1364
	21-25	-.58000	.32544	.633	-1.5720	.4120

	26-30	-1.21429*	.37483	.028	-2.3568	-.0718
	Above 35	-.27500	.43489	.998	-1.6006	1.0506
	0-5	-.33036	.34869	.981	-1.3932	.7325
	6-10	-.67115	.34539	.522	-1.7239	.3816
	11-15	-.73463	.34045	.380	-1.7723	.3031
	16-20	-.77500	.35730	.373	-1.8641	.3141
	21-25	-.30500	.37913	.993	-1.4606	.8506
	26-30	-.93929	.42228	.340	-2.2264	.3478
	31-35	.27500	.43489	.998	-1.0506	1.6006
*. The mean difference is significant at the 0.05 level.						

Table 27: Homogeneous Subsets

Tukey HSD				
Savings percentage	N	Subset for alpha = 0.05		
		1	2	3
31-35	6	2.7000		
Above 35	4	2.9750	2.9750	
21-25	15	3.2800	3.2800	3.2800
0-5	56	3.3054	3.3054	3.3054
6-10	78		3.6462	3.6462
11-15	187		3.7096	3.7096
16-20	32		3.7500	3.7500
26-30	7			3.9143
Sig.		.380	.108	.318
Means for groups in homogeneous subsets are displayed.				
a. Uses Harmonic Mean Sample Size = 11.536.				
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.				

A one-way between subject's ANOVA was conducted to compare the effect of saving percentage on investment objectives in various saving percentage conditions. The test was conducted to check if there is any change in investment objectives among respondents at a different saving percentage.

It was found that there was a significant effect of saving percentage on investment objectives at the $p < 0.05$ level for the eight conditions [$F(7, 377) = 2.377$, $p = .000$].

Post hoc comparisons using the Tukey HSD test indicated that the mean score for the respondents having saving percentage of 31 to 35 (M = 2.7000, SD = 1.26807) was significantly different with the respondents having saving percentage 6 -10 (M = 3.6462, SD = 0.76544), 11-15 (M = 3.7096, SD = 0. 56513), 16-20 (M = 3.7500, SD = 0.64056), and 26-30 (M = 3.9143, SD = 0.16762). Similarly, respondents having saving percentage of 0 to 5 (M = 3.3054, SD = 0.76192) was significantly different with the respondents having saving percentage 11 -15.

It can be interpreted from the description table that the respondents who had a saving percentage of 16 -20 had higher investment objective. Though there was very little difference among the rest of the groups, the least risk was felt by the respondents having a saving percentage of 31 to 35.

Further the table 27 of Homogeneous subset shows those respondents with saving percentage of 31-35, above 35, 21-25 and 0-5 can be grouped together, similarly respondents with saving percentage of above 35, 21-25, 0-5, 6-10, 11-15 and 16-20% can be grouped together and those with 21-25, 0-5, 6-10, 11-15, 16-20 and 26 to 30% can be grouped together

4.2.9 Association between Family size and investment objective

The influence of the family size of respondent's on investment objectives are analysed by using One-Way ANOVA is given below:

Table 28: Descriptive results with the Family size: Investment Objective

	N	Mean	Std. Deviation
Single	17	3.41	.925
2-4 members	203	3.59	.645
5-7 members	155	3.67	.741
More than 7	10	3.30	.593
Total	385	3.60	.699

Table 29: Anova

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.317	3	.772	1.587	.192
Within Groups	185.444	381	.487		
Total	187.761	384			

A one-way between subject's ANOVA was conducted to compare the effect of family size on investment objectives in various conditions. The test was conducted to check if there is any change in investment objectives among respondents of different family size. It was found that there was no significant effect of family size on investment preference at the $p < 0.05$ level for the four conditions [$F(3, 381)$ 1.587, $p = .192$].

4.2.10 Association between the number of dependents and investment objective

The influence of a number of dependents of respondent's on investment objectives are analysed by using One-Way ANOVA is given below:

Table 30: Descriptive results with the Number of dependents: Investment Objective

	N	Mean	Std. Deviation
1	57	3.5298	.75403
2	221	3.7778	.64174
3	52	3.2615	.63405
4	37	3.2919	.78506
More than 4	18	3.3556	.53272
Total	385	3.6049	.69926

Table 31: One-Way ANOVA results: Investment Objective

ANOVA					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	17.805	4	4.451	9.952	.000
Within Groups	169.956	380	.447		
Total	187.761	384			

Table 32: Multiple Comparisons

Dependent Variable: Investment Objectives						
(I) Dependents	(J) Dependents	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.24800	.09935	.094	-.5203	.0243
	3	.26829	.12825	.226	-.0832	.6198
	4	.23793	.14119	.444	-.1491	.6249
	More than 4	.17427	.18081	.871	-.3213	.6699
2	1	.24800	.09935	.094	-.0243	.5203
	3	.51629*	.10308	.000	.2338	.7988
	4	.48594*	.11879	.001	.1603	.8115
	More than 4	.42227	.16392	.077	-.0270	.8716
3	1	-.26829	.12825	.226	-.6198	.0832
	2	-.51629*	.10308	.000	-.7988	-.2338
	4	-.03035	.14384	1.000	-.4246	.3639

	More than 4	-.09402	.18289	.986	-.5953	.4073
4	1	-.23793	.14119	.444	-.6249	.1491
	2	-.48594*	.11879	.001	-.8115	-.1603
	3	.03035	.14384	1.000	-.3639	.4246
	More than 4	-.06366	.19219	.997	-.5904	.4631
More than 4	1	-.17427	.18081	.871	-.6699	.3213
	2	-.42227	.16392	.077	-.8716	.0270
	3	.09402	.18289	.986	-.4073	.5953
	4	.06366	.19219	.997	-.4631	.5904
*. The mean difference is significant at the 0.05 level.						

Table 33: Turkey HSD

Dependents	N	Subset for alpha = 0.05	
		1	2
3	52	3.2615	
4	37	3.2919	
More than 4	18	3.3556	
1	57	3.5298	3.5298
2	221		3.7778
Sig.		.374	.456
Means for groups in homogeneous subsets are displayed.			
a.Uses Harmonic Mean Sample Size = 40.361.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

A one-way between subjects' ANOVA was conducted to compare the effect of a number of dependants at respondents on investment objectives. The test was conducted to check if there is any change in investment objectives among respondents who have a different number of dependants.

It was found that there was no significant effect of a number of dependents on investment objectives at the p< 0.05 level for the five conditions [F (4, 380) = 9.952, p =.000].

Post hoc comparisons using the Tukey HSD test indicated that the mean score for the respondents having 2 number of dependents (M = 3.7778, SD = 0.64174) was significantly different with the respondents having 3 (M = 3.2615, SD = 0.63405), and 4 dependents (M = 3.2919, SD = 0.78506).

It can be interpreted from the description table that the respondents who had 2 dependents had higher investment objective. Though there was very little difference among the rest of the groups, the least risk was felt by the respondents having 3 dependents.

Further, the table 4.100 of Homogeneous subset shows those respondents with dependents of 1, 3, 4 and more than 4 can be grouped together, and those with dependents of 1 and 2 can be grouped together.

5. Conclusion

The results suggest that the investment objectives of the respondents vary significantly based on various demographic factors. It can be concluded that the demographic factors like Caste, education level, profession, income level, saving percentage and number of dependents vary significantly with respect to their investment objectives, and the demographic factors like age, gender, marital status and family size does not vary significantly with respect to their investment objectives.

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ANTECEDENTS TO PERFORMANCE MANAGEMENT ENACTMENT BY FRONT LINE MANAGERS AND THE ROLE OF MIDDLE MANAGERS

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Abstract
There is a lack of research on the role of Front Line Managers (FLMs) and their supervisors (Middle Manager) in the implementation of Performance Management (PM). This review article integrates ideas from the literatures on HR devolution to line management and the role of middle management in business strategy, to propose a model of antecedents to PM enactment by FLMs and their association with employee perceived PM system effectiveness. The antecedents consist of FLM's desire, capacity, & competency, to undertake PM responsibilities, perceived clarity in PM policies and procedures and involvement of middle manager in performance management. Implications to research and future recommendations are discussed. Keywords – *Performance Management Implementation, Front Line Manager, Middle Manager, HRM Devolution, Multi-level Performance Management*

Introduction

"Performance Management (PM) is a continuous process of identifying, measuring and developing the performance of organisation members and aligning performance with the strategic goals of the organisation" (Aguinis & Pierce, 2008). It encompasses a broad set of activities, policies, procedures, and interventions aimed at improving individual performance with the ultimate aim of improving organization performance (DeNisi & Murphy, 2017; Denisi & Pritchard, 2006) and is therefore a multi level and cross level process involving organizational, group, and individual levels of interventions (Den Hartog et al., 2004). Despite the importance and prevalence of performance management in organizations across industries and national settings (Pritchard & Payne, 2003), there remains widespread concern and criticism with regard to its effectiveness to the organization and its employees (Furnham, 2004; Hazard, 2004; Pulakos, 2009). Bowen & Ostroff (2004) proposed that in order for HRM to lead to individual and firm performance, both HRM content, which is the set of formal practices adopted, and HRM process, which is the way HRM system is designed and implemented at the work floor, must be integrated, in order to create a strong climate for performance. Purcell & Hutchinson (2007) highlighted that only adoption of HR practices is not enough; it is the combination of leadership behaviour, HR practices and organisational climate that results in desired individual attitudes and behaviours which is in line with the organization goals. Therefore effectiveness of the PM system hinges upon use of properly designed PM practices and their proper implementation across all levels in the organization in order to have a positive effect on employee motivation and performance, build a shared performance climate among the employees and have a combined effect of the individual performances on overall improvements in firm level performance.

The role of Front line manager

Employees can perceive PM practices significantly different than the way they were intended by the organization (Wright & Nishii, 2006). One of the main reasons cited in literature for this gap is the way in which PM is implemented by the front line manager (FLM) (Purcell & Hutchinson, 2007); when implemented improperly, PM practices can become a burden rather than a motivational tool (Biron et al., 2011). FLMs are the lowest level in the organisation‟s management responsible for the direct supervision of non-managerial employees and the primary responsible for implementation of HR practices and in particular performance management (Hales, 2005). They set goals, provide feedback, appraise performance, and identify and provide training and rewards (Guest, 1997). Due to their cognitive proximity, line managers are reported to have a significant impact on employees‟ behaviours and attitudes towards the organization than more distal factors like senior management and HR management (Chen et al., 2002; Redman and Snape, 2005). It is also reported that line managers are reluctant, incapable or unmotivated, and burdened due to increased HR responsibilities in addition to their operational role and have therefore mostly failed in fulfilling their HR role (Bos-Nehles, 2010). Despite the importance of the line manager in the implementation of PM, research has largely neglected this role (Den Hartog et al., 2004; Purcell & Hutchinson, 2007) and the question of what causes line managers to implement PM effectively (Dewettinck & Vroonen, 2017). The literature on devolvement of HR responsibilities to the line manager identifies five HR factors perceived by FLMs, the lack of which has negative consequences on their HRM implementation, namely, (1) they are unwilling to take on their HR responsibilities (*desire)* (Harris et al., 2002), (2) they do not have the time to perform HR practices (*capacity)* (McGovern et al., 1997), (3) they lack HR-related competences (*competencies)* (Hall & Torrington, 1998), (4) they need *support from HR* professionals (Bond & Wise, 2003) and (5) they need *policies and procedures* to guide them in performing their HR responsibilities (Bowen & Ostroff, 2004). Although the HR constraints were reported from the perspective of FLMs‟ overall HR responsibilities, including a range of practices from performance management, managing grievance and discipline, absence management, recruitment, career development, and training and development (Renwick, 2003; McGovern et al., 1997; Bos-Nehles, 2010), since FLMs have a direct involvement with performance management (McGovern et al., 1997) and are the primary responsible for its implementation, it can be argued that FLMs shall experience the same constraints with respect to their responsibilities specific to PM.

The role of middle managers

Another factor largely ignored in performance management literature is the role of mid-level managers, in particular FLMs" direct supervisor. The leadership behaviours of FLMs" own manager was found to be the most significant variable explaining FLMs" levels of affective commitment and job satisfaction (Hutchinson & Purcell, 2003). It has likewise been argued that the way FLMs enact performance management is influenced by the leadership behaviours of their managers (Bowen & Ostroff, 2004; Purcell & Hutchinson, 2007). However a literature search on performance management with respect to the specific role of middle managers who are responsible for direct supervision of FLMs, did not reveal any article except for a few studies on the role of either top management or „senior management" in general where the distinction between top, middle and front line manager roles were absent (Biron et al., 2011; Wood & Marshall, 2008; Rao, 2007). For instance Biron et al. (2011) reported the significance of active involvement of senior management in the design and implementation of PM in high-performance firms and Wood & Marshall (2008) reported the positive association between senior managements" concern for the appraisal process and appraiser self efficacy which further determined the perceived accuracy and effectiveness of appraisals. The authors did not distinguish the specific role of middle managers in performance management. There is a however a growing body of research on middle managements" role in overall strategy formulation and implementation, from which further insights can be drawn with regard to middle managers" role in performance management (Wooldridge et al., 2008).

Research Questions

Based on the research gaps presented and objective of this article, following research questions are posed -

1. Does involvement of middle manager (FLM"s supervisor) in performance management have a positive effect on PM System effectiveness?
2. Does involvement of middle manager (FLM"s supervisor) in performance management have a positive effect on FLM"s desire, capacity, and competence, to perform performance management tasks, and perceived clarity in PM policies and procedures?
3. Does higher level of FLM"s desire, capacity, and competence, to perform performance management tasks, and perceived clarity in PM policies and procedures have a positive effect on PM system effectiveness?

Theoretical Model

The proposed theoretical model (Figure 1) takes into account the factors perceived by FLMs that are likely to have a significant influence on the effectiveness of their PM implementation. The FLMs" PM Enactment factors have been adapted from the idea of the various constraints faced by FLMs while implementing HR practices as reported by the HR devolution literature; specifically, FLMs" desire, capacity, and competence, to perform PM practices, and clarity in PM policies and procedures are hypothesised as having direct association with the PM System effectiveness perceived by employees. The model further takes in account the role of mid-level managers (FLMs‟ direct supervisor) in the performance management process by considering mid-level managers‟ involvement in PM as antecedent to FLMs PM enactment factors and employees‟ perception of PM system effectiveness. The association between mid-level managers‟ involvement and PM System effectiveness is proposed as being partially mediated by FLMs‟ PM Enactment factors.

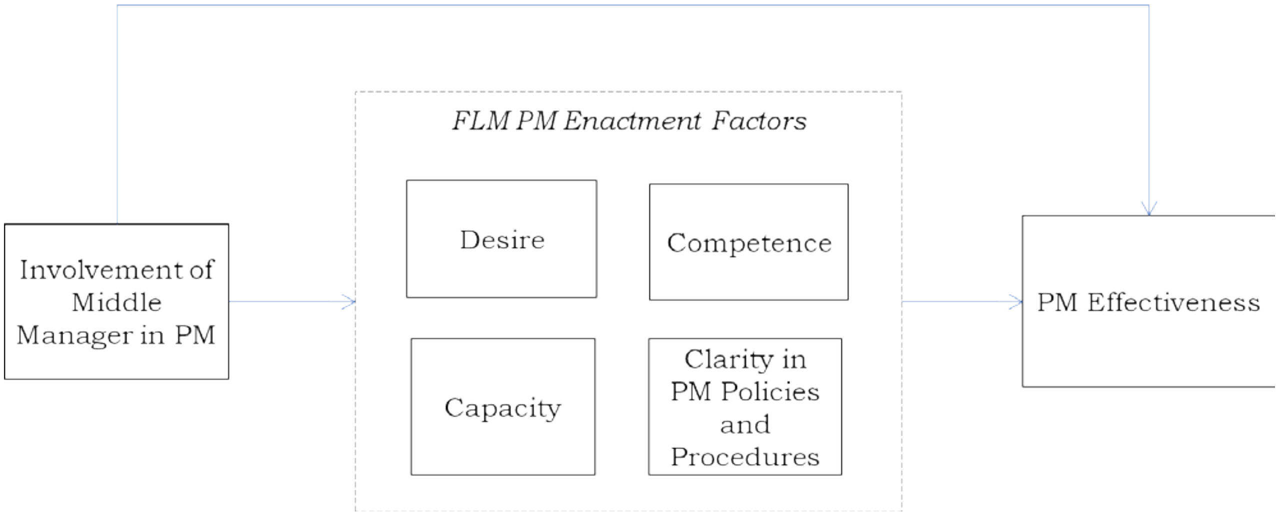

Figure 1 – Schematic representation of the theoretical model

Literature Review and Hypothesis

Front Line Manager PM Enactment Factors

FLMs are the lowest level in the organisation‟s management, responsible for the supervision of non-managerial employees (Hales, 2005). They set goals, provide feedback, appraise performance, and identify and provide training and rewards (Guest, 1997). Due to their cognitive proximity, line managers have a significant impact on employees‟ behaviours and attitudes towards the organization than more distal factors like senior management and HR management (Chen et al., 2002; Redman and Snape, 2005). The fulfilment of line manager‟s people management activities, however, often rely on manager‟s own motivation and commitment (McGovern et al., 1997) and therefore is more likely to be discretionary in nature than the more immediate operational tasks. Therefore the way in which PM practices are implemented by FLMs will differentiate between successful and unsuccessful PM (Biron et al., 2011). However, little is known about the factors that cause FLMs to engage in PM activities (Dewettinck & Vroonen, 2017). Integrating ideas from HR devolution literature, this article shall consider FLM‟s 1) *desire*, 2) *capacity*, and 3) *competency*, to perform PM activities and 4) perceived clarity in *PM policies and procedures* as necessary conditions for effective enactment of PM by FLMs.

FLM's Desire

Willingness among FLMs is an essential condition for a successful implementation of HRM and performance management in particular. It is however reported that FLMs lack personal incentives and consequently the desire to engage in HR responsibilities. Motivation can be created, either in the form of personal incentives (Harris et al., 2002; McGovern, 1999) or institutionalised incentives (McGovern, 1999; Whittaker & Marchington, 2003). FLMs‟ personal incentives towards HRM are determined by perceived value added by HR tasks towards employee motivation and wellbeing, the intrinsic pleasure of doing these tasks, and the quality and quantity of these tasks (Bos-nehles, 2010). McGovern (1999) noted that FLMs‟ personal motivation is a more important factor than institutional incentives. Irrespective of FLMs‟ perceived relevance of these tasks, institutional incentives and regulations can persuade FLMs to give serious consideration to their HR roles, e.g. by making HR responsibilities an integral part of FLMs‟ own performance appraisals, their job descriptions or business policy.

However the HR role is not generally included in line managers‟ performance objectives and line managers are mostly evaluated on achieving targets related to profits or sales and not in the area of managing people (McGovern et al., 1997). Such a lack of institutional incentives can also affect the personal motivation of line managers to perform HR practices and lead line managers to prioritise operational issues over HR issues (Harris et al., 2002; McGovern et al., 1997). The long term goal of managing and developing people will be taken less seriously (Whittaker & Marchington, 2003). Bos-nehles (2010) found that lower level managers, in particular FLMs, were less motivated to undertake HR tasks compared to senior managers. FLMs‟ lower education levels and greater burden of administrative tasks, compared to those of senior managers, seemed to have a negative effect on FLMs‟ views regarding the added value of HR practices. Further FLMs need to fine tune HR processes according to individual situation and needs for effective HR implementation; individuals prefer personal and informal approach for matters dealing with individual decisions. Mere administration by FLMs of standard procedures and depersonalised instruments of HR is likely to be perceived by employees as ineffective.

Hypothesis 1: The desire of FLMs‟ to perform PM practices is positively associated with PM system effectiveness.

FLM's Competence

FLMs need specialised knowledge and skills to successfully implement of PM. Purcell & Hutchinson (2007) highlighted that effective people management is consequent upon use of effective HR practices in combination with line manager‟s leadership behaviours. Line managers often lack specialist knowledge on HRM (Lowe, 1992; Hall & Torrington, 1998) and have limited people management skills (McGovern et al., 1997). Line managers themselves also report concerns about their level of specialist expertise that is required to manage HR issues (Harris et al., 2002; Whittaker & Marchington, 2003). There is need for continuous and systematic training of FLMs in the ways to conduct HR practices and related legal issues, and leadership behaviours, for e.g. in terms of performance management it is pertinent to train FLMs on effective goal setting, objective evaluation of performance, conduct of appraisal discussion and coaching and motivating employees. However, only a few organizations have been able to institutionalise such effective training programmes (Brewster & Holt Larsen, 2000; Harris et al., 2002). Bos-Nehles (2010) reported that FLMs, with more experience/self efficacy in management function and who evaluated the offered trainings courses as valuable, well developed, and specific, indicated greater perceived competencies in performing HR tasks. Bos-Nehles (2010) found that FLMs‟ HR competencies was the most salient factor predicting how employees perceived the effectiveness of HR practices implement by their

FLMs when compared with the other factors namely, FLMs‟ desire, capacity, levels of HR support, and clarity of policies and procedures.

Hypothesis 2 – FLMs competency to perform PM practices will be positively associated with PM System effectiveness.

FLM's Capacity

FLMs today are responsible for a number of HR duties towards their subordinates in addition to their operational responsibilities (Brewster & Holt Larsen, 2000) thereby increasing the possibility of role overload (Hope-Hailey et al., 2005) which could manifest into FLMs not being able to devote sufficient time to their HR responsibilities (Harris et al., 2002) and giving HR issues low priority against short-term operational pressures (McGovern et al., 1997). Lack of time is often cited as an obstacle in devolving HR to the line (Holt Larsen & Brewster, 2003). Another factor often reported to hinder line manager‟s fulfilment of HR responsibilities is the FLM‟s span of control (SPOC) which is the number of employees directly supervised by the line manager. FLMs with a large SPOC are generally unable to spend enough time with their subordinates affecting the quality of leader member relationship (Cogliser & Schriesheim, 2000). Keegan et al. (2012) reported that a line manager‟s large SPOC could lead to HR activities being reduced to just form-filling for quarterly performance reviews. A large SPOC could hinder effective PM implementation even if FLMs may have a positive attitude towards the usefulness of PM practices (Dewettinck & Vroonen, 2017).

Hypothesis 3 – FLMs capacity to perform PM activities is positively associated with PM System Effectiveness.

Clarity in PM policies and procedures

Lowe, (1992) and McGovern, (1999) suggest that line managers are not clear about their HR responsibilities and authority and are therefore unclear about their HR role. Bos-nehles (2010) defined the concept of FLMs‟ lack of clarity regarding their responsibility and authority in HR in terms of HR role conflict and HR role ambiguity. Role ambiguity is defined as the state of lacking a "specified set of tasks or position responsibilities, no specification of duties or formal definition of role requirements" whereas role conflict occurs when the „chain of command‟ (hierarchical relationships, flow of authority) or the „unity of command‟ (orders from one supervisor only; compatibility of orders and expectations) is not obvious (Rizzo et al., 1970). Bos-nehles (2010) reported that due to their position in the organizational hierarchy, FLMs experience a large range of influences, namely, from their immediate supervisor, senior managers, HR managers and employees, and are therefore likely to develop role conflict with regard to their HR duties. FLMs‟ lower levels of education, larger span of control, and increasing devolvement of administrative tasks, together with their perception of being responsible for unnecessary tasks while fulfilling their HR role, are also the likely reasons for FLMs‟ HR role conflict. FLMs lack of experience in people management and lack of standardisation in HR procedures followed across departments and groups were found to be associated with greater HR role ambiguity among FLMs. In addition, line managers are also uncertain about how to use HR practices effectively (Harris et al., 2002) and find the HR instruments they use are not „concrete enough and lack detailed guidelines‟ (Bos-nehles, 2010) resulting in „adjustment and fine tuning‟ of the practices according to their idiosyncratic understanding (Bowen & Ostroff, 2004; Brewster & Holt Larsen,

2000) leading to contradictions between intended and actual performance management practices (Wright & Nishii, 2007).

There is hence need for PM policies and procedures that enable FLMs to clearly understand their PM roles and how they should use PM practices effectively (Brewster & Holt Larsen, 2000; Hall & Torrington, 1998). (Bos-Nehles, 2010) highlighted that the type of HR guidelines and the way they are communicated to the FLMs influence the level of clarity of the HR policies and procedures perceived by the FLMs. Policies and procedures tend to become clearer if line managers are given rules, forms, guidelines, examples and norms on how to perform their HR practices. Also important is the user friendliness of the HR instruments. Line manager"s HR responsibilities documented as part of their formal job description, published on the intranet or elsewhere, and FLMs being appraised on their HR responsibilities by superiors can reinforce clear meanings of the HR policies and procedures (Bos-Nehles, 2010).

Hypothesis 4 – Clarity in PM policies and procedures is positively associated with PM System effectiveness.

The Involvement of Middle Managers in PM

There is a lack of consistency in literature on the definition of middle management and the roles they perform in order to distinguish them from other management groups (Wooldridge et al., 2008). Most authors define middle management in terms of hierarchy; as the intermediate group between the top management and line level management, which is a very broad conceptualization. Other criteria used to define middle management are through the roles performed, context of organizational structure, and the scope of research. This article shall focus on middle managers who are the immediate supervisors of FLMs, responsible for implementing organizational strategies, directing operations, and achieving business and HR goals at the operational level.

Five main roles are known to be performed by middle managers, namely, strategic, administrative, leadership, communication and cooperation, and decision making (Rezvani, 2017). Bower (1970) noted that middle managers are the only ones in a position to judge whether issues are being considered in the proper context, implying that only middle managers have the hierarchical position necessary to view both strategy formulation and implementation. Middle managers, due to their knowledge of senior management priorities and front line challenges, bear an upward influence on senior management in strategy formulation, leading to superior strategies, while simultaneously bearing a downward influence on the operational level employees for strategy implementation (Wooldridge & Floyd, 1990). This is the combination that enables them to mediate between organizational strategy and operational activities (Nonaka, 1994).

Strategy effectiveness ultimately depends on how people implement the new strategy in daily operations. In this regard mid level managers are in a position to facilitate adaptation of potentially unrealistic strategic plans, made at the top level management, to better suit local operational realities, thereby reducing resistance on the part of the employees (Floyd & Wooldridge, 1992). Huang et al. (2010) found that the motivational model of participative leadership by superior has a stronger explanatory power on performance and organization citizenship behaviour (OCB) of managerial subordinates than non managerial subordinates for whom the exchange based model of leadership had a stronger relation to performance outcomes. The interpersonal roles of mid-level managers to educate, guide, and motivate the subordinates play a very important role in strategy implementation (Mintzberg, 1978). With their unique position, middle managers can transfer ideas, visions, and values about the organization directly to lower level employees through informal channels, therefore leadership qualities of the middle level managers is has a significant influence in employee attitudes and behaviours (Serhat, 2020). It can hence be argued that involvement of mid level manager shall contribute to the success of performance management systems by means of a stronger alignment between the firm‟s strategy and its PM practices.

Because mid level managers have to address expectations of the frontline as well as top management, which are often contradictory in nature, greater levels of their strategic activity has been found to be positively associated with role conflict which could lead to increased turnover intention and reduced performance among mid level managers. A decreasing trend in the awareness of middle managers in strategic roles has also been reported (Hambrick, 1981) which may lead to reduced quality of strategy formulation, consensus, understanding and commitment among mid level managers (Wooldridge & Floyd, 1990). Likewise, the constraints reported in the devolution of HR devolution to the line, such as, lack of institutional reinforcements, managerial short-termism which prioritizes operational issues over HR concerns, and increasing work load of managers, due to factors such as downsizing of mid level management roles, are likely to influence mid level managers‟ involvement in HR strategy (McGovern et al., 1997). Rao (2007) reported in a study conducted in India that there was a discernable lack of full involvement and facilitation by senior managers in implementing performance management thereby reducing the effectiveness of PMS. Biron et al. (2011) reported an active role by senior managers in the performance management process, mainly, defining its objectives, aligning with the firm‟s strategy and converging employee efforts. The authors highlighted that "the failure of senior management to be actively engaged on a frequent basis in the development of HRM practices, delegating responsibility for these issues to managers at lower levels or HR experts, may signal to the rest of the organisation that these issues are unimportant. It can hence be argued that involvement of middle managers in performance management implementation, as perceived by their reporting FLMs, leads to enhanced PM effectiveness.

<u>Hypothesis 5.a.</u> - Involvement of middle manager in performance management is positively related to FLM‟s desire, capacity, and competence, to perform PM activities, and perceived clarity in PM policies and procedures.

<u>Hypothesis 5.b.</u> - Involvement of middle managers in performance management is positively related to PM System effectiveness and the association is partially mediated by FLM‟s desire, capacity, and competence, to perform PM activities, and perceived clarity in PM policies and procedures.

Conclusion and recommendations

The article contributes to the extant literature by integrating ideas from the literatures on performance management, HR devolution to line management, and the role of middle management in strategy formulation and implementation, to propose a model of the antecedents for an effective performance management implementation. The proposed model provides a basis to test the association of line managers PM enactment factors from the point of view of FLMs, i.e. FLM‟s desire, capacity, and competence, and clarity in PM policies and procedures, with employee perceived PM System effectiveness. The model also considers the role of the involvement of middle manager on the PM Enactment factors and consequently PM system effectiveness. Secondly, by simultaneous including the role of front line managers and their supervisors (middle managers) in a single frame, the model responds to calls to conduct more research on the aspect of actual implementation of HRM at work settings by line and middle management (Bowen & Ostroff, 2004; Purcell & Hutchinson, 2007). Literature search on the role of FLMs and their supervisors in performance management did not reveal any article that considered the combined effects of these two specific management roles in a single model. Thirdly, the model responds to calls to conduct multi level research for understanding the mediatory links between HRM, individual attitudes and behaviours and firm level performance (Wright & Nishii, 2007) by considering the factors associated with middle level management, front line management and employee perceived PM system effectiveness. Lastly, by inclusion of multiple factors associated with FLM enactment of PM activities, the model provides a basis to compare and identify factors having the most significant predictive power on PM system effectiveness in order to enable HR, middle and front line managers to prioritise HR activities and focus on those activities needing immediate attention.

The model can be further extended to include the association of organizational context on the FLMs PM enactment factors, such as complexity of task, and educational level of employees, which have been found to have significant association with the kind and level of constraints faced by FLMs while performing their HR role (Bos-Nehles, 2010). It will also be worthwhile to compare the difference between PM practices intended by the organization, i.e. from the point of view of senior or HR managers and PM practices actually perceived by the employees (Wright & Nishii, 2007) and how this difference is associated with the level of FLMs‟ PM enactment factors and involvement of middle managers in performance management.

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A CRITICAL LITERATURE REVIEW OF CAPITAL ASSET PRICING MODEL

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Abstract

Purpose: CAPM has been widely used to estimate the required returns for firms on invested capital and for analyzing, by market participants, the portfolio returns. However, the model has been criticized for its assumptions that do not fit the reality of market dynamics. This paper presents a critical review primarily based on the restrictive set of assumptions of the CAPM.

Methodology/ Approach: This study can be classified as a critical argumentative review wherein assumptions/challenges of the CAPM are looked into thorough various studies and relevant issues are highlighted which stand as odds with the CAPM assumptions.

Findings: The study concludes that some of the assumptions like rational investors, homogeneous investors, linear relationship between beta and expected returns pose a significant challenge against the empirical testing for the validity of the model. The study also notes that, the major shortcoming of the CAPM besides the restrictive assumption is that certain components of the CAPM (risk-free rate, market portfolio) have not been properly defined which has led to certain open-endedness to the conversation about CAPM being a valid asset pricing model.

Implications: This study tries to find the reasons for the wide spread popularity of CAPM amongst the academics and investors alike along despite the challenges posed to it from time to time. The findings may be useful to the academicians and practitioners in finance world to look from the perspectives of restrictive assumptions of CAPM and adopt alternatives models for better modeling of risk and return relationship.

Originality/value: The study approached the critical review of the CAPM from a fresh perspective. The study takes into consideration individual assumptions and the issues emanating thereof for the

CAPM. Such an approach has enabled the study to present the issues pertaining to individual assumptions and its interpretation and the popularity of the model amongst the users of the CAPM.

Keywords: *CAPM, Critical review, Assumptions, Investor Bias, Systematic Risk (Beta)*

Introduction

The curriculum of portfolio management in most of the academic institutions includes the basic theoretical model of asset pricing in financial market. But the term Capital Asset Pricing Model (CAPM) is specifically reserved for the model developed by Sharpe (1964), Lintner (1965) and Black (1972). Initially, Markowitz (1952) in his seminal paper on portfolio selection introduced a framework for construction of an investment portfolio based on maximization of returns vis-a-vis minimization of risk. Following the Markowitz portfolio framework, Sharpe (1964) and Lintner (1965) introduced the CAPM. The CAPM gauges the relative riskiness of an asset by measuring the covariance between the assets' returns vis a vis the return on the market portfolio. Since the introduction of CAPM, it has been widely used to estimate the required returns for firms on invested capital and for analysing portfolio returns by market participants. However, the model has been criticized for its assumptions that do not fit the reality of market dynamics. Stated differently, CAPM validity tests are carried out with a number of assumptions (study specific) while relaxing or cancelling some assumptions of the traditional model, such that the idea can be challenged on the basis of a collateral shortcoming (Allingham, 1991).

In order to accommodate for the various shortcomings of the CAPM assumptions, the traditional CAPM was extended for relaxation/addition in assumptions over the years. Sharpe (1964) allowed for heterogeneous beliefs of investors; Black (1972) assumed the non-existence of risk-free borrowing and lending; Mayers, (1973) allowed for investors to hold a personalized set of portfolios as opposed to a standard market portfolio; Merton (1973) developed the inter-temporal CAPM which takes into account risk return considerations beyond the one period model of the traditional CAPM; Breeden (1979) introduced a consumption based CAPM wherein asset betas are measured relative to changes in aggregate real consumption rate, rather than relative to the market returns and Muthama, Munene, and Tirimba, (2014) extended the traditional CAPM by incorporating the risks associated with non-marketable (perfectly non liquid) assets (for example, human capital).

Regardless of the importance of the model in shaping the framework for understanding asset pricing, the outcome of the tests carried out on CAPM to assess its validity as an asset-pricing model has been, at best, mixed and the empirical record of the model has been non definitive. The CAPM's problems have majorly been due to its restrictive almost unrealistic assumptions and also due to the difficulty in applying valid tests to check the model, which have been unable to give a cohesive research direction to garner a clearer understanding of asset pricing. Thus, the study aims to answer the following research questions:

a) Do the assumptions of the CAPM provide a realistic backdrop for testing the model's validity?
b) What are the hindrances, which render these assumptions unrealistic?
c) What makes the CAPM so prevalent amongst the investors, despite its unrealistic assumptions?

The objective of this paper is to present a critical literature review of the Capital Asset Pricing Model. The paper is divided into sections as follows: Section I provides a brief review of the theory of CAPM. Section II discusses the important empirical tests that have been carried out, to give a chronological perspective of the history of the empirical tests carried out to ascertain the validity of CAPM. Section III presents several arguments, through various critical studies, to present the problems associated with considering CAPM as a valid asset-pricing model. Probing into the fundamental tenets of the CAPM, namely, its positive linear relationship between risk and return, investor biases, beta being the sole explanatory factor in explaining asset returns, Section IV will conclude the study by presenting the findings of the study.

I) Capital Asset Pricing Model-The Logic

Capital Asset Pricing Model builds on the portfolio theory propagated by Markowitz (1952). According to Markowitz model, the investors choose a mean variance efficient portfolio in period (t-1) and the portfolio produces a stochastic return at time t. The main assumptions of the Markowitz model are:

i) The investors are risk averse
ii) Investors expect maximum possible returns for the least risk i.e. a mean variance efficient portfolio.

The portfolio theory thereby provides a framework whereby an efficient frontier can be calculated, thereby maximizing the returns for a particular level of risk. Sharpe (1964) and Lintner (1965) introduced additional assumptions to the Markowitz model to come up with the CAPM.

i) Homogeneous expectations of returns
ii) Unlimited borrowing and lending at risk-free rate.

With the introduction of the risk-free rate borrowing and lending, the expected return on a portfolio with 100% risk free asset is the risk-free return, similarly a mix of the riskless asset and risky asset, the returns on the portfolio would be a weighted average of the portfolio containing these assets. In order to obtain a mean variance efficient portfolios with long and short risk-free positions, the CAPM prescribes a Capital Market Line, which is drawn from the risk-free rate (intercept value in the CAPM equation) to the point on the efficient frontier such that the straight line is tangential on the efficient frontier and the tangent point forms the market portfolio (which is held by all the market participants). Thus, taking the assumptions of CAPM about homogeneity of return expectations, all the market participants will be holding the same portfolio of the risk-free rate and the market portfolio. Since, the market portfolio, lies on the minimum variance frontier (efficient frontier). According to portfolio theory, the market portfolio is only subject to the systematic risk as unsystematic risk is already diversified away. Lastly, a risky asset is a riskless asset in a market portfolio if the risky asset 's average covariance with the returns on other asset just offset the variance of the asset's return. Therefore, under the assumption of riskless borrowing and lending, the expected return on assets that are uncorrelated with the market return, must equal the risk-free rate (Fama & French,2004). Thus, the expected return on any asset is the risk- free interest rate plus a risk premium (market beta times the premium of market portfolio over risk-free rate)

II) Empirical Tests and Extension of the CAPM

Early test of the CAPM were based on the theoretical standpoint of the traditional model: higher returns should be expected from stocks, which have a higher beta, and vice versa, and that there should be a linear relationship (Black, Jensen & Scholes, 1972; Fama & Macbeth, 1973) between expected returns and beta.

The earliest extension to the traditional CAPM was the Black (1972) Zero beta CAPM. In case of CAPM, the slope of the risk return relation is the market risk premium and the intercept, the risk-free rate. For zero beta CAPM, the slope of the relation between expected return and beta is less than market risk premium and the intercept, more than the risk-free rate. However, both the models prescribed that only the systematic risk to be taken as material for the expected return considerations.

The intercept and the slope prescriptions of the models (traditional and zero beta) have been taken as considerations for the formulation of hypothesis since the earliest tests of the CAPM. Black et al (1972) found that "*the cross sectional plots of the mean excess returns on the portfolios against the estimated betas indicate that the relation between mean excess returns and beta was linear*" (p44) however, they also found that "*the intercept and the slope of the cross-sectional relation varied with different sub periods and were not consistent with the traditional form of capital asset pricing model*" (p44). Fama and MacBeth (1973) also found more support for the zero beta CAPM over the traditional CAPM.

The criticism by Roll (1977) was a major turning point in the direction of empirical tests of the CAPM. The earlier test of CAPM examined relationship between equity returns and beta relative to a broad equity market index (Black, 1972, Black, Jensen & Scholes,1972; Fama & Macbeth, 1973) however, Roll demonstrated that as per the theoretical CAPM, the market portfolio is not a single market index but rather comprises of all asset classes (bonds, equity, property, foreign assets etc.). Roll stated that unless the market portfolio truly encompassed all the assets as described within CAPM, a true test of traditional CAPM could not be conducted. There exists a strong correlation between a market portfolio and a stock portfolio (Ferson, Kandel & Stambaugh, 1987; Shanken,1987), but the studies failed to provide evidence in favor of CAPM despite including bonds and property in the market portfolio (Stambaugh, 1982). Thus, the focus of empirical tests post Roll critiques shifted towards other risk factors that could be significantly affecting stock returns. Some major factors suggested were P/E ratio and company size (Banz, 1981); Book Value of Equity to Market Value of Equity (BE/ME) ratio (Fama & French, 1992). Also, several extensions on the traditional CAPM theory were suggested such as consumption CAPM that utilized consumption beta instead of market beta (Bredeen, 1979), Liquidity adjusted CAPM linking the asset pricing and liquidity (Amihud & Mendelson 1986), Arbitrage Pricing Theory (Roll, 1977) ,3-factor model (Fama & French 1996), Carhart four-factor Model (Carhart, 1997) .

Despite this, CAPM is still one of the most popular asset pricing theories both academically and practically. In a survey by Graham and Harvey (2001), responses from chief financial officers at a cross-section of 392 U.S. firms indicated that 73.5% of respondents always, or almost always, use the CAPM to estimate the cost of equity. This is mostly due to its ability to quantify risk and provide a relatively objective process for translating risk measures into estimates of expected return, which finds utility in wide areas within financial world. This wide spread applicability of the model suggests that while the restrictions posed by market proxies (according to Roll) may be limiting in nature but estimations based on broad market indexes within the CAPM framework does offer guiding insights to the various market participants using it in conjunction with other valuation tools currently available.

III) Challenges to the CAPM

According to Chen, Roll, & Ross (1986), the traditional model of CAPM prescribes an efficient market portfolio and that the expected return of an asset is dependent only on the covariance between the asset and the market return. However, daily experience seems to support the view that individual asset prices are influenced by a wide variety of unanticipated events and that some events have a more pervasive effect on asset prices than do others.

The numerous studies (Black, 1972; Roll,1977; Merton, 1987; Fama & French, 1992) that have challenged the validity of CAPM have been on account of its stringent set of assumptions namely, rational investors; an efficient market portfolio. Studies have also looked into the prescribed CAPM relationship between beta and returns and find that although a positive linear relationship exists, the slope of the relationship is flatter than as presumed under the traditional model. Several studies (Friend & Blume 1970; Basu,1977; Reinganum, 1981; Stambaugh, 1982; Lakonishok & Shapiro, 1986; Fama & French, 1992) have looked into the traditional model's stand of the exclusivity of beta in explaining the asset returns, and have had varied responses from the exclusivity of the beta to total irrelevance of beta in explaining the returns.

The following text highlights some of the studies that pose a significant challenge to wide spread acceptability of CAPM as a go to asset pricing model amongst the market investors.

A) Unrealistic Assumptions

The utility of a theory rests on the soundness of its assumptions and the operational validity of the model. The assumptions of the CAPM theory, as projected by various studies, are clearly unrealistic. For example, Levy (1978) ; Merton (1987) have argued that investors are not as diversified as expected by the CAPM; Roll, (1977) stated the virtual impossibility of constructing a true market portfolio. Grossman and Stiglitz (1976,1982) and Stein (1989) have highlighted the market information asymmetries as a barrier to the assumption of efficient markets. These studies, mentioned above, represent a minor fraction of the studies pointing out the deficiencies of the restrictive assumption that serves as a major roadblock to formulating a truly valid test for CAPM. We look into such similar studies to unearth the relevant issues that translate into major problems in the real world, wherein the CAPM is to be truly applied.

a) Rational Investors: The Behavioral Finance Paradigm

Sharpe (1964) stated that investors will settle for a modest rate of return on defensive securities than they would expect from more aggressive kinds of investments and the proponents of CAPM (Black et al., 1972; Fama & MacBeth 1973) argued that such an understanding of financial decision making is based on the rational nature of market participants and the efficient nature of the financial markets, meaning that the asset prices reflect the fundamental value of the securities and that the traders correct the influence or irrational market participants.

However, the studies undertaken in behavioral finance have given us enough evidence to look away from a mathematical paradigm of financial theory and more from a sociological and psychological perspective to understand the relation between risk and investments. Barberis and Thaler (2003) argued that "*it can be difficult for rational traders to undo the dislocations caused by less rational traders*" (p.1054) and the investor psychology underlines the "*deviations from full rationality*" (p.1054) whilst determining investment decisions. Several other studies point out that the investors may have social considerations when thinking about an investment decision. For example, not investing in tobacco firms (Kahneman & Tversky, 1979) . Also, the studies indicate that the bond and stock returns can be predicted by investor sentiment measures among other macroeconomic variables (Avramov, 2005; Baker, Wurgler, & Library, 2007; Cremers, 2002; Whitelaw, 1994).

Thus, the behavioral finance concept is in contradiction with the traditional finance paradigm which aims at understanding financial decisions by supposing markets and its participants (the economic agents) are rational, which means that they act in order to maximize their self-interests (Ritter, 2003). However, the behavioral finance suggests that not all the investors are rational and the deviations from the fundamental asset values are corrected through arbitrage process prevalent in the financial markets, such that the ramifications of the non-rational investment decisions are corrected over a period of time. This suggests that in-order to come through with a true test of CAPM, the behavioral finance ramifications on investment decision need to be considered along with the traditional financial framework of asset valuation.

b) Investor Biases

Behavioral Finance Theory suggests that the investors are driven by a multitude of cognitive factors while making decisions. Kahnemann and Tversky (1979) introduced the Prospect theory, which shows how the investors prefer risk aversion in cases of certain positive outcome of result and prefer risk taking when the outcome is certain as negative returns. The study also demonstrated isolation effect wherein

"In order to simplify the choice between alternatives, people often disregard components that the alternatives share, and focus on the components that distinguish them. This approach to choose problems may produce inconsistent preferences, because a pair of prospects can be decomposed into common and distinctive components in more than one way, and different decompositions sometimes lead to different preferences." (p. 271)

Simon (1979) invoked bounded rationality in his study while stating that decision makers are limited by their values, unconscious reflexes skills and habits. Ricciardi (2008) observed that people tend to overestimate their skills, abilities, and predictions for success. Research documents that overconfident behavior is connected to excessive trading and results in poor investment returns. It can also lead to investors failing to appropriately diversify their portfolios. DeBondt and Thaler (1985) concurred with the overreaction hypothesis, in their study, which segregated equities into two portfolio groups based on historical excess returns of the equities. The study demonstrated that the loser portfolio significantly outperformed the winner portfolio despite the CAPM estimated beta for the winner portfolio being greater than the loser portfolio. The study pinned the underperformance of the winner portfolio to the overestimation of the stocks fundamental value by investors; also, the better performance of the loser portfolio was attributed to the underestimation of the performance of the loser stocks. Lakonishok, Shleifer and Vishny, (1994) complement the findings of De Bondt and Thaler (1985) on investor behavior. They argued that the residual returns beyond the CAPM projections were due to naïve momentum strategies adopted by investors. The investors presumed that the high growth rate would continue indefinitely into the future and thus overvalue the stock. Such stocks are termed as glamour stocks (characterized by high growth rates in the past and expected high future growth rates) similarly, the investors undervalue the stocks which have shown low growth rates in the past and are expected to have similar growth rates in the future (value shares). Thus, contrarian investors bet against the naïve investors by buying the value shares (underpriced due to less demand) and selling glamour shares (overpriced due to high demand).

Scholars and investment practitioners over the years have also argued about the value strategies employed in investment, outperform the market returns. The value strategies consist of buying, based on fundamentals, undervalued stocks and selling over valued stocks leading the investors different strategies such as momentum strategies and contrarian strategies. Several studies (Basu, 1977; Chan, Hamao, & Lakonishok, 1991; Fama & French, 1992; Jaffe, Keim, & Westerfield, 1989) have demonstrated how the stocks with higher earning to price ratio earn higher returns.

Investor bias is dependent on a large number of factors, societal and personal. It plays an intangible role in investment decisions making. CAPM with its assumptions on rational investor behavior and homogeneous expectations of returns treated with the lens of behavioral finance exposes glaring gaps which needs to be addressed while considerations of the tests of validity of CAPM are undertaken.

B. Market Portfolio Proxies

Roll (1977) in his study focused on two of the most important empirical studies on CAPM. According to Roll (1977), the study by Fama and Macbeth (1974) posits that the investors are rational and that the market portfolio is the portfolio lying on the tangential point of the Capital Market Line on the efficient frontier, thereby marking the market portfolio as an efficient portfolio to be held by all the rational investors. But, Roll (1977) argued that in case the market portfolio is efficient, it follows that there is a positive linear relationship between expected return and beta for all portfolios on the efficient frontier, contrarily, if the expected returns is not a linear function of beta then the market portfolio is not efficient. Roll also highlights the study (Black, Jensen & Scholes, 1972) to be short of findings to support the traditional CAPM. Roll (1977) argued that the CAPM has never been truly tested because the traditional CAPM proposes a market portfolio that includes every possible asset (stocks, bonds, real estate, metals and so on). Fama and French (1993) stated that the tests carried out to ascertain the relevance of CAPM have in effect just tested the model within the scope of the particular market proxy used for market portfolio. Gibbons, Ross, and Shanken (1989) opined that the argument about the validity of the market proxy left the tests of CAPM incomplete. They stated:

"*the empirical testing of CAPM is an odd state of limbo. If the proxy is not a valid surrogate, then as tests of the CAPM the existing empirical investigations are somewhat beside the point. On the other hand, if the proxy is valid, then the small sample distribution and power of the tests are unknown.*" (p 1122).

However, the market portfolio is a collection of stocks which collectively achieve a fully diversified position from the all the unsuystematic risks in the market. While full diversification as per Roll (1977) may be impossible. Evans and Archer (1968) conducted tests on the data of 470 securities listed in the S&P500 index and concluded that much of the non-systematic portfolio risk is diversified away within the selection of the eight securities in a portfolio of stocks. Kryzanowski and Singh (2010) demonstrated that portfolio sizes of over 100 stocks are required if one wants to achieve 90% of potential diversification benefits and meet a market rate as a target return. Alternatively, test conducted by Stambaugh (1982) ,on CAPM , by composing market portfolio using bonds, real estate and consumer durables in addition to common stocks and found that the inferences on CAPM were virtually identical while conducting the tests using a stocks only portfolio or a portfolio with a stock representation of 10% only. However, according to Roll, market proxies cannot be used in place of actual market portfolio as the actual properties of the market portfolio are unknown and even if the market proxies may demonstrate mean-variance efficiency, the market portfolio may not be mean variance efficient.

C. Riskless Borrowing and Lending

The treasury securities, mostly, are considered as the risk-free rate, as they are generally considered to be the safest assets amongst the risky financial assets. CAPM prescribes the use of a risk-free rate to calculate the market risk premium. However, Black (1972) argued that the existence of neither risk-free asset nor the assumption that the investors can long or short at the riskless rate is a necessary condition for the CAPM to hold. Black (1972) came around this limitation by proposing a zero beta portfolio by simultaneously buying and short selling a combination of securities, such that the net effect of the market movements on this portfolio combination is zero, thereby the zero beta asset mimicking a risk-free asset. The study concluded that although the betas and the returns share a linear relation, the slope of the return function is flatter than prescribed according to the CAPM projection. Besides, a long-short asset combination of portfolio has to deal with market cost inefficiencies (for example, transaction cost), which limits the risk-free nature of a riskless asset.

An additional issue with consideration of risk-free rates emanates from the lack of uniformity amongst academics and financial market practitioners about which risk-free rate to be utilized in their practices respectively. Academics are inclined towards using long term and short-term treasury securities as a proxy for risk-free rate. Bruner et al. (1998) found wide variation in the choice of risk-free rates for the CAPM. Practitioners strongly prefer long-term bonds; 70% of corporations and financial advisors use Treasury bonds with maturities of ten years or greater, while 10% or less use Treasury bills. By contrast, 43% of books recommend using Treasury bills and only 29% recommend long- term Treasury bonds. Observing that the risk-free rate should match the period of the cash flows, the authors conclude: "…*for most capital projects and corporate acquisitions, the yield on the US government Treasury bond of ten or more years in maturity would be appropriate.*" (p. 26). The limitations posed by the varied estimates of the CAPM risk-free rate and the cost disturbances to construct a truly risk-free portfolio according to the prescriptions of Black (1972) only adds on to the relative inapplicability of the unlimited risk-free borrowing and lending assumption as laid out for the validity of CAPM.

D. Relation between Beta and Returns

The widespread appeal of the CAPM in part, is mostly due to its relatively intuitive and simple derivation of the risk-return relationship. The CAPM states that as the risk level of asset increase, the expected returns from that asset also increases, thereby demonstrating a positive linear relationship between the expected return and the level of risk of the asset (measured by beta- a measure of the systematic risk exposure of the asset), solely explains the asset returns. However, the linear relationship seems to have a flatter slope than originally described by the CAPM. The security market line (SML) seems to suggest that the high beta stocks tend to earn a lower rate of return than as proposed by the CAPM estimates and that low beta stocks tend to achieve returns over those as estimated by CAPM. Several studies (Black, Jensen and Scholes, 1972; Fama and Macbeth 1973; Reinganum, 1981; Stambaugh, 1982; Lakonishok & Shapiro, 1986; Fama & French, 1992) have demonstrated a roughly stable linear relationship between the average returns on an asset and its beta albeit the slope of the relationship being flatter than prescribed by the CAPM.

Although, the studies have concluded about a presence of a relationship between returns and systematic risk, the systematic risk is unable to explain fully the returns of the asset because several other factors also contribute towards the explanation of the asset returns. Some of the factors and the corresponding studies are as follows: Firm size (Banz,1981), Earnings yield (Basu, 1983), Leverage (Bhandari, 1988), the firm’s Book-value-to Equity ratio (Rosenberg, B., Reid, K. and Lanstein, R. 1985; Chan, L.K.C., Hamao, Y. and Lakonishok, J. 1991) dividend yield (Litzenberger and Ramaswamy, 1979; Chu,1997), cash flow yield (Chan et al. 1991), historical sales growth (Lakonishok, J., Shleifer, A., & Vishny, R. W. 1994), Industrial structure (Roll, 1992) and volume (Lakonishok and Smidt, 1989; Amihud and Mendelson 1991)

In contrast, (Basu, 1977) contradicted the linear relationship between the risk and return as postulated by CAPM. Friend and Blume (1970) found several departures from the perfect market assumptions of CAPM. The primary finding of the study was "*while the rate of return is normally found to be positively related to risk, the adjustment of the rate of return for risk which would be expected to eliminate this relationship actually reverses it*"(p 565) hence concluding a strong inverse relationship between the risk and the risk adjusted performance of portfolios.

Further, the presence of structural shifts in the financial markets also add significant variation of beta and market premium values over time (Blume 1971; Fabozzi & Francis 1978; Chen 1981; Fama & French 1992; Ferson & Harvey 1991, 1993). The variations in values of beta and market premium mark a fundamental shift in the relationship between the risk and return relationship for the asset under consideration.

