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AUGMENTED REALITY (AR) AND VIRTUAL REALITY (VR) IN MANAGING PEOPLE AT WORK: A SYSTEMATIC LITERATURE REVIEW & FUTURE DIRECTIONS

Dr. Farah Naeem¹

ABSTRACT

Human resource management (HRM) is a profession that has developed with technological advances and currently operates in a highly competitive market. Augmented reality (AR) and virtual reality (VR) are pioneering technologies which have demonstrated promise in a variety of applications. Due to their potential to imitate real-world circumstances, they give an immersive perspective, and promote communication among virtual and real surroundings; this is a futuristic concept for HRM operations. This paper aims to analyze the implications of AR and VR in HR functions with respect to talent acquisition and talent management. A systematic literature review was conducted. Findings suggest that workplace applications of AR & VR can create significant changes in HRM. The study analyses employee emotions and behaviours in different workplaces. AR & VR are helping HR managers improve candidate recruiting, onboarding, training, and performance management.

Keywords : *Human resource management; Augmented reality; Talent Acquisition; Virtual reality; Training & Development; Recruitment; Talent Management*

INTRODUCTION

The implementation of technology in HRM is critical for a company's growth (Jatobá et al., 2019) and facilitates human resource specialists (Stone et al., 2015) who are exerting a positive impact on HR processes and practices (Jatobá et al., 2019; Fenech et al., 2019). Human resource departments can compete and enhance talent acquisition, retention, and development via new technologies (Iqbal et al., 2019). AR and VR are relatively novel and pioneering technologies (Zhao et al., 2019) that distinguish themselves through realistic interactivity and involvement in the simulated atmosphere and have demonstrated their applicability and Possibility of application in a variety of fields (Javaid & Haleem, 2019; Damiani et al., 2018).

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The present research intends to offer information about the possibilities for virtual reality (VR) and augmented reality (AR) in HRM. A review of the literature was conducted to compile and evaluate prior findings in this relatively new field, which has piqued the scientific community's interest. In spite of the cost-cutting climate caused by the pandemic, 90% of HR directors expect to keep or expand their IT investments in 2021, according to Gartner data. Furthermore, over 24% of chief human resource officers are still investigating the influence of emerging technology trends including Artificial Intelligence (AI), VR, and AR on talent acquisition and staff management operations.

Augmented Reality (AR)

Augmented realities are interactive experiences of a real setting where real-life things are complemented with simulated perception-based data. AR syndicates the real world with a virtual one, actual communication, and realistic 3-Dimension object registering. Technology has provided the workplace with several beneficial tools, the list of uses of which expands daily. AR helps society. This technology is becoming more accessible and can be beneficial in the office. Instead of an entire environment overhaul, AR modifies existing elements. It allows real-time merging of the virtual and real worlds with perfect three-dimensional registration (Rajendran et al., 2019; Billinghurst, 2002).

Virtual Reality (VR)

Virtual reality uses computer demonstrating and replication to build an artificial 3-D world. Virtual submissions involve the worker in a simulated ecosphere which looks like the real, by the use of communicating eyewear, headsets, gloves, or body suits. A person who wears a VR gear on the head, with a stereoscopic screen, sees animation of photographs of a virtual world. Moving radars take up the motions of the user and change the screen view in real-time (as the user moves). A participant can traverse a virtual suite of places, experiencing different vistas and outlooks according to the turning of his head and the process followed. The user may control virtual items by wearable gloves with information in them, along with feedback equipment. Jaron Lanier invented the phrase virtual realities in 1987 and contributed to its development. The US federal government played an important role in initial research and development on virtual reality in the U.S. (NASA). These agencies' projects at university-based research labs produced competent employees in computer graphics, simulation, and networked settings and developed ties between academic, military, and commercial activity (Burdea & Coiffet, 2003).



Aim and Objective of the Study

The study adopted systematic literature review (SLR) method to analyze effects of augmented reality (AR) & virtual reality (VR) on HR functions.

Its main aim was:

- ◆ To study the impact of augmented reality (AR) & virtual reality (VR) on HR functions with reference to talent acquisition and talent management.

Research Question

- ◆ What is the impact of augmented realities and virtual realities on HR functions with reference to talent acquisition and talent management?

Review of Literature

Understanding the Role of AR and VR in Modern HR

The use of AR and VR in the workplace is expanding. The platform Spatial can convert the area around employees into a collaborative and augmented workplace. Using the VR headset simultaneously, users or incumbents may design their own avatars or those of any peers. They may utilise HoloLens or Magic Leap to locate themselves in their area. Screen share is also feasible in such an environment, and such an atmosphere is ideal for remote employees because they may feel linked to others who would have been in the office. Virtual and augmented reality are anticipated to be worth more than \$143 billion. Companies seek to make the transition by utilizing all the benefits of these high-tech methods. On the one hand, the HRMS software management solutions driven by AR/VR can help recruit fresh talent. On the other hand, they cut expenses by accelerating procedures. Forbes cites Dan Schawbel, an American generational analyst, as saying that a quarter of generation Z and Millennials would support the usage of VR and AR in the workplace (Quoted in Am, et al., 2020). The digitalization that is presently taking place in organizations necessitates a re-examination of most of the conventional methods and a consideration of the advantages of technological innovations, which have been demonstrated to be encouraging techniques for maximizing the efficiency and performance of HRM (Fenech et al., 2019, Coie, 2019).

Role of AR and VR in Talent Acquisition

A firm may focus on the recruiting and selection process to lower turnover rate because this is the initial connection between potential employees and the company, and it



allows the prospective employer to determine if they are interacting with an ideal candidate for the position and the organization (Osibanjo & Adeniji, 2013). VR may be utilized in the recruiting and selection process to identify and evaluate a candidate's skills (Winkler-Schwartz et al., 2016). By cultivating a culture of innovation within their organizations, businesses may better address consumer and employee demand for innovative goods and services (Naranjo-Valencia et al., 2015). Given the increasing incidence of employee turnover among the millennial generation in firms, the use of innovative tactics and technology is essential for retaining employees. This generation has grown up with modern technology and appears to find inclusion in enterprises through a more technological induction programme that may be launched through a virtual office visit or the acquisition of knowledge via their cell phones (Shufutinsky & Cox, 2019; Hannola et al., 2018).

Using augmented reality in recruiting enables prospective workers to remotely and safely utilize the company's high-value items and other resources. AR may be utilized at several phases of the recruiting process to assist the organization in selecting the best candidate for a position. AR can assist in promoting the brand and attracting the most suitable individuals in a highly competitive market (Lyons, 2022; Naeem, 2020). When there is a strong demand for a certain skill, applicants are more likely to select the organization that has the most advanced technology, the finest career progress opportunities, and the most accommodating culture. Additionally, AR may be utilized to demonstrate the company's future, making it more appealing than its competitors. Instead of using the most conventional methods to evaluate an employee's skills and abilities, augmented reality games may be used to evaluate each candidate's potential and determine whether they are qualified for the job. AR games are entertaining and can help recruiters to predict how candidates would behave in certain scenarios (Fominykh et al., 2020).