There is no possible way of knowing whether the market portfolio is efficient (Roll,1977), therefore the positive linear relationship between the expected market returns and beta is suspect. The conclusion drawn by Roll (1977) finds chorus amongst researchers (Basu, 1977; Friend & Blume, 1970; Stambaugh, 1982; Lakonishok & Shapiro, 1986; Fama & French, 1992) whom in general have postulated, at most, weak linear relationship between the beta and returns and some other studies concluded the presence of a risk return relationship slope, which is flatter as compared to the one, expected under the traditional CAPM framework

The studies presented above covers the span of the strength of the linear risk return relationship within the framework of the CAPM. It may be stated that the strength of the relationship appears to be weak at best and negative (Friend & Blume 1970) while the returns are adjusted for risk . The linear relationship between risk and return is also subject to structural shifts in the linear relationship brought about by the non-stationary nature of beta and market returns, these changing dynamics of the returns and beta can be attributed to the proactive investors who are constantly updating their market positions according to the changing market dynamics. Thus, the linear relationship as prescribed by static CAPM stands wanting to constantly changing factors within the markets.

E. Beta Not a Sole Measure of Risk

The empirical studies, that followed post the introduction of CAPM, have challenged the usefulness of beta as a single measure with at least three questions viz. 1. Is beta an efficient measure of describing asset returns? 2. If not, what are the other factors responsible for explaining the returns? And 3. Does beta explain asset returns at all? (Pettengill, Sundaram, & Mathur, 1995)

The first two questions are sufficiently answered by various researchers who have introduced in their studies, various other factors beyond the market beta. There have also been a number of extensions on the traditional CAPM to accommodate the limitations of a single beta risk factor dimension. Almost all variants of the extended CAPM incorporate a multiple risk factor framework. Intertemporal CAPM introduced by Merton (1973) is an extension of the traditional CAPM wherein additional state variables are introduced to proxy changes in investment opportunities beyond the single period horizon of CAPM. International CAPM introduced by Solnik (1974) takes into account risks emanating from asset exposure to foreign currency movements.

Empirical evidence shows that security returns are affected by various unsystematic risk factors and that the market beta is not a particularly efficient estimate of risk for the firms with a small market capitalization. The results of the direct tests on the CAPM have been inconclusive as evidences of additional factors such as the price-earnings ratio, dividend yield and firm size stand relevant factors for pricing of assets (Fabozzi & Grant 2001). Chan, Chen and Hsieh (1985) found that the relation between financial markets and macro economy is not unidirectional and that the economic factors within the stock markets are endogenous in some sense, i.e. there is a feedback effect in other variables in the financial markets when stock markets react in a certain manner.

The demonstration of “Size effect” and “January effect” amongst various research studies (Banz,1981 ; Chen et al., 1985; Keim,1983 ; Lakonishok & Smidt,1984; Reinganum, 1981,1983) present a strong case of the market beta not being able to be an efficient measure of risk. Banz (1981) ;Reinganum (1981) demonstrated that the firm size effect is a significant factor in determining returns on an asset. Reinganum (1981) shows that abnormal returns of up to 40% can be generated using firm size data. Banz (1981) concluded that the smaller firms listed in the NYSE consistently outperformed the larger market capitalization firms. The outcome termed the ‘size effect’ was observed to be more pronounced in the smallest firms taken in the sample. The size effect could be due to availability of relatively less information about these small firms, which in effect drives up their returns. Chan et al., (1985) suggested “*the higher returns of smaller firms are compensations for higher risks, and the most significant ones here are the co- variation of portfolio returns with the risk premium and the state of economy*”. Chan & Chen, (1991) thus proposed a distress factor as an explanation to the size effect. Lakonishok and Shapiro (1984) argued that since the small market capitalization firms face substantial transaction costs and other barriers to trade, the traditional CAPM fails to account for such factors while calculating risk adjusted returns and thus the transaction costs and barriers to trade help partially explain the abnormal returns being generated by the small firms. Klein & Bawa, (1977), found that investors will refrain from diversifying their portfolio into securities having insufficient information about the true parameters of return distribution of the security in question, due to an estimation risk. Fama and French (1992) extended the size effect by stating "*variables that have no special standing in asset pricing theory show reliable power to explain the cross-section of average return*" and beta alone does not capture average returns. Size and book value to Market value ratio helped explaining the differences in average returns that are missed out by beta. Fama and French (1992) thus added a market capitalization component as a risk factor in determining the returns for an asset.

Works by Keim (1983) ; Reinganum (1983), Chen et al., (1985) and Lakonishok & Smidt (1984) have demonstrated that the excess returns or the abnormal returns of these small size firms are concentrated around the turn of the year and not spread out evenly across the year. The phenomenon is also known as “the January effect” and it suggest that firms with small market capitalization tend to generate an excess return towards the turn of the year, over the normal returns they generate through the rest of the months in the year.

Basu (1977) stated that the stock with lower P/E ratio consistently outperformed the high P/E stocks within the study sample. This is an intuitive observation because the lower P/E firms are undervalued firms and thus can be invested in at a discount to the fundamental value of the stock and the high P/E value stocks by definition overvalued and thus would be invested in at a premium to the fundamental value underlying the stock. Bhandari, (1988) highlighted the consistent outperformance of the highly leveraged stocks in comparison to the CAPM estimated returns. Stattman (1980) ; Rosenberg, Reid, & Lanstein (1985) demonstrated the stocks with high book/market ratio have higher average returns, beyond the risk levels indicated by their betas. This outcome of the studies suggests that the leverage component of the asset contributes more greatly than as measured by the market risk premium of the CAPM.

The CAPM position of beta being the sole measure of risk has been debated in all its variations within the various studies contributing to the body of knowledge on the validity of CAPM. The majority of studies conclude that beta as a measure of systematic risk is subject to a residual component, which, as shown by studies is explained by unsystematic risk factors. The extensions of the CAPM thus have specified additional risk factors in order to prescribe a more efficient asset-pricing model, which finds its fundamentals in the CAPM.

IV. Conclusion & Implications

Despite the wide spread use of the CAPM as an asset pricing model, the empirical tests conducted to validate the model have found the mixed results. The debate on validity of CAPM started after Roll (1977) and it changed the course of debate on the CAPM from tests of validity to alternatives of the CAPM. Despite the volume of critical studies, the CAPM is still a tool of choice amongst investors and academics alike. The primary reservations of the critics of CAPM find substance among the unrealistic assumptions of the CAPM, however as we analyze the literature, we find the reasons, which arguably explain the wide acceptance of the CAPM. The CAPM assumption of investor being rational and return maximiser is challenged behavioral finance theory (BFT), which introduces us to the various investor biases that work against the rational decision-making process of investors. The theory suggests arbitrage process wherein the rational participants in the financial markets balance the imbalances of the non-rational side.

CAPM has also been challenged because of consideration of efficient market portfolio and it proxy as market index; relationship between systematic risk (as only measure of risk) and expected returns; static nature of beta (as a measure of systematic risk) among others. Several studies have challenged CAPM and extended the asset pricing model by introducing variables, which account for non-systematic risk factors such as the size effect, earnings yield and so on. Such estimation errors may be attributed to a variety of reasons such as non-specificity of inputs such as multiple risk-free assets options in the market, different indices, sectorial and overall, forming the market portfolio proxies.

Our study looked into the conundrum of CAPM's popularity despite unrealistic assumptions. This study although having limitations to resources put into the light, tries to find the reasons for the wide spread popularity of CAPM amongst the academics and investors alike along with challenges posed to it from time to time. Further studies may be carried out to look into the issues raised in this study, so as to gain a deeper understanding of this gap between theoretical validity of CAPM and its popularity.

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A STUDY ON THE EFFECT OF CSR ON MARKET CAPITALIZATION OF SELECTIVE LISTED COMPANIES ON NSE

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Abstract

The present study investigates the effect of CSR spending's on market capitalization or the market performance of the companies. The study tested whether or not an increase in the CSR spending by a company has a lead to positive growth in the market capitalization of selected companies. For the purpose of study, 30 companies are chosen on the random basis which are listed on NSE, India from three emerging sectors, i.e., Manufacturing sector, Banking and Finance sector and IT sector. In the National Stock Exchange (NSE), largest stock exchange in India securities are traded in large volumes. The population for this research includes the companies that are listed on the NSE. The sample size and sampling unit for the study are random 30 companies listed on NSE which form the NIFTY50 index. The non-probability sampling method has been used and the Data is analysed using Correlation and Regression techniques. The study uses the data for last 3 financial years starting from 2019 to 2021. The meaning and the importance of CSR spending and awareness and its impact on Market Capitalization has been explained in the study. It was observed that the CSR spending does have a significant impact on Market Capitalization of selected companies which indicates that there is a positive correlation between CSR spending and Market Capitalization. The study, found that with the increasing CSR spending there is an increase or significant growth in Market Capitalization of companies which suggests us that CSR plays very important role in determining Market Capitalization of companies and management could use or increase their CSR spending's to grow or increase their Market Capitalization significantly instead of going for other options such as advertising.

Introduction to the CSR

Corporate Social Responsibility which is also termed as CSR refers to the belief or a practice that corporates have an obligation to society apart or beyond from their commitments to their stockholders, owners and investors. We all know that organizations carry out their respective business operations with the goal of achieving the profits, however, in addition to the same, organizations/companies are expected to have some responsibility to stakeholders such as customers, employees, communities, society and the environment. CSR is nothing but organizations/companies being more responsible, improving labor practices, embracing fair trade, mitigating environmental damage, giving back to the community/society and increasing the employee satisfaction. The true definition of CSR is an organization who is truly responsible. sees itself as a part of the system, not a completely individual economic factor concerned only about maximizing its own profit, – recognizes unsustainability (the destruction of natural environment and the increase of social injustice) as the greatest challenge of our age,– accepts that businesses and enterprises have to work on solutions according to their economic weight, – honestly evaluates its own weight and part in causing the problems (it is best to concentrate on 2-3 main problems), – takes essential steps – systematically, progressively, and focused– towards a more sustainable world. The five principles of the TRE are 1) minimal transport, 2) maximal fairness, 3) zero economism, 4) maximum middle size, 5) product or service falling to the most sustainable 30%. By getting engaged in CSR, organizations operate in such a way that enhance society and environment, instead of contributing negatively to them. CSR is also called as it is also called corporate sustainability, sustainable business, corporate conscience, corporate citizenship, conscious capitalism, or responsible business. Considering at the level of organization, CSR is usually understood as a strategic initiative that contributes positively to the brand's reputation. Businesses may engage in may engage in CSR for strategic or ethical purposes. From a strategic perspective, CSR can contribute to firm profits, particularly if brands voluntarily self-report both the positive and negative outcomes of their endeavors. In part, these benefits accrue by increasing positive public relations and high ethical standards to reduce business and legal risk by taking responsibility for corporate actions. CSR strategies encourage the company to make a positive impact on the environment and stakeholders including consumers, employees, investors, communities, and others. If we look at the historical growth of the concept CSR reveals that it has passed through phases of philanthropy (religious concern), ethics (philosophical concern), strategy (profit maximization) and legal prescriptions. In India, it is deep rooted in the customs and traditions of the society. However, with passage of the new Companies Act, 2013, now it is compulsory for companies (net worth of Rs. 500 crore or a turnover of Rs.1,000 crore or net profit of Rs. 5 crore) to devote 2% of profit on CSR. There are specified activities to be carried out under CSR mentioned in the schedule VII of the Companies Act 2013. The CSR rules came into effect from 1st April 2014 and all the companies in India followed the CSR spending with the great efforts and this is leading to generate interest among the researchers to ascertain the impact of CSR on financial and the overall performance of the companies. The Indian Companies Act, 2013 defines CSR as 'the activities that promote poverty reduction, education, health, environmental sustainability, gender equality, and vocational skills development'. This definition of CSR in Companies Act underlines corporate altruism instead of strategic CSR. Altruistic CSR adopts a philanthropic approach underwriting specific initiatives to give back to the community. It demands that corporations help alleviate public welfare without seeking any financial outcome. Along with the businesses, consumer perspective is also important towards the CSR. Most consumers agree that while achieving business targets, companies should engage in CSR efforts at the same time. Most consumers believe companies doing charity work will receive a positive response. The relationship between CSR and a firm's corporate financial performance is a phenomenon that is being explored in a variety of research studies that are being conducted across the world. Based on these research studies, a positive relationship exists between a firm's corporate social responsibility policies and corporate financial performance. To investigate this relationship, the researchers conducted a regression analysis and preceded the analysis with the provision of several measures that they utilized to serve as proxies for key financial performance indicators (i.e., Return on Assets serves as a proxy for profitability). However, it is seen that many of the researchers are keener on focusing on indicators such as ROA, ROE, EPS, PAT as a financial performance indicator. We should also note that Market Capitalization of a company plays very important and a crucial part in indicating the success and growth of the companies. Market capitalization, commonly called market cap, is the market value of a publicly traded company's outstanding shares. Market capitalization is equal to the share price multiplied by the number of shares outstanding. Since outstanding stock is bought and sold in public markets, capitalization could be used as an indicator of public opinion of a company's net worth and is a determining factor in some forms of stock valuation. Market capitalization is used by the investment community in ranking the size of companies, as opposed to sales or total asset figures. It is also used in ranking the relative size of stock exchanges, being a measure of the sum of the market capitalizations of all companies listed on each stock exchange. Market capitalization is one of the most effective ways of evaluating the value of a company. It is crucial for readers to understand that this evaluation of a company's value is done based on a company's stocks. Essentially, this is defined by the total market value of the outstanding shares of a company. And hence, in this project we are going to keep our main focus especially on the effect of CSR spending and effects of CSR on Market Capitalization of Indian companies. The concept and ambit of Corporate Social Responsibility (CSR) has exponentially increased in the recent past particularly during the outbreak of the novel coronavirus disease (COVID-19) which was declared as a pandemic by the World Health Organization (WHO) on 11.03.2020. The number of people affected due to the virus and its resulting impact on CSR has transformed the outlook of businesses towards society all over the world.

Overview of the Literature

As the study aims on focusing on the CSR activities of the companies and its effects on the various financial parameters of companies, we have taken many such research paper to evaluate and study the research work done by the other researchers and scholars in the area of CSR and its effect on financial performance of the companies to understand the research design, meaning of CSR and outcomes of the research work in a more detailed manner.

Table 1. LITERATURE REVIEW

Sr No	Name of the Authors	Country	Objectives	Sample Size	Method of Analysis	Findings
1	Mrs. Abilasha N. & Prof. Madhu Tyagi	India	Analyzed the impact of CSR on financial performance of selected Top 10 CSR companies.	A sample of 10 top performing CSR companies from India's Top 100 companies for CSR & Sustainability	Simple Regression Model	In this study, CSR has a positive impact on overall financial performance of selected companies and when contribution to CSR increases, the financial performance of the companies also increases and vice-versa.
2	Nripinder Kaur and Vikramjit Singh	India	Examined the impact of CSR on Financial Performance of Indian Steel Industry.	A sample of top 40 steel companies on the basis of Market Capitalization	The panel regression model	In this Research paper, the study found that there is a positive impact of CSR on Financial Performance in terms of VAM, PM and GM thereby indicating that more investments in CSR will generate wealth for shareholders, enhance profitability and sales.

3	Raj Bahadur Sharma, Asha Sharma, Sajid Ali & Jyoti Dadhich	India	Analyzed & Examined the disclosure practices of CSR in selected service sector & manufacturing sector and documented the relationship between CSR Score and financial parameters like ROE, ROA, and ROCE.	A sample of selected 10 companies from Service & Manufacturing Sector.	Correlation and Regression analysis	Study found that ROE, ROA, and ROCE have a negative correlation with CSR Score of selected Manufacturing Sector Companies whereas it has a positive correlation with CSR Score of selected Service Sector Companies.
4	Nasreen Sultana & Afroja Akter	Bangladesh	Investigated the impact of sustainability practices on the market capitalization of selected Bangladeshi Commercial Banks.	A Sample of 30 Private Commercial Banks	Inferential and quantitative research in nature	In this Study 30 Private Commercial Banks have been taken into consideration and it has been found that there is no long run relationship between Market Capitalization

5	The of an is Karagiorgos	Greece	Attempted to investigate the link between CSR and financial performance in Greek firms.	A Sample of 39 companies out of 281 companies listed on the Athens Stock Exchange based on GRI guidelines for two years (2007 and 2008)	Quantitative & Descriptive research Approach	Study found that the market and the stakeholders may favorably appreciate a CSR approach and this findings in this research implies that a Greek company that implements a CSR strategy and practices may benefit from higher stock prices as a result of stakeholders positively evaluating
6	S. Sudha	India	Examined the influence of Corporate Social Responsibility on Stock Prices.	A Sample of 115 companies sub-sampled as Companies with High-CSR & Low-CSR rated Companies. Out of which 73 companies belong to ‘High-CSR’ category and 42 companies belong to ‘Low-CSR’ category.	The Ohlson (1995) model has been considered since the impact of CSR information on share price can be directly analyzed.	The study's empirical findings suggest that firms with a high level of CSR are valued more in the Indian stock market than companies with a low level of CSR.

7	Jung Wan LEE	China	Investigated the impact of CSR and how it's engagement affects a company's market value.	The sample data includes a total of 27 tour operators and travel firms listed on the Shanghai Stock Exchange Over a 12-year period, from 2006 to 2017.	Descriptive Statistics, Correlation & Panel Regression analysis	The findings of this study show that there is a substantial correlation between CSR activity and business market value. Furthermore, organizations that are actively participating in CSR activities may have a positive impact on their reputation, whereas organizations that try to limit CSR involvement may have a negative impact on their reputation
8	Suchita Shukla	India	Examined the relationship between the CSR & ROA and CSR & Market Capitalization.	A Sample of 15 Automobile and allied Indian companies which are listed in BSE 30 has been taken into consideration over a period of 5 years (from 2013 to 2017)	Regression Analysis	The findings of this study indicate that CSR has a beneficial influence on financial performance and market capitalization for a given sample of 15 chosen Automobile and allied Indian companies.

9	A. Dornean & D.C. Oanea	Romania	Analyzed the impact of CSR activities on financial performance of companies listed on Bucharest Stock Exchange over the period 2007–2015.	A Sample of 16 companies out of all the listed companies on the Bucharest Stock Exchange, who have clearly stated CSR activities in their annual reports or websites have been taken into consideration.	Descriptive statistics & Regression analysis	In this Study it can be inferred that the CSR activities have a significant impact on both proxies for financial performance (ROA & Market Cap), but the higher impact is recorded for Market Capitalization.
10	Shafat Maqbool & M. Nasir Zameer	India	Analyzed the relationship between corporate social responsibility and financial performance in the banking sector.	The study spans over years 2007 to 2016 and A total of 28 banks were studied, with 15 public bank and 13 private banks.	Correlatio, Regression analysis & Panel model	In this study the research shows that CSR Positively impacts the profitability and stock returns of the selected firms in the banking sector.

11	Mariana Vuta, Sorin-Cioaca, Mihai Vuta & Adrian Enciu	Roma nia	Analyzed the relationship between the measures of CSR and financial & economic performance of listed Romanian companies.	A Sample of 61 listed companies from the Bucharest Stock Exchange has been taken into consideration for the period 2015-2017.	Correlation, Regression analysis	The findings of this study indicates the existence of a positive relation between the CSR and return on equity and return on assets of the selected 61 listed companies from the Bucharest Stock Exchange.
12	Anna Linnea Helena Bråtenius & Emelie Josefin Melin	Swed en	Investigated whether CSR engagement has a direct impact on financial performance of companies.	The time frame covered is the years of 2006 to 2009, 2011 and 2013 listed on the OMX Stockholm Stock Exchange.	Correlation & Regression analysis	The results of this research paper depict that there is no significant relationship between the release of the CSR report & financial performance of the companies whereas the same tests for the bottom- and zero companies do however prove that there is a significant impact of CSR on financial performance.

13	Shaista Siddiq. And Sara Javed	Pakistan	Examined the relationship between CSR & financial performance of companies listed in the Pakistani Index.	A sample of 6 companies listed on the Pakistan Stock Exchange have been taken into consideration.	Descriptive Regression and Correlation method	In this study the research shows that there is a positive correlation between CSR and ROA & turnover of the company.
14	Dr. Umakanta Nayak & Dr. Pramod Kumar Patjoshi	India	Investigated the effect of CSR contribution on the financial performance of selected automobile companies in India.	A Sample of 5 Automobile have been taken into consideration from the period 2014-15 to 2017-18.	Descriptive statistics, Correlation Analysis and Regression	In this study the research shows that there is a positive between CSR & the four financial efficiency measures which were taken into consideration. (Net Profit Margin, Return on Equity, Return on Total Assets & Return on Investment)
15	Margarita Tsoutsoura	California, United States.	Examined the impact of Corporate Social Responsibility on financial performance of companies.	A Sample of 422 companies from the S&P 500 firms covering a five years period from 1996-2000 have been taken into consideration.	Regression Analysis	In this study, the findings indicate that CSR is positively related to better financial performance and this relationship between them is positive.

RESEARCH GAP

There are abundant of literature on importance of CSR in general and CSR activities of companies in particular. Effect of CSR on communities and environment is also studied by many scholars. Financial performance of any company plays a very crucial role in deciding how the company will do in future with respect to its status and growth. Literature review taken by us shows that a greater focus on CSR makes the company more appealing to investments and consequently leads to a higher financial performance, given that the current investors are aware of the importance of social, environmental, and economic concerns. It is been observed that these research work focuses mainly on financial parameters such as ROA, ROE, EPS, PAT etc., However, it has been observed that less attention is given a to an important parameter like Market Capitalization. There are very less research papers/work available on the 'Effect of CSR on Market Capitalization of Companies' especially in India. As discussed earlier, Market Capitalization of a company plays very important and a crucial part in indicating the success and growth of the companies and hence, we see it as a research gap and would like to study the effect of CSR on market capitalization of Indian Companies. Of late, there is a renewed interest among the scholars to ascertain the association among CSR and Market Capitalization which further supports our research work.

Objectives of the Study

- ☐ To study the importance of CSR Activities
- ☐ To Study the effect of CSR on Market Capitalization of Indian Companies

Hypothesis of the Study

H0: There is no significant effect of CSR on Market Capitalization of Selected Listed Companies

H1: There is a significant effect of CSR on Market Capitalization of Selected Listed Companies

Proposed Research Model/Framework

CSR Spendings $\xrightarrow{\text{H1}}$ Market Capitalization/Performance

Research Methodology

The purpose of this research is to study the Effect of CSR on Market Capitalization of Selective Listed Companies on National Stock Exchange (NSE). The present study aims to check the relationship between CSR spending's of randomly selected 30 companies which are listed on NSE and its market capitalization. The study follows non-probability sampling method/technique. For the sample size, random 30 companies are selected which are public ltd. companies listed on NSE as per their market capitalization included in the NIFTY50 Index of NSE. The secondary data is utilized for the study. The data related to the market capitalization is taken for the last 3 years from FY 2018-19 – FY 2020-21. Various websites such as NSE.com, Capitaline.com & MoneyControl has been used to collect the secondary data. The Correlation technique has been used to determine the degree of Correlation and relationship between the dependent and independent variables as well as Regression technique has been used to check the degree of impact of the independent variable i.e. CSR on market capitalization of selected companies.

Data Analysis & Findings

1.1. Correlation Analysis

The correlation analysis is done to understand the relationship between the independent and dependent variable and for our study, we have taken CSR Spending's as an independent variable and Market Capitalization as a dependent variable. The results are given in the table below.

Table 2. Pearson Correlation between independent variables and dependent variable

Correlations

		CSR (In Cr.)	Market Capitalization (In Cr.)
CSR (In Cr.)	Pearson Correlation Sig. (2-tailed) N	1 90	.591** .000 90
Market Capitalization (In Cr.)	Pearson Correlation Sig. (2-tailed) N	.591** .000 90	1 90

**. Correlation is significant at the 0.01 level (2-tailed).

***P value < 0.05**

From Table 2. It can be seen that the Pearson Correlation value for CSR & Market Capitalization is 0.591. Hence, the correlation coefficient is r = 0.591. The two-tailed P-value is given as 0.000 (rounded to 3 decimal places). Regardless of our significance level, this yields a good linear correlation which indicates a good correlation between them. From the positive sign we can conclude that there is positive correlation between CSR Spending's and Market Capitalization. In other words, if the CSR spending increases, the Market Capitalization increases.

4.2 Regression Analysis:

After examining the presence of significant association between independent variable and dependent variable, the linear regression analysis is performed further to check the degree and the collective effect of independent variable on dependent variable. In other words, through the correlation analysis we came to know that there is a correlation between independent and dependent variable, however, after understanding the existence of correlation, it is important for us to understand that up to what extent the effect is there and hence, we go for the regression analysis.

Table 3: Regression ANOVA

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.256E7	1	5.256E7	47.303	.000a
	Residual	9.777E7	88	1111034.120		
	Total	1.503E8	89			

a. Predictors: (Constant), CSR (In Cr.)

b. Dependent Variable: Market Capitalization (In Cr.)

*Sig Value- 0.000

As discussed earlier, it is important for us to understand that up to what extent the effect is there which can only be interpreted by Anova Test. If Anova Table shows the significant P- Value, i.e., <0.05 then it means that there is a significant effect. In Table: 3, we can clearly see that the significant P-Value is 0.000 which is <0.05 which states that there is a significant effect. Accordingly, the following hypothesis is developed based on Literature review presented in the earlier section.

H0: There is no significant effect of CSR on Market Capitalization of Selected Listed Companies

H1: There is a significant effect of CSR on Market Capitalization of Selected Listed Companies

Hence, by looking at the Anova table, the P-Value which we have got is 0.000 which is <0.05 which means we can Reject the null hypothesis that, ‘There is no significant effect of CSR on Market Capitalization of Selected Listed Companies’ and we can Accept and Conclude that,
‘There is a significant effect of CSR on Market Capitalization of Selected Listed Companies’.

Table 4: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.591[a]	.350	.342	1054.05603	.742

a. Predictors: (Constant), CSR (In Cr.)

b. Dependent Variable: Market Capitalization (In Cr.)

After assessing the impact of independent variable, i.e., CSR Spending’s on dependent variable, i.e., Market Capitalization of Companies, the strength of this impact has also been analysed. In other words, up to what extent the independent variable under study impacts the dependent variable is calculated. In this case, Model Summary table is used where we look for the R-Square value. As the R-Square value shows the strength of association between the independent and dependent variable, from the above table (4), it can be observed that the R- square value is 0.350, i.e., 35.00%. This indicates that independent variable strongly predicts the dependent variable by 35.00%. In other words, there is 35.00% association between CSR Spending’s and Market Capitalization. In any selected company’s market capitalization, 35.00% role has been played by CSR Spending’s. As there are uncontrollable factors controlling the Market Capitalization of Companies, if manager/CEO wants to improve his/her company’s market capitalization then he should know that 35.00% dependency or relation is with respect to CSR Spending’s and take the decisions accordingly.

Table 5: Regression Coefficients

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	251.013	142.321	142.321	1.764	.081
CSR (In Cr.)	3.839	.558	.591	6.878	.000

a. Dependent Variable: Market Capitalization (In Cr.)

The coefficient table is generally used to set the regression equation and where Y= Dependent Variable, i.e., Constant Value and X= Independent Variable, i.e., CSR. Our Equation in this case will be, Y= 251.01+3.829*X, i.e., Y= 251.01+3.829* CSR Spending's.

Y= 251.01+3.829*x
Y= 251.01+3.829* CSR Spending's

Using this equation, if we say that a particular company's CSR Spending is 1.5 Cr. And if we put this CSR Spending (1.5Cr.) in our equation then we will get the Market Capitalization of that selected company. However, that value will not be the exact value but a nearby value as Market Capitalization also depends on/subject to several other factors.

Findings

The major findings of this study concludes that there is a positive relationship between CSR Spending's and Market Capitalization of selected listed companies in India under study.

Managerial Implications

The market capitalization of a company can give investors an indication of the size of the company and can even be used to compare the size of one company to another. In India, the awareness about stock market among youth is rapidly growing and so the investments. A company's market capitalization is what it would cost you if you were to buy up all of its outstanding shares at the current share price. It is a way of sizing up a company by the value that investors put on it. Market cap is an important concept because it allows investors to understand the size of a company and how much its worth on the market. Since companies of different market-cap sizes vary in terms of their growth potential, income payments, and risk, spreading your investments among them is one way to balance your portfolio between appreciation and income, between conservative and aggressive. Often, investors focus on a particular market cap segment. Some may choose to stick with the big, stable, large-caps — especially if they want to preserve their capital or derive income from their investments. Others may be attracted to the more volatile — and exciting — small-caps, especially if they have a long-time horizon to weather volatility or like aggressive growth stocks. Often, market-cap data is also used to manage mutual funds. These funds can hold stock in dozens or even hundreds of companies, which allows investors to buy many stocks in a single transaction. Mutual funds often invest by category, so investors can buy small-cap or large-cap funds. And hence, as discussed earlier, CSR plays very important role in determining Market Capitalization of companies and management could use or increase their CSR spending's to grow or increase their Market Capitalization significantly instead of going for other options such as advertising.

Conclusion

This study tries to examine the importance of CSR Activities and to unearth the potential impact of the same on Market Capitalization of companies. For this study a random 30 companies have been selected which are listed on the NSE from the NIFTY50 index and the data used was of last 3 financial years starting from 2019 to 2021. A non-probability sampling method has been used in the study and the data is analysed using Correlation and Regression techniques. The Empirical results of this study indicate that there is a positive correlation between CSR Spending's and Market Capitalization.

The correlation analysis reveals that the Pearson Correlation value for CSR & Market Capitalization is 0.591 and the two-tailed P-value is given as 0.000 (rounded to 3 decimal places). From this positive sign we can conclude that a positive correlation between CSR Spending's and Market Capitalization exists.

From the Anova table, it can be seen that the P-Value obtained is 0.000 which is <0.05 which means that our null hypothesis (There is no significant effect of CSR on Market Capitalization of Selected Listed Companies) is rejected, and we H1, 'There is a significant effect of CSR on Market Capitalization of Selected Listed Companies' gets accepted.

Thus we can now conclude that there is a positive relationship between CSR Spending's and Market Capitalization of the selected listed companies in India under this study.

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PERCEPTION OF YOUTH TOWARDS ONLINE SHOPPING OF APPARELS IN BELGAUM CITY

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Abstract

Purpose: *In March 2020, much of the globe went into lockdown, forcing many businesses to temporarily shut down. Countries are gradually relaxing restrictions, but the longer term remains uncertain. Even businesses that are reopening have restrictions enforcing social distancing, the wearing of masks and limits on the number of customers that can enter an area at any given time. When traditional shopping becomes difficult, or may even be scary, people are increasingly inclined towards buying online.*

***Design and Methodology** : The following research paper focuses on the study of youths' perception towards online shopping of apparels in Belgaum. The research follows a combination of exploratory and descriptive research design and a multistage sampling technique for obtaining samples from 167 youth individuals within the city of Belgaum.*

***Results**: The paper provides insights on aspects like i) factors influencing online purchase of apparels, ii) nature of brands preferred while shopping online, iii)study of assorted stimuli that contributes to the buying behaviour and iv) youth's perceived advantages and disadvantages of e-commerce shopping websites.*

Keywords : *Youth, apparels, perception, online purchase*

Introduction

The invention of online shopping by Michael Aldrich in 1979 spread up vision of consumers. Online shopping means, seller selling the product through internet and ensuring a door step delivery channel. India has witnessed a drastic shopping revolution in terms of online shopping, channel and consumer buying behaviour. Customers are mostly attracted towards apparel in online channel buying from brand of marketplaces.

In online product categories, apparel is that the top category across all metros in India. Pricing is propulsion for purchasers towards online apparel platform like Myntra, Limeroad , Ajio , Meesho , Flipkart, Amazon etc. Convenience and variety also are main factor of attraction.

Throwing big discount offers during festival season is additionally important reason of growth of online shopping.

Customer decision making is a complex phenomenon which includes various factors (Lunenburg 2010). Higher cognitive process supported mental and cognitive abilities and totally on personality of people.

This study aims to discuss youngster's perception towards online shopping of apparels within the city of Belgaum. This study investigates aspects like factors influencing online purchase of apparels, nature of brands preferred while shopping online, stimuli that contribute within the buying behaviour and youth's perceived advantages and downsides of e-commerce shopping websites.

Literature Review

Introduction to consumer perception

Perception is how information is collected and categorized (Boundless. (n.d.). Perception is linked with the quantity of exposure to a stimulus and by individual interpretation. As an example, a consumer who hears once that dairy herds contribute to greenhouse emission wouldn't take the statement seriously. If the identical consumer encountered that information often and from many sources, then the buyer's attitude toward dairy products might change enough to influence how often the consumer chose yogurt as a food. The higher the preference for the brand, higher is that the positive consumer perception which successively reflects positive buying behaviour. The study of consumers helps firms and organizations improve their marketing strategies by understanding issues such as:

- The mental process of how consumers reason, think, feel and decide between different alternatives
- The psychology of degree to which a person is influenced by the environment around him/her.
- The consumer behavior while purchasing or making other different marketing decisions

Online Buying Decision Process

The Buying Decision process refers to the steps that a personal undertakes before the purchase of items/objects. It's a mental process and consists of 5 stages :

1) Need recognition: When a person realizes that there's something lacking in his life and desires to fulfil that void by recognizing a product/item that may address the necessity. (Thanatchaphan Petcharat Et al. 2021)
2) Information search: Here the person searches for information about various product of comparable nature which will satisfy his need by browsing across various media platforms. (Thanatchaphan Petcharat Et al. 2021)
3) Evaluation of alternatives: The person after collecting information about products/items, begins to gauge each alternative product in terms of convenience, price, quality etc (Thanatchaphan Petcharat Et al. 2021)
4) Purchasing: Here the person finally brings the operation in visible action by making the acquisition

(Thanatchaphan Petcharat Et al. 2021)

5) Post-purchase evaluation: It an evaluation done after the acquisition of the merchandise. supported this evaluation, the person might decide whether he was satisfied with the acquisition or not. (Thanatchaphan Petcharat Et al. 2021)

Other Allied Research Insights

Style, fit, variety, comfort, durability and colour are the foremost important attributes in consumer purchase decision process. Female buyers purchase more frequently than their male counterparts. (Rahul Dhiman et al, 2018). Value-conscious shoppers tend to go to online sites for best offers and price benefits. Social influence is additionally a positive predictor for online shopping frequency and spending (Matthew K.O. at el 2011). Men shop online even as often as women. Online buying by men is on an upward trend, that the firms selling male apparel may get an opportunity to capture good market share and profits. (Shubham Goswami & Shagufta Khan 2015). Service class is making online system tangible with respect to the nature of earnings. Customer’s age affects eMarketing transaction when deciding usage rate of online facilities. (Sonal Thakur & Dr. Rajinder Aurora 2015) It appears that the majority consumers may communicate the web fashion apparel purchases primarily for instrumental/ utilitarian reasons, like time saving, price saving/discounts, service convenience and merchandise selection/assortment. (Pradeep Kautish and Rajesh Sharma 2018). Consumers’ preference for “convenience” and “information” factors. Impulsive shoppers preferred online shopping websites for convenience attribute, while fashion-conscious and impulsive shoppers preferred online shopping thanks to information attribute.

Websites in regional languages don't seem to be popular. This restricts the use of online shopping among educated Indians who are not aware of English. (Arpita Khare 2016). Those who had more positive beliefs about Internet apparel shopping had more positive attitudes toward Internet apparel shopping. People that had more positive attitudes toward Internet apparel shopping had greater intention to buy apparel through the web. (Eunah Yoh , Mary Lynn Damhorst , Stephen Sapp , and Russ Laczniak , 2003)

Statement of Problem and Objectives of Study

Online shopping has gained more importance in today’s marketing conditions. But at the same time, it has increased the number of scams, fraudulent practices and cheating of consumers. Such cheating activities had created fear within the minds of shoppers and also negative impact within the attitude of consumers towards online shopping of apparels. The matter area of this survey is to check the youth’s perception towards online shopping of apparels within the city of Belgaum. The objectives of the study are

- To know the varied E-commerce sites preferred during the purchase of apparels.
- To know the factors influencing online purchase of apparels
- To know the nature of brands preferred while shopping online
- To know which stimuli contributes for getting behavior of youths in Belgaum
- To learn the influence caused by gender on various stimuli of shopping for behavior
- To assess the influenced caused by location of residence on various stimuli of shopping for behavior
- To see the assorted issues, if any, faced by the buyer in online shopping.

Formulation of Hypothesis

H1a: Gender has an influence on whether the youth prefer branded or unbranded apparels while shopping online

H1b: Youth has preference for a particular brand based on his/her Gender while shopping online

H1c: There's a dependency between Gender and the preference for a brand caused by the influence of self-opinion

H1d: There's a dependency between Gender and the preference for a brand caused by the influence of peer groups

H1e: There's a dependency between Gender and the preference for a brand caused by the influence of advertisement of that brand

H1f: There's a dependency between Gender and the preference for a brand caused by the influence of celebrity endorsements

H1g: There's a dependency between Gender and Convenience of shopping provided through e-marketing technology

H2a : Place of residence has an influence on whether the youth prefer branded or unbranded apparels

H2b : Youth has preference for a particular brand based his/her place of residence

H2c: There's a dependency between place of residence and the preference for a brand caused by the influence of self-opinion

H2d: There's a dependency between place of residence and the preference for a brand caused by the influence of peer groups

H2e: There's a dependency between place of residence and the preference for a brand caused by the influence of advertisement of that brand

H2f: There's a dependency between place of residence and the preference for a brand caused by the influence of celebrity endorsements

H2g: There's a dependency between place of residence and Convenience of shopping provided through e-marketing technology

Scope and Limitation of the Study

The scope of the study is restricted to Belgaum city. This study aims to look at the buying behaviour of youth on online shopping of apparels. The time limit for the research was short which was a challenge for collecting information needed to carry out an in-depth study. Results of the study depends on respondents' degree of involvement. The method of study was based on multistage and convenience sampling.

Methodology

Research Design

This research follows a combination of exploratory and descriptive research design. During a descriptive design, a researcher is solely curious about describing true or case under their research study. It's a theory-based design method which is made by gathering, analysing, and presenting collected data. This permits a researcher to supply insights into the why and the how of research.

Questionnaire Design

The questionnaire is adopted from previous researches. The questionnaire covers 4 parts namely A) Demographic details B) Buying pattern of youths C) Nature of stimuli that affect buying behaviour and D) Perception of youth while making online purchases. Parts A and B contain seven questions that are nominal in nature and are self-designed to suit the characteristics of youth in Belgaum. Part C consists of seven questions adopted from research done by (Amit-Aggarwal 2010). This data is recorded employing a five-point Likert scale to measure the degree to which different stimuli affect buying behaviour. The three questions in part D are adopted from research made by Rahul Dhiman Et al. 2018, Pradeep Kautish Et al. 2018 and Aldhmour, 2016. These questions are of multiple answers format i.e.; the respondent can select more than 1 option.

Table No1: Questionnaire design

Q.No	Statements	Adapted From	Measuring
1	Name of the respondent :	Self-designed	Demographic details
2	What is your gender?	Self-designed	Demographic details
3	What is your age?	Self-designed	Demographic details
4	What part of the city do you belong to?	Self-designed	Demographic details
5	How frequently do purchase apparels?	Self-designed	Buying pattern of youths
6	What mode do you prefer for purchasing apparels?	Self-designed	Buying pattern of youths
7	Which is your most preferred online fashion website / app	Self-designed	Buying pattern of youths
8	While shopping for apparels, I prefer branded apparels than unbranded apparels	Amit Aggrawal, 2010	Nature of stimuli that affect buying behavior
9	While shopping for branded apparels, I have preference for a specific brand	Amit Aggrawal, 2010	Nature of stimuli that affect buying behavior

10	My branded preference is influenced by my self-opinion rather than the opinion of family members	Amit Aggrawal, 2010	Nature of stimuli that affect buying behavior
11	My brand preference is influenced demonstratively by my peer group	Amit Aggrawal, 2010	Nature of stimuli that affect buying behavior
12	My brand preference is affected by the advertising of the brand in the following extent	Amit Aggrawal, 2010	Nature of stimuli that affect buying behavior
13	Endorsements by celebrities effects my brand preference	Amit Aggrawal, 2010	Nature of stimuli that affect buying behavior
14	Convenience of shopping as provided through e-marketing helps in increasing preference for the brand	Amit Aggrawal, 2010	Nature of stimuli that affect buying behavior
15	What features do you look for while purchasing apparels online?	Rahul Dhiman Et al. 2018	Perception of youth while making online purchases
16	What factors encourage you to buy apparels online	Pradeep Kautish Et al. 2018	Perception of youth while making online purchases
17	What factors might discourage you from buying fashion products online?	Aldhmour, 2016	Perception of youth while making online purchases

Source: Secondary data

Sampling Design and Method (Multistage Sampling)

The sampling technique used for this research is a multi-stage sampling method.

The first stage follows a stratified sampling where the entire city of Belgaum is divided into 3 geographical divisions namely Belgaum North, Belgaum South and Belgaum Rural and then in the second stage, to each of these geographical divisions convenience sampling method is implemented to collect the primary data from respondents.

Sample Size Calculation

The sample size is calculated at 95% confidence level for infinite population size (assumption) at 7.58% margin of error using a statistical formula

$$n = \frac{Z^2pq}{e^2}$$

$$n = \frac{1.96^2\ (0.5)(0.5)}{0.0758^2}$$

$$n = 167$$

Data Collection

The data is obtained via responses collected through data obtained using a survey questionnaire that includes four parts: i) Demographic details ii) Buying pattern of youths iii) Nature of stimuli that affect buying behavior and iv) Perception of youth while making online purchases. The sampling frame for this research is the youth population of Belgaum city aged between 20-39 years. The data was collected by circulating the questionnaire via Google Form to about 167 respondents using convenience sampling technique.

Analytical Tools

- Data was analyzed using IBM SPSS
- The tools used for analysis were Frequency distribution and Percentages and One Way Analysis of Variance (ANOVA)
- Visual Tools like Pie charts and Bar charts were also used.

Results

A) Demographic Details

Table No. 2: Demographic

Demographic characteristics	**Measures**	**Frequency**	**Percentage**
Gender	Male	87	52.1%
	Female	80	47.9%
Age	Less than 20	6	3.6%
	20-39 (Early Adulthood)	160	95.8%
	40-59 (Middle Adulthood)	1	0.6%
	60+ (Late Adulthood)	0	0%
Geography	Belgaum North	90	53.9%
	Belgaum South	64	38.3%
	Belgaum Rural	13	7.8%

Source: Primary data

The questionnaire was distributed fairly across both the gender types. The majority of the respondents belong to the age group of 20-39 years which fits the scope of study. The respondents are adequately distributed between North Belgaum and South Belgaum. (About 92.2% combined). Around 7.68% of the responses were from the rural region.

B) Buying pattern of youths

Table No 3: Buying pattern

Question	**Measures**	**Frequency**	**Percentage**
How frequently do purchase apparels?	Daily	0	0%
	Weekly	9	5.4%

	Monthly	48	28.7%
	Once every 3	69	41.3%
	Half yearly	30	18%
	Yearly	11	6.6%
What mode do you prefer for purchasing apparels?	Online	98	58.7%
	Offline	69	41.3%
Which is your most preferred online fashion website?	Myntra	76	45.5%
	Amazon	39	23.4%
	Flipkart	24	14.4%
	Snapdeal	0	0%
	Ajio	14	8.4%
	TataCliq	0	0%
	Koovs	0	0%
	Others	14	8.4%

Source: Primary data

It can be seen that the majority (around 41.3%) of youngster purchase apparels online once in 3 months. It can also be seen that there is a fairly equal preference for shopping apparels via both online and offline modes. The most popular sites for shopping apparels online were Myntra (45.5% of the responses) and Amazon (23.4 % of the responses)

Nature of stimuli that affect buying behavior

Table No. 4: Stimuli affecting buying behavior

Question	**Measures**	**Frequency**	**Percentage**
While shopping for apparels, I prefer branded apparels than unbranded apparels	Strongly Agree	33	19.8%
	Agree	68	40.7%
	Neutral	48	28.7%
	Disagree	11	6.6%
	Strongly Disagree	7	4.2%

While shopping for branded apparels, I have preference for a specific brand	Strongly Agree	21	12.6%
	Agree	49	29.3%
	Neutral	76	45.5%
	Disagree	18	10.85%
	Strongly Disagree	3	1.8%
My branded preference is influenced by my self-opinion rather than the opinion of family members	Strongly Agree	48	28.7%
	Agree	70	41.9%
	Neutral	40	24%
	Disagree	9	5.4%
	Strongly Disagree	0	0%
My brand preference is influenced demonstratively by my peer group	Strongly Agree	9	5.4%
	Agree	41	24.6%
	Neutral	65	38.9%
	Disagree	37	22.2%
	Strongly Disagree	15	9%
My brand preference is affected by the advertising of the brand in the following extent	Extremely Effective	5	3%
	Effective	24	14.4%
	Neutral	63	37.7%
	Somewhat Effective	55	32.9%
	Not very effective	20	12%
Endorsements by celebrities effects my brand preference	Strongly Agree	9	5.4%

	Agree	38	22.8%
	Neutral	51	30.5%
	Disagree	36	21.6%
	Strongly Disagree	33	19.8%
Convenience of shopping as provided through e-marketing helps in increasing preference for the brand	Strongly Agree	21	12.6%
	Agree	80	47.9%
	Neutral	58	34.7%
	Disagree	6	3.6%
	Strongly Disagree	2	1.2%

Source: Primary data

About 40.7% of youngsters agreed to the fact that they prefer purchasing branded apparels over unbranded apparels when shopping online. It can be seen that the respondents have a neutral opinion (45.5% of the respondents) meaning that they don't specifically look for a particular brand of choice while shopping online. About 41.9% of the respondents agreed to the fact that their brand preference was influenced by self-opinion rather than the opinion of their family members. About 38.9% of the respondents have a neutral opinion which suggests that they neither nor disagree to the fact that their brand preference is influenced by peer groups while shopping online. It can be noticed that brand advertisement is somewhat effective (32.9%) or effective (37.7%) in influencing the purchasing choice of apparels among youngsters. About 30.5 % Respondents said that celebrity endorsement influences their brand preference of apparels while shopping online. Majority of the respondents (about 47.9%) agree to the fact that e-marketing helps in increasing preference for a brand.

C) Perception of youth while making online purchases (Multiple answer type)

Table No. 5: Factors affecting online purchase

Question	**Measures**	**Frequency (out of 167)**	**Percentage**
What features do you look for while purchasing apparels online?	Style	112	17.8%
	Fit	118	18.8%
	Color	103	16.4%
	Durability	92	14.6%
	Variety	76	12.1%
	Comfort	128	20.3%

What factors encourage you to buy apparels online	Time saving	111	27.61%
	Price saving	119	29.60%
	Service Convenience	71	17.66%
	Variety of choices	101	25.12%
What factors might discourage you from buying fashion products online?	Delayed Delivery	70	22.80%
	Unfriendly interface	45	14.66%
	Insecurity of Bank details	51	16.61%
	Faulty/Low quality products	141	45.93%

Source: Primary data

Majority of the respondents prioritize factors like Comfort (20.3% respondents), Fit (18.8% respondents) and Style (17.8% respondents) while purchasing apparels online. Majority of the respondents purchase apparels online because of factors like Price Saving (29.60% of the respondents) and Time Saving (27.61% of the respondents). Majority of the respondents revealed the fact that "Faulty products/Low-Quality products" was the primary reason (45.93% of the respondents) that discouraged them to shop for apparels online.

D) Summary of hypothesis

Table No. 6: Results of hypothesis

Hypothesis	**df**	**F value**	**Sign.**	**Supported**
H1a	1	3.342	.069	No
H1b	1	4.990	**.027***	**Yes**
H1c	1	0.250	.618	No
H1d	1	0.016	.900	No
H1e	1	0.015	.902	No
H1f	1	0.427	.515	No

H1g	1	0.105	.746	No
H2a	1	0.241	.786	No
H2b	1	1.465	.234	No
H2c	1	2.163	.118	No
H2d	1	0.016	.984	No
H2e	1	0.198	.821	No
H2f	1	0.331	.719	No
H2g	1	1.048	.353	No

Source: Primary data

One Way Analysis of variance (ANOVA) Test was conducted for testing the statistical significant differences between Gender and Location vs various stimuli that affect buying behaviour at 5% level of significance level. Here, we accept the hypotheses that were formulated (alternate hypotheses) if the significance value is less than 0.05. The following are the results of the formulated hypotheses:

H1a stands rejected :The Asymptotic (2 sided) Significance is 0.069, which is greater than the critical level of 0.05. Therefore, gender has no influence on whether the youth prefer branded or unbranded apparels

H1b stands accepted : The Asymptotic (2 sided) Significance is 0.027, which is lesser than the critical level of 0.05, Therefore, youth has a preference for a particular brand based on his/her Gender.

H1c stands rejected The Asymptotic (2 sided) Significance is 0.618, which is greater than the critical level of 0.05. Therefore, there's no dependency between Gender and the preference for a brand caused by the influence of self-opinion

H1d stands rejected : The Asymptotic (2 sided) Significance is 0.9, which is greater than the critical level of 0.05, therefore the Null Hypothesis is accepted. Therefore, there's no dependency between Gender and the preference for a brand caused by the influence of peer groups

H1e stands rejected : The Asymptotic (2 sided) Significance is 0.902, which is greater than the critical level of 0.05. Therefore, there's no dependency between Gender and the preference for a brand caused by the influence of advertisement of that brand.

H1f stands rejected. The Asymptotic (2 sided) Significance is 0.515, which is greater than the critical level of 0.05. Therefore, there's no dependency between Gender and the preference for a brand caused by the influence of celebrity endorsements

H1g stands rejected : The Asymptotic (2 sided) Significance is 0.746, which is greater than the critical level of 0.05. Therefore, there's no dependency between Gender and the convenience of shopping provided through e-marketing technology

H2a stands rejected : The Asymptotic (2 sided) Significance is 0.786, which is greater than the critical level of 0.05. Therefore, place of residence has no influence on whether the youth prefer branded or unbranded apparels

H2b stands accepted : The Asymptotic (2 sided) Significance is 0.234, which is greater than the critical level of 0.05. Therefore, youth have no preference for a particular brand based on his/her place of residence

H2c stands rejected :The Asymptotic (2 sided) Significance is 0.118, which is greater than the critical level of 0.05. Therefore, there's no dependency between place of residence and the preference for a brand caused by the influence of self-opinion

H2d stands rejected : The Asymptotic (2 sided) Significance is 0.984, which is greater than the critical level of 0.05. Therefore, there's no dependency between place of residence and the preference for a brand caused by the influence of peer groups

H2e stands rejected : The Asymptotic (2 sided) Significance is 0.821, which is greater than the critical level of 0.05. Therefore, there's no dependency between place of residence and the preference for a brand caused by the influence of advertisement of that brand.

H2f stands rejected : The Asymptotic (2 sided) Significance is 0.719, which is greater than the critical level of 0.05. Therefore, there's no dependency between place of residence and the preference for a brand caused by the influence of celebrity endorsements

H2g stands rejected : The Asymptotic (2 sided) Significance is 0.353, which is greater than the critical level of 0.05. Therefore, there's no dependency between place of residence and the convenience of shopping provided through e-marketing technology

Conclusion:

Due to the continuous growth of technology, a large number of institutes and organizations have shifted to the electronic way of making sales rather than a traditional way of selling goods. Internet has become the main driving force for commercial transactions. In the city of Belgaum, online shopping has gained a rapid momentum especially due to the pandemic conditions. Using online mode, people can shop for apparels safely without being exposed to the risk of getting infected. The youth respondents from Belgaum shop for apparels pretty frequently. Their brand choice is influenced by several stimuli like self-opinion, advertisements and celebrity endorsements. They consider several factors like time, money, product quality etc to decide whether or not to go for shopping of apparels online. However, there is still scope for further research by covering a larger chunk of the population and also by including several other parameters to study the perception process of the youth.

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ANALYSIS OF THE PROBLEMS FACED BY NON–CORPORATE SMALL BUSINESS SEGMENT (NCSB) IN BELAGAVI CITY IN CONTEXT OF MUDRA LOAN

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Abstract
Purpose – This study aims to examine the problems faced by NCSBs in Belagavi city regarding availing of loans under the MUDRA Yojana and also the factors affecting the proper functioning of the scheme initiated by the government.

Design/methodology/approach – the study is done based on exploratory research design by collecting primary data and by examining the available literature. In phase 1, using a structured questionnaire, data was collected from 40 respondents who have availed the MUDRA loan in Belagavi city from Canara, Federal and Syndicate banks using a multi-phase sampling method. Secondly, Analytical tools like percentage, Mean, Median, Standard deviation and Variance were used as descriptive tools. Chi- square test was employed as an inferential tool to analyse whether there exists a correlation between business size (income level) and various other variables.

Findings – The study proved that the MUDRA loan beneficiaries, consider the size of their business, (income level) as an important factor while availing the loan, some of the problems faced also depend on the size of the firm.

Keywords – MUDRA, governments, business size, NCSBs
Paper type- Research paper.

Introduction-

The economic destiny of a nation is created by the entrepreneurs by generating wealth and opportunities for employment, contributing products and services, and also helping the government by generating tax revenue. This is the reason why economic growth and entrepreneurs are linked together. Entrepreneurs generate new ideas and convert them into economic opportunities through innovations which are considered to be an important cause of competitiveness in an increasing proliferation economy. Therefore, the governments in the world attempt to develop a constant supply of entrepreneurs in the country. The developed countries generate a good number of entrepreneurs by creating a good environment but most of the developed and underdeveloped countries lack such support. India is developing at a comparatively high rate considering the last few years and is likely to be considered one of the most developed economies by 2050. India is a young country with about 63 percent population currently being in the salaried age group of 15 to 59 years. where studies have also proved that the entrepreneurial mind-set prevails in this age group of 25-34(Entrepreneurship Development Institute of India). But considering the present situation, about only 5-6 percent have equipped themselves with some skills. Youth in India are exposed to a service-related culture right from their childhood. Every youth today aspire for jobs, and rarely think of entrepreneurship as a career. The present education system also seldom educates the students to choose entrepreneurship as a career, but instead prepares the students for job-oriented careers.