In recent years, AR and VR have experienced tremendous popularity. Many educational programmes have begun to adapt their curricula to match the growing need for these roles on the labour market. The present research is a thematic analysis of virtual job listings and has developed the framework for talent categorization for AR and VR employment jobs. In addition, the author has provided a ranking of the applicable talents for the role. The author observed that technological talents such as, graphics rendering asset design, UI/UX design and software design, are in high demand for AR/VR jobs. Results about major skills classification may be useful for people in management departments, and for expanding present course curricula to meet the current needs of business (Verma et al., 2021).

The use of virtual reality in talent recruitment methods at college job fairs is a novel way to target younger people just beginning their careers. VR provides job searchers with a realistic picture of the position during career fairs, hence increasing the quantity of high-quality applications. The company and the candidate both benefit from the applicants' prompt acceptance or rejection of an offer (Santos, 2019). Traditional systems did not allow potential workers to experience the real-world challenges of working in a real-world environment, but a new methodology that relies on virtual reality (VR) has allowed candidates to test out a number of specific activities related to their employment (Suen & Chang, 2017; Noghabaei et al., (2020). Introduction of updated technologies in the manpower selection process has multiple advantages for an organization, which leads to superior productivity (Aguiniset al., 2001). As with a medical student who can imitate an operating room setting and do many actions with a rapid response to each, it is easier to evaluate an applicant's technical skills in real-world circumstances. In addition, applicants may be sorted based on their exam scores, with the most qualified individual being chosen (Winkler-Schwartz et al., 2016).

Using AR and VR in Talent Management

An enhanced HR strategy and the usage of AR enable the establishment of creative strategies for social engagement among corporate personnel, resulting in increased organizational efficiency and effectiveness. Staff employees promote the notion that their organization is forward-thinking in its operations and insights and can deliver opportunities that competitors cannot (Zhao et al., 2019). Immersive approaches are innovative, dynamic, and engaging ways of educating and inspiring employees (Davideková et al., 2017; Stadnicka et al., 2019; Khandelwalet al., 2019). Virtual and augmented reality technologies contribute in the development of digital world principles such as creative thinking, information exchange, teamwork, leadership, problem-solving, and negotiation (Schmid Mast et al., 2018; Papanastasiou et al., 2019; Davis et al., 2020). Virtual reality promotes a safe training environment by lowering the risk and danger connected with a variety of learning styles (Jilani et al., 2017; Lombardo et al., 2019; Kwok et al., 2019; Squelch, 2001). When it comes to construction, a high-risk occupation for individuals, the use of VR and AR technology has grown in popularity (Liet et al., 2018). Simulations of medical operations are extraordinarily useful in the pre-surgical phase of medicine (Pulijala et al., 2018; Huan et al., 2018; Eckert et al., 2019; Negrillo-Cárdenas et al., 2020). During the COVID-19 pandemic, researchers utilised VR to battle the viral infection. When health professionals practise utilising a simulation of real-world

situations, interaction, and immersion, they become acquainted with real-world sickness problems and acquire knowledge quickly and efficiently (Singh et al., 2020). Immersive technology may be used to teach and encourage security personnel and ship crews (Davideková et al., 2017; Auet al, 2017; Khandelwal et al., 2019; Stadnicka et al., 2019). VR aids in establishing a safe learning environment by limiting the impacts and dangers connected with a wide range of learning scenarios (Bruzzone et al., 2010; Jilani et al., 2017; Lombardo et al., 2019). Not the least of the educational benefits of utilising VR in the classroom is the opportunity to provide pupils with hands-on instruction through the use of video games. In addition, these technical skills contribute to the development of human resources by boosting information retention and, thus, the acquisition of knowledge. The prompt action of motivated employees leads to cost savings for the organisation (Khandelwal et al., 2019).

VR allows businesses to build scenarios in which employees may learn by doing, without any negative effects. It enables for error-driven learning in which employees may make errors in a safe environment and learn from them. In the majority of workplace learning situations, experiential learning is sometimes the most challenging to implement, although it frequently has the greatest impact. Virtual reality enables businesses to capitalise on this. Learners are able to visualise their responses to stressful events and detect performance gaps that are impeding their progress. Without going to a different location, trainees may enjoy learning in a variety of settings that simulate various conditions. A police officer can train in a single location on how to handle robberies, hostage situations, and natural catastrophe interventions (Dávidekova et al., 2017; Parekh, et al., 2020).

Methodology

A systematic review of the literature was carried out. It is a method/process for aggregating, investigating, and evaluating a corpus of studies using pre-determined and established procedures. To put it another way, the rationale, hypothesis, and data collection procedures are prepared ahead of time and used as a guide for doing the review, to reduce bias. The objective is to identify, critically appraise, and synthesize the existing information relevant to a well-defined domain, much as it is with traditional literature reviews. Systematic reviews of the literature allow us to look into findings that are inconsistent and/or concordant, as well as uncover themes that merit further investigation. They also have the ability to analyse the consistency and generalizability of data in relation to specific scientific challenges, which makes them incredibly important in the psychology field. This is very beneficial for collating information from a range of research literature,

looking into the similar phenomena, and their frequently utilised to address an actual particular experiential subject.

Method of Data Collection

The Systematic Literature Review (SLR) method was used in this study. All (or nearly all) of the following qualities are present in systematic reviews of the literature: Objectives that are prioritised; Clearly stated criteria for including and excluding literature; Predetermined information-gathering strategy and methodical implementation of the procedure; All sources consulted were given predefined features, which were clearly stated in the review; a comprehensive assessment of the quality of the research contained in the review; Identification of omitted literature sources and justification for their omission; Analysis and synthesis of data (comparison of results, qualitative synthesis of findings, meta-analysis); Inconsistencies and inaccuracies found in the chosen content are mentioned. This research used a two-stage research process and a systematic review of the literature. To begin, a procedure for selecting and analysing articles has been devised and executed. The items are then taken up for content analysis.

Construction of the Research Thread

Studies about the impact of AR and VR on human resource functions were reviewed. At the onset, current information was examined and planned, followed by the development phase using the keywords mentioned below. The papers that were identified were used to develop keywords and associated terms. Table 1 shows a list of commonly used words in the literature, arranged by class.

Table 1: Keywords with related phrases

KEYWORDS	ASSOCIATED TERMS
Augmented Reality (AR)	Real world environment; perceptual information; immersive sensations; computer mediated reality
Virtual Reality (VR)	Simulated experience; human computer interface; virtual world; realistic environment
Human Resource Management (HRM)	Recruitment; selection; development; employee engagement; attrition; organization performance
Recruitment	Onboarding;
Talent Management	Retention; training; people management

Literature Search and Process of Selecting Articlesto Include in the Systematic Literature Review

SCOPUS, ProQuest, ScienceDirect, SpringerLink, PsycINFO, PubMed, EBSCOhost, and SciELO were searched. Theauthor used Web of Science and Google Scholar for the SLR when the search phrases were developed and examined in numerous important databases. The references were then imported by Endnote and then sifted for replication, resulting in a total of 97 unique papers. By scanning titles and abstracts, we were able to find articles that contained the keywords we were looking for. The resulting references, 83 in all, were then transferred to an Excel spreadsheet for cleaning and additional evaluation. Here, the abstracts of all articles were analysed, with an emphasis on those that were closely connected to the study aim. Initially, 59 articles were discovered; however, a few of them were grey literature, books, or sections of books, and were therefore removed. Additionally, because some articles were not accessible for download, they were removed. The final list included 36 papers. Figure 1 is a flow diagram based on the PRISMA 2009, depicting the literature search approach for articles collection for the SLR.

Data Analysis Strategies

To analyse the articles chosen in the manner described above, two procedures were applied. To begin, descriptive research was carried out by creating the journal distribution across time. Following that, a review was conducted according to journals, scientific topics, authorship, and citations. As a result of the discovery of both empirical and theoretical research, a content analysis of empirical publications was carried out to examine the following: The research methodology (data collection and analysis methodologies), and that implications of ARandVR on human resource functions are all addressed. This content analysis is supported by using the Nvivo software to examine word frequencies (in the title, abstract, and keywords) in order to find the most commonly used phrases in this research field via word clouds.

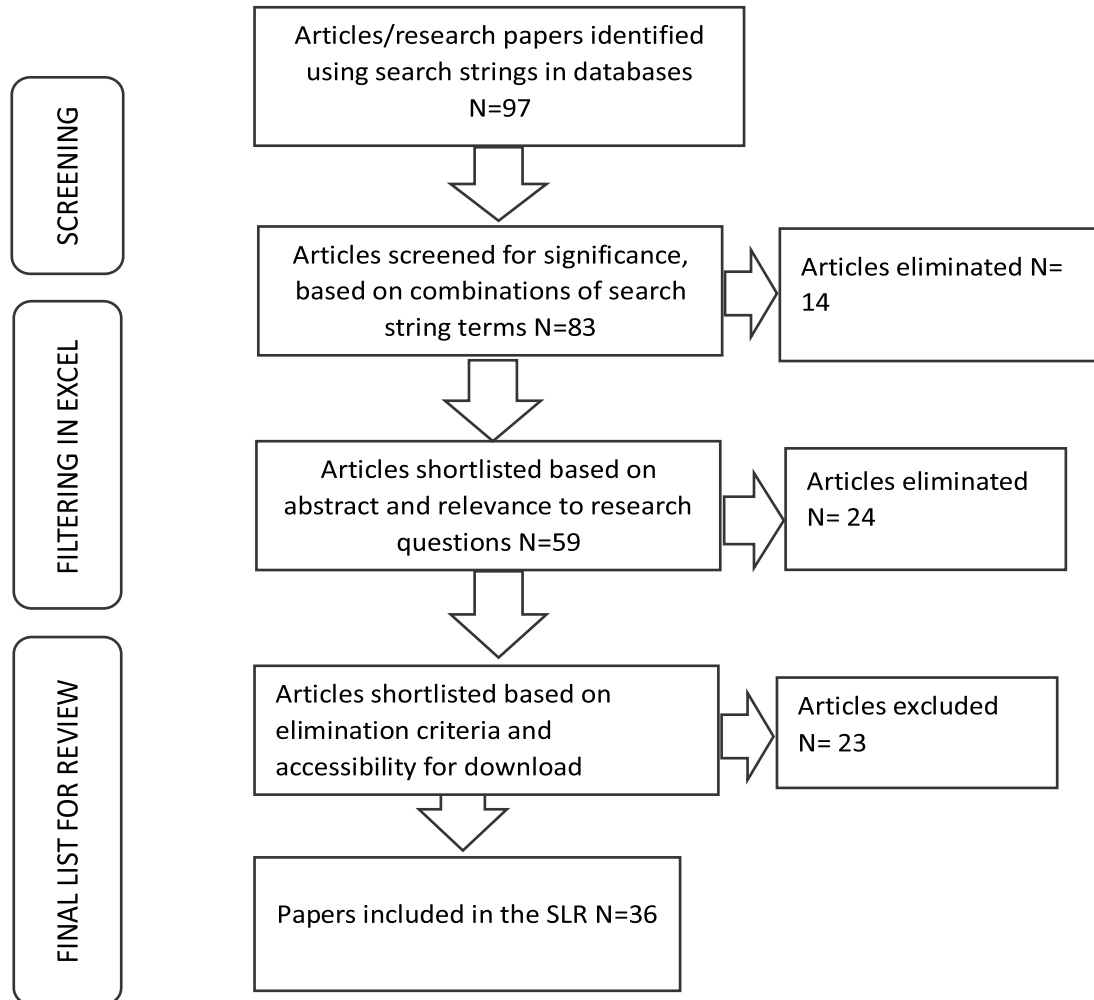


Figure 1: Selection of articles for inclusion in the SLR

RESULTS AND DISCUSSION

The results of this research are discussed below.

Review Articles

The majority of the publications examined (80%) were published within the last five years, revealing implications of AR and VR technologies on HRM. This is depicted in Fig. 2.

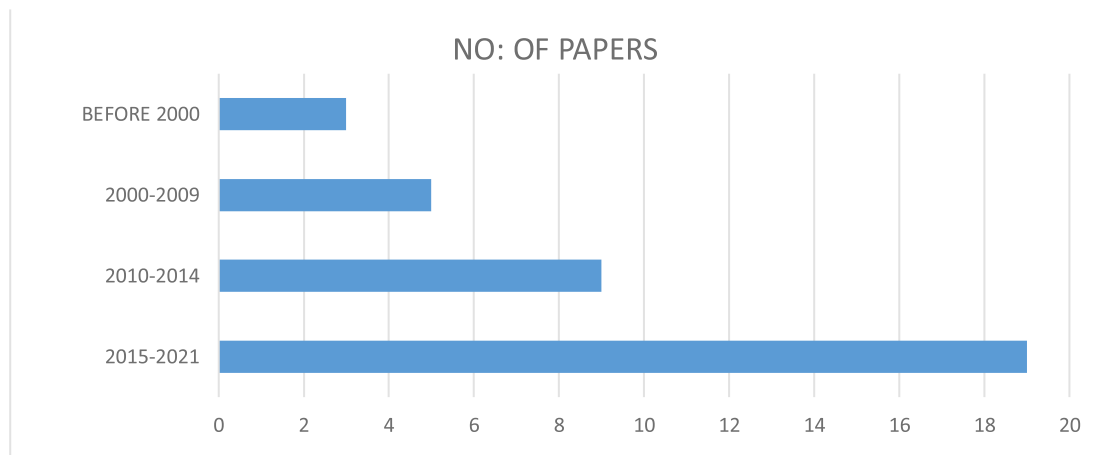


Figure 2: Peer-reviewed journal papers by year of their publication

Therising prominence of this topic reflects a cross-disciplinary synthesis of ideas and concepts from other fields. The reviewed literature focused on the effects of augmented and virtual reality on HR functions. A complete list of journals, as well as the number of papers published in each, may be found in Table 2 below.