This present study mainly focuses on the problems faced by the beneficiaries of the MUDRA scheme with special reference to Belagavi city. Referring, to the published article on MUDRA yojana,(PM to launch MUDRA Bank today), NCSBS consists of a set of small entrepreneurs particularly in the sector of manufacturing units, shopkeepers, fruits/vegetable vendors, truck & taxi operators, food-service units, repair shops, machine operators, small industries, artisans, food processors, street vendors, and many others they are classified broadly under three broad categories based on their work i.e. concerning economic activities undertaken such as trading, transport services, and production. Identifying, the reluctant nature of the financial institutions and the shortage of finance to the micro-units the Government of India launched MUDRA Yojana commonly called ‘Micro Unit Development and Refinance Agency (MUDRA) on 08 April 2015, with the broad vision of providing a combination of both financial and support assistance which is in relation to the global quality standards for all-round progress of the country. The idea for implementing the MUDRA Yojana was to create a new avenue for micro- enterprises to reduce the finance issues. The current paper attempts to evaluate the problems faced by the NCSBS in Belagavi city. The paper also attempts to give suggestions to improve the schemes to reduce the credit-related problems specifically concerning the micro sector.

Theoretical background and literature review-

1. As P.A. Ibrahim (2015) stressed financial constraint to be one of the main problems faced by micro-enterprises. The International Financial Corporation (2011), studies pointed out the reluctant nature of the banks to extend credit to these small firms due to lack of credit guarantee. These studies also concluded the nature of most of the banks in extending credit to the small sectors to be hesitant as they consider them to be risky and less profitable and usually charge them higher processing fees and interest rates.

2. As Ravi R (2014) in his paper, mentioned that the current economic situations require a specific financial setting for fulfilling the requirement of micro, small and medium enterprises as per the IFC report (2017) jobs study concludes that to reduce the financial

shortage and reduce the financing restraints, the governing bodies must resort to some reliable measures that can be implemented.

3. According to a study conducted by KUMAR (2017) on the impact of MUDRA Yojana on financial inclusion. His study also included the objectives of the MUDRA bank. His study concluded that small businesses are the pillars of sustainable economic developments which must be supported and strengthened.

4. GUPTA (2015) studied the role scope of MUDRA yojana, where his study also emphasized on working and nature of the MUDRA Bank. The study came to the conclusion that MUDRA will be an agitator towards universal entrepreneurial development, generating employment opportunities as well as leading to the all-around development of the country.

5. MAHAJAN (2018) has pointed out that, The MUDRA Scheme is also trying to extend its scope by standing of women in the society along with the other regional rural backward sections of the society specifically those who are not well educated or are semiskilled. The support via extending finance in the form of loans motivates them to start new start-ups and thus empowers them. His study also remarked the impact of the scheme to be seen in the upcoming years.

6. PRAKASH AND DEVAKI (2018) have concluded that the MUDRA Yojana scheme will surely prove to be an addition to improving the well-being and standard of the individuals engaged in small industries which will positively shape the economy and help in its constant progress as a whole.

7. Verma S. (2015) has focused that the structure of MUDRA will help to serve the financial problems of MSMEs along with also extending moral support to a huge mass of young youths to fulfil their dreams of becoming an entrepreneur.

8. Rudrawar, M. A. A., &Uttarwar, V. R. (2016) has concluded that the required change can be achieved through the PMMY scheme. If applied as planned at the lower level, it may prove to be a Pioneering change that might help to, improve the Indian economy. He also suggested that the scheme must include fewer procedures and must be easily accessible.

9. R. Rupa (2017) has shown the success of the MUDRA scheme in the state of Tamil Nadu. she stated in the study that the accounts under the PMMY have increased drastically due to the support of the financial institutions.

Objectives Of the Study-

a) To give demographic details of the beneficiaries of MUDRA LOAN.
b) To analyse the factors motivating the entrepreneurs to avail the loan.
c) To check whether there is any dependence between the size of the business (income level) versus other factors in relation to availing the mudra loan.

Methodology

Research design:
We have used exploratory research design. The sampling method employed was multi-phase sampling method where a sample of 40 respondents (beneficiaries) who have availed the loan was selected from city of Belagavi. The information with respect to the beneficiaries was gathered through personal interactions with bank officials of Canara, Federal and Syndicate banks who provide the MUDRA loan. The banks helped us to get the details of the beneficiaries.

Data collection and methods used-
The data is collected through both the primary and secondary sources of data. A structured questionnaire was framed considering the various variables in relation to MUDRA yojana and its functioning and the responses were recorded accordingly. Secondly, various published journals, magazines, articles and newspapers were also referred with respect to MUDRA yojana so as to collect the information on the scheme. Analytical tools like percentage, Mean, Median, Standard deviation and Variance were used as descriptive tools. Chi- square test is employed as an inferential tool to analyse whether there exists a correlation between business size (income level) and various other variables.

Scope and limitation-
The scope of study is limited mainly to the beneficiaries of MUDRA yojana who have availed the loans form Canara, Federal and Syndicate banks of the Belagavi city. Convenient sampling technique is used to collect the primary data.

Hypothesis-
H1: Business size (income) is dependent on the type of venture (trading, manufacturing).
H2: Business size (income level) is dependent on the Awareness level of MUDRA loan.
H3: Business size (income level) is dependent on the Problems faced by the beneficiaries of MUDRA loan.

H3a: Demand for collateral security and Business size (income level) are dependent.

H3b: There is a dependency between lengthy processing time for availing the loan and Business size (income level)
H3c: Delay in disbursement of the loan is dependent on the Business size (income level) H3d: Geographical restrictions and the Business size are dependent. (income level).

H4: Business size (income) is dependent on scheme of MUDRA yojana (Shishu, Kishore, Tarun)

Data Analysis

6.1 Table 1: Demographic Profile of the Respondents

Measure	Items	Frequency	Percentage
Age group	20-30	1	3%
	31-40	23	58%

	41-50	14	35%
	Above 50	2	5%
Education	Before SSLC	2	5%
	SSLC	8	20%
	PUC	17	43%
	Graduation	13	33%
	Post-Graduation	0	0%
Business -size (Income)	Less than Rs.300000	5	13%
	Rs.300000 – Rs.500000	9	23%
	Rs.500000 – Rs.1000000	25	63%
	More than 1000000	1	3%
Form	Sole proprietor	31	78%
	Partnership	3	8%
	Self-help groups	6	15%
	Others	0	0%

Source: primary data

IT is clear from Table 1 that 58% of MUDRA loans are taken by entrepreneurs aged 30 to 40, while 35% of MUDRA loans are taken by entrepreneurs aged 40 to 50. From the respondents, it is clear that the MUDRA Loans are taken by literate individuals or entrepreneurs. The above table reveals that 43% and 33% have completed Pre-University College (PUC) and Graduation respectively. The table 1 also reveals that MUDRA loans are mostly availed by non- corporate micro business enterprises. The same is depicted in table 1, 63% of loans are availed by businesses earning income of less than Rs. 300000, 23% by businesses earning income of between Rs.300000 and Rs.500000 and 13% by businesses earning income of between Rs.500000 and Rs.1000000 and just 3% of the loans are availed by businesses earning income of more than Rs. 1000000. According to the table 1, 78% of business owners are single proprietors or self-employed individuals, while 8% are partnerships.

Factors Motivating the entrepreneurs for self-employment and availing the loans –

Table No: 2: Descriptive Statistics

	Mean	Median	Std.	Variance
Desire to get gainfully employed	4.13	4	0.723	0.522
Need for independence	4.05	4	0.749	0.562
Prestige	4.08	4	0.73	0.533

Desire to lead	3.7	3.5	0.791	0.626
Generate more Income	4.23	4	0.698	0.487
Get decision making power	4	4	0.816	0.667
Success of others	4.4	4	0.496	0.246
Desire to achieve something	4.13	4	0.686	0.471

Source- primary data.

From the above table it is evident that Success of others i.e., a desire to create a change in society is the most important factor that motivates the respondents to avail the loan, desire to generate more income is the second most important factor whereas the desire to get gain fully employed is the third most important factor that motivated the entrepreneurs to avail the loan. Next stands the desire to achieve something which inspires them to start something independently.

Comparison of business size (Income) with respect to various variables

Table No: 3: Inferential Statistics

VARIABLE	Test	Value	df	Asymptotic Significance (2-sided)	Significance
1)Type of Venture	Pearson Chi-Square	24.667a	6	0.000	** Significant
2)Awareness	Pearson Chi-Square	6.000a	3	0.112	Not Significant
3)Problem faced -					
Demand for collateral security	Pearson Chi-Square	6.240a	3	0.10	Not Significant
Length processing time	Pearson Chi-Square	8.323a	3	0.04	* Significant
Co applicant requirement	Pearson Chi-Square	7.964a	3	0.047	* Significant
Delay in fund disbursement	Pearson Chi-Square	5.013a	3	0.171	Not Significant
Geographical restrictions	Pearson Chi-Square	6.609a	3	0.085	Not Significant
4) Scheme of MUDRA yojana	Pearson Chi-Square	28.203a	6	0.000	** Significant

Source-primary data
** Significant at 1% level of Significance
*Significant at 5% Level of significance

The above table proves whether the size of the business (income level) is dependent or independent with respect to various variables in relation to availing the mudra loan. Here the chi-square value is calculated to check whether there exists a correlation with the income level of the firm (business size) and various other variables. The first variable examined is whether the type of venture (manufacturing, trading) in which the firm is involved is linked with the size of the firm (income level). The chi-square value proves that the type of venture is dependent on the size of the firm at 5% level of significance. The second variable examines whether there is any relationship between the awareness level among the respondents and the business size (income level), where the chi-square value proved there is no significant relationship between the awareness level among the respondents and the business size (income level) at 5% level of significance.

The third category of variables examined were the problems faced by MUDRA beneficiaries are dependent on size of the Firm (income level), It is evident from table number 3 that problems faced such as, the demand for collateral security, co-applicant requirement, the lengthy processing time are significant at 5% level of significance, i.e., they are dependent on the size of the business (income level). Whereas if we consider the other problems i.e., Demand for collateral security, delay in fund disbursement and geographical restrictions are independent of the size of the business (income level).

If we consider the scheme under the MUDRA loan the above table proves that the type of scheme availed under the MUDRA is dependent on the size of the firm (income level) at 5% level of significance, where the entrepreneur depending on the size of the firm (income level) decides whether to avail shishu, Kishore or tarun scheme.

Conclusion-

The study finds that if MUDRA loan is implemented in the right manner, it will augment the income level of micro businesses and will lead to the well-being of the entrepreneurs engaged in small-scale industries which can completely transform the economy as a whole. If implemented under the priority sector schemes to the destitute and poor people, it's going to work as vital tool for the state to develop the nation through monetary inclusion and might boost the nation’s growth rate.

Government policy and MUDRA yojana have positive impact on promoting entrepreneurship in India and growth of Indian economy. As per data, conclusion is, MUDRA yojana has positive impact on entrepreneurship development. The hypothesis so framed within the study, proved that the MUDRA loan beneficiaries, consider the size of their business, (income level) as an important factor while availing the loan. The problems faced by the beneficiaries of the mudra loan like the co-applicant requirement and lengthy processing time are dependent on the size of the firm. As compared to alternative, bank loan availed by entrepreneurs, MUDRA loan is less costly. MUDRA loan is easily available and documentation charges are extremely less. Therefore, small businesses can easily access MUDRA loan and develop their business. As more businesses develop, the economy of India can grow stronger. Growth of any country depends on their entrepreneur and business. As entrepreneurs require finance to conduct their business, where small entrepreneurs are deprived of the same therefore MUDRA loan can facilitate the entrepreneur for promoting and developing business.

Suggestions –

1. The government should create awareness programs of the MUDRA Scheme in rural and semi-

urban areas through banks/ financial institutions and also through Gram panchayats/ Municipality offices.

2. Tarun category performs very low and needs to improve by providing more and more loans.
3. It is suggested to private sector banks to lend more under the MUDRA Scheme and also create awareness campaigns at the branch, regional and head offices about the MUDRA scheme.
4. The academic institution's colleges must also strive to provide more details about the scheme to the adult or young generation so that they can communicate the same to the people in their surroundings who need financial aid.
5. Banks can also strive to reduce the problems faced by the people as found in our study so that more and more people can avail the loan.
6. Women entrepreneurs should be encouraged to avail MUDRA Loans as it will help the in eliminating the financial difficulties faced by them.
7. Number of visits of customers to avail loans should be reduced by a significant level so that customers do not switch to other competitors.

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TO STUDY VIRTUAL EMPLOYEE ENGAGEMENT IN THE PREVAILING SCENARIO

Satyam Sitaram Shelke
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ABSTRACT:
Managers' potential to engage digital employees (the ones in one-of-a-kind geographic locations) is a determining factor of employee productivity and commitment towards the organization. Since 2005, the wide variety of digital employees multiplied; but, research considering virtual conversation and worker engagement is constrained. The cause of this quantitative study was to have a look at if a good sized correlation exists among worker engagement (the structured variable) and the quantity and perceived satisfactory of virtual management conversation (the unbiased variables). The studies questions assess the correlation amongst the quantity of time managers spend speaking with digital personnel, first-class of digital verbal exchange, and engagement with employees Homans's social trade principle served as the theoretical framework. Data collection concerned an online survey from seventy-one digital personnel, running broadly speaking from domestic.

The effects of the regression evaluation were statistically big, F (2, sixty-seven) = 7.14, p = .002, R2 = .18, indicating that quantity of time a manager a spent communicating with digital employees and the virtual personnel' perceived pleasant of verbal exchange undoubtedly affected engagement with workers. Findings indicated that managers who talk more often and have a higher perceived best of verbal exchange are much more likely to have engaged personnel. Business leaders can use this observe to inform managers of the want for common, first rate verbal exchange with their virtual employees. The findings will make a contribution to social exchange by using and providing organizational leaders to boom the worker engagement of homebased digital employees with useful strategic information

Introduction

Virtual Communication

Virtual communication is how people interact with others without being in the same place. It is used in an office environment by remote teams and practically every industry. Historically, face-to-face contact in employee engagement was forced on organizations within the confines of brick and mortar buildings. The use of technology has opened more collaborative possibilities in the last few decades, introducing new avenues and options for employee interaction.

A digital workforce includes a worker or employees who are based in a distinct bodily area from their manager, or dispersed in a number of exclusive locations. This can be the ones working in exceptional elements of an unmarried constructing or website, however greater normally involves: folks who do business from home for some or all of their operating hours; cellular employees operating in the area; those running in outsourced groups; or the ones operating at a special website online, both inside the equal us of an or abroad.

In these day's global of international commercial enterprise, flexible operating practices, and contemporary technology, virtual working is a common scenario in organisations internationally. The advantages afforded through digital working are many and varied - for the corporation in addition to the employee. Yet such faraway working isn't without its demanding situations. In a bodily running environment, a lot of what we learn from our colleagues is received thru statement. We see how they work and get a feel of their attitudes and expectations and the which means of what they are saying via facial expressions and frame language. However, such visible 'clues' aren't available to colleagues who work remotely.

Advantages of Virtual Communication

a. Convenience: People or employees can engage with each other from wherever they are. They do not should meet in character. This reduces frustration, especially when they are busy or stuck up in traffic.

b. Time Saving: There is no want for a physical meeting to communicate. Different digital communication software program allows you to bypass throughout something facts you have got from anywhere you are. This finally saves time.

c. Saves Money /Cut Costs: Another advantage of virtual conversation is which you are able to reduce transport expenses. Companies reduce on operational expenses of employees, for that reason saving extra money for use on other features.

d. It Is Fast: Virtual conversation takes no time to hook up with the other man or woman. It is only a click away and you get to carry what you have in mind.

e. Enables Organizations Harness Talent from Anywhere: If human beings do now not need to meet bodily, then it means they could paintings from houses remotely in any continent. This way, a company is able to amass the best human beings for the process increasing productivity.

f. Promotes Flexibility: This is critical for busy folks that are suffering with paintings and life balance, as an example running mums. Virtual communique allows them work from anyplace they may be, speak speedy and put up projects on time.

g. Increases Productivity: When time is stored, comfort is gift, first-rate skills is harnessed and versatility is attained, there may be without a doubt a boom in productiveness. Employees turn out to be greater effective and green as properly.

h. Easily Contacting Colleagues: Employees are able to seek advice from each different very without problems and rapid. There is not any need to move from your desk to the other. This saves time too. That is one of the advantages of virtual verbal exchange which you may enjoy whilst connecting your colleagues.

i. Reduce Need for More Office Space: Virtual communication eliminates the need to create space for employees who can make money working from home or anywhere they're.

j. Reduce Boredom: Working from the identical area day in time out is It genuinely contributes to inefficiency amongst personnel. If you can paintings on a challenge from everywhere else apart from the workplace, the exchange of surroundings is ideal for your frame and thoughts. You will now not be that bored.

k. Easily Keeping a Record: The closing gain of virtual conversation is which you best need to click a button and also you get to report video calls and audio calls. Your smartphone maintains a file of immediate messages. This is in contrast to face to face communication where wrongful phrase of mouth can be spread effortlessly.

l. Everything inside the world has its bad aspect. You want to recognise the dangers of virtual communication. This will help you strategize on how first-class to speak simply.

m. Technical Problems: Virtual communication is based on software, machines and the Internet, that may malfunction at any time. This influences ongoing and scheduled virtual communique endeavours.

n. Absence of Non-verbal Communication: Some virtual communication techniques, like voice calls do no longer accommodate faces of human beings. Therefore, it is simple to mistake a sarcastic remark for an authentic one, unless you're very eager. This causes miscommunication.

o. Some Functions Require Face-to-face Communication: Interacting honestly does no longer resolve all communication needs, as an instance in the course of disaster. That is why face-to-face conversations will by no means get outdated.

<u>Meaning & Definition of Employee Engagement</u>

Employee engagement is a fundamental idea inside the effort to apprehend and describe, each qualitatively and quantitatively, the character of the relationship between an organization and its personnel.

Employee engagement can be vital to a company's success, given its clean hyperlinks to activity pleasure and worker morale. Communication is an important part of growing and retaining employee engagement. Engaged personnel are more likely to be efficient and higher performing. They also often show a more dedication to an organization's values and goals. Engaged employees often develop an emotional connection to their process and corporation, and will be focused on running towards their business enterprise's dreams.

William Kahn: He provided the first formal definition of employee engagement as “the harnessing of organization selves to their work roles, in engagement, people employ and express themselves physically, cognitively and emotionally during role perform.

Siegal and Lance (1987): Siegal and Lance stated that "job satisfaction is an emotional response defining to which people like their job".

Kevin Kruse: Kevin Kruse stated employee engagement as ""The emotional commitment the employee has to the organization and its goals"

Advantages of Employee Engagement

Advantages of Employee Engagement
Motivates The Individual: The first and fundamental benefit of worker participation is that it facilitates in motivating the personnel. This is due to the fact whilst the personnel are stated to take part in essential conferences in addition they sense unique and get endorsed for turning in precise paintings within side the close to future. This motivation is one of the high-quality worker engagement benefits.

Decision Making Becomes Effective: The outlook of the personnel get broadens which facilitates in powerful selection making. The selection-making method isn't everyone's cup of tea however whilst the personnel are uncovered to the surroundings wherein they get encouraged for his or her participation, the selection making in the long run receives strong.

Increases Their Work Capacity: It is the motivational matters that may assist in growing the potential of running of the personnel. The personnel have a tendency to paintings greater as in addition they come to be a part of the coverage making method. The greater paintings in the long run will increase their potential to paintings and is right for the organization in fact.

Employees are capable of attention well: When personnel get greater interest and are encouraged thru diverse measures, then the personnel get glad and are capable of attention greater at the paintings. The subordinate personnel typically aren't encouraged or endorsed to do the paintings as greater interest is paid to the advanced personnel and certainly evidently they accumulate greater interest for even better authorities. So, for this reason, too it's far essential to allow personnel take part within side the conferences, seminars or even workshops.

Expensive Procedure for the organization: Providing education to the subordinates may be a costly procedure. The education entails right involvement of cash because the education of setup is needed and additionally making invites to ask the personnel on the occasion and all this is wanted for presenting education to the subordinates. So, it shakes the finances of the organization if the extras are invited for the events.

Manager Employee Boundary: One capacity assignment of encouraging worker involvement is the threat that the road of difference among the control degree and worker degree turns into blurred. Though managers can also additionally cost worker involvement, a disciplined shape with clean reporting strains have lengthy been crucial to balance in organizations. Allowing personnel to proportion thoughts and make choices while not having them push the envelope and try and tackle obligations which can be reserved for control stages is an actual threat.

Disadvantages of Employee Engagement:

Importance of Employee Engagement

Engagement may be very essential with the aid of using thinking about the truth that disengagement of any worker results in personnel' loss of dedication to paintings and shortage of motivation. There is proof of a few research which suggests the significance of worker engagement.

It has been highlighted with the aid of using the Corporate Leadership Council (2004) that fantastically engaged personnel carry out 20% greater than the ones personnel with common engagement ranges.

In addition to this, ISR (2003) additionally proven that businesses having better ranges of engagement observed a boom of 3. seventy-four percentages in running margin and 2.06 percentage of boom in income for one-12 months' period, whereas, businesses with decrease ranges of engagement observed a fall of two percentages and 1.38 percentage within side the respective groups.

On the opposite hand, Towers Perrin (2005) discovered that there's a five percentage boom in running margin with 7 percentage boom in worker engagement.

A fantastically engaged worker constantly offer an output past expectancies and throughout a studies on worker engagement, Harter et al (2002) discovered that one in 5 personnel agree that they've a possibility to do what they do exceptional each day. Those businesses who rating excessive in this constantly have relatively better performance.

From the above studies, you can still say that worker engagement is crucial to the fulfilment of any organization and as establishments globalize and rely greater on state-of-the-art technologies, there's constantly a want for engaged personnel to offer them an organizational identity (Vazirani, 007)

Impact of Virtual Communication on Employee Engagement

The 12 months 2020 opened with distress and mayhem of COVID-19. After nearly an entire stand still for 6 months, the economies reopened itself with social distancing and different protecting norms, together with persisting uncertainty on the workplace. The mantra of worker engagement pre-COVID-19 has modified its definition in the course of the COVID-19. With a better variety of lay-offs and furloughed personnel, many corporations commenced de-prioritizing worker engagement because of sever commercial enterprise losses because of lockdown. As economies are improving themselves gradually, it's miles vital to put money into worker engagement in a greater significant manner of retaining the 'new everyday' into mind.

The global become witnessing a brand new every day in 2020. The begin of the 12 months 2020 were gloomy and gruesome. From infection to deaths, from commercial enterprise losses to commercial enterprise shutdown, from denying bonuses to layoffs, absolutely each person witnessed one or some of these experiences. The surprise waves shook personnel as well. Their task losses, not on time income and denied bonuses left personnel bad in addition to un-wealthy. Where small business enterprise needed to face entire breakdown, massive business enterprise has been compromising with decreased worker engagement. To hold personnel fairly prompted on this time of mayhem and maelstrom of the pandemic, HR managers want to revisit their worker engagement techniques with a brand new perspective. This article gives a prepared reference listing of variables to HR managers to decorate worker engagement degree in the course of COVID-19 and put up lockdown.

Chapter 4 Sustainability

Sustainability is a huge coverage idea within the international public discourse that consists of 3 essential "dimensions" or "pillars": environmental, economic and social. The original semantic that means of “sustainability” (a noun) and “to preserve” (a transitive verb) refers to the potential to maintain over a long time period. An intently associated and overlapping idea is that of "sustainable development". UNESCO formulated a distinction as follows: "Sustainability is frequently concept of as a protracted-term aim (i.e. A more sustainable international), whilst sustainable improvement refers to the numerous procedures and pathways to reap it."

According to the "Brundtland Report" Our Common Future (1987), sustainable improvement is defined as improvement that "meets the wishes of the existing without compromising the potential of future generations to satisfy their very own desires.

Engaging Employees to Create a Sustainable Business

The key to creating a vibrant and sustainable company is to find ways to get all employees—from top executives to assembly line workers—personally engaged in day-to-day corporate sustainability efforts.

8 Ways to Engage Employee in Company`s Sustainability Journey

1. **Define Company`s Long Term Purpose**: The first manner to erase the war that humans can sense among their work obligations and their personal values is to pressure the lengthy-time period interests of the organisation, which are undoubtedly extra aligned with the coolest of society and the planet. Unilever, for instance, defines its purpose as “making sustainable dwelling common” (an update of its 19thcentury founder’s purpose of “making cleanliness commonplace”). All organizations have to try to have a clear lengthy-term cause constructed into their enterprise approach and produce it to lifestyles through their brands and merchandise. A organisation’s reason should, of direction, take account of its business model and cost chain, however also build on its products’ benefits, the agency’s scale and have an effect on, its middle abilities, and its stakeholders’ issues and aspirations. Thinking about the social motive that a business enterprise and its brands serve allows personnel to latch onto the better motive and use the company as a method to specific their values, which in turn, creates which means in and at paintings. Five More than ever before, human beings
today have a longing for reason, which agencies have a first-rate possibility to faucet into.

2. **Spell Out the Economic case for Sustainability**: Helping employees see the monetary case for operating in a greater sustainable manner is not usually easy, but it is important; otherwise, humans will think that sustainability is just about “doing appropriate” and no longer additionally about “doing nicely.” How does a manager make the economic case for sustainability to employees? At IBM, environmental intention placing has lengthy been an indispensable part of the organization’s normal making plans method. The agency makes use of the method to have

interaction its business gadgets and personnel in addressing environmental demanding situations. The system starts with the corporate workforce completing an in-depth evaluation of the ways wherein IBM's agencies intersect with the surroundings. Draft goals are then advanced, considering the business enterprise's environmental objectives and its dedication to be a frontrunner within the region of environmental sustainability. The particular aim recommendations and underlying analysis supporting the dreams are then reviewed with commercial enterprise gadgets to relaxed their buy-in. Through this manner the business units benefit an understanding of the environmental drivers and targets at the back of each aim in addition to the business and societal advantages. IBM has found that this know-how enables garner and maintain aid from enterprise unit management and boom employee engagement.

3. **Create Sustainability Knowledge and Competence**: Sustainability cuts throughout all components of a business, from energy intake to procurement. To bolster the "can do" notion and attitude amongst personnel, it is vital to spend money on instructing employees about sustainability in addition to create structures and techniques that make it less difficult for personnel to integrate sustainability into their business selections. Many sustainability initiatives require specialized understanding and know-how—which includes talking to suppliers approximately sustainable sourcing or the usage of an eco-efficiency tool to evaluate a brand new product.

4. **Make Every Employee a Sustainability Champion:** A success organisation stocks one issue in commonplace: robust management. And nowhere is that more critical than in creating a sustainable agency .Getting senior executives personally involved in sustainability problems now not handiest removes the space between human beings private values and what they perceive to be in the first-rate hobbies of the enterprise; it also allows humans find new approaches of tackling strategic problems .It's no longer sufficient to have sustainability champions on the top—they must be cultivated at all tiers and geographies of the company.

5. **Co-Create Sustainable Practices with Employees:** Another critical manner of embedding sustainability in a corporation is to engage personnel inside the cocreation of sustainable practices. And a manner to do this is to act on employee tasks. Company executives can begin by making it clear that funding for sustainability projects is to be had and simply implemented while a worker develops an awesome idea. Companies get more and better thoughts when they bubble up from the bottom. Once enterprise personnel begin to see the superb effect and monetary returns on social and environmental investments that they helped create, they begin believing that they do have a position to play, and the ideas start to float. It is essential for a huge company to offer the framework for humans to play inside, after which matters occur nearly by magic.

6. **Encourage Healthy Competition Among Employees:** An powerful manner for a business enterprise to include a new set of desires and foster an "I need to do it" spirit throughout the organisation is to create a culture of healthful competition among personnel. Competition stimulates creativity, and the skills that spur competition—a willingness to push obstacles, accept as true with group individuals, and together solve problems—are the equal competencies needed for innovating on the sustainability the front. Another way of nudging behaviour is by means of "naming and faming" human beings within the organisation who've made a difference.

7. **Make Sustainability Visible Inside and Outside the Company:** Several social cognition fashions point to the crucial position that visibility and salience play in changing people's beliefs and attitudes and influencing conduct. Measuring and communicating development on key sustainability signs constantly draws human being's cognizance. People need to be triumphant within the dimensions that they're measured on. No marvel, then, that leading organizations broaden indicators to song the progress in their sustainability schedule, which they share with outside stakeholders and personnel. To preserve visibility excessive and improve the idea that achievements in sustainability are meaningful for the business enterprise, it is also essential to have fun achievement when dreams are reached or awards received. Employees want to sense they have performed a component in accomplishing goals and popularity. It reinforces their remedy and strengthens their identification with the organisation.

8. **Showcase Higher Purpose by creating Transformational Change:** While outside engagement is a critical component of transitioning to a sustainable business, it's also key to building credibility and legitimacy, and therefore satisfaction and identification, with employees. Leading sustainability organizations have any other thing in not unusual: they need to make a bigger effect by means of influencing and running with different corporations, whether or not in their price chain or among competitors. Doing this fosters a feel of solidarity amongst personnel due to the fact they see that attaining sustainability isn't just about themselves, or maybe their own enterprise, but alternatively a societal difficulty with global implications, all of which evokes them to join in. Achieving those commitments requires organizations to innovate new methods of doing enterprise. This openness creates profound cultural shifts within the corporation and enables to unite personnel around the better social cause.

<u>Creating Sustainable Employee Engagement</u>

Organizations more and more look to their personnel to assist increase power efficiency and pursue sustainability goals. Many are building sustainability applications, putting desires and achieving out to employees. Corporate guidelines and sustainability priorities are often set by a group of exceptionally encouraged and committed leaders – however how do employees view the position of the enterprise, and the way do they specific their very own priorities. The complexity of human conduct and issues around sustainability could make it hard to recognize how to method an employee engagement program. Sustainability is becoming greater essential to companies' enterprise method and public image. As they paintings to integrate sustainability for the duration of commercial enterprise practices, agencies are attractive personnel to take part. Likewise, personnel assume their employers to be socially and environmentally responsible and are inclined to assist drive place of job sustainability.

Objectives of the study:

- To reveal the impact of virtual communication on employee engagement.
- To understand the pattern and changes that took place because of the concept of work from home.
- To study how virtual communication can be used effectively in long run.
- To study how virtual communication and HR function together to run the organization successfully.

Method:

- Sampling Procedure: The interview Technique was used for this study
- Sampling Size: Initially sample size was bigger but due to this ongoing Pandemic, we interviewed 25 people

Literature Review:

- According to EZ Talks (2021),
  We define virtual communication as a mode of communication that includes the use of technology - audio and video to communicate with people who are not physically present in front of us. People can be in the next room, other floor, in neighbourhood or even miles away. Although virtual communication started way back with the invention of telephone, the advent of webcams, video conferencing and instant communications, which made virtual communication a big hit.

- According to IGI Global, (2018)

  A mode of communication wherein technology has been used in lieu of face-to-face conversation through audio or video electronic devices.

- According to CIPD (2016) flexible working has been introduced into organizations as a way for employees and employers to have flexibility within their job roles, therefore, allowing them to suit their personal needs. This type of flexible working can be defined as mobile working, allowing employees and employers to work elsewhere outside of the office for either all or part of their working week.

- According to Theresa Pojuner (2015),

  Virtual communication, is when people communicate without being face-to-face. An example of its usage is in training sessions, i.e., e-learning. Instructors can communicate and provide lessons from anywhere and anytime, as long as they (and the audience) have the right tools.

- According to Gov UK (2015), the use of mobile working is seen to be beneficial to an organization, however, there is concern around how to manage employees effectively as this may be extremely challenging for any business. Additionally, ACAS (n.d.) outlines that while working from home may appear to be a positive form of working for many organizations there may be some organizations that this form of working does not suit.

- Chin (2014) outlines that there appears to be a sense of uncertainty around whether working from home is as beneficial as some other researchers suggest throughout their studies.

- Shellenbarger (2012) outlines that there is also uncertainty around how employees are splitting their working week e.g. their working from home days may vary each week.

- Truss et al (2009) defined employee engagement as “Engagement is about creating opportunities for employees to connect with their colleagues, managers and wider organisation. It is also about creating an environment where employees are motivated to want to connect with their work and really care about doing a good job. It is a concept which places flexibility, change and continuous improvement at the heart of what it means to be an employee and an employer in a twenty first century workplace”.

- Truss et al (2009) defined employee engagement as “Engagement is about creating opportunities for employees to connect with their colleagues, managers and wider organisation. It is also about creating an environment where employees are motivated to want to connect with their work and really care about doing a good job.

- Cook (2008) defined Employee engagement as the term that is “personified by the passion and energy employee have to give of their best to the organisation to serve the customer. It is all about the willingness and ability of the employees to give sustained discretionary effort to help their organisation succeed”.

- According to Sanchez (2007), employee engagement is defined as “an outcome of how employees perceive their work, leadership of their organizations, the recognition and rewards they receive, and the communication ethos of the organization”

- In addition to this, Stairs et al (2006) also defined employee engagement as “the extent to which the employees thrive at work, are committed to their employer, and are motivated to do their best, for the benefit of themselves and their organisation”.

- Shaw (2005) defined employee engagement as intellectual and emotional commitment to an organisation.

- Short hose (2004) outlines that within the private sector some organizations are falling behind in terms of keeping up with this newer way of working. This chapter aims to firstly identify what flexible working is and how this way of working came about. Following on from this, this chapter will then look at previous research and studies carried out to discuss working from home in terms of employee motivation levels, employee performance levels, work-life balance, and also the impact that this may have on employers.

1st Interviewee-

1. What are the employee Engagement activities conducted in the office?
   We mostly take-up quizzes, board games, puzzles, team building activities on the last Friday of every month. This helps the employees to stay fresh and they can even later concentrate more on their work is what we have observed. In addition to this, we also conduct recognition programs which increases efficiency as well as morale of our employees.

2. Changes in Employee Engagement Policy, Pre and Post Covid?
   During the Pre Covid period, we were following the traditional method of employee engagement as per our Organization`s policy , but as and when the Covid started everything went online and due to lack of physical presence of employees , we faced troubles in the initial stage of lockdown, but later the team on board , started taking the Employee Engagement activities through virtual platforms like Teams , Zoom , etc.

3. Were you following virtual employee engagement in the pre covid period? If yes then how? No, we

never followed virtual employee engagement in the pre covid period because we never had the concept of work from home as it was a mandate to our employees to work in office.

2nd Interviewee-

1. What are the employee Engagement activities conducted in the office? We mostly take-up bingo, special days (bring your child to work day), learning lunches, workplace parties (2 annual parties), once in every two months. As soon as we started conducting different activities, we have observed that, our employees are performing better than usual.

2. Changes in Employee Engagement Policy, Pre and Post Covid?
   There was massive difference, in employee engagement activities, pre and post covid. Post covid it was little difficult for the employees to do the activities told, as they were working from home. It was much easier pre covid to come up with the activities, rather than post covid where we were restricted to online method.

3. Were you following virtual employee engagement in the pre covid period? If yes then how? Our company has branches all over India, so from our total workforce, 7% of the people had the privilege to work from home, so on some occasions, we even used to have some online activities as well to boost their confidence

3rd Interviewee

a. What are the employee Engagement activities conducted in the office?

While in the office we used to have reward and recognition programs to motivate our employees and recognize them for their outstanding performance. At that time, we also conducted other activities like games, productive activities etc. But now things are changed due to virtual but we still have continued the rewards and recognition programs.

b. Changes in Employee Engagement Policy, Pre and Post Covid? lot of things changed pre and post covid. Employee wellbeing is the priority now. We have planned virtual employee engagement of for all our employees to keep them motivated. We have taken care of their well-being by introducing annual health check-up policies We have arranged vaccination camps for our employees and their dependents.

c. Were you following virtual employee engagement in the pre covid period? If yes then how? Yes, we were following virtual activities, by engaging lot of team games, short icebreaker activities. We started with buddy program to help our new joiners feel a part of the company as they were joining remotely. We focused on digital hr processes. No physical forms

Conclusion:

The role of the company supervisor also keeps to evolve with the arrival of digital teaming. I did now not determine whether or not leaders have taken the equal consideration whilst schooling digital managers to differ communique patterns to fulfil the inflow of digital personnel. The findings of this quantitative observe had been sizeable to show a dating exists between the amount of time managers spend communicating with virtual personnel, the perceived satisfactory of communique, and worker engagement., who said that corporations with less engaged personnel have lower productivity and

much less profitability.
Managers of virtual groups want the proper training via an application that embraces social exchange theory, so we can better engage their personnel. The topic of employee engagement is distinguished in cutting-edge enterprise leaders and enterprise researchers. Employees make a mental link between their person task and the impact it will have on others while management competently communicates the importance of the project. I sought to add to the frame of knowledge related to employee engagement as the range of virtual employees continues to boom.

Employee engagement is a determining thing of the employees' productiveness and commitment to an agency. Role readability and task significance play pivotal roles in employee engagement. I discovered thru the performance of a quantitative examine, that the amount of time that managers communicate with their personnel, along with the perceived nice of those interactions, affects the employees' level of engagement. Engagement entails extra than just sending and receiving emails, video conferencing, and speak to calls.

A statistically tremendous high-quality dating became visible for engagement levels and the digital employees who communicated greater regularly via cell phone with their manager. A statistically large inverse dating existed among virtual personnel who often communicated thru instantaneous messenger with their manager. Virtual employment is attractive to enormously skilled personnel as it provides a work-life stability via schedule flexibility, without commuting to paintings. As the variety of virtual employees has multiplied via almost 4 million over a ten yr. period, I sought to add to the body of know-how associated with employee engagement even as on digital groups.

This take a look at accomplished the aim to gain a higher expertise of digital management and the surroundings surrounding communications among managers and personnel.

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TO STUDY THE PERFORMANCE OF LISTED INDIAN HOTEL COMPANIES DURING COVID-19

Atreya Nayak
Aditi Kale
Mrunali Mane

Abstract:
The pandemic has brought about colossal disturbance to hotel operations, affecting demand for hotel services, guests' behaviour, as well as financial stability of hotel companies and, consequently, hotel employees. A hotel company is connected with various partners in the supply chain, thus, the problem in hotel operation is carried upstream the supply chain. The aim of this research paper is to present an overall summary of the COVID-19 impact on the hotel business and to study the stock trends also analysis and compare with the help of financial ratio. Many authors believe that majority of these provisions will overcome in the postCOVID-19 environment, as people will be more cautious regarding safety. Apart from vast destructive impact, the present crisis will also have some positive effects, such as improved innovativeness, persistence, efficient communication and care for internal and external customers, all resulting in improved quality of hotel facilities.

Introduction:
The World has been crippled by a pandemic over the first half of 2020. It was identified as a new corona virus (severe acute respiratory syndrome corona virus 2, or SARS-CoV-2), and later named as Coronavirus Disease-19 or COVID-19. While COVID-19 originated in the city of Wuhan of China, it has spread rapidly across the world, resulting in a human tragedy and tremendous economic damage. By mid-June, there had been over 8 million cases of COVID- 19 globally, with over 436,000 deaths. Social distancing rules were implemented by many governments in order to reduce covid-19 cases. These norms by government, which include national lockdowns, closure of non-essential workplaces and schools, and limiting of daily activities and gatherings, have disrupted day-to-day lives and activities. The aim is that through social distancing, countries will be able to flatten the curve by reducing the number of new cases related to COVID-19 from one day to the next in order to halt exponential growth and hence reduce pressure on medical facilities.

The hospitality is considered the backbone for economic growth, especially in developing countries. However, this thriving sector is particularly vulnerable to natural and human-made disasters. This research analyses the impact of the COVID-19 pandemic in India's hotel industry by addressing essential aspects such as current conditions and challenges with help of ratios and other financial tools. The novel coronavirus pandemic has brought about major disturbances to operations, affecting demand for hotel services and guests' behaviour, as well as financial stability of hotel companies and consequently the people working in the hotel. This problem is transferred upstream as the hotel

company is connected to various partners in supply chain. The aim of this Research paper is to present a summary of the COVID-19 impact on the hotel business in India.
The Indian hotels' ran into January 2020, after a record year in 2019. India started feeling the tension of Covid-19 turmoil towards the end of February 2020, which worsened at the beginning of March. Occupancy across hotels in key cities declined rapidly, there was 45% decline compared to the previous year. Such a steep decline in such a short period of time was never witnessed by the sector.

Various report states that the second quarter of the year to be the worst dip for the industry. Hotels will not be able to drive rates and may even seek big discounts to attract business. Overall occupancy in the branded hotels segment in 2020 is estimated to decline by 16.7% -0.5% points over 2019, while ADRs are estimated to decline by 7% to 8% for the year. Resulting in RevPAR to witness a significant decline of 31% to 36.2%.

By examing its liquidity, the performance of a company can be assessed profitability and growth Liquidity is the ability of the firm to meet its liabilities. It helps the banks, creditors to lend the concerned firm profitability.

Objectives:

a) To study the post COVID 19 effect on hotel industry in India, particularly ***TAJ GVK, ITC hotels, The Indian Hotels and Chalet Hotels.***
b) To study the stocks trends during COVID 19 of the mentioned hotels.
c) To compare the various financial ratios of the Hotels during COVID 19
d) To do the Qualitative analysis via. PESTLE Analysis of the Hotel industry.
e) To apply factor analysis to financial ratios of companies in Restaurant and Hotel industry by showing up the best ratio among each factor group and to detect the performance differences between restaurants and hotels

Research Methodology

Data collection: Data collection is most essential aspect of any research the whole result of research depends on the data collected and information processed. The financial statements of the company are the excellent sources for financial data and it will act as the primary sources of collecting data. The past and present financial evaluation facilitates to calculate the future.

The survey method will be used to collect the data. The secondary data of the study will be collected through various journals, reports, books, articles, magazines, research papers, websites etc. The reference links will be mentioned below. Quantitative Analysis will be done using Ratio Analysis and Qualitative Analysis will be done using PESTLE Analysis.

Research Structure

The following indicates the brief of all the objectives this research will provide to:

a) Reveal the ratios in terms of liquidity, profitability, solvency and activity performances of the restaurants and hotels quoted on BSE.
b) Analyse and compare the performance of the restaurants and the hotels in the industry.
c) Summarize the performance variables.

d) Detect performance differences between groups.

Literature Review:

Performance analysis is a subject area which is important and receiving sufficient interest of numerous researchers in recent years. This study deepens this research by using restaurant and hotel firms in India and how they have tackled the Covid- 19 pandemic

The aim of this study is to fill the existing research gap in Indian Hotel Sector after the Covid-19 and to apply financial ratios analysis by showing up the best ratio among each factor group and to detect the differences amongst Hotels.

Factor analysis to financial ratios was first used by Pinches et al. and were the first to apply this in 1973. The goal of this study is directed to the Hotel industry to group factors whose financial features vary. Further after 1973, many adapted this technique used by Pinches and others

Zaremba et al. studied the impact of government interventions on stock market liquidity in 49 countries in January-April 2020, and monitored that the effect of government interventions is limited in scale and scope. They reported that the closures of workplaces and schools reduced liquidity levels in emerging markets, on the other hand COVID-19 information campaigns promoted trading activity. They also discovered the relationship between government policy responses to the Covid 19 and stock market volatility. They also collected data about seven non-pharmaceutical companies from 67 countries and concluded that information campaigns and the termination of public events were the major causes of market volatility.

Erdoğan et al. applied factor analysis to financial ratios for 500 industrial companies in Turkey in a paper named “Applying Factor Analysis on the Financial Ratios of Turkey’s 500 industrial companies”

Hao et al. evaluated the overall impact of the pandemic on China’s hospitality industry, the country where the health crisis began. There was a sharp decline in hotel occupancy rates and a huge loss of over US$9 billion. 74% of the hotels in China were closed in January and February 2020 for about an average period of 27 days. Which resulted, in the layoff of the employees of the Hotel and Tourism industry, which lead to a notable drop in cash flow and revenue. Thus, according to the survey conducted in 28 international hospitalities and in 46 countries and a qualitative study in which experts were interviewed, the authors concluded that in a pandemic scenario.

Meric et al. did the comparison of financial ratios of different firms from different countries. Research scholars like Smith, 1997; Zaman & Unsal, 2000; Locke & Scrimgeour, 2003, also worked on the similar study (Dond Jin Kim, 2006). Dong Jin Kim also concluded that the comparison of financial characteristics of different industries from different countries is relatively easy and understandable because the firms of these segments are intrinsically homogeneous.

Hales J. (2005) says that in hotels industry it is important to analyse the past performance of a particular hotel in order to predict the future performance of the hotel. These analysis reports could be daily, weekly, monthly and quarterly, but it can also be seen that the monthly reports are hold more

importance because these are examined by the internal as well as the external analysts.
Moreover, the Indian data represents an example for similar practices of other emerging economies. The present study attempts to bridge the gap in the literature by providing the performance differences amongst the listed Indian hotels in regards to Covid-19.

To summarize, we will add to the standing literature by investigating the impact of Covid-19 on the hotel industry in India.

Industrial analysis of Indian hotls using PESTEL.

The hotel industry, otherwise known as the hospitality industry, spans across a large range of service sectors. Hotels can be found in every corner of the world. And thus, there are many global factors and occurrences that affect this industry.

Hotel industry is no doubt one of the largest industry in the world and the growth in the number of luxury hotel is now greater than ever. But in this time like pandemic, it has number of nuances that require in-depth analysis.

Following is the “PESTLE Analysis of the Hotel Industry”. We perform in depth analysis on the political, economic, socio-cultural, technological, legal, and environmental factors that govern the hotel industry in India. We analyse these factors to understand how the hotel industry performs in the current political and social setting, and the factors that pose a concern to it.

Political Factors

The hotel industry in any country is largely dependent on tourism and hence relies on the government rules and regulations of the country. And due to this the more supportive a government is towards tourism laws, the larger the amount of tax it sucks out from the hotel industry. Many governments are still carrying out policies that support and uplift their hotel industry. But a recent factor that has posed as a threat to this industry is the emergence of Covid-19 pandemic. The government imposed a lockdown and laid many restrictions on the people travelling from other nations which proved to be disastrous as hotel businesses is very capital intensive and pose very high fixed cost. The government also requested industries to not cut off staff and advised them to cut their salaries instead which gave rise to the liquidity problems for the hotel industry as it is a labour intensive sectors. There were some measures taken by government like the moratorium period was extended on loans for three months which has come as relief for the industry.

Economic Factors

Any notable economic change greatly affects the hotel industry. A large part of this industry is composed of luxury hotels. Inflations, and other economic shortfalls severely affect people’s ability to afford luxury hotels. The overall Indian economy took a vicious hit during the time of the pandemic which affected all the industry but the industry which it affected the most was the Hotel Industry. It is estimated that 75 percent of the industry's Revenue got wiped off during this period. The Repayment of loans became impossible for the industry under such economic crunch. The Indian economy showed fall in GDP which shrank to 7.3%A and low cash liquidity into the businesses during these period both of which had a impact on the hotel industry of India. As many states imposed lockdowns the hotel sector has seen a major downfall. The sector contributed to a significant portion of India's GDP has been hit hard by the economy.

Socio-cultural Factors

The current generation has shown a strong trend towards traveling. Travelling is a major aspect for hotel industry to flourish. But during the lockdown the government shut down the operations of the hotels and also put on a ban and restriction on travelling. Even after the lockdown was lifted people feared travelling as the cases were rising and the fear of contracting the virus was prominent in the minds of the Indians. Although the restrictions were lifted on travelling tourists hold back their plans and also they had cancelled their advance bookings. Also domestic customers stopped due to the fear of contracting virus which gave a serious hit to the cash flow.

Technological Factors

Hotels industry have become technology-friendly in recent times of turbulence. Almost all of them are fitted with CCTV cameras to provide security and other features that make the operation easy. This has also helped to decrease the human interaction with use of drones like gadgets which has helped to follow the government guidelines. The pandemic has encouraged the sector to upgrade themselves in the field of technology to cut their costs during times like pandemic. Online booking facilities either directly or through third-party apps has helped boom the booking rate of hotels and also helped to maximize the occupancy rates during Covid.

Legal Factors

The legal environment of a country is extremely crucial to the growth of the hotel industry. Almost all countries now have discrimination laws in place which has benefitted the hotel industry. Many governments are also offering tax deductions to the hotel industry in order to improve their economy. Hotels in Europe, America, and other first-world areas enjoy more and more government benefits than others.

There are also compliances that all hotels require to meet. These carry safety and health laws among others. Hotels are also becoming strict in terms of the identification before allowing a guest to use their facilities.

Environmental Factors

Countries that have severe weather conditions have a hard time developing their hotel industry. Not only do these hotels need to have the technology which can tackle such environmental effects, but they also face a short fall in demand due to the inability of travellers to withstand such conditions. The rising weather calamity has incremented such factors in certain places.

Hotels are now being put under a lot of pressure by both governments and environmental activists to ensure a minimal carbon footprint. Since this industry uses a huge number of disposable items it can be the cause of serious environmental concerns. Various hotel chains are moving towards more biodegradable items to counter the climate calamity. Hotels that are still continuing to use environmentally harmful materials are facing a downfall in demand.

Quantitative Analysis using Stock trends and Financial Ratios of Hotel Industry in India:

Data and empirical design

Stock market prices and events description

This research focuses on listed hotels included in the BSE/NSE Stock Exchange during the initial phase of pandemic lockdown. To be considered, the hotel firm's shares must have been traded during the events window and the company activity must be directly related to hospitality. The final sample is listed in Table 1.

Market Capitalization of Hotel companies included in the BSE/ NSE Stock Exchange.

Companies	Market Capitalization (in cr.)
Indian Hotels Company Ltd. (IHCL)	16857.74
EIH	9187.98
Chalet Hotels	6409.05
Mahindra Holidays	2833.34
TAJ GVK	1022.03

Table 1.

As of January 2021, the Indian Hotels Company Limited (IHCL) was among the top hotel company in India in terms of market capitalization with over 147 billion Indian rupees. At some distance followed East India Hotels (EIH). The ranking of the most valuable hotel companies in India reveals most were part of large conglomerates. The IHCL, known for its Taj hotels, is an ancillary of the Tata Group. The iconic Taj Mahal Palace hotel in Mumbai was established in 1903 by Jamsetji Tata, who had initiated the Tata Group three decades earlier. Not far away from the Taj hotel is the Trident Oberoi placed in Mumbai. It is the flagship hotel of EIH, part of the Oberoi Group, a real estate combination. Others present in the hotel industry Chalet Hotels and the Mahindra Group.

Effect of COVID 19 on the Stocks of Mentioned Hotels

The Table 2. Shows the effect of COVID 19 on the stock prices of the Hotels via. ***Indian Hotels, EIH, Chalet Hotels, Mahindra Holidays and TAJ GVK*** during February 2020 and March 2020, when the pandemic hit the country.

Companies	February 2020 (₹)		March 2020(₹)	
	Low	High	Low	High
Indian Hotels Company Ltd	**126.85**	**143.75**	**71.90**	**138.00**
EIH	**125.10**	**151.25**	**55.75**	**129.15**
Chalet Hotels	**286.00**	**372.00**	**165.00**	**335.00**
Mahindra Holidays	**210.10**	**241.90**	**122.35**	**222.90**
TAJ GVK	**153.00**	**222.95**	**82.00**	**157.90**

Table 2

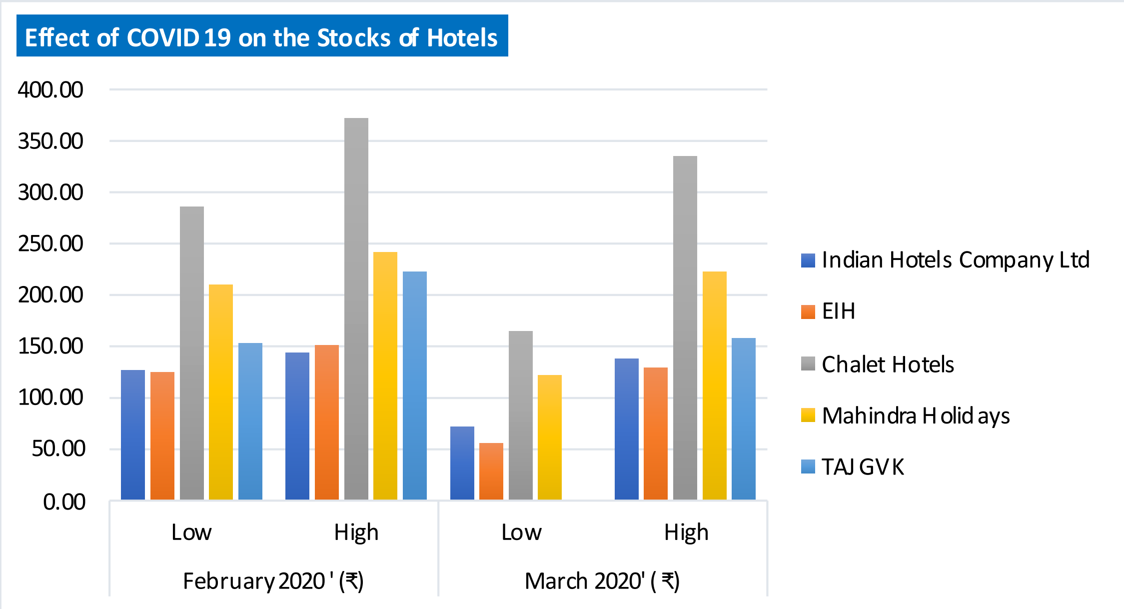


Chart 1

Ratio Analysis:

Ratio analysis plays a huge role in terms of analysing financial statements, comparison of performance, making plans, detecting positive and negative sides, opportunities and threats. Being able to analyse investor ratios might signify the distinction between devoting the resources into a decent promising and potentially successful company or a dreadful one.

Therefore, having access and interpreting these numbers are essential for an investor. It produces advantages in terms of investments' comparison, and also mediate the right strategies from the aspect of trade and minimizes failing to meet expectations on stocks.

Comparing the figure of the balance sheet, income statement as well as cash flow create a scale to measure the likelihood of the financial safety of corporations.