Table 2: Count of peer-reviewed papers by journal in the SLR

JOURNAL/PUBLICATION TITLE	NO: OF PAPERS
<i>Management Review Quarterly</i>	11
<i>Interactive Learning Environments</i>	4
<i>Applied Sciences</i>	10
<i>International journal of engineering and technology</i>	2
<i>Current issues in tourism</i>	2

<i>Human factors</i>	2
<i>Business Horizons</i>	1
<i>Conferência-Investigação e Intervenção em Recursos Humanos</i>	1
<i>HBR</i>	1
<i>Organization, Technology and Management in Construction: An International Journal</i>	1
<i>Computers & Industrial Engineering</i>	1

Important theories and hypotheses which featured in the examined literature were identified and classified by the year of publication and number of publications they appeared in, in order to address the main study objective. Five major themes impacting the debate on reclamation tactics and perception models have been discovered, and their features are listed in Table 3.

Table 3. Crucial themes and their features shown in the SLR.

THEMES	CHARACTERISTICS	ARTICLES
Augmented Realities (AR)	Simulated atmosphere; artificial intelligence,	14
Virtual Realities (VR)	Interactive experience, real time interaction; computer modelling;	13
Human Resource Management	Mobile work force; Human resource development; remote work culture	9
Recruitment and Selection	Skills; abilities; experience; talent acquisition; selection; recruitment tests; assessments; onboarding	11
Performance Management	Turnover; work engagement; employee	8



How is Recruitment Impacted by AR and VR Technologies?

Jet, an e-commerce platform, employs Samsung's VR equipment to attract new employees by producing a simulation of the workplace and providing candidates with an authentic look at the corporate culture. For instance, applicants might observe how meetings are conducted and the demeanour of co-workers, in order to comprehend the ambiance of the company. This technology can make new employees feel more at ease upon joining the organization. Consequently, they will quickly be able to blend in and carry out their duties. Deutsche Bahn, the German railway business, is utilising virtual reality technology to attract additional blue-collar workers, managers, and experts. Due to the fall in the number of new employees entering the labour market, the firm has chosen to use VR to allow candidates to experience several occupations so that they will be enticed to apply for one. The Commonwealth Bank of Australia offers a VR training programme that evaluates workers' decision-making ability in various difficult circumstances. As the bank increasingly relies on paperless transactions to transform the way business is conducted, these new technologies can bring out unique problems for both new and veteran personnel. VR is used to create a virtual environment that places the candidate in a difficult situation in order to evaluate their decision-making skills and determine their suitability for the position. Jaguar revolutionizes its recruiting procedure by providing employment to anyone who can decipher a VR application's code. Thus, only the most qualified candidates will be allowed to go through the subsequent phases of the hiring process, allowing the organization to offer the position to the most qualified individual. In addition to being an effective method for identifying the ideal candidate for the position, the entertaining game will emotionally connect new candidates with the business (Am et al., (2020).

Advantages of AR and VR Technologies in Training and Development

AR/VR technology has become an ideal substitute for meeting rooms and classrooms for employee on boarding and remote training. The incorporation of immersive technology into employee training modifies the manner in which employees learn and acquire the skills necessary to achieve predetermined objectives. AR/VR technology in employee training will revolutionize the job performance of a company's staff and increase the company's profit margins. Using SAP ERP, AR and VR technologies have a favourable influence on the business. By immersing learners in a virtual environment that mirrors the real world, virtual reality training for employees will take learning to the next level. In corporate training, virtual reality is used to create teachers' avatars and a meeting space where employees may engage with instructors in real time. AR in corporate training allows



for greater flexibility in employee training by improving access to pertinent information and real-time connectivity to the systems surrounding them. If you wish to offer instruction on machine operation in factories or warehouses, it is possible to make 3D representations of various appliances so that personnel may comprehend the precise working of each gadget (Wang et al., 2018).

Talent Management

Imagine taking an AR tour of your office, where information about major locations, corporate history, and your new co-workers shows up as you go from one location to the next. AR is more than simply a gimmick, despite how thrilling all of this sounds. Enhancing the onboarding process will assist organizations in attracting and retaining talent. A continually skilled workforce is a result of more efficient learning and growth. The use of augmented workplaces results in improved, more productive methods of labour and a substantial decrease in expenses. AR is an ideal illustration of how technology can improve human operations. Instead of ceding control to technology, we may harness its power to improve our performance, resulting in a more productive, successful, and joyful way of working (Pillai & Sivathanu, 2020; Naeem, 2018).

The onboarding procedure is fundamental to staff training. Evidence suggests that approximately 30 percent of American workers quit their jobs within the first 90 days. Organizations with inadequate onboarding procedures risk losing the candidates' confidence. During this phase of employment, new team members become familiar with the company's policies, processes, and culture. AR can improve the experience. It may present candidates with a realistic virtual workplace tour, for instance. They would learn all they need to know about the organisation, training procedure, and expectations as they explore the virtual tour (Koutitas et al., 2021; Naranjo, et al., 2020).

CONCLUSION

AR is technology that overlays digital information over real-world items or locations to enhance the user experience. It is not virtual reality, the technology that generates an entirely digital or computer-generated environment. Numerous industries, including medical, marketing, museums, and fashion, are researching and using augmented reality due to its capacity to integrate reality with digital data. As a result of modern approaches that utilize modern technologies, turnover is lowered, retention of talent is enhanced, and employee satisfaction rises. In addition to increasing applicant interest in talent acquisition



(Santos, 2019), VR and AR assist applicants in comprehending their role and assist HR specialists in the selection process. The COVID-19 pandemic outbreak may open up opportunities for the implementation of VR and AR, as it brings people closer to advanced technologies, encourages the digital age, and emphasizes the importance of technical methods in the course of business (Rotatori et al., 2020). VR and AR could be used to help recruit, keep, and train employees, among other things. This kind of research would help HR managers understand some of the benefits of these technologies. The perspectives of HR specialists on these advanced technologies and their relevance to HR processes, as well as those provided by the literature, may be of interest for future research in order to make more smart judgments.

RESEARCH IMPLICATIONS

By giving information about prospective applicants, AR has the ability to improve an organization's recruiting and on boarding process. Applicants' leadership qualities, aptitude, and problem-solving ability might be evaluated, for instance, through interview activities. Candidates would wear their AR headsets and complete their given tasks, following which the results would be evaluated. Such AR examinations can assist the recruiting team in identifying the top applicants while decreasing the workload associated with employee selection.

The potential for AR in training and development is vast. AR-based applications can generate virtual environments to improve training through the use of spatially-targeted layouts. For instance, AR may simulate the actual world to give safety training that eliminates the possibility of a safety problem occurring during training. Employers may also utilise AR for diversity and inclusion training (allowing an employee to step into the shoes of someone in an immersive environment through AR). Moreover, an AR platform may offer training information in 3D, which makes learning more engaging. The increased interest in virtual and augmented reality applications in business motivates businesses to investigate potential management applications in several domains. Also under progress is the application of virtual and augmented reality to human resource management and development. Despite this expanding tendency, there is a dearth of scientifically-based information on what is being done, how it is being done, and the outcomes. This study attempts to close this knowledge gap by creating a map of the scientific understanding of virtual and augmented reality in human resource management and development.