Ratio	Formula	Indicates
Current Ratio	Current Assets / Current Liabilities	Whether a company's current assets are adequate to pay back its current liabilities and estimates its short-term financial health
Quick Ratio	Current Assets - Inventories / Current Liabilities	the ability of a company to pay its current liabilities with its quick assets
Inventory Turnover	Cost of Goods Sold / Inventory	The efficiency of managing and selling of inventories
Earnings Per Share	Net Income / Common Shares	How many dollars of net income earned by each share of common stock

Return of Equity	Net Income / Owner's Equity	How much gain a corporation made on the money that investors paid
Return of Assets	Net Income / Total Assets	How effectively companies turn their assets to generate profit
Debt to Equity Ratio	Total Liabilities / Owner's Equity	Proportion of equity and debt a company is using to finance its assets

That is why, Ratio analysis is very important tool of financial analysis. It is the process of establishing a significant relationship between the items of financial statements to provide a meaningful understanding of the performance and position of a firm.

Scope of Study

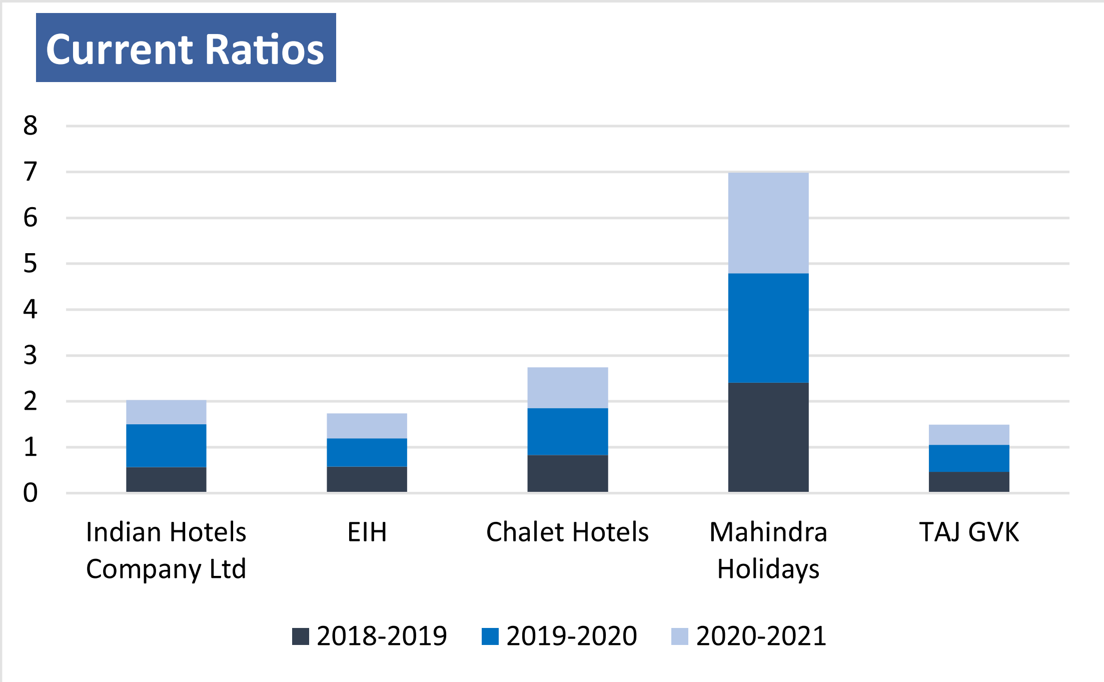
Finance is said to be the life blood of any business. The main is to understand the depth shows the financial analysis of the firm. The study of ratio analysis further the study is based on last 3 years annual reports of the listed hotels.

The main purpose of this study to reveal the ratios in terms of liquidity, profitability, solvency and activity performances of the restaurants and hotels quoted on BSE. Moreover, to analyse and compare the performance of the restaurants and the hotels in the industry. This study work on the financial ratios of the companies as performance variables.

Analysis and Interpretation

Current Ratio

Hotel	2018-2019	2019-2020	2020-2021
Indian Hotels Company Ltd	0.57	0.93	0.53
EIH	0.58	0.61	0.55
Chalet Hotels	0.83	1.02	0.89
Mahindra Holidays	2.41	2.38	2.19
TAJ GVK	0.46	0.59	0.44



Analysis of Current Ratio:

<u>IHCL:</u> In year 2018-19 current ratio is 0.57 and it increased to 0.93 in 2019-20 and again decreased to 0.53 the lowest of the three during the peak of lockdown.

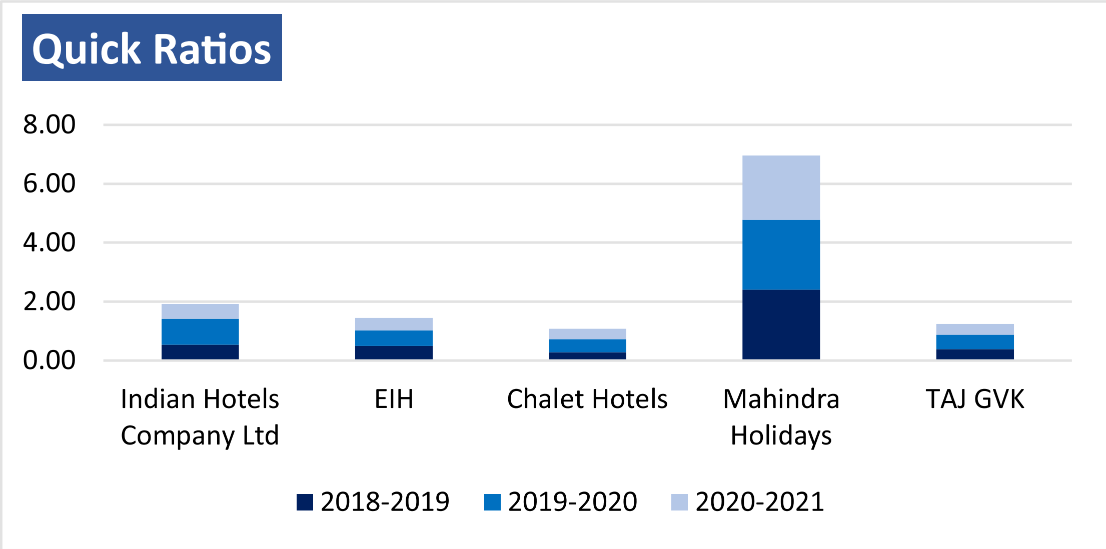
<u>EIH:</u> In year 2018-19 current ratio is 0.58 and it increased to 0.61 in 2019-20 and again decreased to 0.55 the lowest of the three during the peak of lockdown.

<u>Chalet Hotels:</u> In year 2018-19 current ratio is 0.83 and it increased to 1.02 in 2019-20 and again decreased to 0.89 during the peak of lockdown.

<u>Mahindra Holidays</u>: In year 2018-19 current ratio is 2.41 and it decreased to 2.38 in 2019-20 and again decreased to 2.19 the lowest of the three during the peak of lockdown.
<u>TAJ GVK:</u> In year 2018-19 current ratio is 0.46 and it increased to 0.59 in 2019-20 and again decreased to 0.44 the lowest of the three during the peak of lockdown.

Quick Ratio

Hotel	2018-2019	2019-2020	2020-2021
Indian Hotels Company Ltd	0.54	0.88	0.50
EIH	0.50	0.52	0.42
Chalet Hotels	0.28	0.35	0.45
Mahindra Holidays	2.40	2.37	2.19
TAJ GVK	0.38	0.49	0.37



Analysis of Quick Ratio:

IHCL: In year 2018-19 Quick Ratio is 0.54 and it increased to 0.88 and again decreased to 0.50 the lowest of the three during the lockdown.

EIH : In year 2018-19 Quick Ratio is 0.50 and it increased to 0.52 and again decreased to 0.42 the lowest of the three during the lockdown.

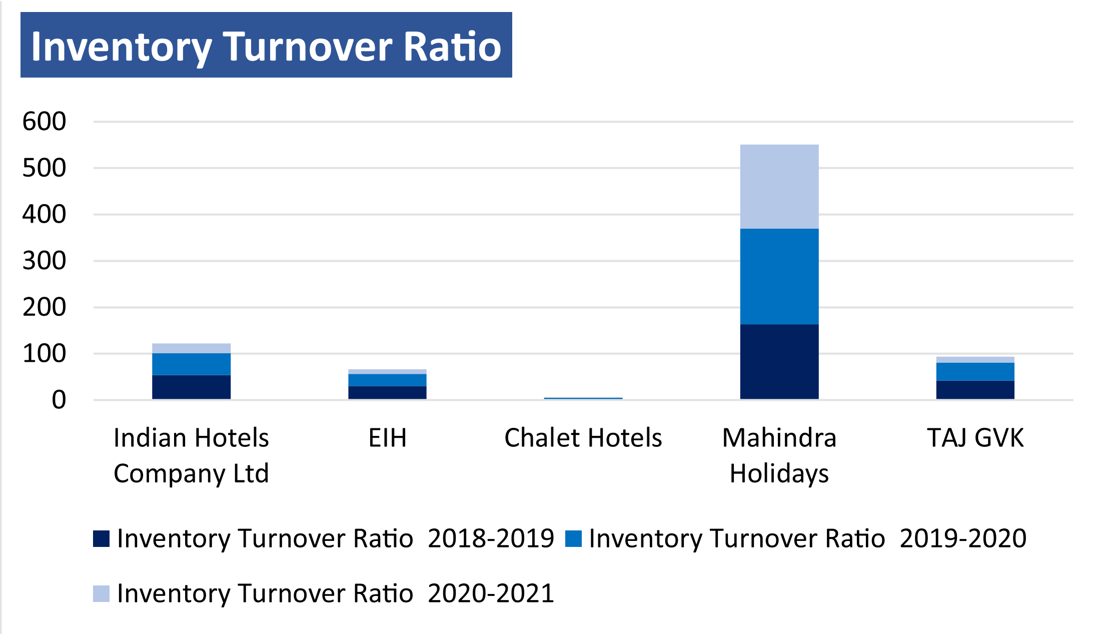
Chalet Hotels: In year 2018-19 Quick Ratio is 0.28 and it increased to 0.45 and again decreased to 0.35 during the lockdown.

Mahindra Holidays: In year 2018-19 Quick Ratio is 2.40 and it decreased to 2.37 and again decreased to 2.19 the lowest of the three during the lockdown.

TAJ GVK: In year 2018-19 Quick Ratio is 0.38 and it increased to 0.49 and again decreased to 0.37 the lowest of the three during the lockdown.

Inventory Turnover Ratio

Hotel	2018-2019	2019-2020	2020-2021
Indian Hotels Company Ltd	54.29	46.42	21.69
EIH	30.64	25.83	9.96
Chalet Hotels	2.5	2.49	.73
Mahindra Holidays	163.19	206.87	181.21
TAJ GVK	42.18	38.32	13.25



Analysis of Inventory Turnover Ratio:

IHCL: In year 2018-19 Inventory Turnover Ratio is 54.29 and it decreased to 46.42 and again decreased to 21.69 the lowest of the three during the lockdown.

EIH: In year 2018-19 Inventory Turnover Ratio is 30.64 and it decreased to 25.83 and again decreased to 9.96 the lowest of the three during the lockdown.

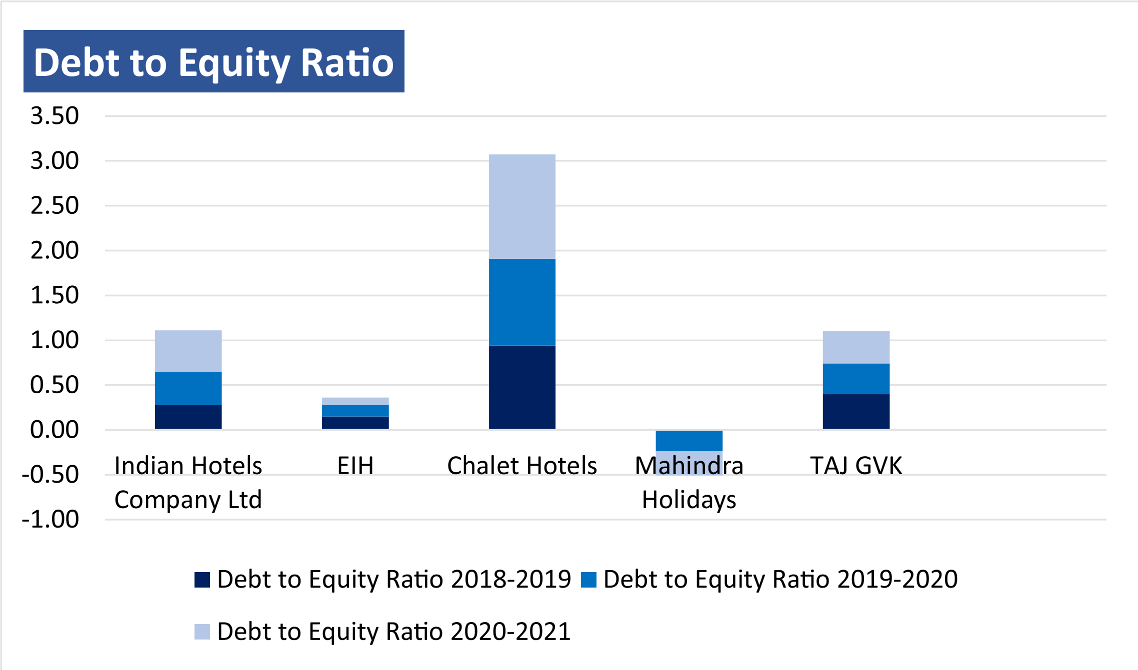
Chalet Hotels: In year 2018-19 Inventory Turnover Ratio is 2.5 and it decreased to 2.49 and again decreased to 0.73 the lowest of the three during the lockdown.

Mahindra Holidays: In year 2018-19 Inventory Turnover Ratio is 163.19 and it increased to 206.87 and again decreased to 181.21 during the lockdown.

Taj GVK: In year 2018-19 Inventory Turnover Ratio is 42.18 and it decreased to 38.32 and again decreased to 13.25 the lowest of the three during the lockdown.

Debt to Equity Ratio

Hotel	2018-2019	2019-2020	2020-2021
Indian Hotels Company Ltd	0.28	0.37	0.46
EIH	0.15	0.13	0.08
Chalet Hotels	0.94	0.97	1.16
Mahindra Holidays	0.00	-0.24	-0.27
TAJ GVK	0.40	0.34	0.36



Analysis of Debt to Equity ratio:

IHCL: In year 2018-19 Debt to Equity Ratio is 0.28 and it increased to 0.37 and again increased to 0.46 during the lockdown.

EIH: In year 2018-19 Debt to Equity Ratio is 0.15 and it decreased to 0.13 and again decreased to 0.08 the lowest of the three during the lockdown.

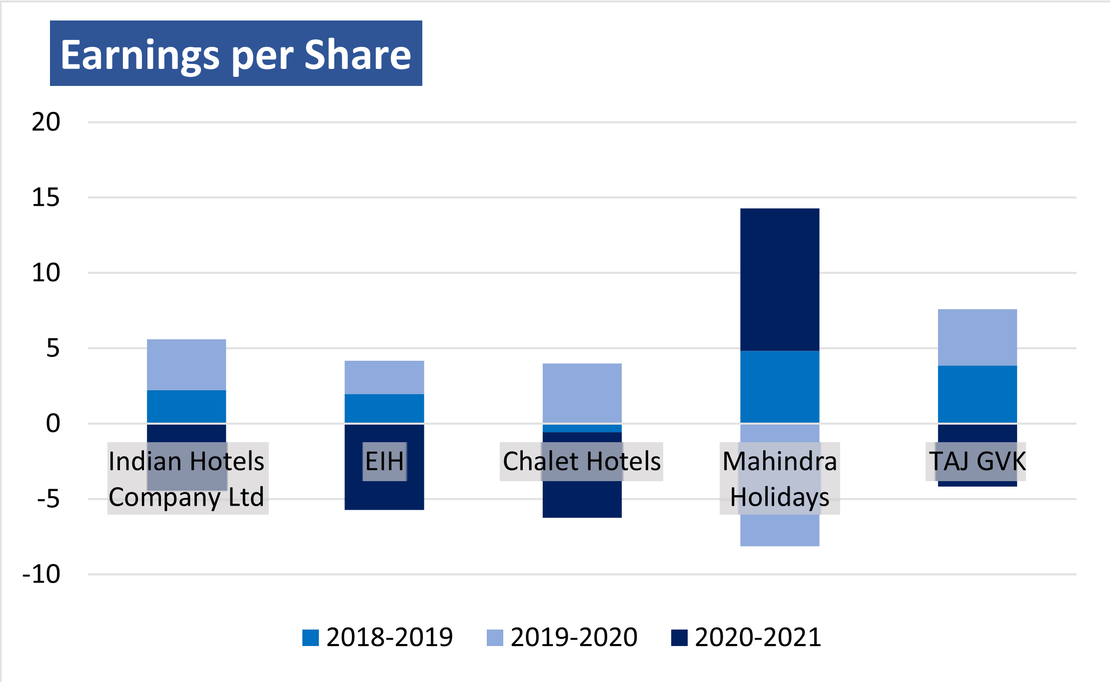
Chalet Hotels: In year 2018-19 Debt to Equity is 0.94 and it increased to 0.97 and again increased to 1.16 during the lockdown.

Mahindra Holidays: In year 2018-19 Debt to Equity is 0.00 and it decreased to -0.24 and again decreased to -0.27 the lowest of the three during the lockdown.

Taj GVK: In year 2018-19 Debt to Equity Ratio is 0.40 and it decreased to 0.34 and again increased to 0.36 during the lockdown.

Earnings Per Share

Hotel	2018-2019	2019-2020	2020-2021
Indian Hotels Company Ltd	2.22	3.38	-4.41
EIH	1.98	2.18	-5.72
Chalet Hotels	-0.56	3.98	-5.7
Mahindra Holidays	4.81	-8.14	9.46
TAJ GVK	3.87	3.72	-4.17



Analysis of EPS:

IHCL: In year 2018-19 EPS is 2.22 and it increased to 3.38 and again decreased to -4.41 the lowest of the three during the lockdown.

EIH: In year 2018-19 EPS is 1.98 and it increased to 2.18 and again decreased to -5.72 the lowest of the three during the lockdown.

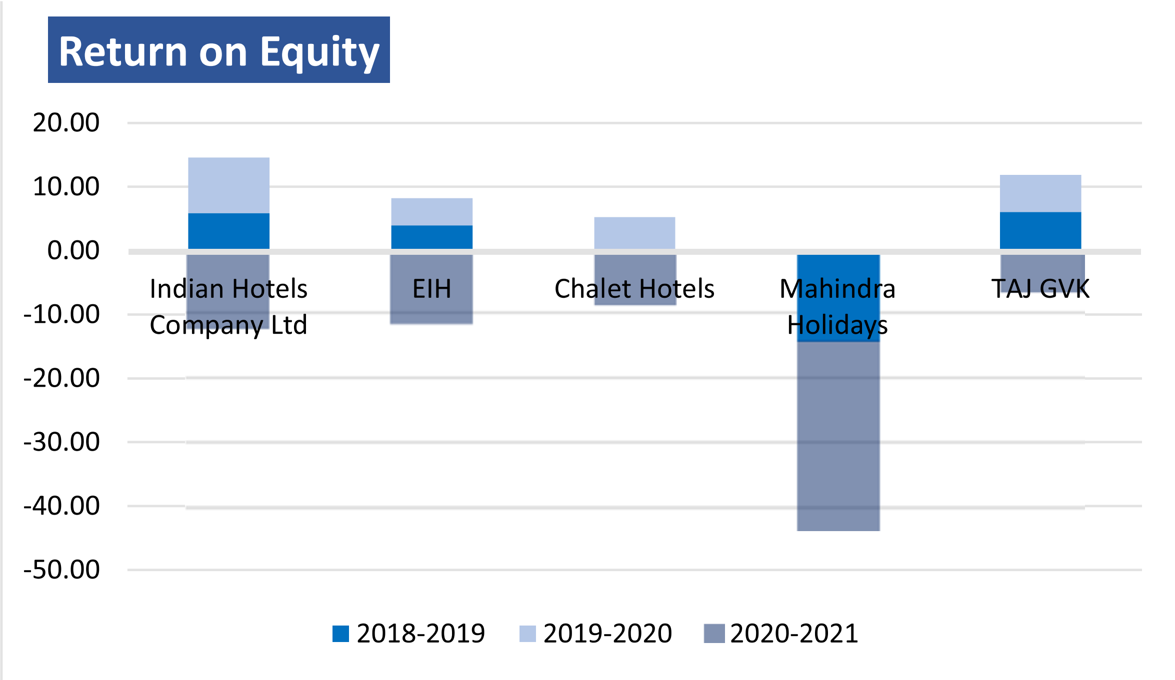
Chalet Hotels: In year 2018-19 EPS is -0.56 and it increased to 3.98 and again decreased to -5.7 the lowest of the three during the lockdown.

Mahindra Holidays: In year 2018-19 EPS is 4.81 and it decreased to -8.14 and again increased to 9.46 during the lockdown.

Taj GVK: In year 2018-19 EPS is 3.87 and it decreased to 3.72 and again decreased to -4.17 the lowest of the three during the lockdown.

Return to Equity (%)

Hotel	2018-2019	2019-2020	2020-2021
Indian Hotels Company Ltd	5.88	8.75	-12.46
EIH	3.96	4.26	-11.72
Chalet Hotels	-0.70	5.26	-8.15
Mahindra Holidays	-14.48	0.00	-28.94
TAJ GVK	6.06	5.80	-6.86



Analysis of Return on Equity:

IHCL: In year 2018-19 Return on Equity is 5.88 and it increased to 8.75 and again decreased to -12.46 the lowest of the three during the lockdown.

EIH: In year 2018-19 Return on Equity is 3.96 and it increased to 4.26 and again decreased to -11.72 the lowest of the three during the lockdown.

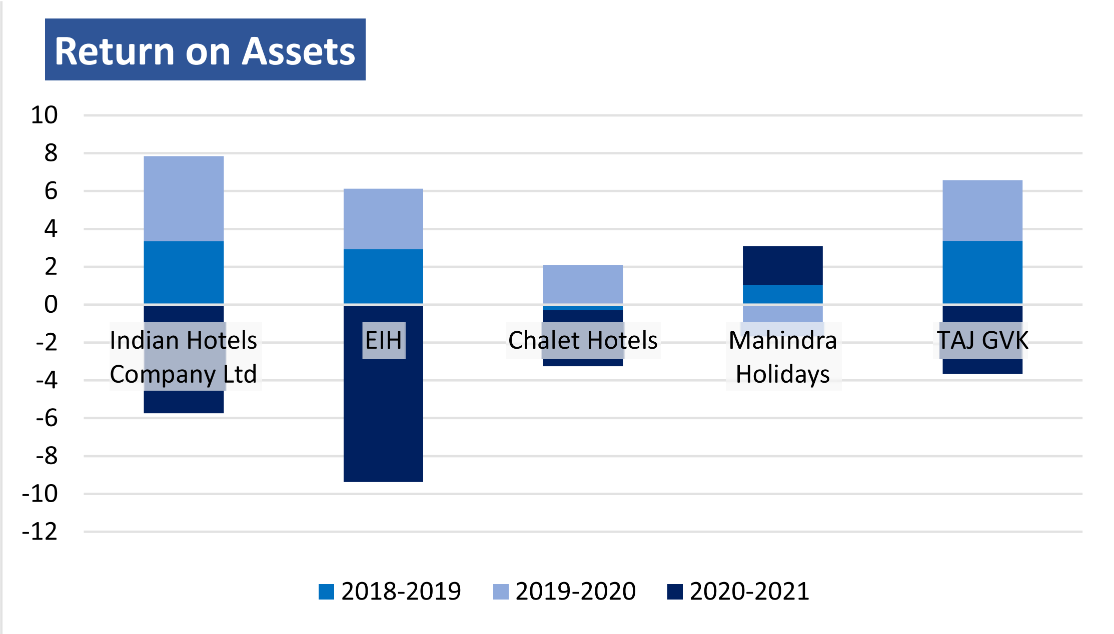
Chalet Hotels: In year 2018-19 Return on Equity is -0.70 and it increased to 5.26 and again decreased to -8.15 the lowest of the three during the lockdown.

Mahindra Holidays: In year 2018-19 Return on Equity is -14.48 and it increased to 0.00 and again decreased to -28.94 the lowest of the three during the lockdown.

Taj GVK: In year 2018-19 Return on Equity is 6.06 and it decreased to 5.80 and again decreased to -6.86 tshe lowest of the three during the lockdown.

Return to Assets (%)

Hotel	2018-2019	2019-2020	2020-2021
Indian Hotels Company Ltd	3.34	4.5	-5.73
EIH	2.94	3.18	-9.38
Chalet Hotels	-0.28	2.1	-2.98
Mahindra Holidays	1.05	-1.68	2.05
TAJ GVK	3.37	3.21	-3.66



Analysis of Return on Assets:

An ROA of 5% or better is typically considered good, while 20% or better is considered great. In general, the higher the ROA, the more efficient the company is at generating profits.

IHCL: In year 2018-19 Return on Assets is 3.34 and it increased to 4.50 and again decreased to -5.73 the lowest of the three during the lockdown.

EIH: In year 2018-19 Return on Assets is 2.94 and it increased to 3.18 and again decreased to -9.38 the lowest of the three during the lockdown.

Chalet Hotels: In year 2018-19 Return on Assets is -0.28 and it increased to 2.1 and again decreased to -2.98 the lowest of the three during the lockdown.

Mahindra Holidays: In year 2018-19 Return on Assets is 1.05 and it decreased to -1.68 and again increased to 2.05 during the lockdown.

Taj GVK: In year 2018-19 Return on Assets is 3.37 and it decreased to 3.21 and again decreased to -3.66 the lowest of the three during the lockdown.

Findings:

Current Ratio:

Current Ratio matches current assets with current liabilities of the studied hotels and the values showed if the current assets are enough to settle current liabilities. If the value of current ratio is below 1 then it means that current liabilities surpass current assets and this shows critical liquidity problems.

The current ratio in 2019 was not good in this position it shows low apart from Mahindra Holidays which showed the ratio of 2.41 in 2019. There was an overall uptrend in current ratio for 2020 as compared to 2019 for all the above mentioned hotels. Mahindra Holidays and Chalet Hotels did exceptionally well compare to other hotels in 2020. In 2021, there was again overall drop in the ratios, apart from Mahindra Holidays.

Quick Ratio:
Quick Ratio value describe that how well the studied hotels can meet their short-term financial liabilities. A common rule is that companies with a quick ratio of greater than 1.0 are sufficiently able to meet their short-term liabilities.

Throughout the years it can be seen that the Quick ratio is low, apart from Mahindra Holidays, it means apart from Mahindra Holidays, the rest hotels do not have enough quick assets to meet all its short term obligations. It can also be seen that in 2021 there was a sharp drop in Quick Ratios of all the Hotels.

Inventory turnover ratio:
A good inventory turnover ratio is in the range of 5 to 10 for most industries, which indicates that you sell and restock your inventory every 1-2 months. This ratio tells us how much inventory we have in our stock and what to reorder and what to not reorder frequently.

In year 2019 it was observed that Mahindra Holidays did incredibly well in comparison to other mentioned hotels and the same trend followed the next two years. But there was a significant dip observed in 2021 indicating the impact of the Pandemic.

Debt-to-equity:
The nature of the business and its industry is are the factors on which a good debt-to-equity (D/E) ratio will depend. Generally speaking, a D/E ratio below 1.0 would be seen as relatively safe, whereas ratios of 2.0 or higher would be considered risky.

In 2019, debt to equity ratio of all the hotels was below 1 which means approx. low and considered well, the companies which has a low amount of debt and is are therefore less exposed to risk in terms of interest rate increasing or credit rating.

In 2020, the same trend can be seen, but in 2021, Chalet Hotels and IHCL showed a bit increase in its Debt to Equity ratio, whereas EIH and Mahindra Holidays had a drop in their Debt to Equity Ratio, therefore exposed to lower risk

Earning per share:
The similar trend was seen that the year 2020 was profitable as compared to 2019 and it further took a dip in 2021 during the emergence of the Covid-19 and the exception here would be Mahindra Holidays which did exceptionally well in this period

Return on Equity:
In the year 2021 there was sharp decline throughout all hotels which means business is not very profitable. In other words, it also tells us that the business is not worth investing in since the management simply can't make very good use of investors' money.

Return on Assets:
In overall sense for all hotels there was a serious dip in the year of 2021 which means the hotels suffered low profitability on return of assets as compared to the previous 2 years.

Conclusion:
In this study, the we presented the impact of COVID-19 on the Indian Hotel industry and its current situation. It was confirmed that this pandemic has significantly affected the Indian Hotel industry. Moreover, due to lockdown and travel restriction measures, the Hotel Sector employers as well as an employee, are in jeopardy. Furthermore, this unprecedented situation is prevailing not only in India but also around the world.

The hotel industry took a serious hit with regards to stock market prices and overall financial Ratios. There was a downward trend observed in both stock price and ratios of all the hotels mentioned which shows the impact of pandemic of overall hotel industry as all the hotels mentioned above hold a significant market share in the hotel industry in India. This indicates that majority of the hotels suffered losses during the period of the Pandemic due to government guidelines and many other factors like significantly low demand with very few advance booking due to limitations on travelling and also occupancy across hotels in key cities declined rapidly by 45% as compared to the last year.

It is very important to outline a set of financial ratios of the Restaurant and Hotel industry to be used in the comparative analysis and to make deductions depend on performances of the companies. The findings identified important ratios for the investors in the hospitality industry. These ratios are Current Ratio, Quick Ratio, Inventory Turnover Ratio, Debt to Equity Ratio, earnings Per Share, Return on Equity and Return on Assets. Instead of examining all liquidity, profitability, solvency and activity ratios, investors can base their decisions on these ratios. By evaluating these resources, investors can analyse performance of these Hotels during Covid -19.

Many hotel chains have taken measures such as to stop new recruitment, partially closing hotel floors and shutting down restaurants. In some places, layoff has also begun. For instance, the Indian Hotels Company Limited (IHCL), South Asia's biggest hospitality group, reported a loss of about 7.2 billion rupees in the pandemic-stricken 2020-21 financial year, as opposed to a profit of 3.54 billion rupees in the previous fiscal year.

It is imperative that all the industry participants collaborate and work harmoniously in the current crisis by sharing best practices, keep the workforce motivated and seek to put the industry back into recovery mode, because this too shall pass soon.

CONSUMPTION PATTERN OF ENERGY DRINK AND ITS IMPACT ON HEALTH

Krina Parekh
Parth Rawal

Abstract
The market size of energy drinks in India is estimated at about Rs 700 crore, growing 20-25% year-on-year. Most of them would continue to use energy drinks to boost stamina and energy levels. However, it noted that the high price of energy drinks would restrict its growth in tier II and tier III cities. Energy Drink Market size is growing at a moderate pace with substantial growth rates over the last few years and is estimated that the market will grow significantly in the forecast period i.e. 2021 to 2028.The growing popularity of energy drinks among college-going teenagers as well as the younger population due to the influence of the west is anticipated to drive the growth of the market in the coming years. It is anticipated to fuel the growth of the India energy drink market in the next five years. The energy drinks are non-alcoholic beverages containing stimulants like caffeine, herbal extracts (guarana, ginseng, yerba mate, ginkgobiloba), glucuronolactone, taurine, inositol, L-carnitine and B Vitamins as the main ingredients to enhance physical and mental endurance. Large amounts of caffeine may cause serious heart and blood vessel problems such as heart rhythm disturbances and increases in heart rate and blood pressure. Energy drinks are widely consumed in India among the teenagers and adults between the age of 16 to 35. These energy drinks consist of 65 % sugar and caffeine hence there are safety concerns. Thus we aim to research about the market potential and consumption pattern of energy drink in India and its health impact on consumers.

Introduction

History

Energy drinks were introduced to the world in 1949 by the name of 'Dr. Enuf in US; these were fortified with vitamins and projected as a better alternative to sugar sodas. Energy drinks" are beverages that contain caffeine, taurine, vitamins, herbal supplements, and sugar or sweeteners and are marketed to improve energy, weight loss, stamina, athletic performance, and concentration.

Energy drinks Timeline

- 1960
  Taisho Pharmaceuticals (Japan) made the first drink specifically targeted at increasing energy. First introduced as a medicinal tonic drink.

- 1987
  Dietrich Mateschitz, an Austrian, added caffeine and sugar and named this drink Red Bull, after the taurine amino acid.

- 1997
  Red Bull was Introduced in America

- 2002
  Monster Energy Drink was created by Hansen Natural

- 2004
  Creation of 5-hour Energy

- 2005 – 2006
  The sale of energy drinks had gone up by 61% since its introduction to the U.S.
  Even though other energy drinks later hit the market, Red Bull still remained the most well-known and top name.

- 2005
  The alcoholic energy drink known as Four Loko was introduced to the public by Phusion Pharmaceuticals.

- 2010
  Four Loko was reintroduced to the American market after removing caffeine, taurine, and guarana as ingredients. This was a result of legal, ethical, and health concerns about the product.

- 2012
  13 deaths were reported over the past 4 years as a result of 5-hour Energy.

- 2013
  Washington State began legislation to ban energy drinks to persons under 18 years old.2018
  Starbucks came with new energy drink named BAYA and claimed to be the best drink for immune support

- 2022
  Red bull announced to launch 10 new flavoured drinks which would be more than just energy boosters.

Market Survey Energy Market:

Energy drinks market is segmented based product, target consumer, distribution channel and region. Based on target consumer, the market is segmented into teenagers, adults and geriatric population. The teenage consumers are expected to lead the market during the forecast period owing to growing influence of western culture among the youth coupled with the rising need to keep up with the latest trends in the market.

Energy Drink Market, by Product Type:

- Non-Organic
- Organic
- Natural

Based on Product Type, the market is segmented into Non-Organic, Organic, and Natural. The non-organic sub-segment has a larger market share and is anticipated to be the fastest-growing market owing to an increase in demand for non-organic products and high market penetration of non-organic energy drinks products. In addition, the lack of consumer preference is considered as one of the drivers for non-organic energy drinks. The organic energy drink sub-segment is considered as a larger market contributor to the global Energy Drinks Market after the non-organic sub-segment. The organic and natural sub-segment will be the major contributor to the global Energy Drinks Market in the forecasted period.

Market Size:

A. Global
B. India

Global Market Size

Global energy drink sales had reached $57.4 billion in 2020. The industry is expected to grow by a compound annual growth rate (CAGR) by 7% between 2020 and 2025. This growth is attributed to rising incomes and an increase in sports activities and urbanization. A greater network of channels through which these drinks are sold, including supermarkets, convenience stores, and e-commerce sites, is expected to help fuel sales growth in this industry.

North Americans consume more energy drinks than any other geographic market in the world. The Global Energy Drinks Market is mainly divided into four regions: North America, Europe, Asia Pacific, and the Rest of the World. Because of the higher consumption of energy drinks in the region, and because energy drinks are considered an integral part of parties, social gatherings, and celebrations in North American countries, the North American region has the largest market share. These are some of the primary variables that have contributed to North America having the biggest market share. Furthermore, major energy drink manufacturers such as Red Bull, Monster Beverages, and Rockstar Inc are among the leading energy drink manufacturers in the resale market.

But research shows that the Asia-Pacific region is expected to be one of the fastest-growing markets for the industry, thanks to more disposable income and changing demographics while marketing efforts by the industry in Europe will help it grow between 2020 and 2025.

India Market Size

The market size of energy drinks in India is estimated at about Rs 700 crore, growing 20-25% year-on-year. The carbonated drinks market is close to Rs 6,000 crore and is growing by 10-12% annually, says a report. According to Euro monitor International, with changing lifestyles and increasing paucity of time, urban consumers are relying on energy drinks to cope up with fast paced lifestyles. Most of them would continue to use energy drinks to boost stamina and energy levels. However, it noted that the high price of energy drinks would restrict its growth in tier II and tier III cities.

Demographics

Global:
Two thirds of energy drink consumers are 13–35 years old, and boys are two thirds of the market. In the U.S., energy drinks are the second most common dietary supplement used by young people; about 30% consume energy drinks on a regular basis. The major constituent in most energy drinks is caffeine. Based on Target Consumer, the market is segmented into Teenagers, Adults, and Geriatric. The adult sub-segment has a larger market share and is anticipated to be the fastest-growing market owing to the rise in consumption of energy drinks by adults and their inclination towards a healthy lifestyle is driving the demand for energy drinks among adults. In addition, with the large adult population across the globe owing to which increase in energy drinks consumption by corporates, athletes, and regular consumers of energy drinks to gain extra energy are some of the contributors in the adults' population that leads the adult sub-segment to witness larger market share.

India:
Talking about the consumption in India, Energy Drink Market size is growing at a moderate pace with substantial growth rates over the last few years and is estimated that the market will grow significantly in the forecasted period i.e. 2021 to 2028.

The growing popularity of energy drinks among college-going teenagers as well as the younger population due to the influence of the west is anticipated to drive the growth of the market in the coming years. It is anticipated to fuel the growth of the India energy drink market in the next five years.

Additionally, factors such as high disposable incomes and hectic lifestyles have made energy drinks a convenient source of nutrients for consumers. It provides instant energy and helps in reducing stress. The growing cafes and bars in the country are also expected to act as a driver for the energy drink market in India by 2025.

The market size of energy drinks in India is estimated at about Rs 700 crore, growing 20-25% year-on-year. The carbonated drinks market is close to Rs 6,000 crore and is growing by 10-12% annually, says a report. According to Euromonitor International, with changing lifestyles and increasing paucity of time, urban consumers are relying on energy drinks to cope up with fast paced lifestyles. Most of them would continue to use energy drinks to boost stamina and energy levels. However, it noted that the high price of energy drinks would restrict its growth in tier II and tier III cities.

Energy drinks Component:
The energy drinks are non-alcoholic beverages containing stimulants like caffeine, herbal extracts (guarana, ginseng, yerba mate, ginkgobiloba), glucuronolactone, taurine, inositol, L-carnitine and B Vitamins as the main ingredients to enhance physical and mental endurance. In addition, these drinks may contain carbonated water. The report further noted that the caffeine content in energy drinks varies between 75 mg and 150 mg per can compared to 80-120 mg and 60 mg in a cup (250 ml) of

coffee and tea, respectively. Maximum recommended intake of caffeine per day, varies from 2.5 mg/kg/day to 6 mg /kg/day in children, 100 mg/day in adolescents and up to 400 mg/day in adults. (1mg=4 ppm (parts per million)).

Impact on Health:

Guarana, commonly included in energy drinks, contains caffeine. Therefore, the addition of guarana increases the drink's total caffeine content

Large amounts of caffeine may cause serious heart and blood vessel problems such as heart rhythm disturbances and increases in heart rate and blood pressure. Caffeine also may harm children's still-developing cardiovascular and nervous systems. The amount of caffeine in a can or bottle of energy drink can range from 80 mg to over 500 mg. For comparison, one 5-ounce cup of coffee contains around 100 mg of caffeine.

People who combine caffeinated drinks with alcohol may not be able to tell how intoxicated they are; they may feel less intoxicated than they would if they had not consumed caffeine, but their motor coordination and reaction time may be just as impaired.

Excessive energy drink consumption may disrupt teens' sleep patterns and may be associated with increased risk-taking behaviour. Like soda, energy drinks are also high in sugar. A 250 ml can of Red Bull, for example, contains around 27.5 g of sugar.

A single 16-oz. container of an energy drink may contain 54 to 62 grams of added sugar; this exceeds the maximum amount of added sugars recommended for an entire day. Within an hour, the effects of the caffeine will begin to subside and a sugar crash may occur. Energy levels will begin to feel low and tiredness would set in.

It takes an average of 12 hours for the body to completely remove the caffeine from the bloodstream, though this does depend on individual factors.

Importantly, children and teenagers have a significantly longer half-life, meaning caffeine will remain in their bloodstream for longer and at higher levels than for adults. This is why caffeinated drinks can cause behavioural problems and anxiety issues in children."

The infographic claims that individuals who consume energy drinks regularly may experience caffeine withdrawal in the 12-24 hours after consumption, which includes symptoms such as headache, irritability and constipation.

Caffeine use may also be associated with anxiety, sleep problems, digestive problems, and dehydration

Objectives

- To understand the demographics of the energy drink consumers.
- To analyse the Consumption pattern of energy drinks.
- To understand consumer awareness about the health impacts of energy drinks.

Hypothesis Hypothesis Testing

H1: There is no significant relationship between monthly family income and Brand Value

H2: There is no significant relationship between brand name and when energy drink is consumed

H3: There is a significant relationship between brand of energy drink consumed and alternative chosen

H4: There is a significant relationship between Qualification and the awareness about effect of regular consumption on health

Research Methodology

Research Design:

<u>Preliminary Research:</u> Exploratory research followed by descriptive research

<u>Formulation of problems and objectives:</u> Literature survey Literature

<u>Review Research Design and Methodology:</u>

- Research Design & process development
- Survey
- Forming Questionnaires
- Data collection and tool preparation
- Data Source organization
- Population and study area decision
- Sample size determination
- Data Cleaning and entry to SPSS
- Analyzing the data using SPSS tools
- Result generation and presentation

Tools and Techniques:

1) Tools for analyses – Descriptive analysis, frequency Table, Cross table analysis.
2) Techniques for testing hypothesis – Chi-Square, Anova, t-test
3) Correlation testing, regression, and multi regression [Enter, (Forward for tolerance), Backward]

Conclusion & Recommendation:

Developing Concluding remarks through overall results recommendation & Future Research Area

Type of Research: Exploratory and Descriptive Research

Nature of Data: Secondary & Primary data

Secondary Data: Articles & research papers

Primary Data: Questionnaire using a sample size of 215 respondents

Research Instrument: Self Structured Questionnaire.

Sampling Technique: Simple Random Sampling

Sampling Frame: Individuals using the OTT platform in all age groups.

Sample Size: 100 respondents, Mumbai & MMR

Statistical Techniques/ Tests: Frequencies/ Cross-tabs/ Correlation/ Hypothesis Testing using Anova / Chi-square in SPSS and Excel.

Limitation:

1) Issues with data Collection: There was demographic constraint in the report as maximum data collected was from Mumbai region. Also some of the parameters had Sample bias and selection bias.
2) Limited access to data: The research was done based on limited availability of secondary data and primary data collection of 200 respondents majorly from Mumbai and aged between 18 to 38.
3) Lack of previous research studies on the topic: The articles and paper referred was having limited quantitative data and more of qualitative data and hence data comparison of previous and collected data was on limited findings and assumptions.
4) Impact Limitations: The topic researched on is conductive to increasing findings, as the topic is too population specific and field of the topic is still new to middle aged people and ever growing.
5) Methods/instruments/techniques used to collect the data: The manner in which data was collected contained the measurable variables which limited the ability to conduct a thorough analysis of the results.

Literature Review

Since their introduction in 1987, energy drinks have become increasingly popular and the energy drink market has grown at record pace into a multibillion-dollar global industry. Young people, students, office workers, athletes, weekend warriors, and service members frequently consume energy drinks. Both health care providers and consumers must recognize the difference between energy drinks, traditional beverages (e.g., coffee, tea, soft drinks/sodas, juices, or flavored water), and sports drinks.

Scope:

The literature review has been obtained from various articles, documents and research papers about the consumption of energy drink and its health impact focusing on caffeine and sugar intakes. The literature is focused on global as well as India specific research.

There are large number of studies done on consumption of energy drinks which includes general population. However, since the focus of this research is on the consumption of Energy drinks in teenagers and adults between 16-35 and its health impact. Hence detailed research about other factors will not be reviewed and will only be referred when necessary.

Perceptions and Practices Related to Consumption of ‘Energy Drinks' (Indian Journal of Nutrition and Dietetics) Oct,2018

States that Energy drinks are becoming increasingly popular in India and there is a need to understand the extent of consumption and perceptions among consumers as there are no studies in India in this direction.

A cross-sectional study was conducted among students (n=132) and employed persons (n=48) of 13–40 yrs age, who were purposively selected using snowballing technique. Descriptive statistics and chi-square test were used for analysis. Frequent consumers were more among students (47%) than in working group (14.6%). Participants mostly consumed energy drinks when hanging-out with friends (56.1%), during parties (43.3%), when they feel tired (36.1%) and during performance (28.8%).

Consumers were using energy drinks for taste (64.4%), flavor (60.6%), and to feel energetic (57.2%).

The study provides information that even frequent consumers were unaware that energy drinks are caffeinated beverages and their knowledge about health effects was very scanty.
Energy Drink and Health (Harvard T.H. CHAN)

States about the special concern with energy drinks:
Negative health outcomes. Emerging evidence has linked energy drink consumption with negative health consequences in youth like risk-seeking behaviors, poor mental health, adverse cardiovascular effects, and metabolic, renal, or dental problems. [1]

Excessive caffeine. Too much caffeine from any beverage, particularly when several are taken in one day in sensitive individuals, can lead to anxiety, insomnia, heart problems like irregular heartbeat and elevated blood pressure, and in rare cases seizures or cardiac arrest. Some energy drinks may contain as much as 500 mg per can (the amount in 14 cans of cola). [4.6]

High sugar content. Because of the excessive sugar content in some energy drinks, they carry the same health risks associated with other sugar-sweetened beverages.

According to a study published in the American Journal of Medicine:

A recent health test on 19 to 21-year-olds highlighted the massive jolt to the heart from these drinks. One 19-year-old had a resting heart rate of 82 beats a minute. Half an hour later, after consuming an energy drink, it hit 106.

Energy drinks no more effective than a cup of coffee? (Business Line), 2012

The researchers went through dozens of articles that examined the effects of energy ingredients alone and/or in combination with caffeine, here the the ‘Daily Mail’ reported.

They found that while energy drinks often contain ingredients such as taurine, guarana and ginseng, there is an “overwhelming lack of evidence to substantiate claims that these ingredients boost performance”.

With the exception of some weak evidence for glucose and guarana extract, there was little evidence substantiating claims that components of energy drinks, other than caffeine, contribute to the enhancement of physical or cognitive performance.

Having said that, doctors warned that children given energy drinks could pile on the pounds because they are not active enough to burn off the extra calories.

The Hindu (Article No 37367403)
Over 33 lakh children in India are malnourished and more than half of them fall in the severely malnourished category with Madhya Pradesh(Most), Maharashtra, Bihar and Gujarat topping the list

between the age of 12 to 25, having 22% as middle class, lower middle class and BPL People.

Conclusion:
After reviewing the literature, we can say that the consumption of energy drinks is increasing globally as well as in India. A few articles also mention about the lack of awareness of health impacts and caffeine contents of energy drinks. Experts in the area have also mentioned about the positive impacts of such drinks but it is negligible compared to the negative impacts it does on one's body and mind.

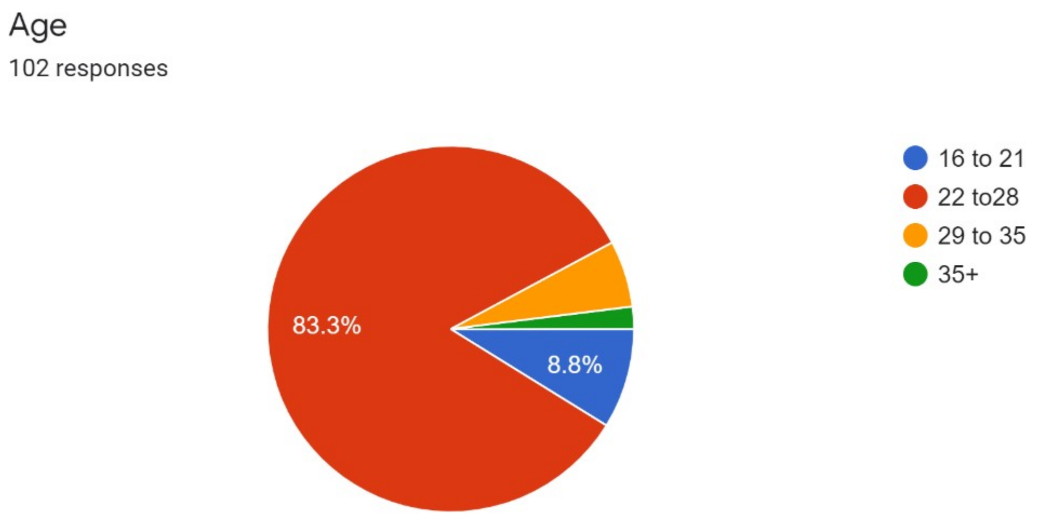
The western lifestyle adopting young India which is the largest market for the energy drink manufacturers as India being the Youngest Country in the World where more than 65% of population is less than 35 years of age, not knowing the positive as well as negative impact on health will be a threat in the future.

Hence through this research we are interested in knowing the consumption patter and impact of these energy drink on health of young India

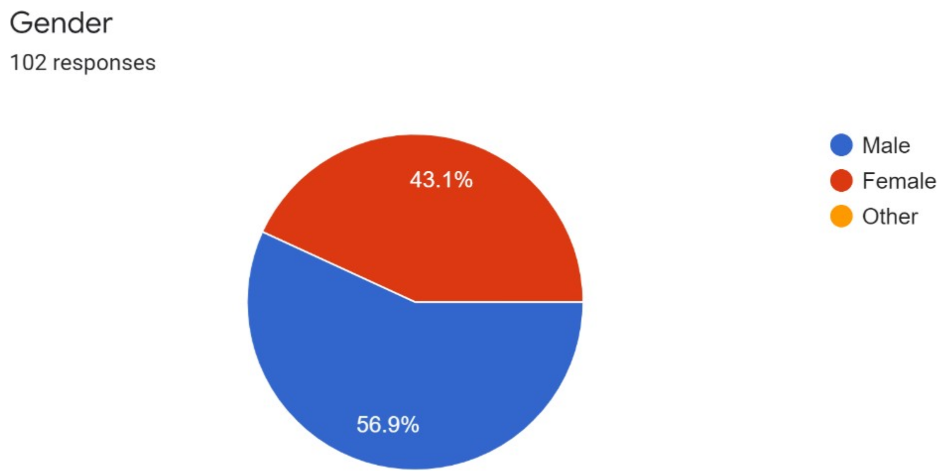
Data analysis and findings:
Primary Data:
In this study questionnaire method is employed for primary data collection. The questionnaire was circulated to different groups like students and the employed people. The data is collected from responses through Questionnaire.

Sample Size:
Sample Size selected for the study are the people who are between the age group 16 to 35 who may or may not consume energy drink. There are 100 people from different age group, qualification and occupation who gave their reviews on the questionnaire prepared for the study. It helped us to study the topic well and to analyse the data from the sample selected and find the result. The questionnaire was circulated for findings through online medium to the people as practically reaching to them was not feasible.

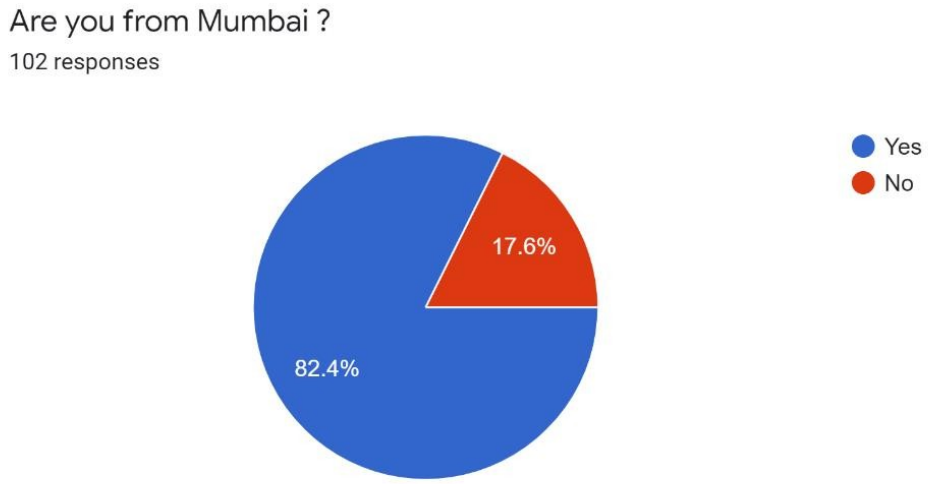
Data analytics:



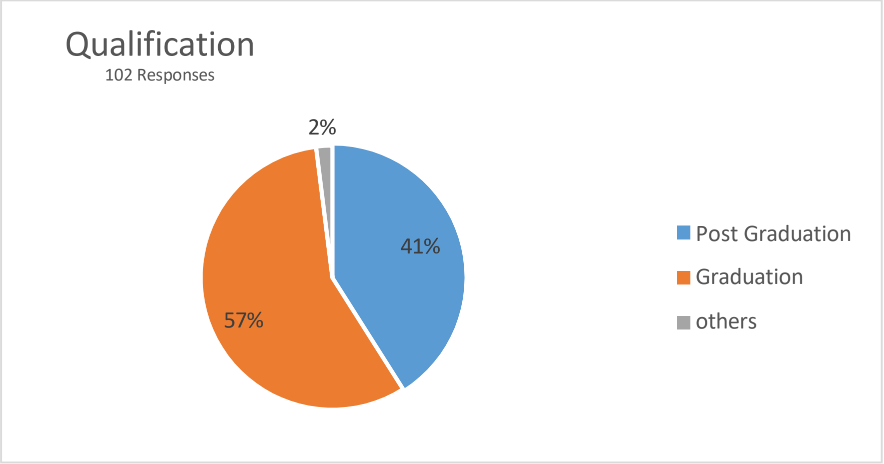
The maximum respondents where from the age group of 22 to 28 which means the young adults. Followed by 16 to 21 teenagers. This was seen as the questionnaire was circulated among the Managements students who belong to the group of 22 to 28.