Directions for Future Research

Due to easy application development and extensive usage of hardware tools, AR and VR technology is spreading. Industrial AR and VR applications are increasing. Although these applications are generally experimental prototypes, AR technology has significant promise in many domains and industrial sectors. AR and VR technologies are predicted to become increasingly common. AR and VR have the potential to completely revolutionise the HR process since they have a wide variety of uses in the workplace. It is possible to utilise these technologies to examine the responses and behaviours of employees in a variety of various work contexts. AR and VR are helping HR managers provide their people with a more holistic experience in a variety of areas, including but not limited to, the following: transforming candidate hiring experiences and on boarding procedures; training and development; and performance management.

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ENHANCING USER EXPERIENCE THROUGH AUGMENTED REALITY IN THE TOURISM INDUSTRY

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ABSTRACT

Augmented Reality (AR) is a digital extension of a person's senses of sight and hearing. With the launch of smart phones, development of various AR supported applications and easy access to the Internet, a user can experience unseen environments using AR. AR can provide enhanced customer services and hence develop new user experiences across industries. In the recent era, technology has played a vital role in the success/failure of any industry. AR has huge potential in development, promotion and marketing in the tourism industry. Different AR based applications can guide tourists in finding hotels, restaurants, places of attraction and even in language translation. Considering upcoming opportunities, companies have started using AR and other support tools for marketing of different products and services. The present paper is a review-based paper where an attempt is made to understand the user experience through AR in tourism industry. Suitable suggestions are given on the basis of the methodical literature review.

Keywords: *AR, Tourism, Augmented Reality, AR Marketing, Virtual Reality*

INTRODUCTION

The COVID-19 pandemic impacted lives and businesses across different sectors. The tourism industry was one of the industries that was deeply affected by the pandemic. When the tourism industry faced the challenge of slowdown, the economy, livelihood, employment across the globe were impacted. In the middle of 2021, global market players in the tourism industry started reviving. But they faced the challenges of lack of trust among the travelers regarding their health safety. At that time AR technology acted as a booster to restart the travel industry, to gain

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The trust of the tourist, and offered new attractive services to customers, which helped the industry to grow its revenue and survive in the competitive market.

With the development of technologies and diversity in travel services, the tourism industry has developed innovative solutions to attract tourists, which can provide enhanced user experiences across diverse sets of consumers. AR can be understood as a new-age technology which has the power to disrupt the market and open up new doors for innovative services offered to customers in the tourism Industry.

AR permits marketers to combine the physical world with the digital world and allows users to explore products or services before they are purchased. AR assists organizations in understanding the desires or aspirations of the users related to travel, stay or entertainment in an efficient way. Additionally, AR processes enhance the persuasive power of the brands and hence offer attractive opportunities to promote services. (Yovcheva et al., 2012)

Augmented Reality; the Background

AR is interactive technology. It is the combination of computer-generated images with the real world. AR has the power to superimpose any computer-generated object or image into a real-world environment on a computer or mobile screen in an interesting way. It can improve the effectiveness of content served to users by AR software. Now AR technology is integrated with the modern devices such as smart phones, tablets etc. All these devices have built-in cameras and sensors, which can improve the functionality of the AR based app without requiring any external device to be connected with the smart phone.

Undeniably the popularity and extensive usage of smart phones gave life to enormous mobile applications in the market. (Kennedy-Eden & Gretzel, 2012). In such an intensively competitive market, AR has been used by many brands and apps to reach the users and provide them with the best possible user experience and commitment. (Höllerer & Feiner, 2004)

Smartphones enable users to feel the virtual object in a real time environment. The object may be a cup of coffee, piece of furniture, any virtual assistance or direction for driving in a navigation system which is very appealing to users across different generations but especially the younger ones. (Craig, 2013)

AR has the capability of superimposition of any digital objects like images or graphics as they are integrated with the real-world environment. Therefore, AR may be



useful in the tourism industry. When a tourist places a mobile camera on any 2D or 3D images which may be available in the form of a hologram or QR Code, they can easily access the previews of hotels, local restaurants, local sightseeing, monuments and any other places of attraction. Considering all the opportunities, AR may be a very useful marketing tool for the tourism industry.

AR enhances the experience of the user by not only providing useful information, but also offering entertainment opportunities to users to enhance their experience of tours. (Kounavis et al., 2012)

AR can be used in different areas such as retail, medical and scientific research, marketing, entertainment, sightseeing, fashion and tourism. AR can present any product in an innovative way to the customer. Flipkart is a perfect example where an AR-enabled experience is integrated in the mobile app, which allows the user to virtually experience what the product will look like in reality before the purchase.

Application Areas of AR

AR has wide scope in diverse areas like gaming, education, health care, retail etc. The detailed applications are listed below:

Gaming: AR is widely popular in the gaming industry, with games like Pokémon Go and Minecraft Earth mesmerizing users to experience fun and excitement with simulated characters and objects from the real environment.

Education: AR enhances learning experiences by overlaying digital information onto real-world objects. It can be used to provide interactive explanations, virtual tours, and immersive simulations, making complex concepts more understandable and engaging.

Healthcare: AR is being used in medical training, allowing students and professionals to practise surgical procedures and visualize anatomical structures. It can also aid in diagnosis and treatment by overlaying patient data and medical images onto the real world for better visualization.

Retail: AR is transforming the retail industry by enabling users to visualize how different products like apparel, eye glasses, makeup and other accessories fit them without physically trying them on. Hence it provides “virtual try on user experiences.” AR can also provide additional product information and personalized recommendations.

Architecture and Design: AR assists architects and designers in designing and modifying virtual replicas of structures, offices, houses, shops etc. in real time. Clients can



experience virtual walkthroughs of spaces and see how different design elements would look before construction begins.

Tourism and Travel: AR applications can provide interactive guides and information about tourist attractions, historical sites, and landmarks. Users can point their devices at points of interest and see overlays of information, such as historical facts, directions, and reviews.

Maintenance and Repair: AR can assist technicians and mechanics by overlaying step-by-step instructions, diagrams, and visual cues onto real-world objects. This helps in equipment maintenance, repairs, and troubleshooting.

Advertising and Marketing: AR can be used in interactive advertising campaigns, where users can scan products or posters with their devices to access additional content, discounts, or promotions. It allows brands to create engaging and immersive experiences for their customers.