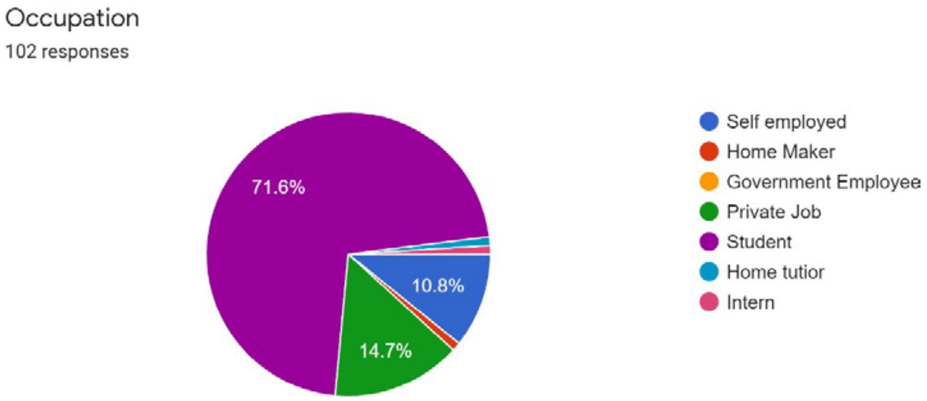
Maximum number of respondents were male with 57%



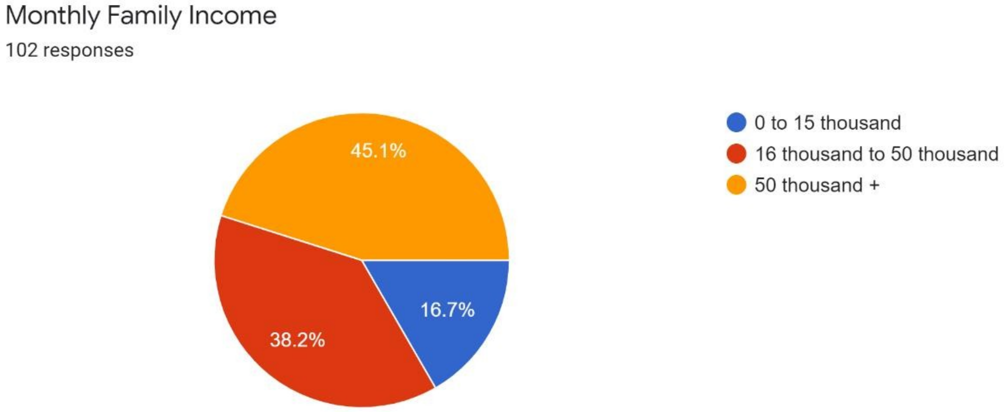
Most number of respondents were from Mumbai i.e 83%. This was seen as the questionnaire was circulated among the management students in Mumbai.



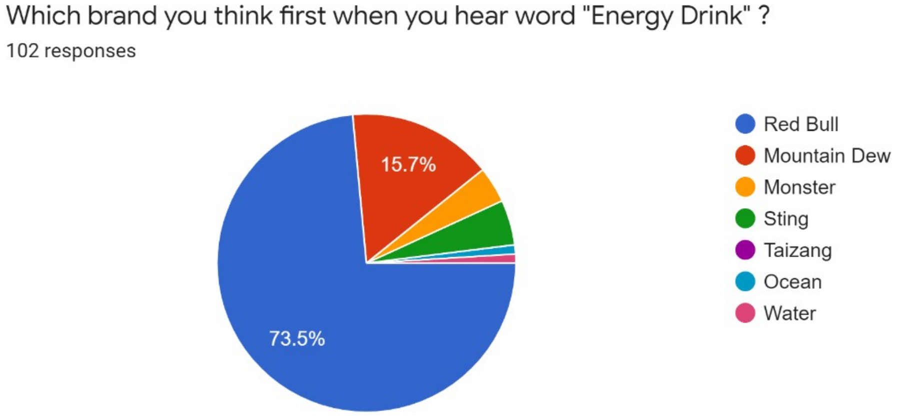
Maximum respondents were graduates with 57%,followed by Post graduates with 41%. This was seen as the questionnaire was circulated among students pursing management studies.



Maximum number of respondents were students with 72% followed by people doing private jobs with 15% and rest 13% were either self-employed or government employees with few with different and various occupations. The maximum number of respondents were students as the questionnaire was circulated among management students.

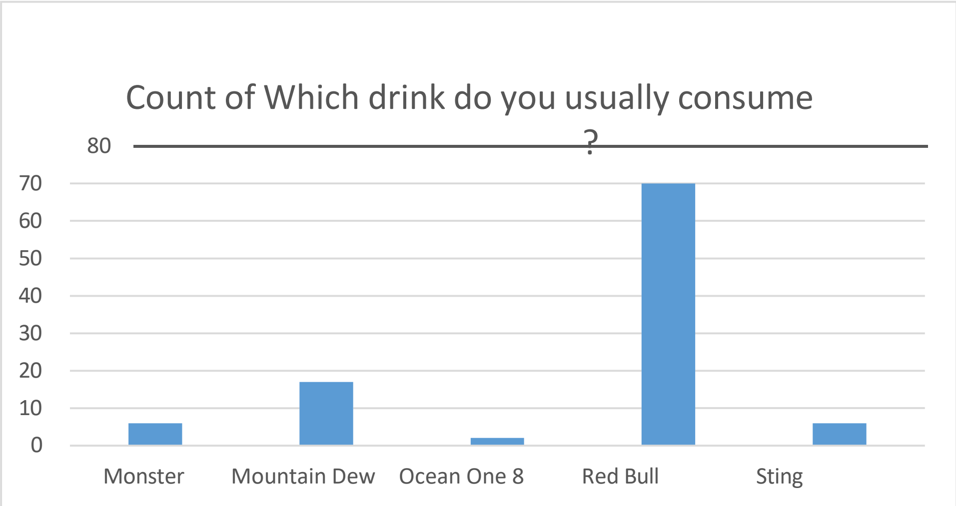


The respondents with more than 50 thousand income are 45% followed with people with income between 16 to 50 with 38% and remaining less than 16 thousand. The form was circulated in urban area where the standard of living demands more income and hence maximum respondents are having income 50 thousand+ income.

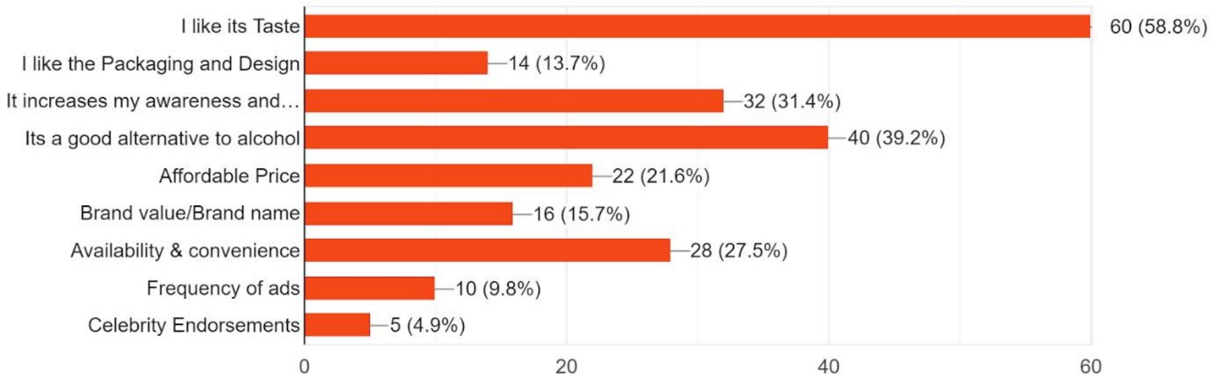


Red bull is the first name that these 74% respondents think of when they hear the word Energy Drink. This is followed by mountain dew with 16%.

Red Bull was one the first movers of energy drink in India, and its strong advertisement campaign like “gives you wings” has made a mark in people’s mind. Therefore, it can have been seen that people associate with Red Bull when they hear about energy drinks. This is followed by Mountain dew which features Hrithik Roshan as its brand ambassador hence helping people connect with the brand.

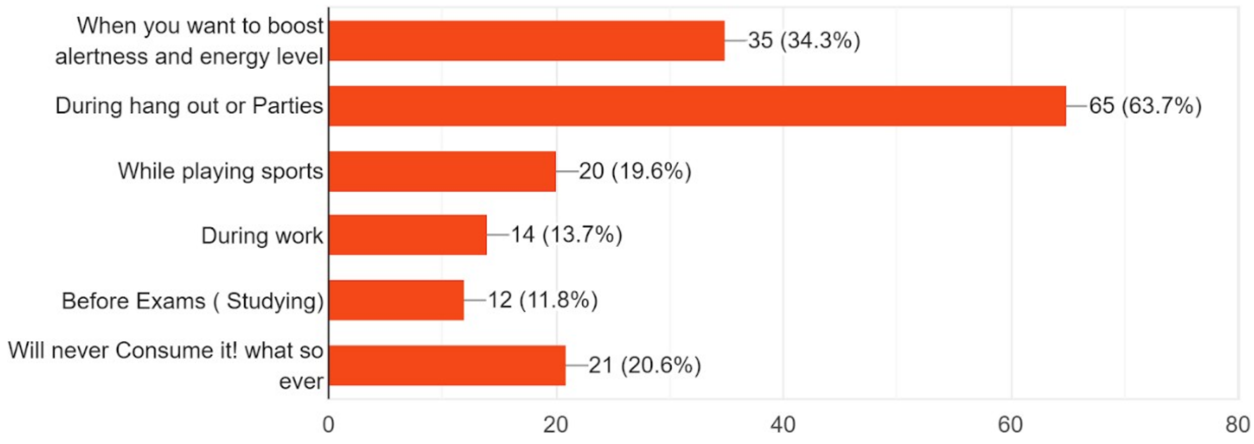


Maximum Respondents consume Red Bull may be because the form had major focus on urban areas of Mumbai and among youngster this energy drink is more popular than others.

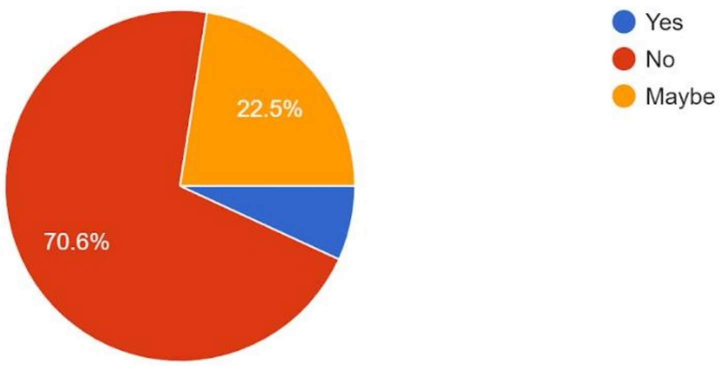


Majority of the respondents buy or would buy energy drinks as they like its taste , which is followed by good alternative to alcohol and as it increases awarness. Least preffered factor was celebrity endorsements.

In India people give a lot of importance to taste when it comes to any beverage which can be evidently seen in the responses collected in the questionnaire. There is also a mix of alcohol consumers and people who don’t consume alcohol in India. Hence 39.2% of the respondents prefer energy drink as an alternative to alcohol.

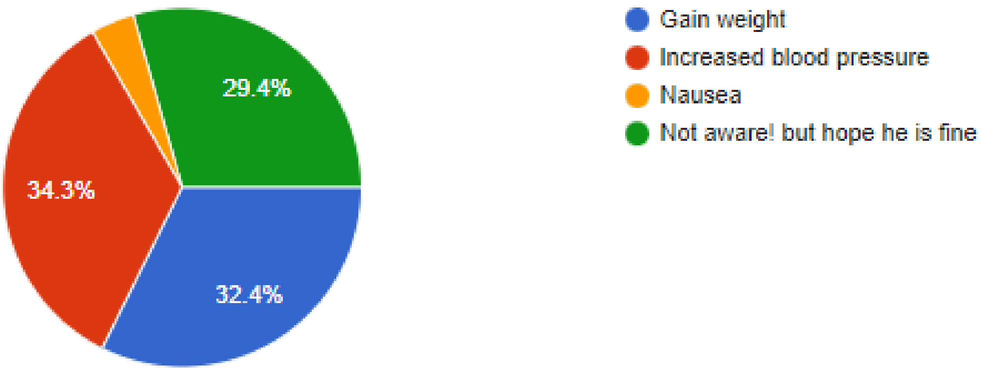


The respondents were from urben areas and between the age group of 22 to 28, the young group which filled the form were students or entry level employees and hence this ay be the reason they consume energy drinks while doing parties with friends or even corporate parties. This was followed by reason when the respondents wanted to boost their alertness and energy level which is the usp of these energy drinks makers.



Majority of the respondents i.e 70.6% do not face any health issues after consumption of energy drinks. Which indicatres to the brands that the after effects are less compared to long term unnoticed side effects and standareds are maintained by the companies.

Given the concern of heart problem and headache due to consumption of energy drinks, majority respondents (44.1%) were interested in finding an alternate solution with similar benefits and less caffeine and sugar contents. However the choice of reducing the intake and stop drinking the energy drink was equally divided with 27.5% response. The question was dsigned to know the awareness of the respondents. The 44.1% shows that maximum people are looking for an alternative to currenlty available energy drink and hence are willing to move to a safer option which has less impact on health. Other respondents were willing to stop drinking due to side effect and decrease the amount of intake. This Shows tat 50 % respondents were aware of the impact of high sugar and caffiene level can have on their health.



Maximum Respondents i.e 34.3% selected that Increased blood pressure would be a side of jack consuming 250ml of energy drink on a daily basis, which is the major issue of drinking excess amount of energy drink and hence we can infer that respondents were aware of the impact on health which energy drink consumption can cause.

Insights from Crosstabs

1) Monthly Family Income * Which brand you think first when you hear word Energy Drink Cross tabulation

Count								
		Which brand you think first when you hear word Energy Drink						Total
		Monster	Mountain Dew	Ocean	Red Bull	Sting	99	
Monthly Family Income	50 thousand +	3	7	0	33	2	0	45
	16 thousand to 50 thousand	1	5	0	30	2	0	38
	0 to 15 thousand	0	4	1	10	1	1	17
Total		4	16	1	73	5	1	100

The price of red bull is higher than other energy drinks and hence the higher income group can afford it much easily than other groups. This indicates that brands has to come up with products that are less expensive to capture the other target groups.

2) How often do you consume energy drinks * Gender Cross tabulation

Count				
		Gender		Total
		Female	Male	
How often do you consume energy Drinks	Weekly	2	5	7
	Occasionally	23	34	57
	Never	14	14	28
	Monthly	3	5	8
Total		42	58	100

The maximum number of consumers are buying energy drinks occasionally may be during parties, weddings or any get together events. This indicates that there is very less daily or frequent consumption of energy drinks due to competition with soft drinks and other alternatives available in the market.

Gender * Jack_Jill Crosstabulation

Count						
		Jack_Jill				Total
		Find an alternative	Decrease the intake	Nah! he is fine	Stop drinking it	
Gender	Male	29	14	1	14	58
	Female	16	14	0	12	42
Total		45	28	1	26	100

This awareness question response indicates that maximum number of consumer are looking for alternative where male is more in favor of finding an alternative or stop drinking it. Whereas females were more in favour of decreasing the intake of energy drink. This suggests that consumers are likely to switch to healthier options if provided with it.

Gender * Jack Cross tabulation

Count						
		Jack				Total
		Increase BP	Gain Weight	Nausea	Not aware	
Gender	Male	24	20	1	13	58
	Female	11	11	3	17	42
Total		35	31	4	30	100

Maximum number of respondents were aware of the long term side effects of consuming energy drinks where male consumers felt that increased blood pressure will be the illness and maximum number of female felt that they were not aware of the side effects compared to male. Also 22 female respondents felt that gaining weight and increase BP both can be the side effects in the future.

Affordable_Price * Gender Crosstabulation

			Gender		Total
			Female	Male	
Affordable Price	Not important	Count	4	5	9
		% of Total	4.0%	5.0%	9.0%
	Neutral	Count	10	25	35
		% of Total	10.0%	25.0%	35.0%
	important	Count	28	28	56
		% of Total	28.0%	28.0%	56.0%
Total		Count	42	58	100
		% of Total	42.0%	58.0%	100.0%

Using crosstab analysis between gender and affordable price as an important factor, we can conclude that

1. Majority for both male and female the price is an important factor while buying energy drinks.
2. The number of males who are neutral to pricing are more compared to females. This indicates that males are not as much concerned about the pricing of the energy drink as much as females are concerned.

The company should hence consider the Indian market as price sensitive.

MonthlyFamilyIncome * Packaging_and_Design Crosstabulation					
Count					
		Packaging_and_Design			Total
		important	Neutral	Not important	
MonthlyFamilyIncome	0 to 15 thousand	2	10	5	17
	16 thousand to 50 thousand	15	16	7	38
	50 thousand +	12	21	12	45
Total		29	47	24	100

Using Crosstab analysis between Monthly family income and Packaging and Design as an important factor while buying energy drink we can conclude that

1. Majority respondents with neutral importance to packaging and design belong to the 50 thousand +
2. Majority respondents for whom packaging and design are important belong to the 16 thousand to 50 thousand.
3. Overall it is seen that majority of the respondents do not consider packaging and design as an important factor for buying energy drinks hence companies should not focus much on the packaging and design of these drinks.

Brand_value * Monthly Family Income Crosstabulation						
			MonthlyFamilyIncome			Total
			0 to 15 thousand	16 thousand to 50 thousand	50 thousand +	
Brand_value	Not important	Count	3	4	7	14
		% of Total	3.0%	4.0%	7.0%	14.0%
	Neutral	Count	8	13	10	31
		% of Total	8.0%	13.0%	10.0%	31.0%
	important	Count	6	21	28	55
		% of Total	6.0%	21.0%	28.0%	55.0%
Total		Count	17	38	45	100
		% of Total	17.0%	38.0%	45.0%	100.0%

Using crosstab analysis between Brand Value and Monthly Family Income as a factor for buying energy drink we can conclude that:

1. Majority of the respondents consider brand value as an important factor before buying an energy drink.
2. The majority of respondents are from Mumbai and are between the age of 22-28, hence for them brand value is important as it also a sign of social status among their peers.
3. Therefore, companies should focus on building the brand value of their energy drinks.

Correlations			
		Which brand you think first when you hear word Energy Drink	I_like_its_Taste
Which brand you think first when you hear word Energy Drink	Pearson Correlation	1	.071
	Sig. (2-tailed)		.529
	N	99	80
I_like_its_Taste	Pearson Correlation	.071	1
	Sig. (2-tailed)	.529	
	N	80	81

There is a strong correlation between Which brand consumer thinks of and its taste. This signifies that taste is very important to the consumers and they remember the name of the brand through taste.

Occupation * Affordable Price Crosstabulation						
			Affordable Price			Total
			import ant	Neutral	Not important	
Occupation	Other	Count	1	0	1	2
		% of Total	1.0%	.0%	1.0%	2.0%
	Private Job	Count	6	5	3	14
		% of Total	6.0%	5.0%	3.0%	14.0%
	Self employed	Count	3	7	1	11
		% of Total	3.0%	7.0%	1.0%	11.0%
	Student	Count	46	23	4	73
		% of Total	46.0%	23.0%	4.0%	73.0%
Total		Count	56	35	9	100
		% of Total	56.0%	35.0%	9.0%	100.0%

According to cross tab between occupation and price importance, majority students have an importance towards price for energy drinks. Whereas majority self-employed are neutral towards price as a factor for consumption of energy drinks.

Age * Brand_value Crosstabulation						
			Brand_value			Total
			important	Neutral	Not important	
Age	35+	Count	1	0	0	1
		% of Total	1.0%	.0%	.0%	1.0%
	29 to35	Count	3	0	3	6
		% of Total	3.0%	.0%	3.0%	6.0%
	22 to28	Count	43	30	11	84
		% of Total	43.0%	30.0%	11.0%	84.0%
	16 to 21	Count	8	1	0	9
		% of Total	8.0%	1.0%	.0%	9.0%
Total		Count	55	31	14	100
		% of Total	55.0%	31.0%	14.0%	100.0%

According to cross tab between age and brand value importance for majority of the people from the age group 22 to 28 , brand value is an important factor for energy drinks

Gender * my_awareness_and_energy_level Crosstabulation						
			my_awareness_and_energy_level			Total
			important	Neutral	Not important	
Gender	Male	Count	31	13	14	58
		% of Total	31.0%	13.0%	14.0%	58.0%
	Female	Count	13	18	11	42
		% of Total	13.0%	18.0%	11.0%	42.0%
Total		Count	44	31	25	100
		% of Total	44.0%	31.0%	25.0%	100.0%

According to cross tab between gender and awareness and energy level importance, majority males have an importance towards awareness and energy levels for energy drinks. Whereas majority females are neutral towards awareness and energy levels as a factor for consumption of energy drinks.

Hypothesis Testing

H1: There is no significant relationship between monthly family income and Brand Value
H2: There is no significant relationship between brand name and when energy drink is consumed
H3: There is a significant relationship between brand of energy drink consumed and alternative chosen
H4: There is a significant relationship between Qualification and the awareness about effect of regular consumption on health
H1: There is no significant relationship between monthly family income and Brand Value

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.472[a]	6	.017
Likelihood Ratio	13.154	6	.041
Linear-by-Linear Association	7.928	1	.005
N of Valid Cases	100		

ANALYSIS:
Here The Hypothesis H1 is not accepted
Respondents with high monthly income showed that value of The brand or the brand name is more important than anything else.
This hence showed that emotional benefit is more important to them than functional benefits.

H2: There is no significant relationship between brand name and when energy drink is consumed

Chi-Square Tests

	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	1.728E2[a]	100	.000
Likelihood Ratio	118.779	100	.097
N of Valid Cases	100		

a. 123 cells (97.6%) have expected count less than5. The minimum expected count is .02.

Analysis:

Red Bull energy drink is more consumed during get together and Parties while Mountain due is consumed for boosting alertness and Playing adventure sports

H3: There is a significant relationship between brand of energy drink consumed and alternative chosen

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.918[a]	15	.009
Likelihood Ratio	30.456	15	.010
Linear-by-Linear Association	5.928	1	.015
N of Valid Cases	100		
a. 16 cells (66.7%) have expected count less than 5. The minimum expected count is .02.			

Analysis:

People consuming Red Bull prefer going for an alternative with less caffeine component as they like its taste and instead of reducing the intake they prefer finding an alternative , whereas mountain dew consumers prefer in reducing the intake of Energy Drink.

H4: There is a significant relationship between Qualification and the awareness about effect of regular consumption on health

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.918[a]	15	.009
Likelihood Ratio	30.456	15	.010
Linear-by-Linear Association	5.928	1	.015
N of Valid Cases	100		
a. 16 cells (66.7%) have expected count less than 5. The minimum expected count is .02.			

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	62.566[a]	6	.000
Likelihood Ratio	66.467	6	.000
Linear-by-Linear Association	4.453	1	.035
N of Valid Cases	100		
a. 16 cells (66.7%) have expected count less than 5. The minimum expected count is .02.			

ANALYSIS:

People with different qualification have different thinking as to the effect of regular consumption of energy drinks.

Graduates think that it leads to increase in blood pressure whereas Post graduates think that it leads to gain in weight.

Hence based on the qualification there is a significant difference in the perception about the health impact of regular consumption of energy drinks.

LIMITATIONS:

1) Issues with data Collection: The report had a demographic constraint as the maximum data collected was from the Mumbai region. Also, some of the parameters had Sample bias and selection bias.
2) Limited access to data: The research was done based on the limited availability of secondary data

and primary data collection of 100 respondents, majorly from Mumbai and aged between 16 to 35.

3) Lack of previous research studies on the topic: The articles and papers referred had limited quantitative data and more qualitative data. Hence, previous and collected data comparison was on limited findings and assumptions.
4) Impact Limitations: The topic researched is conducive to increasing findings, as the topic is too population-specific and the topic is still new to middle-aged people and ever-growing.
5) Methods/instruments/techniques used to collect the data: The manner in which data was collected contained the measurable variables, which limited the ability to conduct a thorough analysis of the results

Recommendation

While analyzing data, the research provides some of the first empirical data about the perception of the sample collected from the secondary data through the Questionnaire. The Survey obtained information from diverse people regarding age, occupation, education level, and income. The Survey data provides evidence that the maximum consumption is from the age group of 22 to 28 with the education level of graduation and have family income more than 50000 INR per month. The data suggested that the most significant factor for which the respondents prefer consumption of Energy drinks is the taste, which was followed by it being a good alternative to alcohol. The research also shows that Red Bull is the most dominant brand in the market. The first brand that people relate to when they hear the word energy drink is Red Bull, hence other players in the market should focus on the marketing strategy to make their brand popular among the target audience. Mountain Dew is the next most preferred and consumed brand after Red bull. Hence they can attract more customers by focusing on factors like a better advertisement, taste and price competitiveness. Most people prefer consuming energy drink during hang out and parties the brands should focus on encouraging and facilitating them to consume it during travelling and other sports as well with the help of celebrity endorsements. The brands should also research and work upon an alternative with less caffeine and sugar content as many respondents opted to consume the alternative.

Examine the effectiveness of existing demographics and how they can be enhanced and focused. Conduct additional surveys interviews that better represent the Energy drink consumer’s community with higher responses.

While applicable, the results of the Survey must be viewed with caution because of demographic limitations and few response biases.

Conclusion

Energy drinks are widely consumed in India among the teenagers and adults between the age of 16 to 35. Energy drink market is expected to grow to 9 billion USD till 2025 with 3X growth. These energy drinks consist of 65 % sugar and caffeine hence there are safety concerns. The main objectives of the research were to analyse the consumption pattern of the energy drink like how much money they spend on buying these drinks, when do they drink and reasons why do they consume energy drinks and also to check the awareness level of side effects of these energy drinks. The research concluded that maximum respondents who consumed the energy drink were in the age group of 22 to28, who were graduated or still studying with family monthly

income of 50000 or more. Consumers like red bull the most and are consuming the most during parties and when they feel like increasing their concentration level. About 30% consumers were not ware of the impact energy drinks will have in long run and 41% are looking for an alternative to energy drink having less amount of caffeine and sugar content. Energy drink market is going to expand in India as India being the youngest country in the world and hence the target group of the companies in energy drink will try to capture the market share as quickly as possible.

Appendices

QUESTIONNAIRE:

Which brand you think first when you hear word "Energy Drink"?*

1.Red Bull

2.Mountain Dew

3.Monster

4.Sting

5.Taizang

6.Other:

Which drink do you usually consume? *

1.Red Bull

2.Monster

3.Tizinga

4.Mountain Dew

5.Sting

6.Caffe Cuba

7.Ocean One 8

8.I do not Consume Energy drinks

How often do you consume energy drinks? *

1.Daily

2. Weekly

3.Monthly

4.Occasionally

5.Never

Why do you buy energy drink? OR Will Buy (You always have more than 1 choice ...IN THIS Question as well!) *

1. I like its Taste
2. I like the Packaging and Design
3. It increases my awareness and energy level
4. Its a good alternative to alcohol
5. Affordable Price
6. Brand value/Brand name
7. Availability & convenience
8. Frequency of ads
9. Celebrity Endorsements

Tick only once each of these factors on basis of their importance in influencing your decision to buy energy drinks *

- Important
- Neutral
- Not Important

I like its Taste
I like the Packaging and Design
It increases my awareness and energy
level Its a good alternative to
alcohol Affordable Price
Brand value/Brand name
Availability & convenience
Frequency of ads
Celebrity
Endorsements I
like its Taste
I like the Packaging and Design
It increases my awareness and energy
level Its a good alternative to
alcohol Affordable Price
Brand value/Brand name
Availability & convenience
Frequency of ads
Celebrity Endorsements

When do you / will you usually consume energy drinks ? (Can select multiple options) *

1.When you want to boost alertness and energy level

2.During hang out or Parties

3.While playing sports

4.During work

5. Before Exams (Studying)

6. Will never Consume it! what so ever

Do you feel any health issue after consuming energy drink like head ache or increase level of heat beats? *

1.Yes

2.No

3.Maybe

Jack drinks 3 cans of Xyz energy drink/ day to look cool and have high level of alertness and concentration during work. His Concerned wife Jill Warns him " Jack do you know you are consuming 1500 ml of energy drink with 93 mg of caffeine and 72 mg of sugar every day which will cause heart problem, headache and other problems in the future" What should Jack do after listening to his dear wife Jill…? *

1. Decrease the amount of intake
2. Find an alternative to this which has same benefits with less caffeine and sugar content
3. Stop drinking it
4. jack should continue the same amount of consumption

Jack consumes a 250 ml of Xyz energy drink, on a daily basis. According to you what are the side effects, he is likely to face? *

1. Increased blood pressure
2. Nausea
3. Not aware Gain weight

Age *

1.16 to 21

2.22 to28

3.29 to 35

4.35+

Gender *

1.Male

2.Female

Other

Are you from Mumbai? *

1.Yes

2.No

Qualification *

1.SSC

2. HSC

3. Graduation

4. Post Graduate

5.Other:

Occupation * 1.Self employed 2.Home Maker

3.Government Employee 4.Private Job

5.Student 6.Other

Monthly Family Income *

1.0 to 15 thousand

2.16 thousand to 50 thousand

3.50 thousand

THE GROWING POPULARITY OF UPI PAYMENT AND ITS ADOPTING FACTORS

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Abstract
UPI (Unified Payments Interface) came into existence in 2016 in India. UPI refers to an instant real-time payment system which was developed by NPCI (National Payments Corporation of India). UPI is a system which enables a user to integrate multiple bank accounts into a single payment platform. It enables merger of several banking features and provides a seamless experience. UPI payment in India has redefined the definition of convenience while making a monetary transaction.

The pilot launch was done on 11th April 2016 by then RBI Governor Dr. Raghuram Rajan with 21 member banks. The digital payment apps like PayTm, PhonePe had been in existence before the UPI payment system was launched, but they experienced an exponential growth in transactions on their platforms.

Covid-19 and UPI
The Covid-19 outbreak appears to have shifted people's attention to contactless payments in their daily lives. Though many people began utilizing contactless payment methods like UPI (Unified Payment Interface) before the pandemic, their use has increased dramatically during the shutdown.

On August 26, 2016, NPCI (National Payments Corporation of India) introduced UPI. Between 2016 and 2020, the total amount traded on the UPI platform was Rs. 43.45 lakh crore. Between March and August 2020, a total of 14.26 lakh crore was exchanged. This equates to over a third (32.82%) of the entire amount transacted on this platform over the previous four years.

Following the pandemic, the number of transactions on the UPI network surged as well. Nearly 793.40 crore transactions (31.08 percent) took place on the UPI platform between August 2016 and August 2020, out of a total of 2,552 crore transactions.

Introduction

The Payment and Settlement Systems Act, 2007 defines payment system as, **"a system that enables payment to be effected between a payer and a beneficiary, involving clearing, payment or settlement service or all of them, but does not include a stock exchange".**

RBI has given permission for numerous Payment System Operators (PSOs) to operate payment systems in India, including NPCI, CCIL, ATM networks, and TReDS platform providers, to mention a few. The Reserve Bank of India (RBI) and the Indian Banks' Association (IBA) formed the National Payments Corporation of India (NPCI) in 2008 as an umbrella company for operating retail payment systems in India. The NPCI's role is to provide physical and electronic payment infrastructure to India's banking system. Its goal is to provide new payment technologies to the retail market. IMPS, RuPay card system, UPI, NACH, Aadhaar-enabled Payments System (AePS), and BBPS are some of NPCI's retail payment products. NPCI also took over the Cheque Truncation System (CTS). NPCI is also aiming to internationalise RuPay and UPI through NPCI International Payments Limited.

Introduction to Project

India is moving towards digitalisation and is in its growing stage. Therefore, UPI Payments have been an integral part of its growth and it has seen a sharp growth during the Covid-19 pandemic. Through this research we wish to study the consumer behaviour, perception, adaptability factors and dependency on UPI in future.

Growth of Digital Payments in India

A digital payment, also known as an electronic payment, is the transfer of value from one payment account to another utilising a digital device such as a smartphone, POS (Point of Sale) terminal, or computer, as well as a digital channel of communication such as mobile wireless data or SWIFT (Society for the Worldwide Interbank Financial Telecommunication). Payments made via bank transfers, mobile money, and payment cards, including credit, debit, and prepaid cards, are all included in this description. Due to greater access to mobile and internet, digital payments have developed significantly in the previous decade**.**

Payment preferences have shifted from paper clearing to digital payment in the previous ten years. According to RBI data, paper clearing accounted for 60% of total retail payments in 2010-11, but only 3% in 2019-20 by volume, whereas retail electronic payments climbed from 18% to 61%. Paper clearing accounted for 89% of overall retail payment system value in 2010-11, but only 20% in 2019-20. From 498 crore transactions worth Rs. 96 lakh crores in 2010-11 to 1623 crore transactions worth Rs. 3,435 lakh crores in 2019-20, digital payments have increased dramatically.

This transition might be ascribed to the country's rising mobile phone and internet penetration, which has aided in the faster acceptance of cashless transactions. According to the survey, low-value payments account for the majority of volume/turnover, and data shows that solutions that allow for real-time, instantaneous transfers are the most popular ways of payment.

Over time, a variety of digital payment solutions have emerged. In comparison to the beginning of the decade, consumers now have access to a plethora of digital payment methods, many of which are available 24 hours a day. These are the following:

A. For Periodic Payments

I. RBI created an **Electronic Clearing Service (ECS) system**, which is a speedier means of effecting periodic and recurring collections of utility payments by enterprises. It was first introduced in the 1990s to deal with bulk and repeating payments.

II. **NACH (National Automated Clearing House)-** NACH is a centralised ECS created by NPCI that can be used for debit and credit transactions. It accepts both paper and electronic mandates and detects destination accounts using Aadhar. Because NACH is more effective, all ECS centres were fully converted to it by January 2020. The government uses the Aadhaar Payment Bridge System (APBS) as part of NACH to transmit payments and subsidies to recipients who have an Aadhar number.

B. Payments with a Credit Card

I. **Card (debit and credit) Payments-** The number of debit cards issued went from 22.78 crores to 82.86 crores between 2010-11 and 2019-20, while the number of credit cards issued increased from 1.8 crores to 5.77 crores. The RBI has made it essential to use only EMV chip and PIN-based cards instead of magstripe cards since 2019. Contactless cards are gaining popularity since they allow users to simply 'Tap and Go' for transactions up to Rs. 5000.

II. **NCMC (National Common Mobility Card)-** NCMC was launched in 2019 and combines Debit/Credit with a prepaid card. The Debit/Credit component can be used online, while the prepaid component can be used offline, wherever offline payments are allowed.

III. **RuPay Cards**- Domestic RuPay cards were released by NPCI in 2012, as domestic cards aided in the faster transition to a cashless economy in most nations. RuPay accounted for barely 15% of all cards issued in India in 2017. Over 60.36 crore RuPay cards had been issued as of November 30, 2020. RuPay is also forming partnerships with international payment systems.

C. Direct Transfer

I. **Real-Time Gross Settlement (RTGS)** enables high-value (above Rs. 2 lakhs) interbank transactions to be completed instantly. RTGS used to have time slots, but those have been abolished starting 14 December 2020, making it available 24 hours a day, seven days a week.

II. **NEFT (National Electronic Funds Transfer)** is a system that allows you to transfer money from one bank account to another. Unlike RTGS, however, the clearance is done in half-hourly groups. The maximum amount that can be transmitted in a single transaction is unlimited.

III. **Bharat Bill Payment System (BBPS)** offers customers to pay their utility bills online or through physical agents.

IV. FASTag-based toll payments are made possible by **National Electronic Toll Collection (NETC),** which collects tolls directly from the user's account. In the future, the same tag might be used to pay for parking, fuel, and other goods.

Fast payments via IMPS and UPI

Fast payments are distinguished by their speed and constant availability. In India, there are two quick payment systems: - IMPS and UPI.

India became the fourth country to adopt an IMPS with a limit of Rs. 2 lakhs in 2010. These payments are open to non-bank entities as well. UPI, on the other hand, is a mobile-based quick payment system that does not require the remitter to provide their bank data. It facilitates money transfers between individuals, merchants, utility bill payments, and QR code-based transactions. Interoperability is another feature that RBI finds crucial. According to data filed with the RBI, the two systems handled 8.35 crore transactions per day in December 2020, totalling Rs. 22,854 crores. The acceptance of the two quick payment systems has exploded in recent years, with the majority of individuals choosing them as their preferred method of making small payments.

UPI (Unified Payments Interface)

India has taken a major step towards achieving a cashless economy with the advent of the Unified Payment Interface (UPI). The new payment model allows you to use your smartphones as a virtual debit card. It has also made possible the sending and receiving of money instantly. The concept of QR code has eliminated the usage of digital wallets altogether.

What is UPI?

UPI is a single platform that brings together a variety of banking services and features into one place. To send and receive money, all you need is a UPI ID and PIN. A cell phone number or a virtual payment address can be used to make real-time bank-to-bank payments (UPI ID).

Who initiated UPI?

The National Payments Corporation of India (NPCI), in collaboration with the Reserve Bank of India and the Indian Banks Association, has launched the Unified Payments Interface.

NPCI is the company in charge of RuPay's payment infrastructure, which is comparable to Visa and MasterCard. It enables the interconnection and movement of funds between multiple banks. The Immediate Payments Service (IMPS) is another NPCI project. The enhanced version of IMPS is known as UPI.

What is the difference between a UPI ID and a PIN?

A UPI ID is a one-time code that can be used to transmit and receive money from a bank account. The UPI PIN is a four-digit personal identification number that must be input in order to authorise a money transfer via UPI. The account holder can choose his or her own PIN.

How does UPI work?

The use of UPI has simplified the money transfer process. You don't need to remember the account number, account type, IFSC, or bank name of the recipient. Instead, you can send money to them simply by knowing their Aadhaar number, bank account, cell phone number or UPI ID. You can create a UPI ID on any app that supports the UPI service. A UPI ID usually starts with your phone number, then the '@' sign, and concludes with the app you're using. If your phone number is 90xxxxxx60 and you use the Paytm app, your UPI ID may be '90xxxxxx60@paytm'. The ID can be created by entering your bank account information into the app. To ensure that you are an authorised individual, the app will send an OTP to your registered mobile number. You will be required to generate a PIN for the UPI ID after entering the OTP. After finishing the registration, you can send money to any of your contacts' mobile numbers. You can also ask anyone on your contact list for money.

Advantages of utilising UPI

I. The process of making online payments has been simplified.
II. UPI payments for instant fund transfer can be used to pay for hailing services, food delivery services, and shopping sites.
III. Online payments are accepted at nearby eateries, grocery stores, and department stores.
IV. Payments for rent, mobile recharges, and utility bills can all be made promptly online.

Banks that support UPI

The major banks that support UPI services are:

1. State Bank of India (SBI Pay)
2. ICICI Bank (iMobile)
3. HDFC Bank (HDFC Bank Mobile Banking)
4. Axis Bank (Axis Pay)
5. Bank of Maharashtra (MahaUPI)
6. United Bank of India (United UPI)
7. Vijaya Bank (Vijaya UPI)
8. Union Bank of India (Union Bank UPI)
9. Federal Bank (Lotza)
10. UCO Bank (UCO-UPI)
11. Yes Bank (Yes Pay)
12. Karnataka Bank (KBL Smartz)
13. Punjab National Bank (PNB UPI)
14. Bank of Baroda (Baroda MPay)
15. South Indian Bank (SIB M-Pay)

Apps supporting UPI

Every day, new apps that accept UPI payments emerge, including Google Pay, PhonePe, FreeCharge, Mobikwik, and others. Before you begin transactions, you must validate your bank account details in order to obtain UPI ID on the app.

Covid-19 and its Impact on UPI

Beginning with Demonetization and then the pandemic, UPI has had the ideal environment in which to progressively displace the country's cash economy. Because of the government's mandated lockdowns, most people were confined to their homes, unable to leave, and had to rely heavily on internet deliveries and payments.

Another advantage of the lockdown was that the number of people seeking entertainment online increased dramatically, from paid games to entertainment subscriptions. These apps and websites also encouraged people to adopt a convenient payment method like UPI.

The e-commerce business has also played a significant influence in the UPI payment industry's exponential expansion. Due to the **"No Contact Delivery"** constraints, Cash on Delivery was on hold, thus UPI was the next best alternative for making payments and purchasing necessities online.

After a downturn in April and May 2020, UPI hit a new peak in terms of volume and value of transactions in June 2020.

In June 2020, the platform processed 2.8 billion transactions worth Rs 5.47 trillion, an increase of 10.6% in volume and 11.56% in value over May 2020. This coincided with the economy's opening up, as Covid-19 cases gradually declined from their high in mid-May, and lockdowns were reduced in various locations.

Due to the second wave of the pandemic, transaction volumes dropped in April and May 2021. In May 21, UPI completed 2.53 billion transactions, down 4.16% from April'21 and 7.32% from March'21. In terms of value, UPI transactions totalled Rs 4.9 trillion in April and March, down 0.66% and 3%, respectively, from April and March. UPI reached a new peak in March 2021, with 2.73 billion transactions worth Rs 5.04 trillion.

Security Issues with UPI

Even though UPI is a game-changing innovation in the digital payments industry, many consumers and businesses are still wary of the payment system due to concerns about its reliability and security. Since the emergence and spread of Covid-19 in India, over half of Indian consumers are more concerned about digital payment fraud than they were when the novel coronavirus first appeared.

Individuals' virtual payment addresses, digital identities, transaction information – data sent over the UPI network, and financial details enhance susceptibility to financial scams, are all the security factors at risk while using UPI for digital payments.

The following are some of the most common UPI payment frauds in India:

- **Misleading UPI handles**: - Many fraudsters construct false UPI handles with names like NPCI, UPI, BHIM, and others to get people to divulge their account credentials through a fake UPI app, which leads to fraud.

- **Request Money Fraud: -** Many fraudsters prey on people who are unaware that they do not need to scan a QR code or input a UPI pin to receive money on a UPI platform. The hackers ask users to scan a QR code and enter their UPI pin in order to get a prize, resulting in UPI platform fraud.

- **Remote screen monitoring frauds: -** Many untrusted apps downloaded from the Google Play store can harvest phone information and tap all financial data on the phone, resulting in UPI fraud.

- **Phishing:** - Users are sent unlawful links through email or SMS, and when they click on these unauthorised links, fraud occurs. Many fintechs are also working in India to develop innovative ways to secure and authenticate UPI payments**.**

Objectives of the Study

1. To understand the overall user experience with regards to e-payment apps.
2. Usage pattern of e-payment platform during lockdown.
3. To study the factors that influence the spending pattern of users.
4. To study the public's opinion of transaction security on such platforms.

Hypotheses of the Study

H01: There is no significant relationship between individual’s take on digital payments and their age.

H02: There is no significant difference between users switching to digital payment apps over cash payments and the frequency of them encountering cashbacks & discounts.

H03: There is no significant relationship between people switching over to digital payment apps and digital payment taking over traditional methods.

H04: There is no significant relationship between individual’s take on digital payment apps and impact on spending w.r.t. digital payment apps.

H05: There is no significant relationship between satisfaction level of secure payments and comfort level w.r.t to making huge payments.

H06: There is no significant relationship between satisfaction level of low risk of theft of cash and comfort level w.r.t to making huge payments.

Research Methodology

Research Design

(i) <u>Preliminary Research</u>: Exploratory research followed by descriptive research

(ii) <u>Formulation of problems and objectives:</u> Literature Review & Survey

(iii) <u>Research Design and Methodology:</u>

- Research Design & process development
- Survey
- Forming Questionnaires
- Data collection and tool preparation
- Data source organization
- Population and study area decision
- Sample size determination
- Data cleaning and entry to SPSS
- Analyzing the data using SPSS tools
- Result generation and presentation

Tools and Techniques

1) **Tools for analysis –** Descriptive analysis, frequency Table, Cross tabulation
2) **Techniques for testing hypothesis –** Pearson's Chi-Square Test
   Conclusion & Recommendation: Developing Concluding remarks through overall results recommendation & Future Research Area

Type of Research: Exploratory and Descriptive Research
Nature of Data: Secondary & Primary data
Secondary Data: Articles & research papers
Primary Data: Questionnaire using a sample size of 110 respondents
Research Instrument: Self Structured Questionnaire
Sampling Technique: Convenience Sampling
Sampling Frame: Individuals using the Digital Payment Apps
Sample Size: 110 respondents, Mumbai & MMR
Statistical Techniques/ Tests: Frequencies/ Cross-tabs/ Hypothesis Testing using Chi-square in SPSS and Excel.

Limitations

1) **Issues with data Collection:** The paper had a demographic constraint as the maximum data collected was from the Mumbai region. Also, some of the parameters had sample and selection bias.

2) **Limited access to data:** The research was done based on the limited availability of secondary data and primary data collection of 110 respondents, majorly from Mumbai.

3) **Lack of previous research studies on the topic:** The articles and papers referred had limited quantitative data and more qualitative data. Hence, existing and collected data comparison was on limited findings and assumptions.

4) **Impact Limitations:** The topic researched is conducive to increasing findings, as the topic is highly influenced by population and is still new to old-aged people and ever-growing.

5) **Methods/instruments/techniques used to collect the data:** The manner in which data was

collected contained the measurable variables, which limited the ability to conduct a thorough analysis of the results.

Review of Literature

a) According to **Mahesh A. and Ganesh Bhat** conducted a research on **Digital Payment Service in India - A Case Study of Unified Payment Interface in the year 2021** inferred that UPI offers superior advantages through services such as instant payment using QR code, payment of various fees, fund transfers between bank accounts & wallets, donations, buying & renewal of insurance, payment of utility bills through Bharath Bill Pay, etc. With UPI 2.0 NPCI has allowed users to add their overdraft accounts, one-time payment mandate with enhanced security measures. It has the unique advantage of 'No need to add a beneficiary'. It allows users to make transactions through a Virtual Payment Address (VPA) without revealing technical credentials such as account number, IFS Code, Name, etc. Even though UPI faces cyber threats and technological challenges, it has a lot of opportunities in today's digital world due to its key strengths SIASC -Simplicity, Innovation, Adoption, Security, and Cost-effective.

b) According to **G. Sankararaman & S. Suresh** who conducted a research on **A Study on Unified Payment Interface (UPI) Transactions (A Digital Banking Tool)** in Chennai City in the year 2021 inferred that in terms of safety level of the UPI, 67 percent of respondents have selected that UPI has the highest level of safety features. 45 percent of respondents have encountered payment failure problem while using the UPI, followed by 27 percent have faced connectivity issues while using the UPI. 45 percent of respondents have agreed that the issues faced by them while using the UPI have resolved within a day. 72 percent of the respondents have satisfied in the performance of UPI. 69 percent of respondents have mentioned that cash back is the major benefit enjoyed while using UPI.

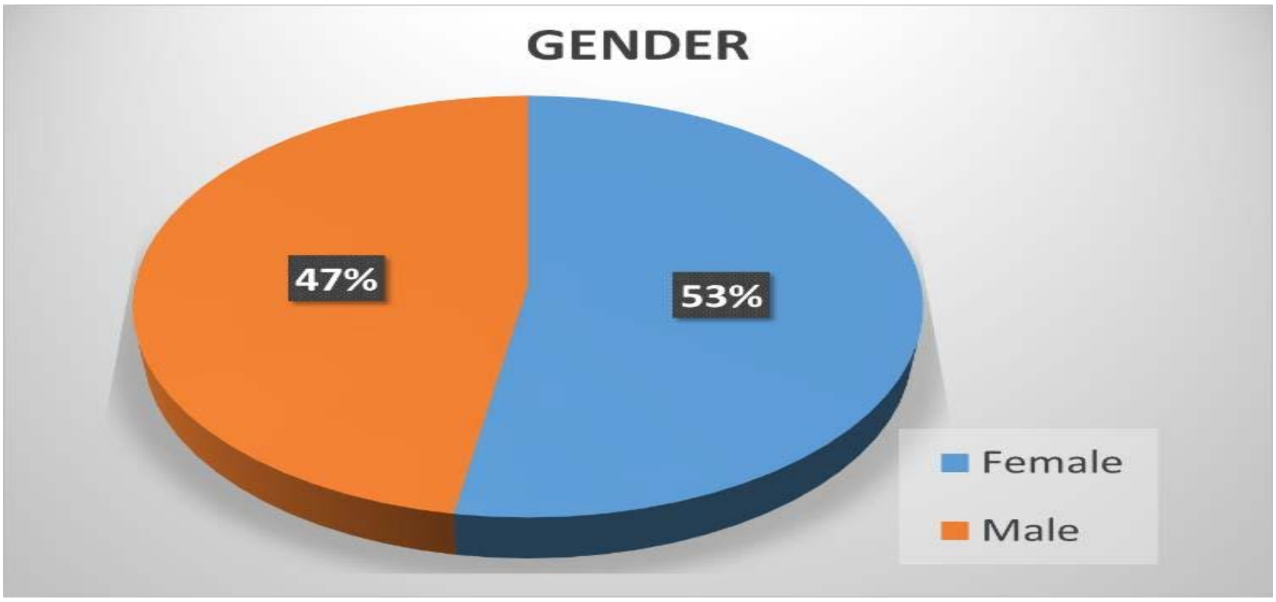
c) According to **Dinesh M. Kolte & Dr. Veena R. Humbe** who conducted a research on **Study of UPI/BHIM Payment System** in India in the year 2021 inferred that It is found that there is marginal difference between the gender ration for basic knowledge of smart phones. It is also observed that students using UPI/BHIM but they are known by third party Apps. It is found that students are passionate real-time payments and its settlement in bank account. It is also observed that students are commonly use UPI/BHIM for ₹1 to 10,000/- payments. The researcher reveals that the most commonly used UPI/BHIM App are the 3rd Party Apps like PhonePe.

d) According to **Mrs. J. Salomi BackiaJothi** who conducted a research on **Impact of UPI payment methods among youth and its pros and cons** inferred that above 50% of the youth population use UPI mainly for recharges, booking tickets, etc., most of the Youth have revealed that they use UPI because of its ease and quick nature of transaction, as well as time saving. Effects of Demonetization and increase in smart phone with high speed internet has led the towards UPI.

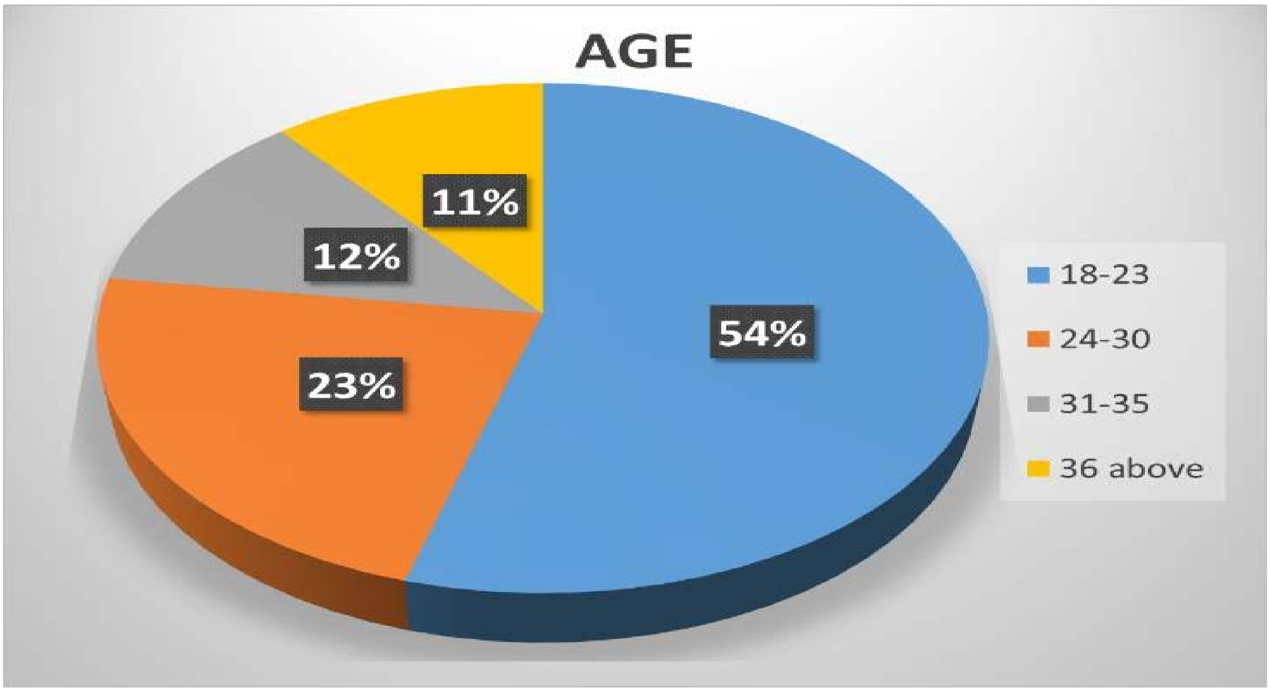
e) According **to Pragya Chawla, Arun Singhal & Pawan Bajaj** who conducted a research on **A study on awareness and adoption of unified payments Interface (UPI)** for digital payments in the year 2019 inferred that Paytm (94 respondents) and Google pay (57 respondents) capture almost 70% of market for mobile applications amongst 215 respondents. This shows high inclination of people towards both of these applications. Paytm & Google pay lead the wagon in the application used for UPI as well. One good indicator was that most respondents considered the registration mechanism, using the UPI and overall interface of UPI as easy. There was rarely someone who considered it as difficult.

Data Analysis and Findings

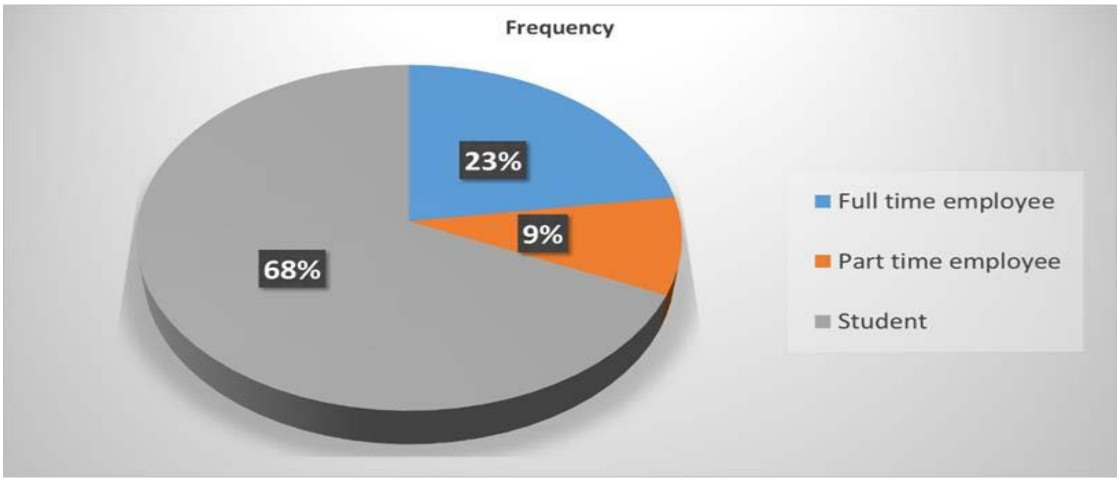
Demographic analysis:



The total sample size consisted of 110 respondents out of which majority were females (53%)



Most number of respondents were from the age 18-23yrs (54%) followed by 24-30yrs (23%).



Majority of the respondents were students (68%), followed by full time employees (23%).

Objective Wise Analysis:

OBJECTIVE 1: To understand the overall user experience with regards to e-payment apps

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Sat_Greater_Convenience	110	1	5	**4.29**	1.035
Sat_secure_payments	110	1	5	3.72	0.969
Sat_contactless	110	1	5	**4.28**	0.89
Sat_helps_in_managaing_finances	110	1	5	3.42	1.184
Sat_saves_time	110	1	5	4.16	1.063
Sat_low_risk_of_theft_of_cash	110	1	5	4.08	1.059
Valid N (listwise)	110				

The Primary data collected through the Questionnaire infers the following:

1. Maximum satisfaction level was for the factor "**Greater Convenience**" with highest mean at 4.29 closely followed by "**Contactless**" with a mean of 4.28.
2. Lowest satisfaction level was for the factor "**Helps in managing finances**" with lowest mean at 3.42.

"H01: There is no significant relationship between individual's take on digital payments and their age."

Age * Take_on_digital_payments Crosstabulation

Count

		Take_on_digital_payments				
		Currently using it	Have used in the past but not using currently	Haven't used yet but interested to use in future	Not using it	Total
Age	18-23	45	3	9	3	60
	24-30	22	1	0	2	25
	31-35	8	2	3	0	13
	36 above	5	4	1	2	12
Total		80	10	13	7	110

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.897[a]	9	**.013**
Likelihood Ratio	21.111	9	.012
Linear-by-Linear Association	1.904	1	.168
N of Valid Cases	110		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .76.

FINDINGS

Sig value = 0.013, which is less than standard α value 0.05. Therefore, we do not accept H0. We can conclude that there is a significant relationship between an individual's take and their impact on spending.

ANALYSIS

Majority of the respondents are of the age group 18-23 and are currently using payment apps and have noticed an increase in their spending. 13 out of 110 respondents to use the UPI payment platforms in the future.

FREQUENCY ANALSIS OF RESPONDENTS BENEFITED BY CASHBACK OFFERS

		Benefited_by_cashback_discount_offers			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	31	25.6	28.2	28.2
	Sometimes	67	55.4	60.9	89.1
	Never	12	9.9	10.9	100
	Total	110	90.9	100	

The Primary data collected through the Questionnaire infers the following:

Majority of the respondents have experienced getting cashback and discount offers sometimes and some of them have experienced it very often. Very few have not experienced getting cashbacks and discounts on UPI payment platforms. Usually cashbacks and discounts promote consumers to make more transactions on UPI platforms as it enables them to save money and get some exciting offers.

"H02: There is no significant difference between users switching to digital payments over cash

payments and the frequency of them encountering cashbacks & discounts."

Preference_of_digital_payments_over_cash_payments * Benefited_by_cashback_offers Crosstabulation

Count					
		Benefited_by_cashback_offers			Total
		Very often	Sometimes	Never	
Preference_of_digital_pay ments_over_cash_payment s	Yes	29	60	5	94
	No	2	7	7	16
Total		31	67	12	110

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson hi-Square	21.050[a]	2	.000
Likelihood Ratio	15.247	2	.000
Linear-by-Linear Association	12.098	1	.001
N of Valid Cases	110		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.75.

FINDINGS

Sig value=0.000, which is less than standard α value 0.05. Therefore, we do not accept H0. We can conclude that there is a significant relationship between users preferring digital payments over cash payments and the frequency of them encountering cashbacks & discounts.

ANALYSIS

We can conclude that there is a direct relationship between consumer's preferred payment mode and the frequency of them encountering cashbacks & discounts. More the cashbacks & discounts, more the consumer will prefer online payment mode over cash payments.

OBJECTIVE 2: To analyse the usage pattern of consumers on e-payment platforms during lockdown.

"H03: There is no significant relationship between people switching over to digital payments and digital payments taking over traditional methods."

Noticed_people_Switching_to_digital_payments * Digital_payments_taking_over_traditional_methods Cross tabulation

Count

		Digital_payments_taking_over_traditional_methods			Total
		Yes	No	Maybe	
Noticed_people_Switching_to_digital_payments	Yes	70	8	24	102
	No	2	2	4	8
Total		72	10	28	110

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.601[a]	2	**.037**
Likelihood Ratio	6.088	2	.048
Linear-by-Linear Association	4.822	1	.028
N of Valid Cases	110		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .73.

FINDINGS

Sig value=0.037, which is less than α value 0.05. Therefore, we do not accept H0. We can conclude that there is a significant relationship between people switching over to digital payments and digital payments taking over traditional methods.

ANALYSIS

We can conclude that even though a great percentage of respondents are switching to UPI payment apps then too there is a greater dependency on traditional methods like cash payments, cheques, cards, etc. Here, majority of respondents observed great number of people switching to UPI payment platforms.

OBJECTIVE 3: To study the factors that influence the spending pattern of users.

"H04: There is no significant relationship between individual's take on digital payments and impact on spending w.r.t. digital payment apps."

Take_on_digital_payments * Impact_on_spending_wrt_digital_payment_apps Cross tabulation

		Impact_on_spending_wrt_digital_payment_apps				
		Increase	Decrease	Unchanged	Haven't used	Total
Take_on_digital_payments	Currently using it	52	5	23	0	80
	Have used in the past but not using currently	5	2	3	0	10
	Haven't used yet but interested to use in future	0	0	0	13	13
	Not using it	4	0	3	0	7
Total		61	7	29	13	110

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.141E2[a]	9	**.000**
Likelihood Ratio	83.323	9	.000
Linear-by-Linear Association	20.236	1	.000
N of Valid Cases	110		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .45.

FINDINGS

Sig value = 0.00, which is less than α value 0.05. Therefore, we do not accept H0.

We can conclude that there is a significant relationship between an individual's take and their impact on spending.

ANALYSIS

Majority of the respondents are currently using payment apps and have noticed an increase in their spending and some of them have not witnessed any significant change in it.

OBJECTIVE 4: To study the public's opinion of transaction security on such platforms

"H05: There is no significant relationship between satisfaction level of secure payments and comfort level w.r.t to making huge payments."

Sat_secure_payments * comfort_level_wrt_making_huge_payments Crosstabulation

Count

		comfort_level_wrt_making_huge_payments		Total
		Yes	No	
Rating_secure_payments	Very low	1	1	2
	Moderately low	3	7	10
	Neutral	12	17	29
	Moderately high	24	21	45
	Very high	16	8	24
Total		56	54	110

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.294[a]	4	**.258**
Likelihood Ratio	5.394	4	.249
Linear-by-Linear Association	4.507	1	.034
N of Valid Cases	110		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is .98.

FINDINGS

Sig value = 0.258, which is more than standard α value 0.05. Therefore, we accept H0. We can conclude that there is no significant relationship between satisfaction level of secure payments and comfort level w.r.t to making huge payments.

ANALYSIS

We can conclude that even though users are satisfied with the level of security of payment apps, they are still hesitant to make huge transactions through such apps. Here we can infer that users still have a stigma attached to the security aspects of digital payments.

"H06: There is no significant relationship between satisfaction level of low risk of theft of cash and comfort level w.r.t to making huge payments."

Sat_low_risk_of_theft_of_cash * comfort_level_wrt_making_huge_payments Crosstabulation

Count

		comfort_level_wrt_making_huge_payments		Total
		Yes	No	
Rating_low_risk_of_theft_of_cash	Very low	0	2	2
	Moderately low	2	6	8
	Neutral	9	12	21
	Moderately high	16	11	27
	Very high	29	23	52
Total		56	54	110

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.012[a]	4	.198
Likelihood Ratio	6.884	4	.142
Linear-by-Linear Association	4.228	1	.040
N of Valid Cases	110		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .98.

FINDINGS

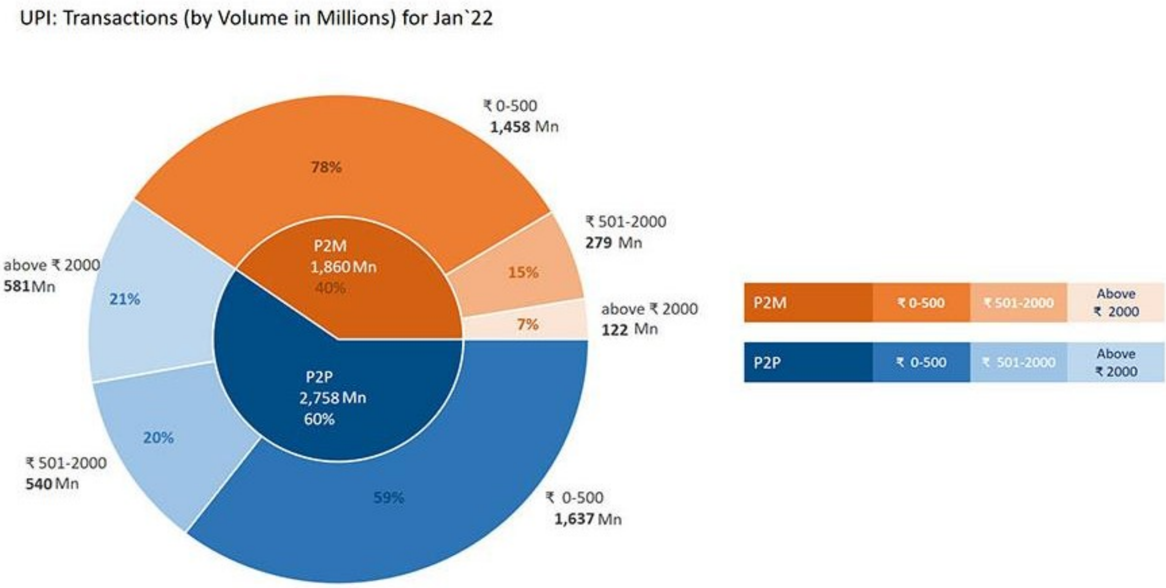
Sig value = 0.198, which is more than standard α value 0.05. Therefore, we accept H0. We can conclude that there is no significant relationship between satisfaction level of low risk of theft of cash and comfort level w.r.t to making huge payments.

ANALYSIS

We can infer that even though the majority of respondents are highly satisfied about the fact that digital payments can enable them to experience low risk of theft of cash even then many of them are still hesitant to make huge amount transactions using digital apps.

UPI P2P and P2M Transactions (As per NPCI website)

UPI P2P and P2M Transactions						
Month	Total		P2P		P2M	
	Volume (Mn)	Value (Cr)	Volume (Mn)	Value (Cr)	Volume (Mn)	Value (Cr)
Jan'22	4,617.15	8,31,993.11	2,757.61	6,67,270.65	1,859.54	1,64,722.46



UPI is categorised into two types of transactions:-

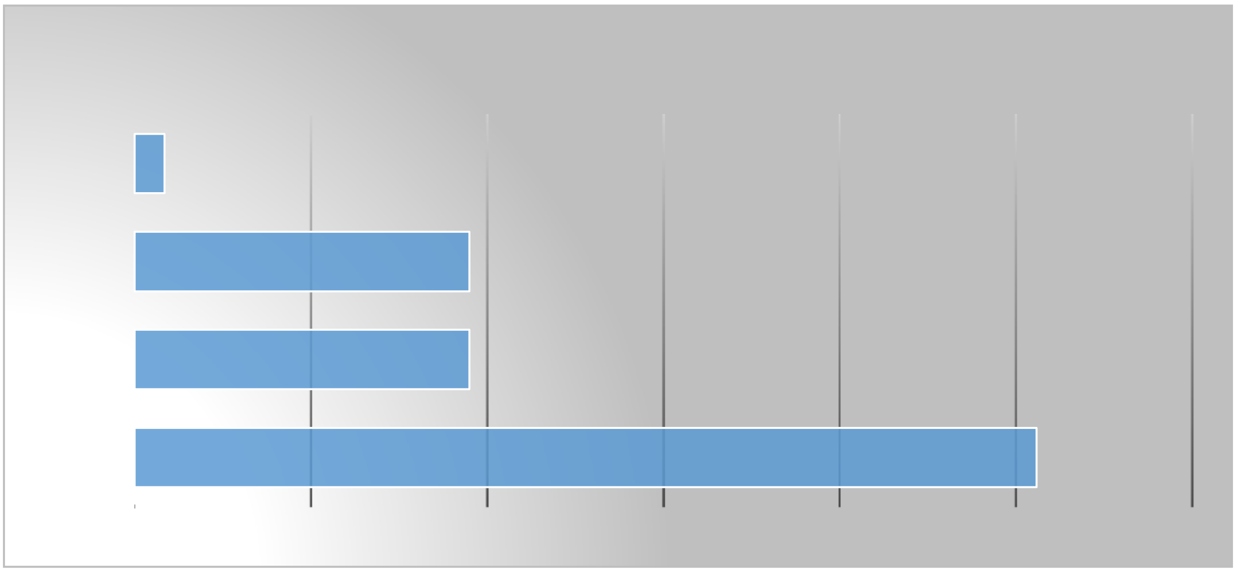
(i) **P2P Transactions: -** Peer 2 Peer transactions that include transfers made from one person to another.

(ii) **P2M Transactions: -** Peer 2 Merchant transactions which includes all the payments made to any merchant for any purchase, bill payment, etc.

As per NPCI, in Jan'22 total UPI transactions were 4617 million (in volume) out of which 60% of accounted for P2P and 40% for P2M.

From the given data, we can infer that P2P (money transfer) transactions were more in quantity. This indicates that there has been a sharp rise in the number of users of UPI, who prefer to use the platform for money transfer. Within UPI, the top 3 players in Indian Market are: -

a) PhonePe with transaction value at approx. 400 crores
b) Google Pay with transaction value at approx. 200 crores.
c) Paytm with transaction value at approx. 85 crores.



According to our research, GPay stood out as the most used/preferred app.

CONCLUSION

UPI Payment system is proving to be a sign of great success for the Digital India campaign. UPI is a significant step forward in making cashless transactions faster, smoother, and more convenient. UPI is helping India reach towards modernization in terms of technology advancements and have a world class payment infrastructure. UPI payment platforms have many attributes such as greater convenience, secure payments, facilitating contactless transactions, etc. out of which major people use UPI for its convenience. After the coronavirus outbreak, many people switched to UPI for it being a contactless payment mode. Covid-19 proved to be one of the major adopting factors of UPI in India as it enabled people to make safe contactless payments without having a need for them to use cash as the means of payment. UPI payment platforms aids its users get many exciting offers such as discounts and cashbacks which helps the users save money and use UPI applications even more. Many users have come across these cashbacks and discounts sometimes. A direct relation was observed between the users preferred mode of payment and the frequency of them encountering discounts & cashbacks. Therefore, these offers, discounts and cashbacks are one of the prominent adoption factors of UPI payments. Many respondents have observed people around them switching to UPI payment platforms which signifies that India is soon adopting to this mode and is appreciative of it, though there is still a section of people who prefer traditional modes like cash, cheques, cards, etc. as payment modes. UPI has impacted the spending of its users as majority of them have observed a growth in their spending post the usage of UPI and some experienced no change. UPI enables its users to make real time payment up to Rs. 100,000 and users are satisfied on the security front of UPI Payments but are still hesitant to make huge amount transactions.

RECOMMENDATIONS

Factors	Importance	Satisfaction	OS
Greater convenience	4.52	4.29	**4.75**
Secure payments	4.36	3.72	**5.01**
Contactless	3.06	4.28	3.06
Helps in managing finances	3.33	3.42	3.33
Saves time	2.43	4.16	2.43
Low risk of theft of cash	3.92	4.08	3.92

Above is an opportunity matrix showcasing the ratings of users on the importance level and satisfaction level of various attributes of UPI Payments. Here the two biggest opportunities for UPI Payment platforms to improvise on are **"Secure Payments"** and "Greater Convenience". We earlier observed that **"Greater Convenience"** was the factor where users were the most satisfied with, but here the opportunity matrix conveys that importance for this attribute is even more than the satisfaction level of users. Here, the platforms can majorly work on making the application more user friendly and convenient for users and also further simplify it for older age groups, as the users among older age groups are still less. Here the UPI payment applications can work on their marketing strategies and try and target the older age groups for them to get motivated to start trusting and using UPI apps. Apart from that, the platforms need to work on the security aspect of payment platforms and provide a safer experience for the users to feel confident while making significantly larger payments through UPI.

APPENDICES

- Questionnaire:

1) Are you aware about the existence of digital payment platforms? (eg. Gpay, Paytm, PhonePe)
   Yes/No

2) What is your take on Digital payment system? (choose one)
   a) Currently using it
   b) Not using it
   c) Haven't used yet but interested to use in future
   d) Have used in the past but not using currently

3) Have you noticed people switching to Digital Payments during Covid-19 pandemic?
   Yes/No

4) How often have you been benefited by cashback or discount offers on Digital payments platforms?
   a) Very Often
   b) Sometimes
   c) Never

5) Do you prefer Digital payment over cash payment when you encounter offers or discounts on digital mode of payment?
   Yes/No

6) Have you noticed any elderly family member use Digital payment mode? (with respect to contact-less payments during the pandemic)
   Yes/No

7) What has been the impact of Digital payments on your spending habits and patterns?
   a) Increased
   b) Decreased
   c) Unchanged

8) Are you comfortable making huge amount transactions through digital payment mode? (As the UPI transaction limit is ₹100,000)
   Yes/No

9) Do you think that Digital payment method is taking over the traditional cash payment method?
   a) Yes
   b) No
   c) Maybe

10) Rate the following attributes of Digital Payment Apps in terms of importance to you. (On a scale of

1 to 5).
Scale: 1(very low) 2(moderately low) 3(neutral) 4(moderately high) 5(very high)

a) Greater Convenience
b) Secure Payments c)Contactless
d) Helps in managing finances
e) Saves Time
f) Low risk of theft of cash

11) Which Digital payment platform is preferred by you? a)Gpay
b)Paytm c)PhonePe d)Others____

12) Rate the following attributes of Digital Payment Apps in terms of satisfaction level of the app of your choice in the previous question. (On a scale of 1 to 5).
Scale: 1(very low) 2(moderately low) 3(neutral) 4(moderately high) 5(very high)

a) Greater Convenience
b) Secure Payments
c) Contactless
d) Helps in managing finances
e) Saves Time
f) Low risk of theft of cash

HAPPINESS LEADS TO SATISFACTION THROUGH MOOD AND PERCEIVED SERVICE QUALITY IN ADVERSE SERVICES

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Introduction

The Healthcare sector is one of the fastest-growing service sectors (Aayog, 2019; Fullman et al., 2018). India's healthcare sector was worth about 160 billion U.S. dollars in 2017 and it was estimated to reach up to 372 billion dollars by 2022 (Healthcare sector size, 2022). This necessitates research studies in the healthcare sector. The services offered by law and healthcare are considered to be unfriendly (Hellén & Sääksjärvi, 2011). These services are referred to as "adverse services" or "negative services" since the clients are exposed to uncomfortable situations and most people hope that they will never have to cope with certain circumstances (Morgan & Rao, 2006; Schwartz, 2015).

Researchers have drawn attention to the role of emotions in service quality evaluations (Mattila & Enz, 2002; Slåtten, 2011; Naami, & Hezarkhani, 2018). In the positive psychology literature, Happiness is described as a feeling, sentiment, or transitory form of joy (Labroo & Patrick, 2008; Labroo & Mukhopadhyay, 2009). The amount of happiness of an individual influence how happy and unhappy people see, interpret, and evaluate the same situation. The consumer's level of happiness predicts their ability to cope in difficult conditions (Boehm, Ruberton, & Lyubomirsky, 2017). Researchers revealed that consumers with positive emotional states are more likely to evaluate services in a positive way (Ali, Amin, & Cobanoglu, 2016). Service quality is a critical aspect for healthcare organizations, and it has a significant impact on patient satisfaction (Marzo et al., 2021). The major outcomes of a business are service quality (SQ) and customer satisfaction (CS). Delivering exceptional services leads to a high CS, which leads to customer retention (Otani, Waterman, Faulkner, Boslaugh, & Dunagan, 2010; Oluwafemi & Dastane, 2016).

Customer satisfaction reflects the feelings of healthcare patients in comparison to the quality of service they expect versus what they currently experience (Kotler & Keller; 2016). Positive services have received more attention from researchers as compared to negative services (Morgan & Rao, 2006; Berry & Bendapudi, 2007; Miller et al., 2009). Thus, the goal of this study is to explore the relationship between patients' happiness and satisfaction through patients' mood and perceived service quality at a healthcare setup.

Conceptual Framework

According to the suggested conceptual framework, patients' happiness influences their satisfaction via mood and perceived SQ. The proposed conceptual framework for examining numerous precursors and implications of happiness in healthcare services is shown in Figure 1. Happiness has been recognized as an independent variable. Patient satisfaction is the dependent variable. The mediators are mood and perceived service quality. In this study, the association between the dependent, independent, and mediating variables will be explored.

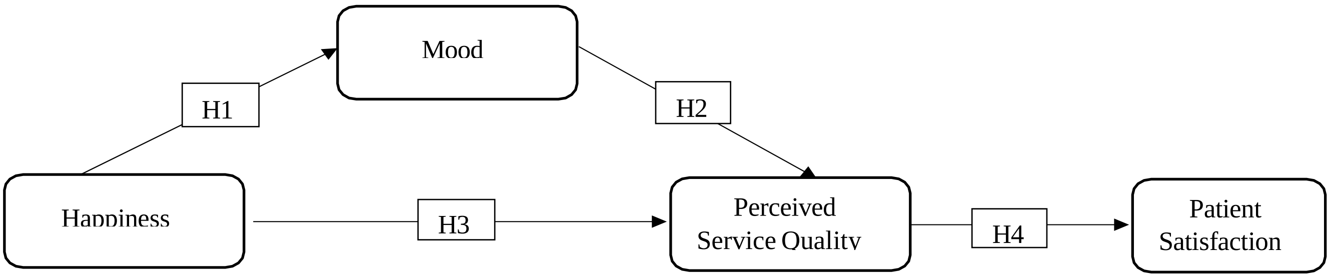

Figure 1: A proposed conceptual framework

Source: Authors own contribution

Hypotheses development

The impact of Happiness on Mood

Happiness causes recurrent pleasant moods because happy persons are more likely to have optimistic ideas (Diener et al., 1991, Hellén & Sääksjärvi, 2011). According to psychologists, moods fluctuate to some extent as a result of positive and negative events. Even when their moods vary, the happy person adapts to events while maintaining a positive attitude (Diener et al., 2009). Happiness is important in healthcare services because it protects consumers from the harmful consequences of those services. Individuals who are happy cope with stress better and can maintain a positive attitude in adverse services (Hellén & Sääksjärvi, 2011). Thus, the association between happiness and mood is likely to be substantial in healthcare services.

Hypothesis 1: "Happiness is positively related to the mood in adverse services."

The Influence of Mood on Perceived Service Quality (PSQ)

Previous research has discovered a link between mood and PSQ (Kocabulut & Albayrak, 2019; Pornpitakpan, Yuan, & Han, 2017; White, 2006). According to a comprehensive understanding, patients find it difficult to measure service quality in unpleasant services, thus they lean on their moods for assessment (Collier, 1994, Darke, Chattopadhyay, & Ashworth, 2006). These findings show that when additional evidence is absent, people rely on their mood for assessment. According to previous research, evaluating adverse services is difficult for clients (Morgan & Rao, 2006). As a result, it is hypothesized that mood and perceived service quality in healthcare services have a substantial link.

Hypothesis 2: "Mood is positively connected to perceived service quality in adverse services."

The mediating role of Mood

Customer's emotion is a vital factor in evaluating services that they received. (Lin & Liang, 2011). Patients depend on their moods when evaluating healthcare services. Researchers believe that happiness affects PSQ through mood because happy people are more likely to be in a positive frame of mind (Hellén & Sääksjärvi, 2011), and hence are more likely to rate service quality positively (Houston et al., 1998; White, 2006; Hellén & Sääksjärvi, 2011). Hence, it is hypothesized that happiness and PSQ in healthcare services are mediated by mood.

Hypothesis 3: "The association between happiness and perceived service quality is mediated by mood."

Relationship between Perceived Service Quality and Patient Satisfaction

Hospital SQ has grown increasingly important as a means of satisfying and sustaining patients (Arasli, Haktan, & Turan, 2008; Majeed, Alquraini, & Chowdhury, 2011). Scholars have discovered a link between PSQ and PS, demonstrating that if healthcare SQ is higher, patient satisfaction will be higher (Yesilada & Direktör, 2010; Fatima, Malik, & Shabbir, 2018). PS is utilized to define SQ in a healthcare context. SQ and satisfaction are found to have a substantial relationship (Shabbir et al., 2016). Furthermore, it is assumed that greater services are required to satisfy customers (Fatima, Malik, & Shabbir, 2018, Marzo et al., 2021). Therefore, a considerable relationship between PSQ and PS in healthcare services is predicted.

Hypothesis 4: "Perceived service quality is positively related to patient satisfaction."

Materials and Methods

This study was conducted at a tertiary care hospital during the period from November to December 2021. The participants included in the study were outpatients who had more than 2 visits to the hospital and aged between 18-65 years. Data was collected through a structured questionnaire. The questionnaire consists of demographics and construct-related statements. The construct happiness is measured on 7 points Likert scale. Other constructs like mood, PSQ, and PS are measured on 5 points Likert scale. The participants were identified at the hospital pharmacy since it is the last point of contact in outpatient service. The researcher distributed the questionnaire to the concerned participants after obtaining informed consent from them.

Results

The total sample size was 227. Among the samples, 97 (42.7%) were males and 130 (57.3%) were females. Other demographic variables are presented in the table below (Table 1)

Table 1: Demographic Characteristics (N=227)

Characteristics	Categories	N	%
Age	18-25	35	15.4
	26-40	109	48.0
	41-55	67	29.5
	56-65	16	7.0
Education level	Upto 12^{th}	86	37.9
	Graduate	113	49.8
	Postgraduate	28	12.3
Occupation	Unemployed	85	37.4
	Employed	73	32.2
	Professional	43	18.9
	Business	26	11.5
Monthly income	25000 and below	108	47.6
	25001-75000	91	40.1
	75001-125000	20	8.8
	125001-200000	8	3.5
	Above 200000	0	0

Structural Model

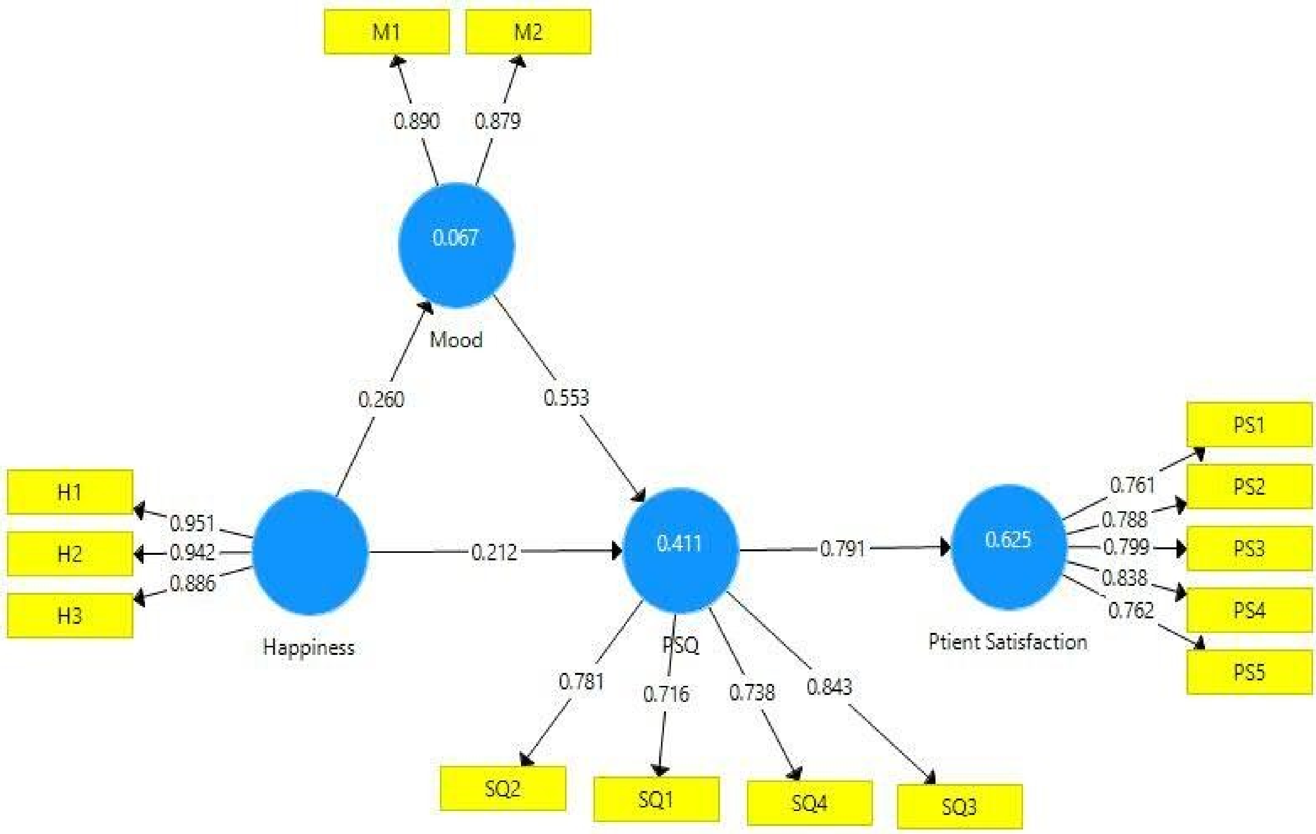

Figure 2: Structural Model

Source: Author's contribution

PLS-SEM is adopted to analyze the data of this research endeavor. PLS-SEM adopts the structural equation method that is widely adopted by researchers in the management domain. It is a component-based structural equation modeling technique and has many similarities to regression. In addition, PLS also models the theoretical association between the latent variables and also the relationship between the latent variable and its indicators (Chil et al., 1996). PLS was also preferred to other covariance-based techniques, like LISREL, as it can be run on smaller sample sizes.

The measurement model was estimated using the data and construct reliability was established by estimating Cronbach's alpha, factor loadings, and composite reliability (Table 2). The threshold value of internal consistency reliability is 0.8 (Daskalakis & Mantas, 2008), which is established in this research endeavor. In a reflective model, the outer loadings of all indicators have to be above 0.7 (Henseler et al., 2014), which is evident in this case.

Collinearity among the constructs was tested using the Variance Inflated Factor (VIF) guidelines. The predictor variables displayed VIF values below 0.5 (Table 2). This implied that collinearity is not a constraint in the structural model for this model.

Table 2 : Measurement Model Evaluation

Construct	Indicators	Outer Loading	Composite Reliability	AVE	Cronbach's Alpha	Outer Weight	VIF
Happiness	H1	0.951***	0.948	0.859	0.918	0.357***	3.886
	H2	0.942***				0.401***	3.119
	H3	0.886***				0.319***	2.569
Mood	M1	0.890***	0.978	0.782	0.721	0.578***	1.461
	M2	0.879***				0.553***	1.467
Patient Satisfaction	PS1	0.761***				0.249***	1.699
	PS2	0.788***				0.272***	1.839
	PS3	0.799***	0.854	0.594	0.771	0.258***	1.943
	PS4	0.838***				0.247***	2.303
	PS5	0.762***				0.240***	1.726
Perceived Service Quality	SQ1	0.716***	0.892	0.624	0.849	0.278***	1.420
	SQ2	0.781***				0.347***	1.506
	SQ3	0.843***				0.356***	1.842
	SQ4	0.738***				0.311***	1.476

Note ***<0.01, **<0.05and *p<0.1 Source: Authors own contribution

Table 3: Hypothesis testing, f^2

Relationship	Path Coefficient	t-Value	Bias Corrected 95% Confidence Interval	f^2
Happiness- Mood	0.260***	3.770	(0.111,0.409)	0.072
Happiness – Perceived Service Quality	0.212***	3.958	(0.106, 0.313)	0.071
Mood – Perceived Service Quality	0.553***	10.957	(0.736, 0.651)	0.484
Perceived Service Quality- Patient Satisfaction	0.791***	29.516	(0.736, 0.846)	1.669

Note ***<0.01,**<0.05and *p<0.1 Source: Authors own contribution

Hypotheses proposed in this study were examined by comparing the direct effect of patients' happiness level on perceived service quality and the indirect effect of the level of patients' happiness on patient satisfaction. The results are displayed in Table 3. H1 proposed that the

patient's happiness level positively influences mood and it is supported (β=0.26, t=3.770, p<0.01). H2 proposed that mood positively influenced the perceived quality and, is supported (β=0.553, t=10.957, p<0.01). H3 proposed that happiness positively influenced perceived service quality and this hypothesis is also supported (β=0.212, t=3.958, p=<0.01). H4 proposed a direct positive effect of perceived service quality on patient satisfaction (β=0.791, t=29.516, p=<0.01). The path values (β values) and the empirical t values of all the hypotheses are above the cutoff value of 0.2 and

1.96 respectively, which substantiates the proposed hypotheses of this research endeavor. The influence of all the exogenous latent variables namely, happiness, mood, perceived service quality, on the endogenous latent variable of patient satisfaction is estimated to be moderate (R^2=62.5%) (Hair et al., 2017).

The f^2 effect size of all the exogenous latent variables was calculated (Table 3). The effect size measures the extent of influence of the variables independent of the scope of the sample analyzed Cohen (1988). Cohen (1988) proposes a threshold to gauge the extent of the effect of the constructs. Effect size above 0.35 is reported as a large effect; value in the range of 0.15 to 0.35 is reported as moderate effect and values below 0.15 is reported as a low effect. In our research endeavor, the effect size of mood on perceived service quality (f^2=0.484) and the effect size of perceived service quality on patient satisfaction (f^2=1.669) are estimated to be large. Model Fitness is assessed with the help of the value of Standard Root Mean Square (SRMR) as proposed by Henseler et al., 2014). The threshold value of model fitness is 0.8 (Hu & Bentler, 1998). The SRMR value of this model is reported a 0.073 which indicates a good model fit.

Evaluation of Mediator analysis

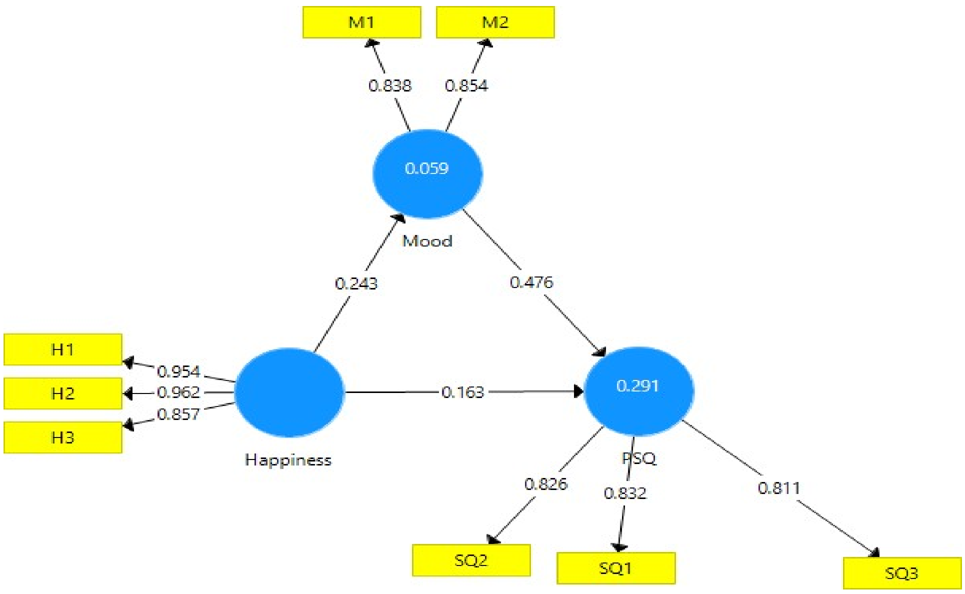

Figure 3: Mediating Effect of Mood

Source: Authors own contribution

Table 4: Mediating effect of Mood

	Direct Effect	Indirect Effect	Total Effect	VAF	Mediation
Figure 3	**0.163*** **	**0.116**	**0.526*** **	**29%**	**Partial**

A mediation analysis was undertaken to assess the mediating effect of the construct 'mood' between constructs of happiness and perceived service quality (Figure 3). The direct effect of happiness on perceived service quality (0.163) is significant and the indirect effect of happiness on perceived service quality through mood (0.116) is also significant. The VAF value of 29% indicates a partial mediation between happiness and perceived service quality (Table 4).

Discussion

In this research endeavor, we intended to explore the role of emotions in adverse services. We proposed to explore if mood mediates the relationship between happiness and service quality perception which had a direct effect on patient satisfaction. It is explored that happiness is a significant antecedent to perceived service quality in adverse services like hospitals and it provides a significant foundation to determine patient satisfaction. These findings enable us to conclude that happy people a most likely to experience better service quality and patient satisfaction.

The results of this research endeavor uphold the results of previous researchers from positive psychology and service marketing literature showing the happiness of people significantly influences their mood which directly or indirectly influences their service quality perception, especially in adverse services like hospitals, legal services, etc (Morgan & Rao, 2006; Diener et al., 2009; Hellén & Sääksjärvi, 2011). Our research findings are in line with previous researchers, upholding the relationship between happiness and service quality perceptions (Hellén & Sääksjärvi, 2011), service quality perceptions and customer satisfaction (Badri et al., 2009; Yesilada & Direktör, 2010; Fatima, Malik, & Shabbir, 2018). However, this research endeavor extends the literature by displaying that happiness is a significant predictor of mood and mood mediates the association between happiness and perceived service quality in adverse services. This study contributes to the body of knowledge by highlighting the role of patient's mood in predicting service quality and thereby patient satisfaction.

Managerial Implications

This research also presents significant managerial implications to the healthcare industry. We recommend that healthcare managers must design strategies to enhance the mood of their patients or customers. Every element of the servicescape in adverse services must be designed such that it enhances the mood of customers. From the service providers (doctors and nurses), support staff to peripheral service encounters should be managed effectively so that it contributes to elevating the customer's mood. Doctors and Nurses should be effectively trained to handle customers' queries, about the line of treatment and medication. Health care providers or medical teams, environmental conditions, and hospital completeness are all elements that influence patient satisfaction. To enhance patient satisfaction, the quality of care provided by health services, human resources, and infrastructure must be improved. As a result, the entire service encounter can be made enjoyable to the customers by reducing the distress caused by adverse services.

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ACHIEVING MANUFACTURING EXCELLENCE THROUGH ALTERNATIVE LEARNING PRACTICES

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Abstract
Manufacturing excellence is the process of continually improving your processes in order to decrease waste, boost revenues, and gain a competitive advantage. To do so, you'll need the right culture and tools to collect the data. Manufacturing Excellence is a continuous and never-ending process of enhancing your company in every manner possible. In a production unit, human resources play a significant role in improving manufacturing. The manufacturing excellence model is important in incorporating human resources and has a strong association with human resource performance on the job. The quality of products and customer satisfaction are represented in the outcome of strong human resource performance via manufacturing excellence. Manufacturing excellence offers services in production and human resource strategies to help companies establish competitive manufacturing units and improve customer satisfaction.

Increasing market pressures have compelled industrial units to lower their manufacturing costs and enhance the quality of their products and services. Manufacturing excellence is defined by three competitive strategies: waste elimination, zero defect manufacturing, and the role of human resource management. The paper aims to analyse the impact of alternative learning practices on manufacturing excellence. Systematic review of literature and the study of implementation of manufacturing model of excellence at KPCL as revealed that Manufacturing Excellence Model has an influence on work processes and organisational climate; thus, training programmes linked to responding to changing work environments and organisational culture are critical for preparing personnel for another level of Manufacturing Excellence Model.

Keywords: Manufacturing excellence, Waste Elimination, Human Resource Management, Training and Employee Engagement.

Introduction

Manufacturing Excellence is a process to improve and enhance the process of production in a manufacturing unit. The main focus of manufacturing excellence is to reduce the excess production process and eliminate waste in the process of production. Further the manufacturing excellence also focuses on implementation of standardised practices to enhance productivity of manufacturing and human resources in an organisation. The ultimate goal of manufacturing excellence is achieving competitive advantage with regards to production, service quality and human resources. (Hitomi, 1996)

The process of manufacturing excellence provides an organisation to design long production strategy which will align with the vision and mission of the organisation, this framework is formulated to provide direction to gain competitive advantages to the organisation. The term quality is a very integral part of manufacturing excellence process; the quality is conformed to loss reduction, waste elimination, understanding customer's expectations and implementation long term quality assurance programs in the organisation to enhance production process in a manufacturing unit. (Perry, 2015)

Human resource plays a prominent role to improve manufacturing in a production unit. The model of manufacturing excellence plays a key role in including human resource and provides high correlation with regards to human resource performance on the job. The outcome of high performance of human resource through manufacturing excellence is reflected in the quality of products and customer satisfaction. Manufacturing excellence provides offerings with regards to manufacturing and human resource strategies to develop competitive manufacturing unit to enhance customer satisfaction. In the past four decades researchers have concluded on improving the manufacturing process through quality assurance programs and policies, in many of the research findings manufacturing strategy, manufacturing excellence and role of human resource management are poorly understood by the manufacturing unit. (Santos, 2000) The purpose of this paper is focused on relationship between the human resources and manufacturing excellence in reducing the waste in production process of the unit.

Literature Review

The increasing competitions have been forcing manufacturing units for reducing the cost of manufacturing and improve the quality of products and services. The main goal of manufacturing excellence is to employ three competitive strategies namely waste elimination, zero defect manufacturing and role of human resource management.

On realizing this fact, a search was made to gather the papers reporting on manufacturing excellence and role of human resource management. At the end of this search four research papers that extensively deal with manufacturing excellence and human resource management were encountered. The contributions and limitations of the research works in these papers are summaries in Table 1.

All the four research papers have reported researcher in the importance of manufacturing excellence. Study conduct by Katsundo Hitomi (1996) have highlighted on the importance of manufacturing excellence in reducing the waste of natural resources by implementing quality tools through manufacturing excellence. Fernando C.A. Santos (2000) has reflected on the aspects of human resource management practices in improving the manufacturing process and applying the model of manufacturing excellence. (Rajiv D Banker, 1996) et.al highlighted on the importance of team building in improving the manufacturing process of the unit, the research focused on the importance of team in manufacturing excellence. (Kodali, 2008) have appraised the integration of human resource management program of change management in bringing about implementation of manufacturing excellence in the unit

Table .1 Contribution and Limitations of the Research Works

Author Name	**Contributions**	**Limitations**
Katsundo Hitomi (1996)	Manufacturing firms must be socially responsible in reducing the waste of natural resources in production process. Quality assurance measures to be intervened to reduce the waste of natural resources in production. Organizations have to focus on global design, planning, implementation and control for socially responsible manufacturing units.	Several elements of human resource management such as project based learning; job clarity and training were not highlighted in the research.
Fernando C.A. Santos (2000)	The coherence amongst production and human resource management programs is understood from two perspectives, firstly human resource policies towards manufacturing functions and second implementation of human resource practices to manufacturing practices. Successful organizations improve manufacturing by implementing strong human resource policies for improving production process of the unit.	Manufacturing excellence model considers not only the human resource practices and policy but go beyond this and include organizational strategies and polices and align with the human resource practices and policy to achieve manufacturing excellence in production unit.
Rajiv D Banker, Joy M, Field, Roger G Schroeder, Kingshuk K Sinha (1996)	Quality of production would increase with human resources working in a team in a manufacturing unit. The productivity of the employees is also enhanced with team based working in an organization, in all	Despite the advantage of team based working to improve the production process from the perspective of the employees, providing quantitative data on employee's performance is a challenge due to variation in terms
	the there is overall productivity of manufacturing and human resource through team based work	of intensity of the task and skill set required for the job.
M Sharma and R Kodali (2008)	Manufacturing excellence requires integration of quality measures and human resource programs which include human resource practices and change management. Indian companies to complete in international market need to implement manufacturing excellence to achieve quality products and services.	The success of manufacturing excellence with Indian companies has taken more time in implementation as a factor of change management and resistance to change by employees. Hence effective human resource practices like leadership and project based implementation would provide directions to reduce resistance to change and implementation of manufacturing excellence

Manufacturing Excellence Model

Manufacturing Excellence Model is focused towards Safety, Health, Environment, Quality, Productivity, Cost and Human Development. Manufacturing Excellence Model is divided into four areas for implementation at KPCL they are as under; (Figure No.1)

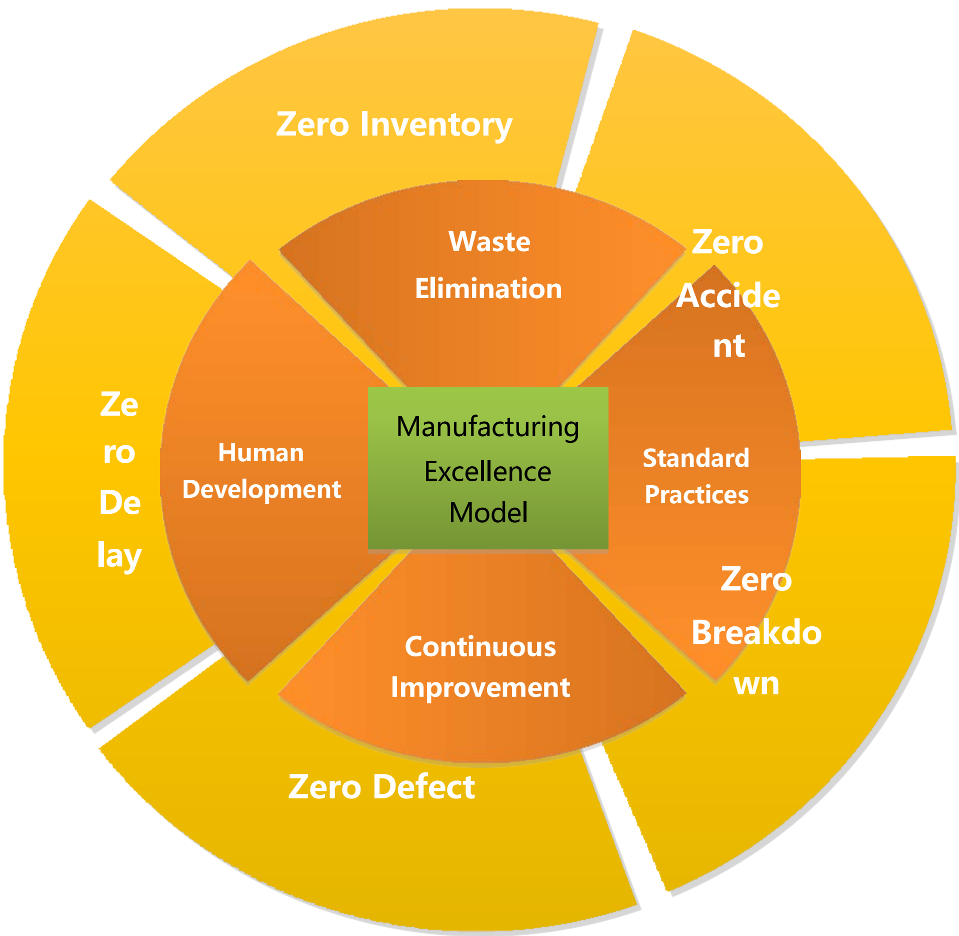
1. Waste Elimination

2. Standard Practices
3. Continual Improvement
4. Human Development

Manufacturing Excellence Model

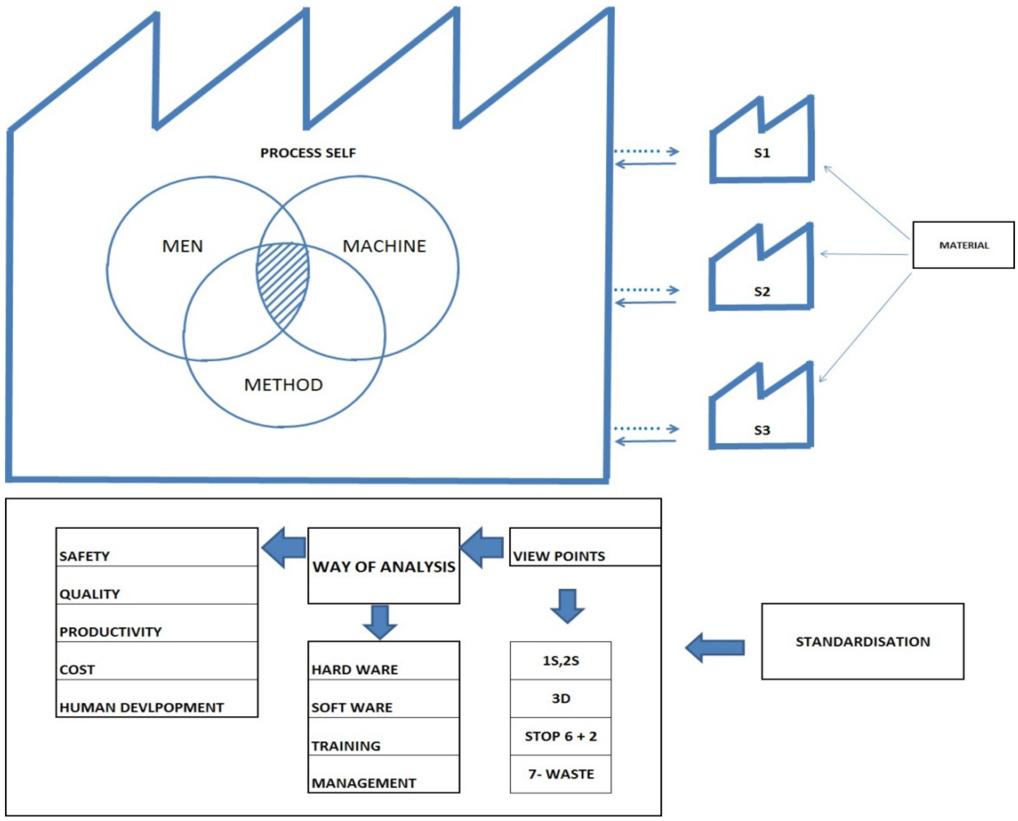
The objectives of Manufacturing Excellence are implemented in four areas for achieving excellence in production. Firstly, it is concerned with improving the safety of the workplace, improving the quality of product and production process, further to reduce the cost of production and meet the standards for green production. Secondly, it is focused towards implementation of continues improvement of manufacturing process with developing human resources through upgrading the skill-set of the employees. Thirdly, the model is focused towards standardization of work process to reduce waste of time and material. Fourthly, the focus is towards implementation of quality assurance tools which include 5S, Kaizen and providing employee engagement programs in workplace for improving problem solving skill-set of the workforce and develop the habit of continual improvement in workplace.

Figure .1 – Manufacturing Excellence Model



The scope of manufacturing excellence models application in manufacturing unit has four variables namely Men, Machine, Material and Method. Where in Men includes the aspects like awareness towards the quality of products and services, Positive attitude towards change, enhancing the knowledge towards to improving the quality of products and improving the skill-set of employees. Machine variables include data and information about machine capacity, capability of machine and accuracy of the machine in production process. Material variable in manufacturing excellence include the scope towards right quality of material for production process, right quantity in production and availability of material at right time. The scope of manufacturing excellence finally includes method, which focuses on standardized work sequence in production, cycle time of production, implementation of standard operating procedures and managing work in progress in production process.

Figure .2 – Scope of Manufacturing Excellence Model



Implementation Study

The implementation study was conducted in a medium scale manufacturing unit at Pune, India. The study organization has implemented the model of Manufacturing Excellence in the year 2016. The process of implementation of Manufacturing Excellence focused on the first level that is Waste elimination in the manufacturing process. Human resource management intervention was adapted to implement the process of Waste Elimination, which includes alternative learning practices model of human resource management was accepted as implementation of first phase of manufacturing excellence.

Waste Elimination Model under Manufacturing Excellence

The study organization implemented waste elimination model in five phases, the main objective of waste elimination model focused firstly on organized workplace in production unit, secondly to eliminate unsafe conditions of work at production unit and finally, elimination of waste in the production process.