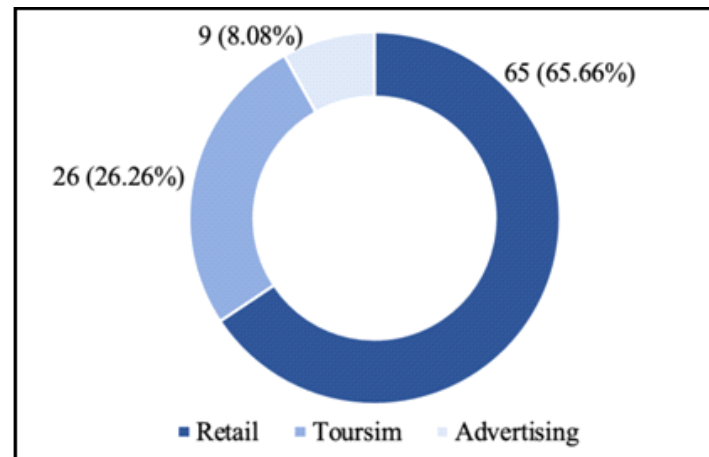
Entertainment and Live Events: AR is used to enhance live performances, concerts, and sports events by overlaying digital effects, graphics, and information onto the real-world environment. It adds an extra layer of excitement and engagement for the audience.

Training and Simulations: AR can be utilized in various training scenarios, such as military simulations, flight training, and industrial safety drills. It provides realistic virtual environments that help trainees practice skills and make decisions in a safe and controlled setting.

Applications of AR can be used in either online context and onsite context. In the online context, the user can access the information in the form of text, images, animation or videos from the server of a mobile app. In the onsite context the user can superimpose any object like furniture, shoes, watches, etc., in the real-world environment on a mobile or tablet screen. An AR based mirror can also superimpose different objects like outfits, makeup, jewellery on the human body and generate an artificial live image of a person in front of a mirror.

Du et al. (2022) identified three major application areas of AR. According to their study 65.66% of AR is used in the advertisement industry, 26.26% in the tourism industry and only 8.08% in the retail sector. Hence AR has great potential in the growth of the tourism industry, Presently AR technology is in its initial phase and there is very huge scope

of implementation of AR in the tourism industry, which can give new dimension and opportunity to rapid growth of the industry.



Source: Du et al.

Fig. 1: Application Areas of AR

Augmented Reality Technology Type

In case of AR there are the two major types of devices that are available for the users. The first is mobile devices including Smartphones and tablets and the second is stationary devices i.e., PCs and AR mirrors. According to the need of the industry different devices play an important role to enhance the user experience with AR (Rauschnabel et al., 2018).

Earlier AR was used in product marketing by using different websites, that is called Web based AR, where an AR application in a PC with a webcam can superimpose the image of the product in the real environment. Products such as clothes, furniture, shoes, sunglasses, watches etc. can be experienced in the real environment.

Mobile-based AR replaced the web-based AR. Due to affordable cost, low latency internet and availability of mobile supported AR apps in smartphones, mobile AR is more popular, powerful and capable of offering advanced user experiences. Various e-commerce apps have built-in AR supported features which facilitate the users to feel any virtual object in

the real world without any additional device or technological requirements. (Petrock, 2020)

This capability of AR is a very big advantage to the tourism industry, when tourists want to access certain information or use mobile devices as tools to explore the new place or location.

Challenges in AR

Interoperability: Due to rapid developments in technology many devices are using their own operating system or platform. AR based application development for different platforms is not only time consuming and tedious, it is also a very costly task for the developer. Secondly there are no predefined standards available for use of AR. Hence compatibility issues may also arise. For the tour service provider, it is difficult to offer different device supported versions of applications for users.

Content Creation: Applications and software related to AR always need new and updated content, because once content is developed and amazes the users for first time, after the amazement phase is over, users need new content. Practically, AR needs a strong channel for content creation.

High Speed Network: AR technology requires a variety of graphical images, motion pictures, and real time data to perform action efficiently. Hence devices need very high speed and uninterrupted network connectivity for smooth functioning of the application.

Cost of Development: Presently AR is in the emerging phase, and there are numerous technicalities required in the development of AR-based systems, such as integration of software with camera, sensors, network, database, other platforms and devices, and that increases the cost of development. Also, timely updating and maintenance of AR-based applications also impacts the handing cost of application for tour service providers.

Security and Privacy Issues: When AR based applications capturing data from the environment are integrated with computer generated objects, there is the possibility that some images, background or movement may have captured by the AR app without the knowledge of the user which may lead to the of breach of privacy of the user.

Success of AR is dependent on three factors, the First is social acceptability of technology, second is it is simple and natural, and third is that it is fashionably acceptable so a user can easily access without any hesitation. (Santoso & Gook, 2012)



AR in Tourism

Technologies replace traditional sources of information with new interesting technology-based information sources. Earlier the tourist would refer to a tourist guide to explore the places, and that was the key source of information for the tourist. But now tourists have mobile apps integrated with AR technology. On the basis of GPS location of user, the app can generate a virtual guide for the tourist, which can show relevant information in visual form and in an attractive mode. It can be more beneficial and accurate for the tourist to know facts and information and figures about the different tourist places in an interactive way.

As per virtual reality technology firm Zumoko, a remarkable visitor experience is launched by an augmented reality tourist guide at tourist destinations. Making a custom-made specific place of interest more educational and interactive for visitors is possible by adding a layer of direction, material, and entertainment to the precise physical location. A real time tourist guide that can be viewed through the phone camera can be created by combining maps, and historical and cultural content in several languages. This enables tourists to get fascinating information while exploring and gives them their own virtual guide.

The location and time can be utilised as markers for AR technology in a tourist guide solution. The visitor's smartphone will receive educational or other specific content at the set time and location in the desired format. Solutions for Zumoko AR tourist guides include dynamics with real time, up-to-date content and easy navigation. As a part of social networks, the AR tourist guide solution offers comments and insightful databases on pertinent topics.

A tourist guide app offers multidimensional solutions to tourists. It offers location-based guides and interactive maps to tourists. Secondly it suggests users' reviews or information related to any place of interest on the basis of feedback given by other tourists. It makes searching easy for users, offering the information related to accommodation, transportation, nearby restaurants, etc., with user reviews.

Tourists can benefit from real time tourist guides, expanded display information, simpler navigation and easier access to pertinent information, by adopting an AR-based smartphone application.

REVIEW OF LITERATURE

Jingen Liang and Elliot (2021) emphasized that virtual reality might be a threat to the tourism industry but AR is a supportive technology to the tourism industry. The authors also reported that AR industry is growing and maturing gradually.

Bec et al. (2021) found that AR has the capacity to re-explore destroyed buildings and monuments and offer real-time experiences to tourists. AR is an effective communication technology for users, especially when they visit any foreign country and face the problem of language barrier; in that case AR can help tourists to a great extent to translate sign boards and literature into their own local language or English language.

Berryman (2012) and Carmigniani et al. (2011) focused on the functional system of AR. The functional system of AR is able to satisfy the information needs of tourists, who want to access various types of information related to historical places, museums, directions to destinations and many more. Thus, it helps the tourism industry to build a good connection with mobile consumers. This feature can be used in marketing of products also by allowing the customer to augment any image or object in their surroundings.

Carmigniani et al. (2011) and Kounavis et al. (2012) tried to explore AR capabilities to offer customized services to tourists as per their personalized needs. When a user wants to access information by using an AR based mobile app or web platform, different predefined or preloaded content becomes available to users according to their need. For example, a user can access the preview of any foreign tour on their mobile phone using an AR based app or the user can navigate for finding routes with interactive AR based GPS navigation application in a foreign country.