The process of Waste Elimination Model under Manufacturing Excellence Model is designed with 20 points approach for learning and implementation. Further, 20 points are divided into 5 levels; each level is designed with learning objectives, project identification, project implementation and process to record the outcomes of the project learning. The five levels are as under;

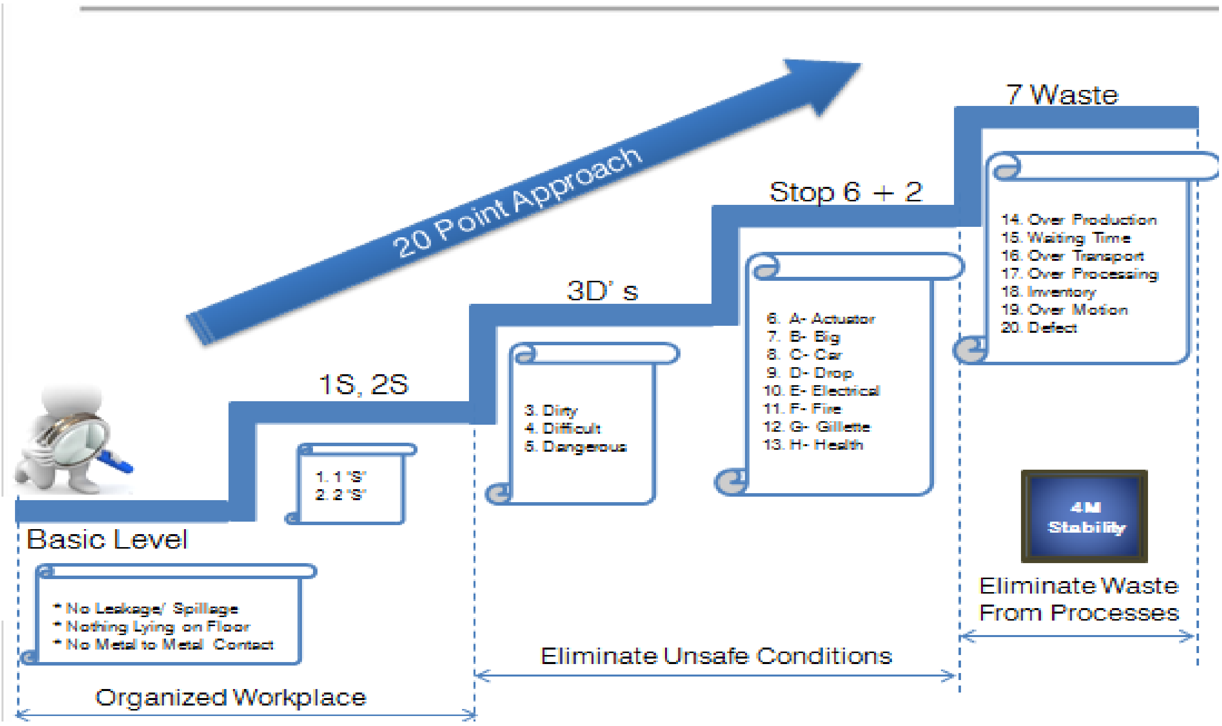


Figure .3 – Waste Elimination Model and its phase for Manufacturing Excellence

Basic: Basic Level in Waste Elimination Model includes projects in the area of basic problems witnessed at the shop floor which can be solved by creating awareness amongst the team members at the shop floor. Projects included under Basic Level are as under;

a. Machine leakage and spillage
b. Clean floors
c. Elimination of metal to metal contact.

Team Members were trained by the Manufacturing Excellence task force on methodology of observations for machine leakages, training on benefits of clean floors and hazards of metal to metal contact were conducted by the task force.

Level 1: Level 1 of Waste Elimination Model focused on the projects related to *1S* and *2S* at workplace. Team Members were provided with the training on *1S* and *2S* for understanding of the concept and process to implement the projects under this level.

Level 2: Level 2 is designed with three important aspects at the workplace, hence named after *3D'S.*

- (D) - Dirty
- (D) - Difficult
- (D) - Dangerous

The training programs on ergonomics at workplace are undertaken and projects are identified by team members and implemented for learning.

Level 3: Level 3 is designed with *Six Parameters* and additional two parameters which are connected with six parameters are included under this level, hence named as *STOP 6 + 2*. The parameters under this level are;

- (A) Actuator
- (B) Big
- (C) Car
- (D) Drop
- (E) Electrical
- (F) Fire
- (G) Gillette
- (H) Health.

Training program related to safety and health is conducted for Team Members and projects are undertaken by the team members for learning.

Level 4: Level 4 of *Waste Elimination Model* includes seven wastes, hence named as *7 Wastes* they are as under;

- Over Production
- Waiting Time
- Over Transport
- Over Processing
- Inventory
- Over Motion
- Defects.

Training programs related to problem solving, Standardized work Process, Kaizen and Floor Management are conducted for team members and projects are implemented for learning. To enhance learning process additional training programs are conducted in the area of solving shop floor common problems, Why-Why Analysis, 7 Q.C Tools, Kaizen and Floor Management. Waste Elimination Model was devised with the time frame and was divided into six phases for implementation. The details related to phases and programs covered under each phase are as under;

- **Phase 1** included programs related to Basic Level, 1S and 2S and was completed in February, 2017.
- **Phase 2**included learning program on Process Improvement and was completed in May, 2017.
- **Phase 3** training and learning programs was indicated at Phase 3 which include training program on Problem Solving and Floor Management this program was completed in November 2017.
- **Phase 4** was devoted towards Standardization of Sequence, Cycle Time and Visual controls and was completed in July 2018.
- **Phase 5** was designed towards Leadership, Team work and quality awareness and was completed in December 2018.
- **Phase 6** is towards standardized Processes and Kaizen and was completed in January 2019.

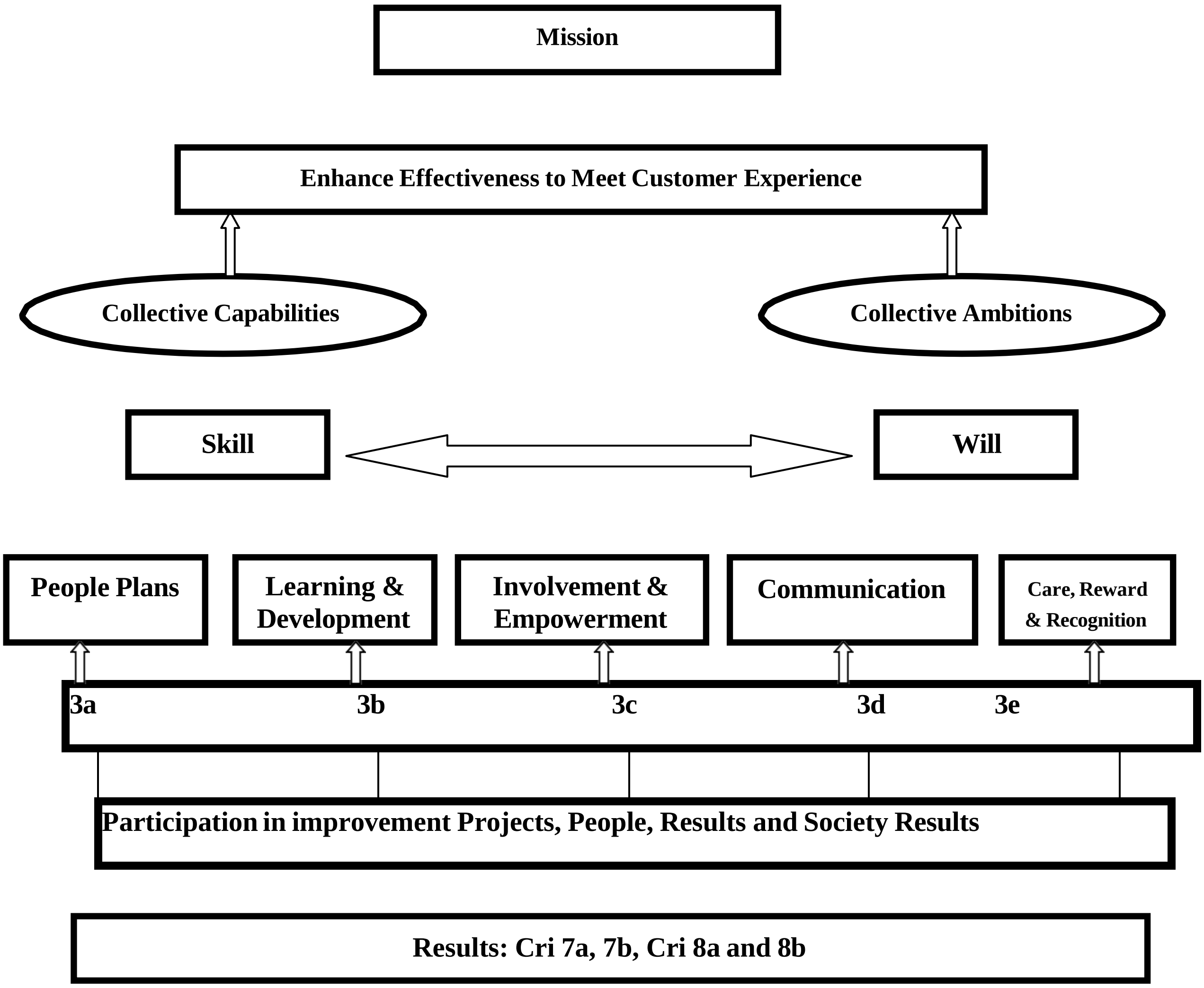
Role of Human Resource Management intervention in Manufacturing Excellence

Manufacturing Excellence Model focused on elimination of waste, improve safety of workforce, health of the employees', concern towards environment, improving employee productivity, improve employee engagement, reduction of cost and overall human development. Further, Manufacturing Excellence Model also includes leadership development, improved production models, climate of innovation and functional development with regards to communication and processes.

To achieve these demands and to implement Manufacturing Excellence Model training of the workforce is essential to upgrade the competencies level and achieve success in Manufacturing Excellence Model. The study organization designed training programs based on Skill-Will Model of Human Resource Development.

This model is designed to create willingness and involvement of employees for upgrading competency level at all functional level of study organization. Alternative Learning Model of training was adapted for improving the competencies level of employees', as 60% of workforce at the organization is involved in engineering and machining level jobs and these jobs are based on projects. Alternative Learning is focused on problem solving, innovation and improvement in the manufacturing process.

Figure 4 – Human Resource Management Model for Manufacturing Excellence



Alternative Learning Model is designed by a group of experts from manufacturing and human resource management department. The training programs are designed to enhance competency in the area of manufacturing excellence, employee engagement and to improve performance of the employees'. This team is named as Manufacturing Excellence Task Force. The role of Manufacturing Excellence Task Force is to identify Zones on the shop floor. Each zone has a team leader for manufacturing excellence. A team leader identifies zone members and team members for each zone.

The team leaders are provided with class room training for 6 months on the concept of Manufacturing Excellence Model and Alternative Learning Model. The process of alternative learning is established by identification of projects and creating models of learning by Team Members, Zone Members and Team Leaders. The projects identified and modeled are implemented by the team members, while in the process of implementation team members are provided with training support in technical and non-technical areas by the Team Leaders and professional trainers to enhance learning. The team members after implementation would present the results to the team leader and zone leader on the learning outcomes and team members would be evaluated on training and learning effectiveness. Finally, the project documentation is conducted and evaluated on the performance standards established by the Manufacturing Excellence Team and Human Resource Management Team.

Results of Alternative Learning Practice under Waste Elimination Model of Manufacturing Excellence Model

The results of Waste Elimination Model on Alternative Learning are presented based on the learning outcomes at each levels of Waste Elimination Model. Table.2 provides the details with regards to number of projects undertaken by the Team Members and closure of the projects.

Table. 2 - Impact of Alternative Learning through Manufacturing Excellence Model

Sr.No	Levels	Waste Types Projects	Projects in Numbers		Percentage	Average of the Level	Percentage of the Total Projects
			Project Indentified	Project Completed			
0	Basic	Zero Leakage	180	169	93.89	97.0	5.1
		No Burr on Floor	34	33	97.06		
		No Metal to Metal	16	16	100.00		
1	1S, 2S	1S – Sort	351	351	100.00	99.3	17.2
2		2S – Set in Order	419	413	98.57		
3	3D	Dirty	593	570	96.12	95.9	32.4
4		Difficult	516	493	95.54		
5		Dangerous	337	324	96.14		
6	STOP 6+2	A- Actuator	16	15	93.75	98.1	7.7
7		B- Big	10	10	100.00		
8		C – Car	4	4	100.00		
9		D – Drop	83	82	98.80		

10		E – Electrical	176	175	99.43		
11		F – Fire	8	8	100.00		
12		G – Gillette	2	2	100.00		
13		H - Health	43	40	93.02		
14		Over Transport	41	37	90.24		
15		Over Motion	160	154	96.25		
16		Over Processing	405	363	89.63		
17	7 Waste	Over Production	23	21	91.30	92.0	37.6
18		Inventory	218	204	93.58		
19		Defect	645	585	90.70		
20		Waiting Time	188	173	92.02		
21			4468	4242	94.94		100.00

Results of Basic Level: Projects undertaken by the Team Members under this level are;
- Zero Leakage
- No Burr on Floor
- No Metal to Metal Contact

Results of projects under Zero Leakage, 180 projects were identified for learning and 169 projects were successfully closed, while in the area of No Burr on Floor 34 Projects were identified and 33 were closed. Finally, in the area of Metal to Metal to Contact 16 projects were identified and all the 16 projects were successfully completed and learning documentation were shared other team members. The overall success rate of alternative learning under Basic Level was 97.0%

Results of Level 1: Projects undertaken under this level are 1S and 2S. 351 projects were identified under 1S (Sort) and all the 351 projects were successfully completed by the team members. 419 projects were identified under 2S (Set-in Order) and 413 were completed by the team members. The success rate of alternative learning under Level 1 is 99.3%

Results of Level 2: Projects undertaken under this include in the area of 3D’s, they are as under;
- (D) Dirty
- (D) Difficult
- (D) Dangerous

593 projects were identified under Dirty and 570 projects were completed by the team. 516 projects were identified under Difficult and 493 projects were completed. Finally, 337 projects were identified under Dangerous and 324 projects were completed by the team members. 95.9% was the success rate of alternative learning at Level 2.

Results on Level 3: Results under this program are as under and the success rate of 98.1% was achieved under this level.

- An indicate Actuator where 16 projects were identified and 15 projects were closed by the team.
- B indicates Big, 10 projects were identified and 10 were projects closed by the team.
- C indicates Car, here 4 projects were identified and 4 were closed by the team.
- In the area of D which is named after Drop, 83 projects were identified and 82 were completed by the team.
- E indicates Electrical were 176 projects were identified and 175 were completed by the team.
- In the area of Fire which is indicated by F, 8 projects were identified and 8 were completed by the team.
- In the area of G which name after Gillette, 2 projects were identified and 2 were completed by the team.
- In the area of Health which is indicated by H, 43 projects were identified and 40 were completed by the team.

Results of Level 4: Results under Level 4 include Seven Waste Factors under Waste Elimination Model. The success rate under this level is 92.0%. The results are as under;

- Under Over Transport 41 projects were identified and 37 were completed by the team.
- 160 projects were identified under Over Motion and 154 were closed by the team.
- 405 projects were identified under Over Processing and 363 projects were completed by the team.
- In the area of Over Production 23 projects were identified and 21 projects were implemented by the team.
- As regards Inventory 218 projects were identified and 204 were closed by the team.
- In the area of Defects 645 projects were identified and 585 projects were closed by the team members.
- Finally, in the area of Waiting Time, 188 projects were identified and 173 projects were completed by the team.

Total number of projects undertaken under alternative learning from the year 2017 to 2018 are 4468 and 4242 projects have been successfully completed by the team members. Hence the success percentage of Alternative Learning Model is 94.94% through Manufacturing Excellence Model.

Results on the Performance of Division through Alternative Learning

As regards impact of Alternative Learning on performance of employees’ is provided in Figure.6. Score of 4.00 was set as a target on a scale of 5.00. The data of performance is assessed from 2016 to 2018.

Performance results of Casing and Con Rod Cell performance level is at 4.32, Crank Case 4.21, Cylinder Cell with 4.29, Tool Room 3.98, BOP and RBC Assembly with 4.00, Sub Assembly with 4.03, Centrifugal Assembly with 4.35, GSU Assembly with 4.02, Foundry with 4.07, Dispatch (ACD Division) 4.03, PE Workshop 4.12, Stores 3.98, Screw Assembly 3.99, Spares and Service with 4.02, Dispatch (TR Division) 4.2, Stores 4.1, Gear Shop 4.0, Hofler Shop 4.1, Heat Treatment 4.4, Light Machine Shop with 4.0, Assembly 4.4, Heavy Machine Shop 4.4, Plant Engineering 4.2 and Tool Crib with 4.2

Results related to Employee Engagement, Training Effectiveness and Competency Development, results have been encouraging with regards to Employee Engagement with 68% in the year 2016 to 71% in the year 2018. Training effectiveness through alternative learning process has shown a marked change in training effectiveness with 71% in 2016 to
78% in the year 2018. The impact of alternative learning on competency level of the employees has increase from 75% in the year 2016 to 77% in the year 2018.

Figure 5 – Model of Alternative Learning for Manufacturing Excellence

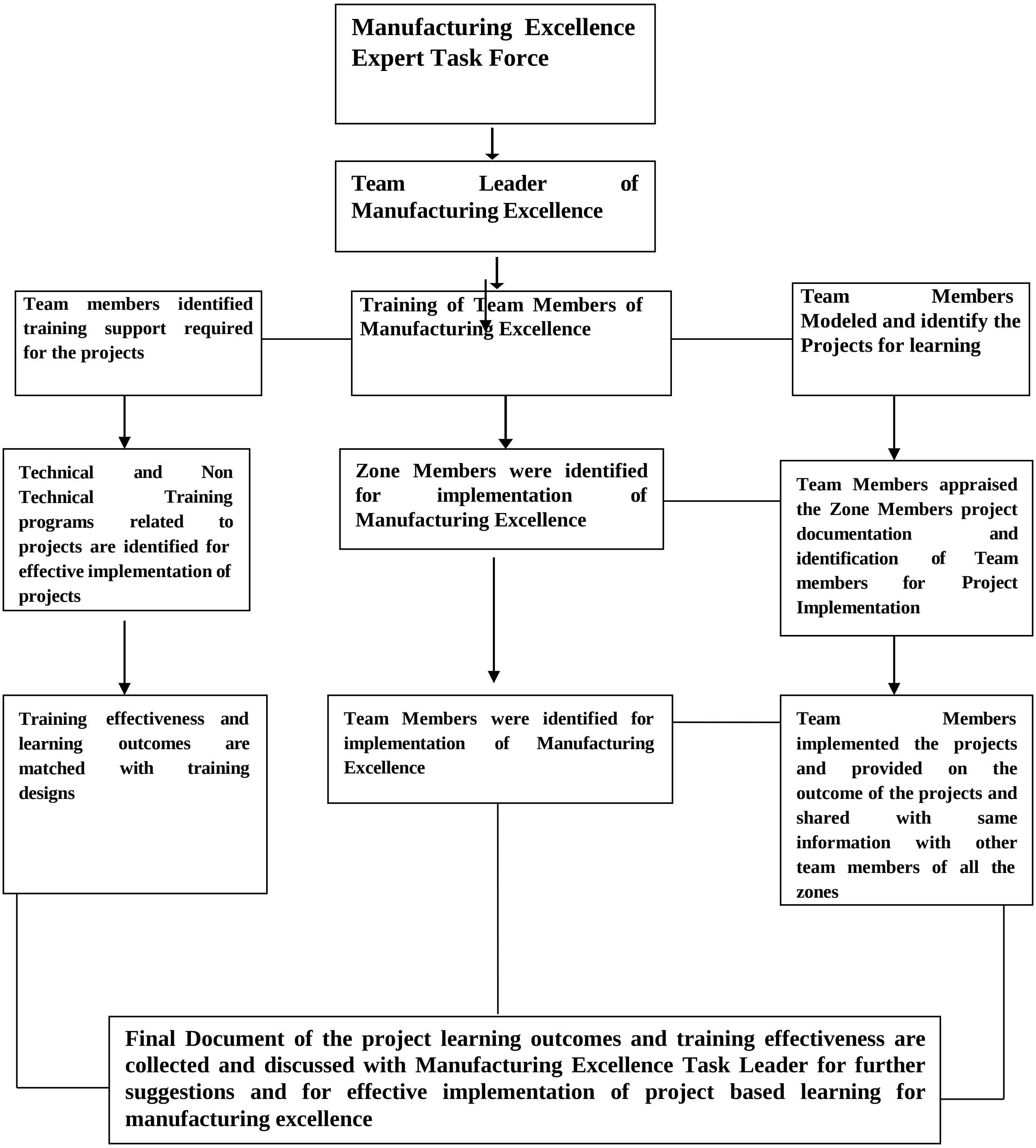
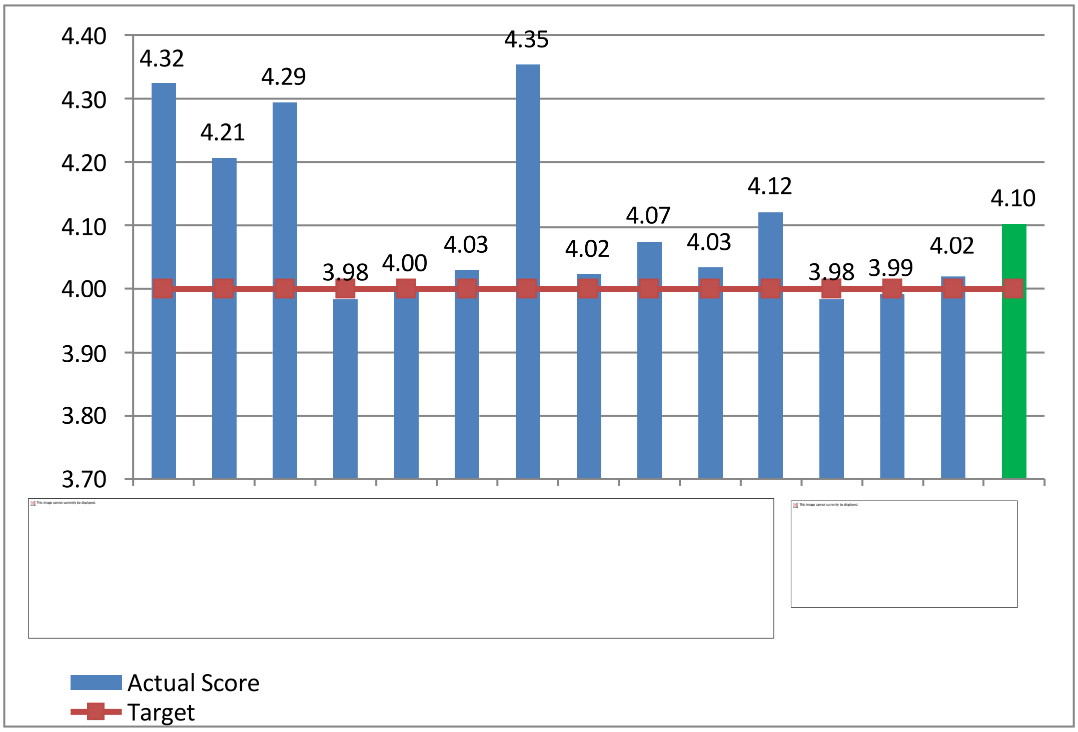


Figure 6- Employee Performance through Alternative Learning and Manufacturing Excellence



Conclusion

The introduction of Manufacturing Excellence Model and application of Alternative Learning Model has shown increased Employee Engagement from 68% to 71% ,but there are division like Tool Room were the level of performance is at 3.98 which is below the standards, likewise in Stores department with 3.98 and Screw Assembly with 3.99. These areas are important from the perspective of Manufacturing Excellence Model, as these divisions have a direct impact on the inventory management process of the manufacturing. Designing alternative learning program is essential in these divisions to improve performance and bridge the gap of competency.

The overall success rate of Waste Elimination Model is at 94.94%. The next level of Manufacturing Excellence Model is devoted towards Standard Practices and Standardization of Processes. Training programs under this module would be in the area of Six Sigma, Q.C Tools, Leadership Skill Development and Advanced Problem Solving Skills, these training program have a long-term duration and implementation time would be longer in comparison with Waste Elimination Model.

Manufacturing Excellence Model has an impact on the Work Process and Organization Climate, training programs related to adapting to changing work environment and organization culture is essential for preparing the employees for next level of Manufacturing Excellence Model.

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IN DEPTH STUDY OF FINANCIAL FRAUDS IN INDIA AND ITS IMPACT ON THE STOCK MARKET PERFORMANCE

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ABSTRACT

The country of India has witnessed financial frauds and market abuses almost every year since 1990s. Famous financial frauds like 'The Harshad Mehta Scam', Satyam Computers and the like, shook the entire nation's economy and wreaked havoc on the financial systems at large. After 1996, Indian Markets evolved from a highly controlled merit based regulatory regime to market oriented disclosures based regulatory regime. Various measures were introduced for the betterment and advancement of the Indian Securities Market with the establishment of SEBI. It is important to study the loopholes in financial frauds by understanding what caused them and how it could have been prevented as it threatens not just the economy and financial institutions but the entire country at large, right from traders to the working class of the society. The purpose of this research is to study in depth, the financial frauds in India and their impact on the Indian stock market of Bombay Stock Exchange's SENSEX. The research investigates the link if exists, between 3 different major financial frauds in the country of India that happened between the years 1990 to 2010 and their impact on the Indian stock market of Bombay Stock Exchange's SENSEX. The study aims to understand the pre fraud and post fraud changes in the trends of Indian stock market by running statistical test on closing market indices for SENSEX taken 15 days before the frauds happened and 15 days post the frauds. Additionally, the research also examines the role of SEBI in the case of financial frauds in the stock market by studying different measures taken by SEBI to overcome effects of the frauds on the financial system of the country and most importantly, the rules and regulations brought into force by SEBI and the government of India for preventing any frauds in the future. The result of statistical paired t-test concluded that there is a strong positive correlation between stock market performance before and after financial scam. The test also proved that there is a significant difference between the stock market performances before and after financial scams. The study also discusses the incorporation and importance of SEBI and examines the body's role in monitoring financial frauds in India.

Key words: Indian Stock Markets, Financial fraud, SENSEX, Harshad Mehta, Ketan Parekh, Satyam Computers, SEBI, Bombay Stock Exchange Market Manipulation, Accounting.

1. INTRODUCTION

India has a reputation for strong and dynamic capital markets. The country has a diversified financial sector, which is constantly undergoing rapid expansion in terms of strong growth of existing financial services, firms as well as new entities entering the market. The financial sector comprises of public & private commercial banks, non-banking financial institutions, insurance companies, co-operatives, mutual funds, pension funds and other smaller financial entities. The Reserve Bank of India has recognized that the banking sector with commercial banks accounts for more than 64% of the total assets held by the financial system. According to SEBI report, the Indian securities market is often considered as one of the most developed and highly respected markets across the globe and is therefore, it is also prone to financial frauds. The country of India has witnessed financial frauds and market abuses almost every year since 1990s. Famous financial frauds like ‘The Harshad Mehta Scam’, Satyam Computers, Yes Bank & Punjab National Bank frauds, and the like, shook the entire nation’s economy and wreaked havoc on the financial systems at large. After 1996, Indian Markets evolved from a highly controlled merit based regulatory regime to market oriented disclosures based regulatory regime. Various measures were introduced for the betterment and advancement of the Indian Securities Market with the establishment of SEBI and its proactive monitoring & nurturing of markets. It is important to study the loopholes in the financial frauds by understanding what caused them and how it could have been prevented as it threatens not just the economy and financial institutions but the entire country at large right from traders to the working class of the society.

Types of financial frauds:

The different types of stock market frauds involve frauds from shell companies, boiler rooms, pump and dump, insider trading, churning and financial statement frauds. Illegal insider trading includes tipping others when one has any sort of material non-public information. The Securities Exchange Board of India (SEBI) has rules to protect investments from the effects of insider trading. It does not matter how the material non-public information was received or if the company employs the person. Similarly, Market manipulation is the act of artificially inflating or deflating the price of a security or otherwise influencing the behaviour of the market for personal gain. Manipulation is illegal in most cases as it can be difficult for regulators and other authorities to detect, such as with omnibus accounts if the size and number of participants in a market increases. It is much easier to manipulate the share price of smaller companies such as penny stocks because analysts and other market participants do not watch them as closely as the medium and large-cap firms.

Role of SEBI & RBI:

Before SEBI was formed, breach of regulations was the norm and compliance an exception. To promote the investor’s confidence, it was necessary to reverse the situation. As a result, on April 12, 1988 a regulatory body was constituted in the name of Securities Exchange Board of India (SEBI) to ensure the investor’s protection and growth in the securities market. SEBI has extended control over the 23 stock exchanges of the country and initiated several steps to make reforms and regulations of the capital market so that investors’ may be protected against frauds. In fact, SEBI has sent strong messages to market participants that strict observance of regulations has been mandated essential to meet the extending needs of capital market as well as protect investors' against frauds. Moreover, the concept of corporate governance; which was initiated by SEBI on the basis of recommendations of various committees such as Shri Kumar Mangalam Birla (2000), Naresh Chandra (2000) and Shri Naranyana Murthy (2003), hinges on complete transparency, integrity and accountability of management, which also includes non-executive directors. The main aim of corporate governance is to handle corporate frauds and scandals, and a system of making directors accountable to Shareholders for the effective management of the company and also with adequate concern for ethics and value.

RBI has advised banks to introduce certain minimum checks and balances - like the introduction of two factor authentication in case of 'card not present' transactions, converting all strip based cards to chip based cards for better security among others. RBI has also advised banks to introduce preventive measures like putting a cap on the value/number of beneficiaries, introducing system of issuing alert on inclusion of additional beneficiary, and velocity checks on number of transactions effected per day/per beneficiary.

Objectives of the Study:

1. To study the impact of different financial frauds in India and its impact on SENSEX
2. To understand the pre fraud and post fraud changes in the trends of Indian stock market
3. To examine the role of SEBI in the case of financial frauds in the stock market

2. REVIEW OF LITERATURE

Sr.	Authors	Country	Objectives	Sample Size	Method for Analysis	Findings
1	Gangineni Dhanaiah, Dr. R. Siva Ram Prasad (2016)	India	To delineate different forms of financial market frauds in India & to examine the role of SEBI in protecting market integrity	Different financial scams & SEBI regulatory actions from the year 1992 to 2013	Qualitative data analysis by classifying types of financial frauds in India, understanding SEBI's regulatory actions	Increased coordination between SEBI, Dept. of company affairs, Ministry of Finance, RBI is needed. Necessity to administer and implement existing rules more effectively in a timely manner.

2	Charan Singh, Deepanshu Pattanayak, Divyesh S. Dixit, & others (2016)	India	To understand & analyze causes that contribute to increasing trend in frauds committed in Indian banking sector, suggesting appropriate measures to help the system in addressing these issues	Trend analysis of frauds based on past data available with the RBI, also the broader trends within (PSBs) (PVBs) in India	Primary research from interviews spanning across all players involved in reporting of financial misconduct & Secondary research from literature and case studies and	Credit related frauds had maximum impact in all banking frauds due to high amount involved & cumbersome process of fraud detection followed by CVC. Delays in legal procedures for reporting and various loopholes in system were considered some of the major reasons of frauds.
3	Narayanan, Supreena (2004)	Germany	To examine disruptions in the financial system for the period of 1991 to 2001 in India, understanding measures adopted after the 1991 scam, & examining theoretical structure of corporate governance	Financial & security scams after 1991 till 2001in India.	Qualitative data analysis by classifying different types of financial frauds in India.	Occurrence and reoccurrence of security scams and financial scandals at same point of time were found to be attributed to a failure of corporate governance in finance & that of financial regulation.

4	Parthapr at im pal (2005)	Indi a	To investigate the withdrawal of foreign portfolio capital in the post- election phase affecting the price and the equity holding patternof different Sensex companies.	Movement of Sensex & pattern of FPI, change in shareholdi ng pattern of Sensex companies .	Detailed look at the stock market and the behavior of different investor groups, especially FIIs, in India for the period March 2004 to June 2004	It was discovered that he movements of Sensex are quite closely correlated in the country of India and FIIs wield significant influence on the motion of the Sensex
5	Amitava Sarkar, Gagari chakraba rti (2008)	Ind ia	To investigate volatility in Indian stock markets.	Volatility transmissio n by regional contagion, studied how Jakarta Stock Index transmits its volatility to sensex.	Main attention given towards domestic sectors: capital goods & consumer durables sectors, compared to FMCG, IT sectors having great impact on sensex.	According to this, the volatility in the developed market indices granger causes transmission from global and regional Contagion and traditional domestic sector
6	Gaurav Agrawal, Anirudd h Kumar Srivastav (2010)	Ind ia	To analyze relationship between nifty returns and Indian rupee & dollar exchange rate	Daily closing indices of NIFTY for the period of October 2007 to March 2009.	Several statistical tests applied in order to study the behavior and dynamics of both the series.	It was found that nifty returns & exchange rates were non-normally distributed. Correlation between nifty returns and exchange rates was found to be negative.

7	Pankaj Nagar, Gurjeet Singh (2012)	India	To detect fraudulent activities in Stock Market Fraud using Outlier Analysis approach	Combined data of bulk deals via BSE & NSE of Nutek India Ltd, trading patterns of 89 different entities who made bulk deals in NuTek India Ltd.	Applied outlier & surveillance of stock price changes, anomaly detection techniques applied to various fields - network intrusion detection, fault detection, financial fraud detection	Trading entity buying shares at higher price, sold at lower price incurred losses creating a doubts of playing major role in price manipulation from Rs. 44 level to Rs 11 level. SEBI took action against some entities but some could not come in picture. This may happen if proper rectification system is not adopted.
8	Mohamed Zaki and Babis Theodoulid is (2014)	United Kingdom	To provide significant cross-fertilization between financial research studies & IT, to incorporate text mining techniques for the analysis, analysis of stock market fraud documents through the development of linguistic and non- linguistic patterns.	SEC published litigation releases, various textual sources from SEC website, RSS format for litigation releases published on SEC website, HTML and PDF files.	Used the financial ontology for fraud purposes, text mining application design & analysis using IBM-SPSS Modeler14, prosecuted case PDF documents of SEC complaints	Provides empirical evidence of how text mining could be integrated with financial fraud ontology to improve the efficiency and effectiveness of extracting financial concepts. It is possible to enhance and expand the cases by including new manipulation schemes on the basis of the SEC and other possible sources.

3. RESEARCH METHODOLOGY:

The purpose of this research is to study in depth, the financial frauds in India and their impact on the Indian stock market index of the Bombay Stock Exchange's SENSEX. This research is based on a descriptive research design and secondary data. Both quantitative as well as qualitative data was used for the entire study. The research study investigates the link if exists, between 3 different major financial frauds in the country of India that happened between the years 1990 to 2010 and their impact on the Indian stock market of Bombay Stock Exchange's SENSEX. Additionally, the study also aims to understand the pre fraud and post fraud changes in the trends of Indian stock market for which the closing market indices for SENSEX are taken for 15 days before the frauds happened and 15 days post the frauds. Additionally, the research also examines the role of SEBI in the case of financial frauds in the stock market by studying different measures taken by SEBI to overcome effects of the frauds on the financial system of the country and most importantly, the rules and regulations brought into force by SEBI and the government of India for preventing any frauds in the future. The study uses statistical paired sample t-test to investigate if there exists a correlation between the two variables - stock market performance before and after financial scam. The paired sample t-test also examines if there exists a significant difference between the stock market performances before and after financial scam. Additionally, the test calculates and compares the average returns of the stock markets before and after the financial scams took place.

Study Variables and Hypotheses Development:

The performance of the stock market was considered as a dependent variable. The dependent variable is measured with the BSE stock market index. i.e. SENSEX.

The selected financial frauds are considered as independent Variables for this study. These are the different types of accounting and market manipulation frauds like:

- Market Manipulation Frauds: The Harshad Mehta Scam (1992), The Ketan Parekh Scam (2001); and
- Accounting Fraud of The Satyam Computers Scam (2009).

Market Manipulation is the practice of controlling or intentionally changing the price of securities in order to deceive investors. Manipulation is unlawful in most circumstances, but detecting and proving it can be difficult for regulators and other authorities.

The Harshad Mehta Scam (1992) was the largest money market scam ever perpetrated in India, with an estimated value of Rs. 5,000 Crore. Harshad Mehta, a stock and money market broker, was the principal perpetrator of the fraud. The Indian stock market crashed as a result of a systematic stock scam involving bank receipts and stamp paper. The scam exposed the underlying flaws in Indian financial institutions, leading to a completely overhauled stock- trading system that included the use of online security technologies.

The Ketan Parekh scam (2001) was the second most major to hit the Bombay Stock Exchange. Ketan Parekh had achieved a 200 percent yearly return on some equities when he was thought to be single-handedly pushing the stock market. The formerly low-profile Indian stock market was now generating headlines throughout the world. It was later discovered that it was broker turned operator Ketan Parekh, not fundamental shifts, that was driving the market.

Accounting Fraud is the deliberate falsification of financial accounts to provide the impression of a company's financial health. It also involves an employee, accountant, or the company itself deceiving investors and shareholders. Overstating revenue, failing to report costs, and misstating assets and liabilities are all ways for a corporation to falsify its financial statements.

The Satyam Scam (2009) was a large-scale accounting scam that cost over Rs. 7,800 Crores but ended up costing over Rs. 12,320 Crores overall. By distorting the company's financial condition, Satyam Computers management deceived the market and stakeholders. Even PwC, the company's external auditors, missed crucial facts that remained unnoticed for 7 to 8 years. Satyam's funds were a dark box that only Ramalinga Raju and his confidants had access to. The company's income and assets were exaggerated.

Accordingly, based on these variables and factors the following hypothesis are developed:

H01: There is no correlation between stock market performance before and after financial scam.

H02: There is no significant difference between the stock market performances before and after financial scam.

The following section presents the data analysis for hypotheses testing.

4. DATA ANALYSIS & FINDINGS

4.1 Correlation Analysis:

The Correlation analysis is done in order to study the relationship between stock market performance of SENSEX before and after financial scam. Theresults are given in the below Table.

Table 2: Paired Correlation between independent variables and dependent variable

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Before & After	45	.988	.000

*P value < 0.05

From Table 2, it can be seen that the paired correlation value for the financial frauds and SENSEX was found to be 0.988 (p= 0.000, p < 0.05). This significant value of 0.000 and positive correlation near 1 shows a very strong positive correlation between the two variables and rejects the null hypothesis. It can be concluded that the financial frauds and SENSEX are significantly correlated with each other. Therefore, the null hypothesis is rejected and hence, it can be concluded that there is a strong positive correlation between the stock market performance of SENSEX before and after financial scam.

4.2 Paired Sample t-test:

Table 3: Paired sample test between independent variables and dependent variable

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Before -	4.80596E2	451.18767	67.25909	345.04444	616.14801	7.145	44	.000

*P value < 0.05

Paired sample t-tests, helps in determining whether the mean difference between two sets of observations is zero. In a paired sample t-test, each subject or entity is measured twice, resulting in pairs of observations. In table 3, it can be observed that the significant value for both, the before and after closing values of SENSEX was found to be 0.000 which is lesser than the p value of 0.05. This shows that there is a significant difference between the stock market performances before and after financial scam. Here, as the null hypothesis is rejected, it can be concluded that the statistical test proves a significant difference with the significant value of 0.000 between the stock market performances before and after financial scam.

Table 4: Paired sample statistics between independent variables and dependent variable

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Before	5.9672E3	45	2783.81894	414.98723
	After	5.4866E3	45	2616.04747	389.97733

In the Table 4 above, the data is taken for 45 entries of the closing indices of SENSEX before and after the financial scams. From the table it can be observed that the mean values recorded before and after the scam differ from each other. The average market return before the financial scams was 5.967 and the same mean return after the scam was 5.486 which signifies the mean value for stock market return before the scam is more than the stock market returns after the scam. This proves that the mean values recorded before and after the scam are different irrespective of time of the scam, amount involved in the scam as well as the type of the scam. Thus, it can be proved that there is a negative impact of financial scams on stock market.

4.3 Role of SEBI:

After the 1992 swindle, the Indian stock market was brought to its knees as it wiped off almost 40% of the market value, or $1 Billion. It prompted authorities to rethink and reorganise current financial structures. To avoid fraudulent transactions, the initial structural modification was to record payments for purchase investments in reconciled bank receipts and subsidiary general ledgers. A committee was formed to supervise the SEBI on the advice of the Janakiraman Committee. The committee's main proposal was to limit ready forward and double ready forward sales to only government securities. All banks were relegated to the role of custodians rather than principals in transactions. Banks were required to develop a separate portfolio audit system, which would be overseen by the RBI.

The RBI and SEBI were quick to notice that the earnings that Ketan Parekh made and the loans he obtained were out of the ordinary. He was detained for more than 53 days after being captured in March 2000. He was also sentenced to a year in prison and was barred from investing in the stock market until 2017. The Badla method and circular trading were both outlawed by SEBI. SEBI has also begun scrutinising all stock exchange accounts on a yearly basis. They only allowed collateralized loans through the BSE and NSE. Despite the fact that Ketan Parekh was banned by SEBI, it was reported that he worked through proxies who carried out his commands on the stock exchange. Many firms were investigated by SEBI in 2008 and were forbidden from assisting him.

After finding one of PwC's firms guilty of lapses in the accounting fraud at the erstwhile Satyam Computers Services Ltd, the Securities Appellate Tribunal rejected the market regulator's ruling prohibiting PwC's India network from performing audits of listed businesses. In an oral ruling issued, the tribunal stated that SEBI's order is unsustainable. Price Waterhouse businesses were forbidden from directly or indirectly giving audit certifications to listed firms for two years by SEBI in January 2018. After Satyam founder, Ramalinga Raju acknowledged to falsifying records in 2009, an inquiry into the involvement of auditors in India's largest accounting scam was launched. Price Waterhouse Bangalore and its two former partners, S Gopalakrishnan and Srinivas Talluri, were found guilty by SEBI of failing to comply with the Institute of Chartered Accountants of India's auditing requirements. PwC appealed SEBI's decision to the Supreme Court, claiming that all firms bearing the 'Price Waterhouse' name should not be penalised because they were unrelated to or linked to the alleged violations committed by Price Waterhouse, Bangalore.

5. CONCLUSION

It can be concluded that all the financial frauds taken into consideration for the study have a relationship with the Indian stock market which impacts in a negative way. These frauds affect the movement in the stock market prices to a great extent. After statistically calculating correlation between the independent variables and the dependent variable, the current research showed that there is a significant positive correlation between the market manipulation frauds; the Harshad Mehta Scam, the Ketan Parekh Scam, the accounting fraud of the Satyam Computers Scam and the BSE’s index SENSEX. The hypothesis suggests that there exists a significant relationship between all the independent variables and the dependent variable and it can be concluded that there is a strong positive correlation between stock market performance before and after financial scam. The paired sample t-test observed that there is a significant difference between the stock market performances before and after financial scam and the hypothesis also concluded that the statistical test proves a significant difference between the stock market performances before and after financial scam. It is important to notice that all independent variables have a combined significant impact on the dependent variable. From the data calculated for 45 days, it was concluded that the mean values recorded before and after the scam are different. The average market returns before the financial scams showed that the value for stock market return was more than the stock market returns after the scam. This proved that there is a negative impact of financial scams on stock market are the market returns show a decreasing trend pre and post frauds. The negative impact of the financial scams on the stock market also proved to affect the sustainability of stock markets and it is necessary to address the challenges such as frauds posed by new market structures. Most importantly, an improved understanding of how the current and evolving market structure impacts on the core capital raising and allocation function of markets is needed. It was concluded that The RBI and SEBI took disciplinary strict action against the defaulters of all the three scams. However, the study concludes that the Indian financial and regulatory system needs more of a cautionary and preventive set of regulations more than remedying the after effects of a huge scandal keeping in mind safeguarding the interests of individual investors, businesses and the country at large.

As the negative impact of the financial scams on the stock market also affects the sustainability of stock markets, stock exchanges have historically played an important role in economic growth and development through enabling effective capital allocation. Such financial scams and frauds lead to disturbance in the daily business and trading, most importantly causing harm to the flow of capital in the country, financial plans and businesses. It is necessary to address some of the challenges such as frauds posed by new market structures. This requires improving the understanding of how the current and evolving market structure impacts on the core capital raising and allocation function of markets and redefining market quality to reflect this linkage.

6. MANAGERIAL IMPLICATIONS

India is being viewed as a potential opportunity by investors with the economy having the capacity to grow tremendously. Support from the Government, Foreign Institutional Investments and Foreign Direct Investments have been strong and is expected to improve going forward even after the Covid-19 pandemic. Money has always been a topic of sensitivity; be it for the upper class businessmen or for working professionals. In such a scenario it is crucial to understand the impact of financial frauds and market manipulation on the returns of the stock market. Most individuals put their hard earned money into the stock market with proper planning and investing their time. It is important to study the loopholes not only within such financial frauds but also within the whole finance and monetary system in the country. By understanding what caused the frauds and how it could have been prevented as it threatens not just the economy and financial institutions but the entire country at large right from traders to the working class of the society.

The finding is a reassurance for domestic market’s strength and most importantly potential threats and therefore, it becomes a crucial input for our policy makers as well as the regulators such as SEBI and the Reserve Bank of India (RBI). The study reconfirms the belief that financial frauds and discrepancies in the market continue to affect the stock market in the post- reform era in India. This is an important lesson for the national policy makers for looking after and safeguarding investors’ interests as well as for researchers, corporate managers and regulators. The country needs strong and robust regulatory and economic policies to prevent such frauds and harm to the financial system rather than to remedy them. Strict rules and regulations will help keep the frauds in check and boost investor morale and growth thus improving its economic conditions and more importantly, the entire country at large.

Naturally, managing frauds and monetary issues in a country so large and populous is a challenging task but India has many new emerging sectors that need attention as the stock markets are providing investors with an attractive opportunity for long term investment. With the increasing automation in the finance domain and emergence of new cryptocurrencies, it will be more of a difficult task for the government and the regulators to keep a check and maintain legal flow of money as can also be proved by the recent frauds by Nirav Modi and Vijay Mallya. It is important to learn from the mistakes of the past and prevent them from happening in the near future and after studying the trends of the past, banks and financial institution need more monitoring and scrutiny for safeguarding public money.

7. LIMITATIONS AND SCOPE FOR FURTHER STUDY

Like other studies, this study has also several limitations. Firstly, the study is conducted to analyse the impact of different financial frauds in India and its impact on SENSEX and to understand the pre fraud and post fraud changes in the trends of Indian stock market. For this purpose, the present study covers only three specific selected financial frauds namely The Harshad Mehta Scam (1992), The Ketan Parekh Scam (2001) and The Satyam Computers Scam (2009) in order to measure the relationship and its impact on the SENSEX index of the Bombay Stock Exchange. The study does not consider other pivotal financial or market manipulation frauds in the past which may prove to be important driving factors in determining the impact on different stock exchanges of the country other than SENSEX. The National Stock Exchange and its index NIFTY is kept out of the study. Secondly, limited data has been taken for the pre and post fraud periods of 15 days only focusing closing index of Bombay Stock Exchange (BSE). For further researches, data related to the volume of shares traded in different stock exchanges, market frauds and a larger horizon of data can be considered for a longer span of time. The National Stock Exchange (NSE) is the largest stock exchange in India by trading volume. Therefore, data related to NIFTY since its incorporation can also be used. Thirdly, in the current study, only correlation and paired sample t-tests are carried out. For further researches, in-depth researches can be carried out by using more specific statistical tests. The study ignores other frauds like banking frauds, internet banking frauds, impact of the emerging cryptocurrency and Artificial Intelligence (AI) on the stock markets in India.

There is an enough scope to extend this study. One can include more data for financial frauds and financial dynamics to assess the impact on the performance of the stock market by extending the data collection for relatively longer period. One can also use more specific statistical tests to study the impact assessment.

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ONLINE MBA VS. OFFLINE MBA: AN EMPIRICAL STUDY

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Abstract

COVID-19 is a black swan occurrence in contemporary history that has turned the entire world upside down. The world was not prepared and also not equipped to face the challenge. Due to lock down, physical classes were replaced by online classes. Online mode of education allowed the world to remain engaged and continue with the education. At the same time, it also posed many challenges in terms of teaching-learning.

Since the inception of management education, corporates look forward to hire MBAs for different domains. MBAs are expected to be well versed with critical and strategic thinking, leadership, team work, problem-solving, and the capacity to adapt to dynamic circumstances. The all traits require physical interaction with the faculties as well as peers. Online education was a hurdle in development of these traits.

The objective of the study was to understand the impact of online mode of education on

MBA students. An attempt was made to understand the holistic perspective of all the main stakeholders i.e. MBA students, faculties who teach MBAs and the corporates who hire MBAs. The study was conducted using primary research and questionnaire was administered to 301 students, 58 corporate representatives and 24 faculty members teaching management students. Data was collected using Google forms and data was analyzed using MS-Excel. The study revealed that 77% of the students prefer offline education over online education. Majority of the corporates found that offline mode MBAs were more proficient than the online mode MBAs. Study also identified important skills online mode MBAs need to work on.

Keywords: COVID-19, Online education, Offline education, MBAs

THE ANALYSIS OF FMCG COMPANIES – RATIO AND PESTEL ANALYSIS

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Introduction: Fast -moving consumer goods (FMCG) sector is India's fourth-largest sector with CAGR of 14.9%. Increase in disposable income of rural India and low penetration levels in rural market offers room for growth. Investment approval of up to 100% foreign equity in single brand retail and 51% in multi-brand retail. The Fast Moving Consumer Goods or FMCG is currently one of the fastest-growing sectors in India. Therefore, investors are looking for the best FMCG Shares to buy. Ratio analysis is the top down approach of fundamental stock analysis. The financial ratio is a metric for assessing a company's financial performance. Analysing and interpreting various ratios provides a greater insight of a company's financial situation and performance than simply reading financial statements. A PESTEL analysis is a framework that analysts use to analyse and track macro-environmental aspects that affect industry.

Objectives: To find the best FMCG company in sector through ratio analysis. To examine various factors that affect the market environment of FMCG sector.

Research Methodology: The research is a descriptive study. The companies considered for the analysis are namely HUL, ITC, Dabur, Britannia, Nestle . The data has been collected from the official annual reports of past three years of respective companies. In order to find the foremost performing FMCG company, data was analysed with the help of ratio analysis The PESTEL analysis was used to inspect the various factors that affect market environment of FMCG sector

Outcome: The data analysis was done with the help of various ratio analysis like PE ratio, ROCE, Net profit ratio, etc. and PESTEL analysis. We found that in majority of these studies the company ITC has leading performance. Therefore, we conclude that ITC is right pick for investors for investing in FMCG company

Keyword: FMCG sector, Ratio analysis, PESTEL analysis, investment.

Workplace Spirituality: The Need of Post Pandemic Era. Names: Amrut

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Abstract
Introduction: Spirituality is characterised in the majority of mainstream literature as a way for individuals to seek meaning in their work that goes beyond monetary gain. Spirituality provides employees with the opportunity to bring their "whole selves to work". Workplace spirituality is defined as a structure of organisational principles in a culture that stimulates employees' experiences of magnificence through work processes, supports their connection with others, and provides them with a sense of joy and fulfilment. Nancy Reardon, chief strategy and product officer at Maestro Health stated that, "The coronavirus pandemic has made employees' mental health top-of-mind for employers". The pandemic has not only affected the employees working from home but also the employees working onsite. Due to the COVID-19 pandemic's lasting repercussions on employees' mental health, the spirituality is the need of the hour.

Objectives: To study the psychological issues faced by employees, arising due to the COVID-19 pandemic and provide solutions based on the Vedic perspective.

Research Methodology: This is an exploratory research. The research paper uses primary and secondary sources of data. The sum has been collected with the help of questionnaire method, books, research papers in journals, and articles from newspapers and magazines source of data collected are appropriately mentioned in the bibliography wherever necessary, pickerels, graph, charts and statistics have been used to facilitate explanations. The research is validated by using primary data. Statistical analysis is used on studied variables.

Outcome: The study argues that workplace spirituality is of prime importance for the sustainable and healthy growth of an organisation. A suggestive model based on the Vedic perspective has been prescribed at the end of the study.

Contribution: This study brings out an innovative model for enhancing the employee motivation and productivity in the post pandemic era.

Key Words: Vedic perspective, Workplace spirituality, Mental health, Employee wellbeing.

A STUDY ON AWARENESS OF PRIVATE EQUITY INVESTMENTS IN INDIA

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Abstract:
Private equity is the capital raised through private sources by companies that are not publicly listed on a stock exchange. This project focuses mainly on private equity, its awareness among the common people and scope in India. It also focuses on the role of private equity in the growth of entrepreneurs and employment generation. It also focuses on finding out whether or not the rising private equity investments is due to the advent of startups.

The research methodology consists of both primary and secondary data, with a mix of both qualitative and quantitative data. Secondary data was taken from articles, journals, websites, reports, etc. available on the internet. References for the same are given below. Primary data was collected by circulating an online survey among the common people with a sample size of 100 respondents. This survey consisted of respondents typically residing in the state of Maharashtra and most of them were from Mumbai and Pune. From the data collected and analyzed, it can be concluded that majority of people are aware of an investment class called private equity and there is huge scope for private equity in India. It has a major role to play in the growth of entrepreneurs and employment creation. Also, the rising private equity investments in the country is due to the advent of startups. However, a good bunch of respondents feel that it is a risky investment due to the huge amount of money required for investment.

Introduction:
Private Equity refers to investments made into companies that are not publicly listed on a stock exchange. The motive of these investors is to gain positive ROI out of the businesses they're funding. [Segal T. 2021]

Prior to 2005, fundraising was really difficult as India was an unknown entity. However, by 2008, the fundraising through private equity reached an all-time high with $8 billion commitments raised.

[Private Equity in India, 2016]

Moving on, India is an emerging market with umpteen resources and a sufficient labor force. The average investments in 2019 were substantially high and the top sectors were banking and finance, insurance and consumer technology.

Talking about the post Covid era, private equity also continues to flourish in sectors like Insurance, healthcare, pharmaceuticals and technology; although the Covid 19 pandemic did show a drop in the investment activity due to fear of zero or negative ROI.

As India is a home to approximately 41,061 [What Economic Survey 2020-21 says about Startup Ecosystem, 2021] startups till date, many investors have tried their hands at such investments. Private Equity investors are such class of investors. Back in 1991, when the nation was liberalized, this class of investors was non- existent but as of 2021, private equity has grown to a great extent. However, it has faced its own challenges and hurdles.

The study is conducted basically to make people aware of an investment class called Private Equity. Many people may know about it but may feel that a lot of risk is involved and may not wish to invest. Although, it is a risky call to make a staggering investment like that, but all it requires is the right decision on where to invest.

Objectives of the Study:

The objectives of the research are as follows:

- To create awareness about private equity among the common people living in Maharashtra.
- To understand and analyze the role of Private Equity Investments in the advent of startups and evolution of entrepreneurs.
- To understand the scope of Private Equity Investments in India and also analyze its role in employment creation.

Literature Review:

A survey of literature has been carried out by using various research studies. An article titled ‘Private Equity: What Excites Investors?’ quotes Vinay Nair (2019), “PE industry is maturing, however there can be a lot of improvement with respect to growth in this sector. In 2004, PE investments were under $2billion annually, but as of 2019, they’ve grown to about $30 billion.” Shweta Jalan (2019), had quoted India as a fast emerging economy and that it has offered huge opportunities for PE investments.

Manas Tandon (2019) argued that a lot of private equity in India is about creating jobs and growing business. and it’s gratifying when businesses increase their number of employees by triple the number because there are a very few careers that allow you to do that.

Talking about the scope of private equity in India, T E Narasimhan (2019) in his report analyzes the scope of private equity and concluded that private equity had reached an all-time high in 2019 as the

investments touched a total of $37 billion.
Rukmini Rao (2020) analyzed in her report that there has been a significant decline in the investment activity in 2020 due the spread of the Coronavirus. It’s also estimated in her report that there could be certain sectors like healthcare, pharmaceuticals, etc. wherein the demand for PE would increase. Shreya Goyal (2015), in her report, analyzes that private equity investments in India have been on the rise due to cut throat competitions and the ever increasing scope of business. Also, the Make in India campaign seems to be helping as more foreign investors want to invest in Indian businesses.

Sanjay Jog (2020), has reported that leading PE firms like Warbug Pincus, Bain Capital, KKR and Blackstone have committed to increase their investments in Maharashtra. Maharashtra accounts to a total of 30% of their portfolio and they further plan to invest another 5% post the ongoing pandemic.
Robert Ippolito (2007), in an article with the Journal of Private Equity Fall 2007, states that India has attracted a huge number of private equity investments in the last decade due to its strong economic development. Also, low labor costs and the increasing size of domestic markets have produced attractive opportunities for private equity funds.

Raviraj Gohil (2014) stated in his report that research on private equity in India has only begun as of now and will be focused on development, case studies and the life cycle of private equity returns.
Thillai Rajan Annamalai (2011) and Ashish Deshmukh (2011) in an article with the Journal of Indian Business Research, have reported that private equity in India has shown growth during the five-year period between 2004-2008, however, academic research on the same seems to be limited.

Troy D. Smith (2018) in his research paper has stated that although private equity is expanding in developing countries but in India, it is alleviating expansion constraints.

Nirupama Kulkarni (2007) and Alok Prusty (2007) in an article with the Journal of Private Equity, have stated that private equity investments are growing rapidly in the Indian Port sector. Due to the emergence of the port sector in developing countries like India, extensive PE funding is expected. Arpita Amarnani (2008) and Neeraj Amarnani (2008), in their research paper Venture Capital Funds for Microfinance in India, have reported that since Microfinance is gaining a lot of importance these days, private equity players and venture capital companies are beginning to evince an interest in investing in microfinance.

Research Gaps:

On the basis of literature review conducted, some of the following research gaps have been observed:

- All the studies pertaining to private equity have been conducted in general and have not been focused to a particular region or state in India.
- There has been no detailed mention on the role of private equity in enhancing the growth of entrepreneurs in India.
- No work has been done on the role of private equity in the advent of startups and employment generation in India.

Hence, this research is an attempt to fulfill all the aspects identified as research gaps.

Research Methodology:
The type of research used is both qualitative and quantitative as data on private equity has been collected through primary sources and secondary sources.

Qualitative and Quantitative Data used here is in the form of newspaper articles in the given topic as well as in the form of an online survey circulated.

The Population defined here is the population of India. However, the sample defined is the people within the state of Maharashtra.

- The sampling process used was Convenience Sampling as the participants are taken into consideration as ease of availability and willingness to take part. The sample size is 100.

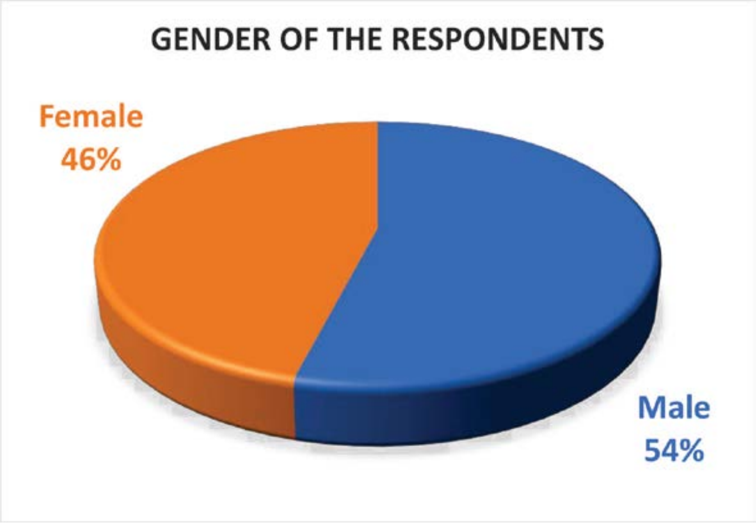
The Data Collection method being a Questionnaire was developed by keeping in mind the objectives.

Scope and Limitations:
There is ample scope in this area of research as it observes and analyzes private equity and its role in employment generation, startups, etc.

However, it can be observed that there are some limitations pertaining to every research. This research is based in Maharashtra; other states and union territories have not been taken into consideration. Hence, this accounts as a small scale research. A similar kind of study can be conducted on a larger scale so as to gain a larger view and clarity on the same.

Analysis & Findings:
To understand the awareness of private equity and its scope, the observations from the survey's responses have been analyzed.

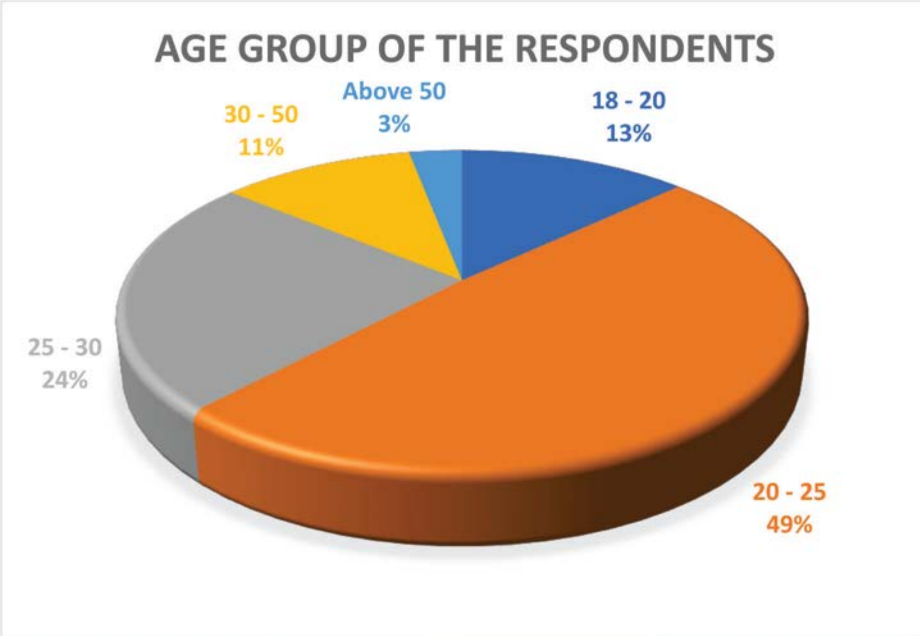
Fig. 4.1



(source: primary data)

Fig. 4.1 describes the gender of the respondents: 46% of the respondents being female and 54% being males.

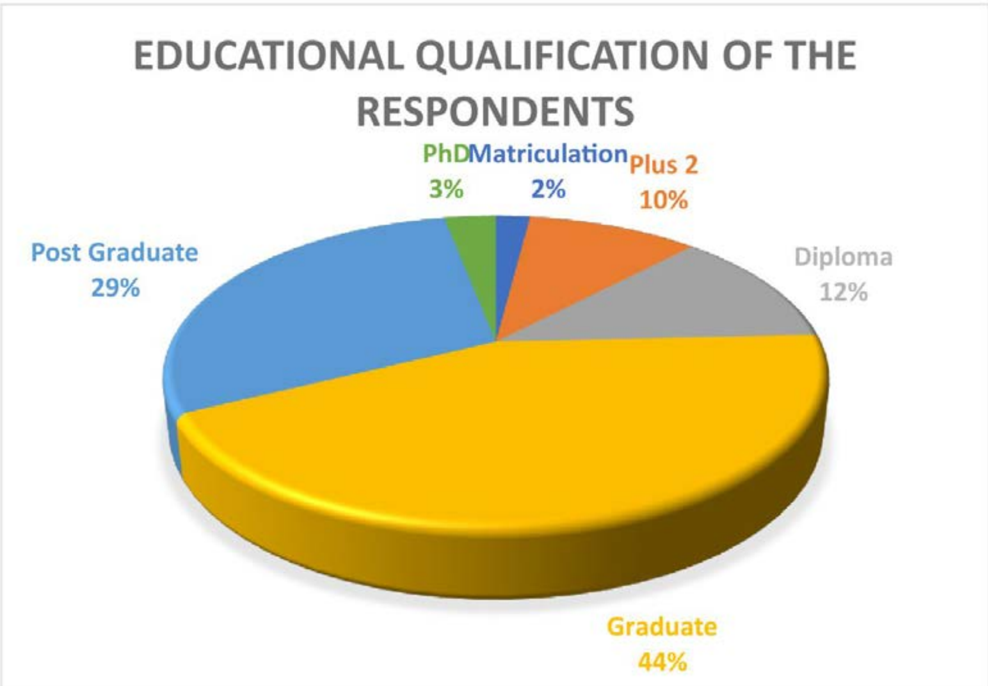
Fig. 4.2



(source: primary data)

The age group of the respondents as seen in Fig. 4.2, is distributed as follows:
49% of the respondents in the age group of 20-25, 24% in the age group of 25-30, 18% in the age group of 18-20, 11% in the age group of 30-50 and the 50% in the age group of above 50.

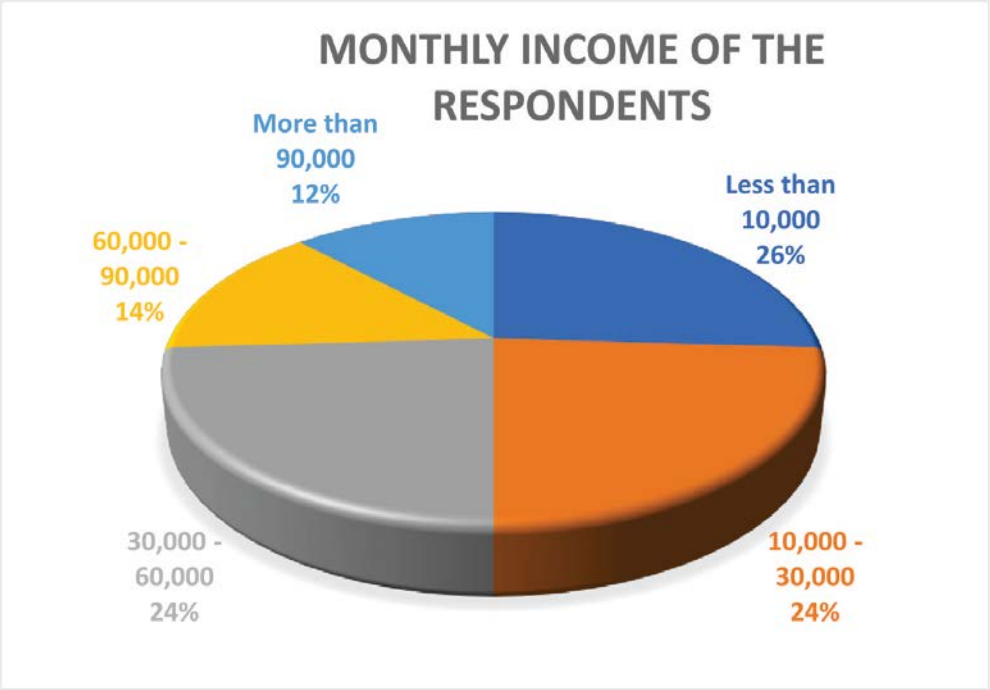
Fig. 4.3.



(source: primary data)

Fig. 4.3 depicts the educational qualification of the respondents.

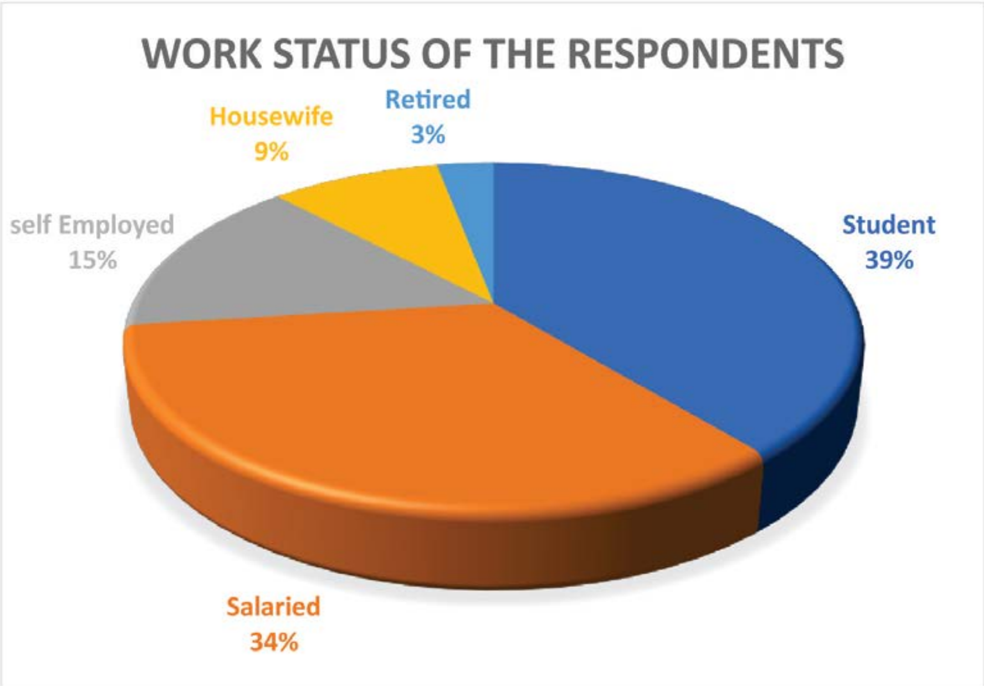
Fig. 4.4



(source: primary data)

Fig. 4.4 describes the monthly income of the respondents.

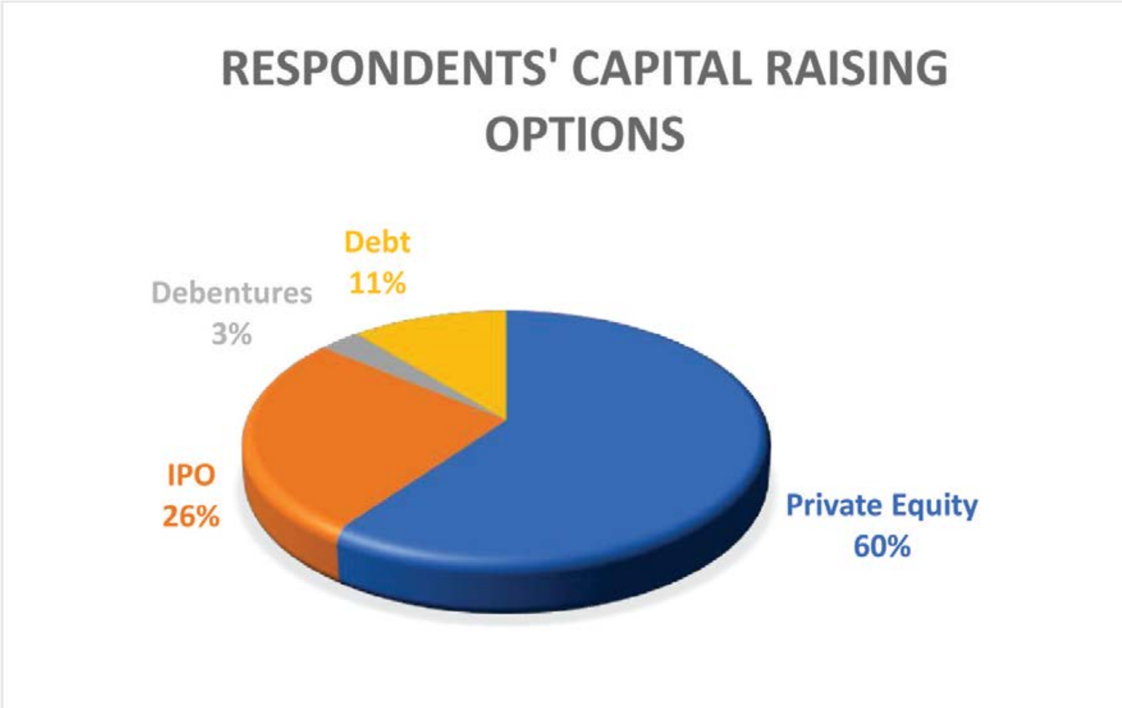
Fig. 4.5



(source: primary data)

Fig. 4.5 depicts the work status of the respondents.

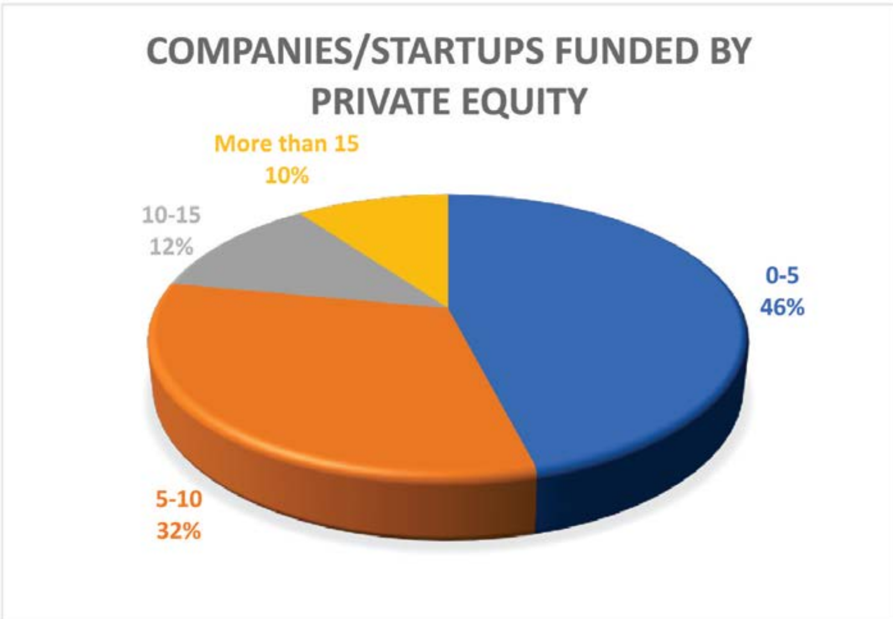
Fig. 4.6



(source: primary data)

From fig. 4.6, it can be observed that majority of respondents (60%) know what private equity is. The other 40% are unevenly distributed among other options with IPO being 26%, which is the highest after private equity, Debentures and Debt being 3% and 11% respectively.

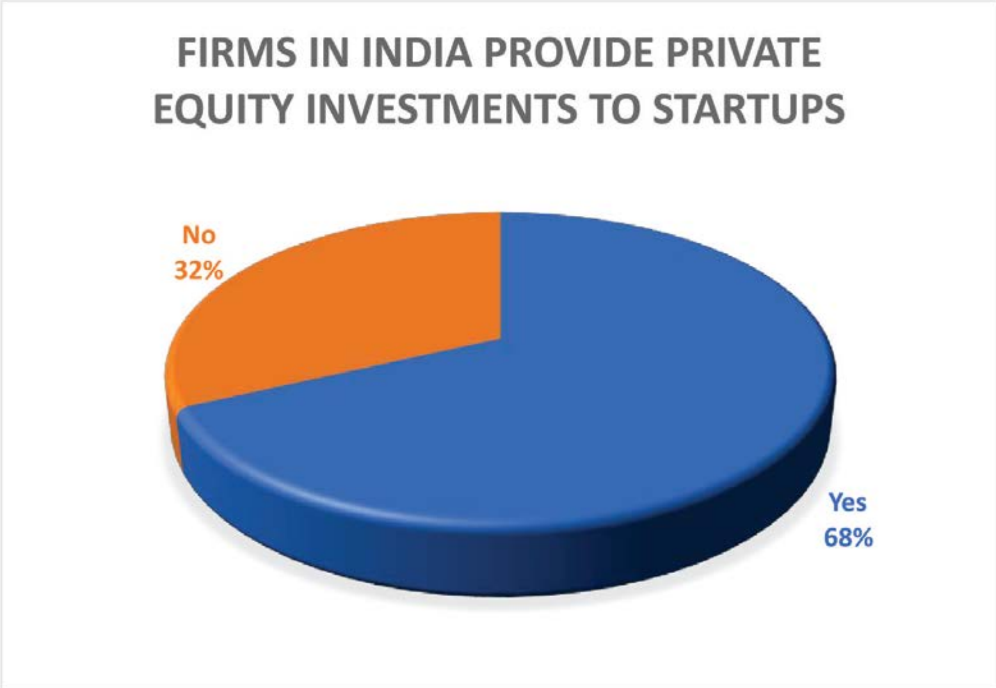
Fig. 4.7



(source: primary data)

Fig. 4.7 describes the idea of the respondents on the number of companies or startups that were funded by private equity investments.

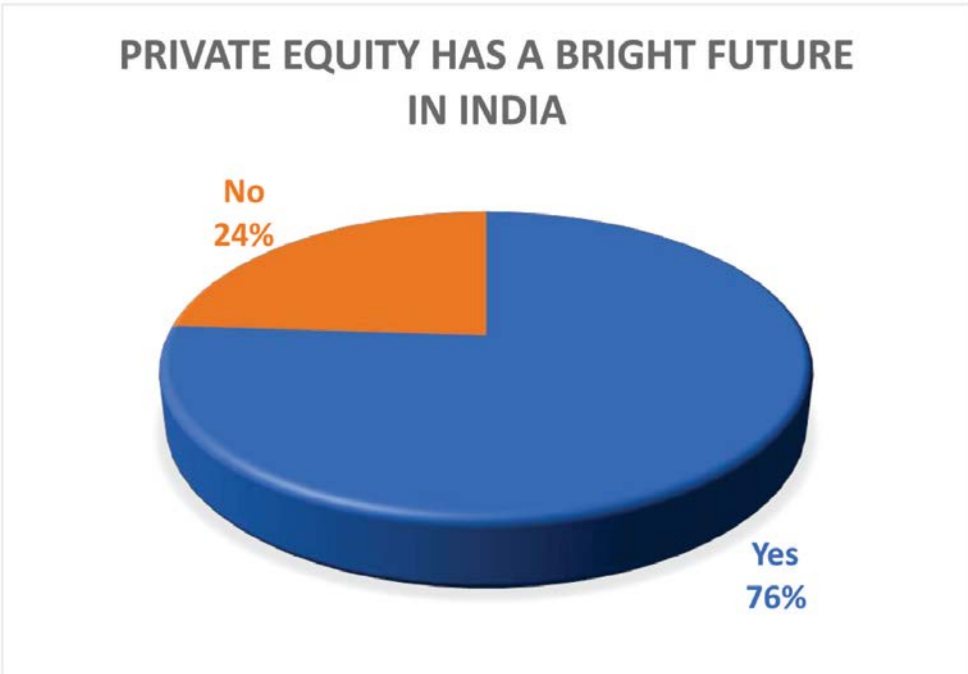
Fig. 4.8



(source: primary data)

Fig. 4.8 depicts the number of respondents who supposedly knew that there are firms in India that provide private equity to startups.

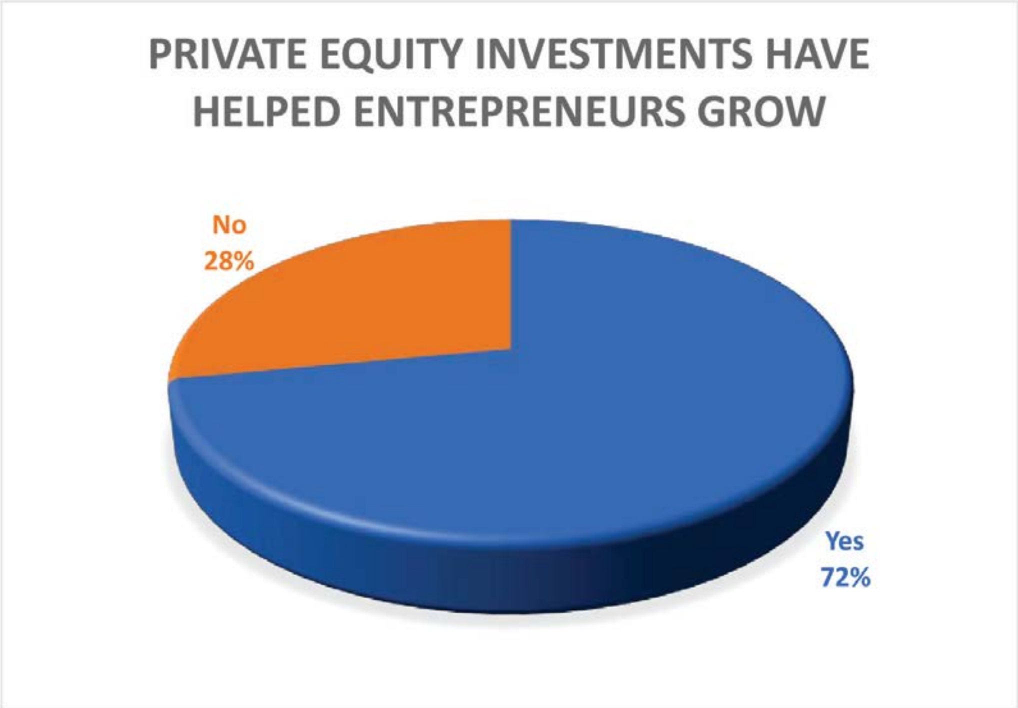
Fig. 4.9



(source: primary data)

Fig. 4.9 describes the opinions of respondents who think whether or not private equity has a bright future in India. 76% of the respondents think it does and 24% of them don’t.

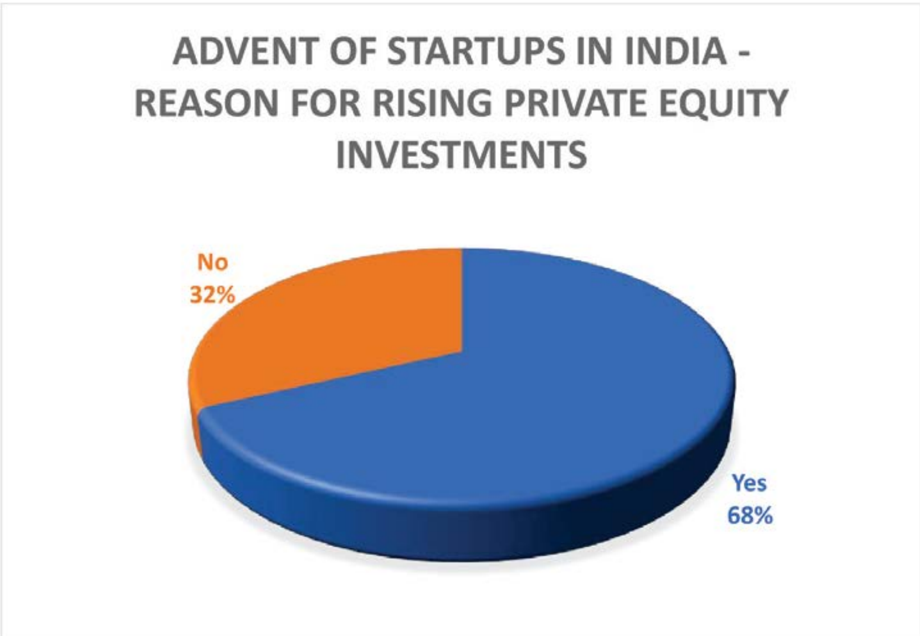
Fig. 4.10



(source: primary data)

Fig. 4.10 tells us that 72% of respondents are of the opinion that private equity has helped entrepreneurs grow whereas 28% of the respondents feel the opposite.

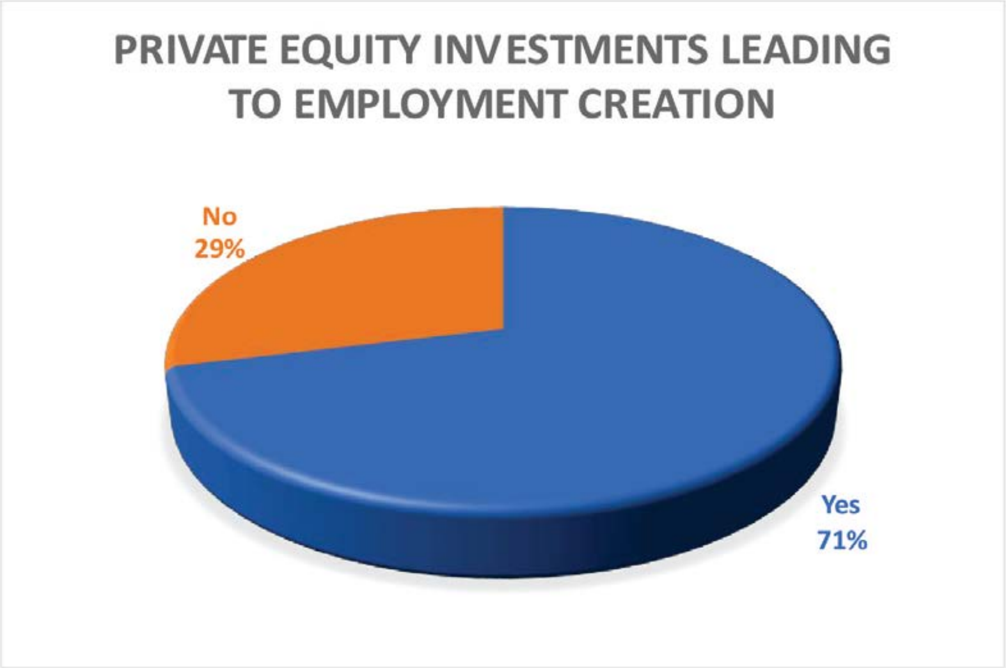
Fig. 4.11



(source: primary data)

Fig. 4.11 depicts the number of respondents with respect to their opinion on the rising private equity investments and the advent of startups. 68% have responded in the affirmative while the other 32% have responded in the negative.

Fig. 4.12



(source: primary data)

Fig. 4.12 helps us understand the number of respondents who think that private equity has a role to play in employment generation. Most of the responses are in the affirmative (71%) whereas 29% respondents have responded with a no.

Conclusion:

By observing the data from this study, it can be understood that private equity has an elaborate scope in India and a majority of respondents have a vague idea about what private equity is.

It has been observed that a majority of respondents seem to be aware of private equity as a capital raising option as well as firms that provide capital to startups while some other respondents have opted for other options like Debt, IPO or Debentures who don't seem to know about the same.

It has been observed that a huge number of people believe that private equity investments have a huge scope in India and that it plays a very important role in shaping the path of growth for entrepreneurs as well as employment creation. When asked about the justification for the same, the respondents have said that a big boost to young businesses is definitely capital and management expertise and that businesses require managers for it to function smoothly, thus indirectly creating opportunities. It is also believed that due to private equity, the entrepreneurs may get a lot of network benefits and it also motivates the entrepreneurs. Thus, it can be concluded that private equity has a huge scope and it plays an important role in the growth of entrepreneurs and employment creation.

The role of startups in the rise of private equity investments in India is analyzed. The results show that a majority of respondents agree to it that the advent of startups has led to rising private equity investments in India. As it has started gaining popularity since the time startups have started coming into picture which means that it has been nearly two decades. Hence, it can be concluded that the rising private equity investments in India are due to the advent of startups.

So far, in an attempt to fulfill the research gaps defined in the study, various objectives like employment creation, advent of startups and evolution of entrepreneurs with respect to private equity investments in India were taken into consideration. While the objectives have been observed and analyzed, there is still scope for improvement. Say for example, as this research has responses being taken from Maharashtra, other states or all over India study could also be taken as the sample. Apart from that, some other objectives related to the current scenario could also be taken as a part of future studies. With coronavirus creating a significant impact on the global economy, private equity can be studied in detail with respect to the gains and losses in the industry due to the pandemic. This will help researchers gain a better idea of private equity and also about its future endeavors in the new normal.

Hence, it is suggested to conduct an extensive research on the same to observe and study the scope of private equity in India.

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Annexures

Annexure I: Questionnaire

Which of the following capital raising options are you aware of?

- Private Equity
- IPO
- Debentures
- Debt

How many companies/startups that you know of were funded by Private Equity?

- 0-5
- 5-10
- 10-15
- More than 15

Are you aware that firms in India provide private equity investments to startups?

- Yes
- No

If Yes, how many do you know?

- 0-5
- 5-10
- 10-15
- More than 15

Do you think Private equity has a bright future in India?

- Yes
- No

Please specify your opinion.

Do you think private equity investments have helped entrepreneurs grow?

- Yes
- No

Please specify your opinion.

Do you think the advent of startups in India is the reason for rising Private Equity Investments?

- Yes
- No

Please specify your opinion.

Do you think Private Equity investments have led to employment creation?

- Yes
- No

Please specify your opinion.

Demographics:

Gender

- Male
- Female

Age Group:

- 18-20
- 20-25
- 25-30
- 30-50
- 50 and above

Educational Qualifications:

- Matriculation
- Plus 2
- Diploma
- Graduate
- Post Graduate
- PhD. Holder

Work Status:

- Student
- Salaried
- Self Employed
- Housewife
- Retired

Monthly Income:

- Less than INR 10,000
- INR 10,000 – INR30,000
- INR 30,000 – INR 60,000
- INR 60,000 - INR 90,000
- More than INR 90,000

Location of Stay:

- Ahmednagar
- Akola
- Amravati
- Aurangabad
- Beed
- Bhandara

- Buldhana
- Chandrapur
- Dhule
- Gadchiroli
- Gondia
- Hingoli
- Jalgaon
- Jalna
- Kolhapur
- Latur
- Mumbai
- Nagpur
- Nanded
- Nandurbar
- Nashik
- Osmanabad
- Palghar
- Parbhani
- Pune
- Raigad
- Ratnagiri
- Sangli
- Satara
- Sindhudurg
- Solapur
- Thane
- Wardha
- Washim
- Yavatmal

Annexure II: List of figures:

- Figure 4.1
- Figure 4.2
- Figure 4.3
- Figure 4.4
- Figure 4.5
- Figure 4.6
- Figure 4.7
- Figure 4.8
- Figure 4.9
- Figure 4.10
- Figure 4.11
- Figure 4.12

EMERGING BUSINESS OPPORTUNITIES IN ELECTRIC CHARGING STATION

Prof. Ritu Sinha
Shubham Surve
Ruturaj Vadehgekar
Khushabu Agrawal

Abstract
Market of electric vehicle is increasing rapidly. More than three lakh vehicles were registered, showing a growth rate of 74% on 2020, which was the highest growth rate recorded (source: nextgreencar.com). This rapid increase in market growth brings in the opportunity for setting up Electric vehicle chargers in cities and highways. The possible locations for installing an EV charger is where people can spend some time till their EV is ready to hit the road again. Example: Malls, restaurants etc.

A QUALITATIVE STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT IN PUBLIC AND PRIVATE BANKS IN MUMBAI

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Abstract

It is discovered that Modern Banking has end up purchaser orientated enterprise this is provider pushed and generation pushed. During the previous few years, generation has been liable for dramatic remodelling the banking sports in India. Driven with the aid of using demanding situations on competition, growing purchaser expectation and shrinking margins, banks had been the usage of generation to lessen price. Apart from aggressive environment, there was deregulation as to price of interest, generation extensive shipping channel like Internet Banking, Tele Banking, Mobile banking and Automated Teller Machines (ATMs) and so forth have created a a couple of desire to consumer of the financial institution. The banking commercial enterprise is turning into increasingly more complicated with the adjustments emerged with the aid of using liberalization, privatisation and globalization. For a brand new financial institution to return back into picture, purchaser advent is maximum essential, however for a long time financial institution retention of clients is a lot greater green and price powerful mechanism. Customer Relationship Management (CRM) might additionally make Indian bankers realise that the reason in their commercial enterprise is to create and preserve their clients and additionally to view the whole commercial enterprise procedure as which includes excessive included attempt to discover, create and fulfil purchaser needs. But it's far sudden to be aware that a lot of the sports of the banking and economic stay cantered on purchaser advent now no longer retention.

It is found out that the National Survey that the simplest media for growing attention of the financial institution merchandise is exposure thru pals and loved ones of capability savers. In rural areas, there's a splendid capability for deposits and advances, however maximum of the capability is left untapped because of lack of know-how of fundamental merchandise scheme. A glad purchaser is silent advertiser for banks merchandise. Under those conditions it's been notion in shape to behaviour a take a look at and CRM in banking quarter.

The research work is an empirical study intended to take a look at supposed to discover the technological revolution that the personal and public banks witnessed and the way a long way it has

benefited banks to construct higher purchaser dating management (CRM) offerings of public quarter banks with personal quarter banks. Moreover, a assessment might additionally be made to discover the expectancies of the clients from the banking circulate and on numerous technical and structural fronts.

Keywords - Customer, Management, Banking sector, CRM, Technology

Introduction

Banking and Finance Industry in India has undergone a rapid change that is followed by a series of fundamental developments. Most important among them is the advancement in Information Technology as well as communication system. This has changed the concept of Traditional Banking activities and has been an instrumental behind widening the dissemination of financial information along with lowering the cost of many financial activities. Information technology and communication networking systems have revolutionized the functioning of Banks. Secondly increase in competition among a broad range of domestic and foreign institutions in product marketing area has becomes a prevalent practice. Thirdly, in line with the increase in overall economic activities, financial institutions too, have modified themselves accordingly in all spheres including customer service. The customers are now demanding more price (interest rate) financial security, quick service, convenience, attractive yield, low cost loan, professional service, advice/ counselling, Easy access, simple procedure, Friendly approach, and variety of product. The whole service sector is now metamorphosed to become customer specific. Until the implementation of the Narasimhan Committee recommendations, banks in India operated under protected environment. Even after 1993 saw the emergency of a new breed of banks called new private sector Banks and opening of most foreign banks in India. The nature of competition that characterizes the banking industry before 1993 is shown in the following table.

In a service industry like banking, the customer is and would continue to be a prime factor and the customer service would be one of the factors for improving profitability. Banks are conscious of the relative cost of acquiring new customer. In the wake of increasing competition, the banks realized that ‘customer is king’ and keeping or retaining a customer is less expensive than creating a new customer for their products. According the Sam Walton, “There is only one boss. He is the customer; he can fire everybody in the company from the chairman down the line, simply by putting somewhere else”. It was the growing realization of these paradigm shifts that led banks to veer towards CRM which believes that.

- When you lose a customer, you lose his life time value.
- Satisfied customer is the best advertisement for a product.
- A 5% increase in customer loyalty will result in profit increase of more than 25%.
- 80/20 principal – In nearly every industry, 20% of the customers account for 80% of the profit.
- A satisfied customer brings in 100 potential new customers whereas one dissatisfied customer prevents 1000 potential new customer.

In the recent years, CRM has emerged as one of the most widely prescribed solutions for increasing market chase and growth of many industries in general, banking sector in particular. CRM is a simple philosophy which places the customer at the heart of the business organizations

Literature review

- Kamath (1979) in his thesis entitled "Marketing of bank services with special reference to branches in Bombay city of syndicate bank" has concluded that quicker and better service offered by bank will be the most important variable in attracting and retaining customer.
- S.G Shah (1985) in his article has stated that quality of customer service in bank has to very sunk to very low and poor levels because of two vastly different reasons. The first is that even the simple routine service have broken down. The second area in which customer service is lagging is that of special situation.
- T.S Ravisankar in his study "Marketing strategies and planning for business growth in banks stressed that the marketing plan for banking service be supported by appropriate marketing strategies. He suggests that the marketing strategy for banks must be oriented to customer – current and potential.
- John Brooks former president and chairman of the council of the charted institute of Bankers, London states "Customer care is emerging as a critical factor in the banking industry and bankers are fully conscious of the need for attaining international standard for service".
- Dr. B.C. Saraswathy (2006) in her article has stated that the mail objectives of CRM are building long term, sustaining relations with customers by delivering superior customer value and satisfaction. Instead of trying to maximize profit for each and every transaction, CRM focuses on maximizing profits over the lifetime value of customers.

  Undoubtedly, CRM is a potential tool in sustaining and boosting sales in this era of hyper competitive world.
- M. Murugan and Dr. S.A. Senthil Kumar in their paper talk about customer relationship management in banking sector-An Empirical Study with reference to Banks in Thiruvannamalai District, Tamil Nadu.
- Mehmet Karahan and Ömür Hakan Kuzu in their paper talk about Evaluating of CRM in Banking Sector: A Case Study on Employees of Banks in Konya

Objectives of the study

- To study the perception of the customers as to CRM of the private and public banks with respect to service quality management
- To study the perception of the customers as to CRM of the private and public banks with respect to customer interaction management
- To study the perception of the customers as to CRM of the private and public banks with respect to customer retention management

Research methodology

This research work will depend on both primary and secondary data. Primary data will be collected by ways of well-structured questionnaire that will be administered by the researcher on private and public banks in Mumbai of Maharashtra. secondary data will be collected from published records of RBI and other Bank authorities, standard text book and published research paper. The required primary data will be collected from the bank branches in Mumbai.

The researcher followed multi-stage sampling in the selection of sample. Public and Private sector banks operating in Mumbai of Maharashtra. The sample for the study was selected through a three-stage sampling procedure. The first stage involved the choice of banks. As it was felt that it would be useful to attempt a comparative study between Public and Private Banks, two public sector banks – SBI Bank and IOB and two private sector banks ICICI Bank and HDFC Bank were shortlisted.

The random selection of bank branches constituted the second stage of the sampling process. Two branches for each of the chosen public sector banks and two branches for each of the Private sector banks were selected for this study.

Judgment sampling method was adopted initially 25 customers from each branch were targeted for data collection needed for the study. Thus the final sample for the study consisted of 8 banks branches (four from to public sector banks and four from private sector banks) which generated 119 customers for studying customer relationship management in banks of Mumbai. The bank wise number of respondents is show below.

- SBI - 35 respondents
- IOB - 32 respondents
- ICICI - 28 respondents
- HDFC - 25 respondents

Total - 120 respondents

Analysis –

	Table 1: Relative Analysis	
Scale	**No. of items**	**Cronbach alpha**
CRM in Banking	19	0.949

In order to understand the Customer Relationship Management in Private and Public Banking Sector, this study first seeks to understand the underlying structural framework of their perception towards Customer Relationship Management in Banking with special focus on Private and Public sector banks. Prior to examining this, the strength of scale used for information search was assessed by examining its reliability. In reliability analysis, internal consistency was computed by calculating Cronbach alpha coefficient (α). It was found to be 0.949.

1) Comparison of means in public and private sector banks

Table 2: Sector-wise mean ratings of service quality

Types of Bank	**Mean**	**S.D**	**No**	**t**	**df**	**Table value**	**Sign**
Public Sector Banks	3.270	0.67	67				

Private Sector Banks	3.300	0.80	52	0.431	419	1.876	Vs
All sectors	3.290	0.74	119				

The value pf t is 0.431 which is less than table value of 1.876 at 5% level of significance, shows that there is no significant difference between the service quality of public sector banks that of private sector banks in terms of empathy dimension. Hence, the hypothesis is accepted.

2) Customers' perception on quality of service

Table 3: Sector-wise mean ratings of service quality

Particulars under quality of services	Types of Banks	
	Public Sector Bank (n=67) *mean*	**Private Sector Bank (n=53) *mean***
Banks gives individual attention	3.250	3.370
Convenient operating hours	3.570	3.710
Employees understand specific needs of the customers	3.131	3.094
Customer is made to feel important	3.340	3.253
Dimension mean	3.372	3.454

We studied on the customers' perception towards the quality of service. While doing so we took into consideration various particulars like banks giving individual client attention, convenient working hours, satisfying customers' needs and giving importance to customers. We studied the private sector banks and public sector banks individually to reach to a conclusion on which is better parameter in which sector bank. By observing the means of the various particulars related to quality services we could observe that the convenient working hours have obtained the majority in both public as well as private sector banks. Convenient working hours are followed by customer given importance in public sector and by attention given to individual customer in case of private sector banks. However, we can observe that the private sector banks outperform in case of the quality of services

3) Customer Perception of Customer Interaction Management

Table 4: sector wise mean of customer interaction management

S. No.	Customer Interaction Item	Public Sector Banks (N=67) Mean	Private Sector Banks (n= 53) Bank
1	Skill to recognize individual needs	3.450	3.390
2	Skill to educate	3.343	3.118
3	Ability acquire interpersonal traits	3.125	3.117
4	Skill to motivate	3.291	2.989
5	Skill to fulfill the needs	3.354	3.103

6	Ability to respect sentimental	3.234	3.058
7	Skill to speed up response	3.090	3.050
8	User friendly services skills	3.110	2.966
9	Ability to operate under technical environment	3.241	2.964
10	Skill to work under varies situations	3.175	2.891
	Dimension rate	3.139	3.047

We studied on the customers' perception towards customer interaction management. While doing so we took into consideration various particulars like skill to recognize individual needs, skill to educate, skill to motivate, ability to understand sentiments, having user friendly skills, etc. Here we studied each sector of bank individually. Here we observed that the skills to recognize individual needs has greater importance in case of customer interaction management, the public sector banks have a mean of 3.450 and private sector banks have a mean of 3.390. While observing the overall mean we can conclude that the public sector banks have performed better than private sector banks in case of customer interaction management.

4) Customer Perception of Customer Retention Management

Table 5: Sector wise mean of customer retention management

S. No.	Customer retention management items	Public sector banks (n =67)	Private sector banks (n =53)
1.	Market leader in strategies	3.510	3.660
2.	Innovative services	3.340	3.610
3.	Individual customer programmer	3.050	3.260
4.	Customer-centric approach	3.090	3.200
5.	Value added services	3.010	3.200
6.	Total employees involvement	3.110	3.070
7.	Low charges	3.140	2.790
	Dimension mean	3.178	3.255

We studied on the customers' perception towards customer retention management. While doing so we took into consideration various particulars like Market leader in strategies, Innovative services, Individual customer programmer, Customer-centric approach, Value added services, Total employees' involvement and Low charges. Here we studied each sector of bank individually. Here we observed that the market leader in strategies has greater importance in case of customer interaction management, the public sector banks have a mean of 3.510 and private sector banks have a mean of 3.660. While observing the overall mean we can conclude that the private sector banks have performed better than public sector banks in case of customer retention management.

FINDINGS-

Table 6: Sector wise mean of each Factor

Factor	Factor Name	Public sector banks (n = 67)	Private sector banks (n = 53)
Factor 1	Quality of service	3.372	3.454
Factor 2	Customer Interaction	3.139	3.047
Factor 3	Customer Retention	3.178	3.255

After exploring the perception factors of Customer Relationship Management in Banking sector, the importance of each factor was calculated with the help of mean value. Table 6 represents the factor wise mean influencing score. The score is derived by taking the grand mean of variables clubbed in each factor. From the table 6, it is found that while exploring the first factor that is quality of service, Private sector banks have dominance compared to public sector banks. In case of Customer interaction factor public sector bank has more dominance over private sector bank and in case of customer retention again private sector banks show their dominance. If we see the overall performance of various factors, we can see that the quality of services in private sector banks have a great influence in Customer Relationship Management in Banking sector.

CONCLUSION AND SCOPE OF STUDY –

The present study attempted to explore the factors related to Customer Relationship management in Private and Public banking sector. A total of 19 items were considered for factor construction and are represented by three factors as discussed above. This study is limited up to exploring the factors that related to the quality service, customer interaction and customer retention and therefore confirmatory factor analysis is not developed. However, there is an enough scope to construct the model for perception of the factors related to Customer Relationship Management in Banking sector by employing the Confirmatory Factor Analysis.

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Questionaries : I.Personal Data

1.1. Name (Optional)

1.2 Age (Years)

CRM IN BANKS

a) Below 30 b) 31 – 40 c) 41 – 50 d) 51 and above

1.3 Sex
a) Male b) Female

1.4 Marital Status
a) Married b) Unmarried

1.5. Education Status
a) Illiterate b) School level
c) College level d) Professional e) Others, specify

1.6 Occupational status :
a) Agriculture b) Salaried c) Profession d) Business e) Others, specify

1.7 Monthly Income (Rs.)
a) Below 10,000 b) 10,001 – 20,000 c) 20,001 – 30,000 d) 30,001 and above

Relationship with bank

2.1 Name of your bank :
2.2.
2.3

Experience with the bank
a) Below 5 yrs
b) 6 – 10 yrs
State the nature of your recent with the bank
c) 11 – 15 yrs d) 15 yrs and above
a) Savings bank account b) Current account
b) fixed deposit account d) Loan A/c e) all of the above

III. Service Quality :

Based on your experience with the bank, please state the level of service quality as to the following factors.

S.No	a) Empathy	Excellent	V.Good	Good	Neutr al	Poo r	V.poor	Not applicable
1	Banks gives individual attention	( )	( )	( )	( )	( )	( )	( )
2	Convenient operating hours	( )	( )	( )	( )	( )	( )	( )

3	Employees understand specific needs of the customer	( )	( )	( )	( )	( )	( )	( )
4	Customer is made to feel important	( )	( )	( )	( )	( )	( )	( )

IV. Customer interaction Management

S.No		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
4.1	Skill to recognize individuals	( )	( )	( )	( )	( )
4.2	Skill to educate	( )	( )	( )	( )	( )
4.3	Ability to acquire interpersonal traits	( )	( )	( )	( )	( )
4.4	Skill to motivate	( )	( )	( )	( )	( )
4.5	Skill to develop awareness	()	()	( )	( )	( )
4.6	Ability to Flexible	()	()	( )	( )	( )
4.7	Skill to fulfill needs	()	()	( )	( )	( )
4.8	Skill to provide positive experience	()	()	( )	( )	( )
4.9	Ability to keep up promises	()	()	( )	( )	( )
4.10	Ability to respect sentiments and values	()	()	( )	( )	( )
4.11	Ability to operate under high technical environment	()	()	( )	( )	( )
4.12	Skill to retain human side	()	()	( )	( )	( )
4.13	Skill to work under varied situations	()	()	( )	( )	( )
4.14	Skill to speedup response	()	()	( )	( )	( )
4.15	User friendly service skills	()	()	( )	( )	( )

State the level of effectiveness of the branch and its staff as to customer interaction.

V. Customer retention management

State the level of effectiveness of the branch as to CRM

S.No		xcelle nt	.Goo d	oo d	Neutr al	Poo r	/.po or	Not applicable
5.1	Innovation services	( )	( )	( )	( )	( )	( )	( )
5.2	Individual customer care programmes	( )	( )	( )	( )	( )	( )	( )
5.3	Effective complaint Management system	( )	( )	( )	( )	( )	( )	( )
5.4	Customer – Centric approach	( )	( )	( )	( )	( )	( )	( )
5.5	Total Employee Involvement (ERM)	( )	( )	( )	( )	( )	( )	( )
5.6	Special events	( )	( )	( )	( )	( )	( )	( )
5.7	Customer segment specific strategies	( )	( )	( )	( )	( )	( )	( )
5.8	Value added services	( )	( )	( )	( )	( )	( )	( )
5.9	Empowered employees	( )	( )	( )	( )	( )	( )	( )
5.10	Advanced technology	( )	( )	( )	( )	( )	( )	( )
5.11	Learning organization	( )	( )	( )	( )	( )	( )	( )
5.12	Low Charges (commitment fee)	( )	( )	( )	( )	( )	( )	( )
5.13	Safety	( )	( )	( )	( )	( )	( )	( )
5.14	Customer feed back	( )	( )	( )	( )	( )	( )	( )

ABOUT THE BOOK

The next normal has arrived to have a lasting effect on the business world. Businesses and Society have started looking forward to shape their future rather than just grinding through the present. As rightly mentioned by Plato, 'Necessity is the mother of innovation,' we have seen tremendous growth in digitization and innovation. The pandemic crisis sparked a wave of innovation and launched a generation of entrepreneurs ensuring plethora of opportunities, thus ensuring growth. I have revealed the importance of sustainability and innovation in growth.

The business world is talking massive decisions and transformative action to sustain and grow. It's a unique time for the companies who are on their sustainability journey, and their transition at large with emerging business trends.

The entire world had leaned an important and powerful lesson on how fragile life is and nothing can be taken for granted. The happiness and wellbeing were redefined when we were confined to lock downs and quarantines. Human relations were re-explored and walking in fresh air became the biggest leisure and treasure of life. Now companies are looking forward to enable empower employees to find the right mix of tools and experiences to ensure employee happiness and Wellbeing are the pillars of business trends in the next normal. Researcher across the globe are contributing through their research work to get the right mix of tools and experiences that benefits the business world. To enable these researchers a platform to showcase their work, IES's Management College and Research Centre, Mumbai, on March 05, 2022, invited academicians, researchers, research scholars, consultants, and management practitioners, civil servants, and self-employed professionals, to submit original, unpublished research work on the main theme of the conference, '**Business Trends Ensuring Growth, Sustainability, Innovation, Happiness and Wellbeing in the Next Normal**.' The conference was held in collaboration with AMDISA.

The conference was well received by the research community and we received an overwhelming response. The online conference made it convenient for the researchers from different geographic areas to present their work. Papers were presented in different areas of Marketing, Finance, Human Resources, Operations, Economics, IT and Entrepreneurship.

Few select papers are considered for publication in this book that aimed that how the changing trends of business will be ensuring growth and sustainability. The book also focuses on how innovation is the new key word to success and how people have unleashed and redefined the terms of happiness and wellbeing in today's new world of next normal.

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