AR application can also be used for sharing information (Berryman, 2012; Carmigniani et al., 2011). Tourists or users can share their experiences, views, and comments related to any tourist destination site with other users, which may help the other tourists. Further AR applications can prevent users from receiving a flood of unwanted information or irrelevant information by offering customized solutions as per the users' needs. By customized information services AR application can serve information to different users according to their interest, age, gender, location, and occupation and hence assist in providing a customized user experience.

Höllerer and Feiner (2004) explored the new possibilities of AR in the tourism industry. As an illustration, Columbia University has created a mobile AR restaurant guide

that offers users access to a database of all eateries in Morningside Heights, New York City, via a general 3D map. The consumers can choose from a variety of alternatives based on their tastes by following this guide. After choosing a place user may get more details via a pop-up window that gives a brief description of the restaurant, its phone number and a picture of its interior, the menu, any restaurant reviews, and a link to the restaurant's website, that are all accessible to users through this pop-up window.

Han et al. (2013) concluded that AR is slowly growing in urban heritage tourism and there is huge unexplored potential for AR in the urban heritage tourism industry. In the present scenario many companies have developed the AR based apps which greatly help users to explore urban heritage tourism.

Mésároš et al. (2016), noted that AR captures the actual images with the help of a mobile camera; it is not created through a synthetic or computer-generated environment. It creates a real environment and places different virtual objects in the environment as per the needs of users. This feature makes AR a unique tool for cultural tourism. AR-based mobile apps offer different informative content in the form of stories, visuals, videos about the history of the specific place.

Chung et al. (2018) examined the impact of AR Technology on tourist attitude and behaviour towards any tourist site. The authors weighted the aesthetic value of AR in tourism industry in their study.

Kennedy-Eden and Gretzel (2012) and Yovcheva et al. (2012) suggested that the best way to implement AR technology in the tourism sector is through mobile-based applications, so that tourists can naturally adopt the technology without any extra technological requirements. Haugstvedt and Krogstie (2012) conducted research for their AR based mobile application which offers historical photographs with information to users. The study depicted the impact of the perceived usefulness and perceived enjoyment on the user intention towards AR based mobile apps.

Craig (2013) elaborated that AR should not be adopted only as technology. Success of AR is dependent on the quality of content and creativity offered by the application developer to the user.

Serravalle et al. (2019) studied the interrelation between tourism management, digital innovation and stakeholder theory and developed a theoretical proposition. The authors focused on leveraging user experience through AR technology in museums.



Rauschnabel et al. (2018), proposed uses of Augmented Reality Smart Glass (ARSG), such as Microsoft HoloLens, Virtual Reality Box and others for the purpose of gamification and examined the expectation of people from ARSG.

Leue et al. (2015) conducted a study on enhancement of visitor experience in an art gallery by Google Glass. It was found that the AR based Google Glass has the potential to create a realistic environment in an art gallery and give valuable information to visitors.

Althewaynee et al. (2022) found that AR has a significant positive impact on tourism, it helps to increase the number of tourists and boost the economy of the tourist-dependent countries. AR has a capability to attract tourists without GPS and Internet services.

Kaźmierczak et al. (2021) studied the use of AR technology in water tourism. On the basis of geolocation, the mobile app can offer information to the tourist. It is a combination of e-navigation and a knowledge-based system using the mobile app.

Repo and Pesonen (2022) focused on the concept of Virtual Tour, where a tourist can travel world's destination without physically moving. They also tried to explore the new possibilities in the area of Virtual Tour using emerging technologies like AR and VR.

CONCLUSION

AR in tourism can play a game-changing role. It not only has the power to attract tourists but it can open up new doors for the travel industry to offer unique experiences to travellers with ease of access and on-demand content by AR based mobile apps. Travelers are also benefited by AR-based applications which out the information related to restaurants, hotels, places of interest, navigation, review or feedback. AR also provides suggestions related to different historical sites, monuments, places of attraction, distance of different locations, available means of transport etc. Before booking a tour, the tourist can see the preview of the tour in the form of a virtual tour on the mobile or tablet screen. On-site context of AR facilitates the tourist to enter into the new world of entertainment and excitement, onsite context offers the virtual preview or tour to the tourist. When a tourist wants to visit any museum or palace, before the visit to the site the tourist can see the virtual highlights of the inside of the place on their mobile app or tablet. So, all these features enhance the user experience which is and can further be explored by the companies to attract and retain consumers.

AR technology is a cost-effective solution for the industry. It reduces the cost of

operation and improve the operational efficiency, it can be an effective solution for the tourist needs which enrich the tourist experience and lead to reduction in tourist queries and complaints. It also attracts the new tourists which helps the industry in attracting new customers and building increased revenue. Though its initial cost is high, but overall, it is a cost-effective solution. Hence marketers can explore AR as an important tool to differentiate and market their offerings in the most innovative and interesting manner.

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**AWARENESS AND SATISFACTION WITH REGARD TO
GRIEVANCE HANDLING MECHANISM IN CYCLE
MANUFACTURING UNITS IN LUDHIANA**

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ABSTRACT

A grievance can be defined as the sense or feeling of resentment or antipathy mainly arising out of a feeling of being treated unfairly, and can be treated as an expression of discontent between an employer and employee. Any sort of grievance thus needs to be redressed because it may become a cause of bigger conflicts or disputes in the organization. The present study aims to study the major causes due to which employees feel dissatisfied with their workplace and their job, and to study the awareness and level of satisfaction associated with the existing grievance handling mechanism in cycle manufacturing units in Ludhiana. Two cycle manufacturing units were selected based on their willingness to share the information, and 50 employees from each company were selected who had expressed any grievance in the past, on the basis of convenience and snowball sampling. Thus, a sample of 100 employees was selected. Primary data were collected related to causes of grievance among the employees and awareness and satisfaction of the employees with respect to the grievance handling system prevailing in the organization. The study revealed that most of the respondents were aware about the existing grievance handling mechanism and the Grievance Redressal Committee of their organization. The majority of employees were permanent in their respective organizations. The overall condition of wages and salary in the cycle manufacturing industry in Ludhiana was found to be satisfactory. Most of respondents were satisfied with the management policy and overall level of discipline in their organizations.

Keywords: *Grievance Handling Mechanism, Awareness, Satisfaction, Causes of Grievance, Manufacturing units/Industry.*

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Introduction

Employers are inundated with complaints of all types from employees, either against themselves or against their bosses, and occasionally even against their colleagues. Whether these complaints are true or invalid, authentic or fictitious, real or imagined, it is the responsibility of the HR department and managers to investigate them impartially, objectively, and unemotionally. “Beware of minor leaks,” the proverb correctly warns, “A big ship can be sunk by a small leak.” (Mamoria & Rao, 2014). Therefore, it is necessary to address these grievances at the very basic level and empower the workers with a sense of satisfaction and belongingness with the organization. Whichever organization takes these steps definitely reaps the benefits of a healthy work climate in long run.

The administration and management of human resources include the grievance handling mechanism as a key component. Without having built an effective and efficient grievance redressal procedure, no administration can assert that it is accountable, responsive, and user-friendly. In actuality, Grievance Redressal Systems are becoming more and more crucial for organisations that oversee and manage a large number of people.

According to Opatha and Ismail (2001), the following characteristics are present in a complaint involving a worker's displeasure or dissatisfaction:

It may be communicated clearly or not; it may be genuine, based on actual injustice; or imagined, based on supposed injustice, which doesn't exist in management's opinion.

It could be written or spoken, informal or official.

It might result from something connected to working for the organisation.

It could be either singular or collective: a sentiment of injustice or unfairness felt by a worker or an entire group of workers.

Grievance Redressal Mechanism in India

In India, there are three laws that address the matter of complaints of workers in industries:

- The Factories Act of 1948
- The Industrial Employment (Standing Orders) Act of 1946
- The Industrial Disputes Act of 1947, as revised in 1965

At its 16th session, held in 1958, the Indian Labour Conference established the

Model Grievance Procedure (MGP). India's businesses currently use either the MGP or a self-developed technique that has been adjusted to comply with the MGP. The majority of the grievance processes are purely optional (Mamoria& Rao, 2014).

Grievance Handling Procedure (GHP)

According to Gandz and Whitehead (1982), resolving complaints effectively improves workplace morale and labour relations. Employee unrest may worsen due to the lack of a strong grievance procedure. An essential element of the connection among labour and management and industrial relations is grievance settlement (Kochan &Katz, 1988).

A grievance handling procedure is a step by step and formal process which helps the concerned parties to peacefully and jointly resolve their grievances in an orderly and expeditious manner. GHP is the first step that comes before the arbitration. If the Grievance Redressal Mechanism (GRM) is efficient, it resolves the grievances in an organization in the shortest possible period of time.

The details of GHP may vary from industry to industry and by trade unions due to various factors such as – size of the organization, strength of trade union, management policy and philosophies, cost factors, industrial practices etc. Generally, the step by step procedure is followed but sometimes, some steps may be skipped if necessary, to provide speedy justice/resolution (Mamoria& Rao, 2014).

Through a well-established machinery the employee gets freedom to express his problem without any hesitation and is assured that his/her grievance will be redressed in an appropriate manner, which keeps his/her productivity and morale high. The procedure gets to the root of the grievance (Balamurugan& Shenbagapandian, 2016).

Need for the present study

1. Grievance is the main cause of organizational work stress and hence needs to be resolved at the earliest stage possible to avoid any mishap.
1. Not only is the redressal of the problem important, it is also very important to know whether the employees are aware about the procedure that has been adopted by their organization and if they are satisfied with the mechanism being followed.
2. A lot of research has been done regarding the effectiveness of Grievance Handling Mechanism but a lot can be done to understand the awareness and satisfaction regarding the same. In this study, an attempt has been made to analyse the Grievance Handling Mechanism that is followed in the cycle manufacturing industry in the district of

Ludhiana.

3. The objectives of the present study are as follows:

- ☐ To study the causes of grievance among employees in selected cycle manufacturing units.
- ☐ To study awareness and satisfaction of employees with respect to the grievance handling mechanism in the cycle manufacturing units.

Review of Literature

With regard to any research, an evaluation of pertinent literature is crucial. The following research studies relevant to the topic of this research are listed in chronological order:

There was no statistically significant difference between the two employee groups when Lewin and Peterson (2002) examined the influence of grievance lodging and resolution activity on post-grievance settlement outcomes. They found that rates of performance, work participation, and promotion decreased, while rates of turnover increased, for those who filed grievances, as compared to non-filers, after grievance settlement. Both administrators of grievance registrants and those who do not file grievances experienced the same results. Although a "true performance" explanation for these findings could not be disregarded, the employers took punitive or retaliatory action against grievance registrants and their supervisors.

Bienstock et al. (2003) revealed that organizational rights received by the employees are positively associated with organizational citizenship behaviour. These actions improve third-party perceptions and the efficacy with which services are delivered in accordance with organisational standards.

Haraway (2005) argued that labour justice and organisational success were directly related to first-line supervisors' moral behaviour and human resource management's capacity to create institutions that could carry out their social obligations in ways that were self-preserving. This calls for a deeper comprehension of how collaborative, alternative dispute resolution

strategies for addressing employees' workplace issues, grievances, and conflicts in public organisations are altered by formal employee grievance procedures.

Bamberger et al. (2008) suggested that gender and ethnicity are not significantly associated with perceptions of workplace adversity. The filing of grievances changed with



respect to certain demographically defined work groups. Relative to men, grievance filing among women and minorities was more tightly linked to the perceived severity of workplace conditions.

Hoffmann (2005) stated that although men and women worked together in the same organization, their experiences with legal procedures and dispute resolution were quite different. Working in cooperation meant using informal dispute resolution techniques for males, whereas for women it meant having the freedom to use formal grievance systems.

Except for education, Nurse and Devonish (2007) believed that demographic factors had no bearing on how workers perceived the procedural justice offered by grievance procedures. However, opinions of distributive justice were influenced by beliefs of procedural justice.

According to Blancero et al. (2010), the conversation around the decision, the amount of employee participation, and the make-up of the grievance committee all had more of an impact on people's perceptions of overall fairness than the outcome. Distributive justice scores for unfavourable outcomes produced by fair methods are higher than those for good outcomes produced by unfair ones.

McDonald et al. (2011) found that most employees who experienced workplace harassment did not report it in writing due to fear of retaliation or punishment or because they believed that nothing would be done about it. However, occasionally, some complainants employed ostensibly proactive or forceful alternative tactics, such as looking for informal support and solving the issue on their own. These reactions took place in the light of extra-legal organisational aspects that had an impact on the level of tolerance for sexual misconduct and other forms of discrimination.

Mohanasundaram and Saranya (2013) stated that organizations and the individuals working there coexist and are interdependent. All the resources required for the working of the organization are put to effective use only by the people in the organization. No goals of the organization can be fulfilled without the people working there efficiently.

Balamurugan and Shenbagapandian (2016) concluded that wages/salary, work environment, promotions, transfers, lack of effective communication and inter-departmental relationships are some of the most common causes of grievances among the employees and a few changes in the policies and procedures (regarding the same) of the organization could lead to increased productivity of the employees.



Spencer (1986) explored the relationship between the employees' voice of dissatisfaction and voluntary turnover, concluding that whether a union is present or not in the organization, the retention rate is higher where the employees are given more opportunities to voice their dissatisfaction.

The review presented above highlights that a lot of research has been conducted to examine the effectiveness of grievance handling mechanism but much research has not been done to study the awareness and satisfaction of employees with respect to the present grievance redressal machinery.

Research Methodology

Research Design

The descriptive research design was adopted, which guided the collection and analysis of data. The study used primary data for analysis purposes, for statistical analysis to arrive at conclusions. To collect the primary data, a pre-structured, non-disguised questionnaire was designed.

Population

The study focused exclusively on the workforce members employed by the cycle manufacturing facilities in Ludhiana city.

Sampling

The study was conducted in the cycle manufacturing units in Ludhiana. Two cycle production units were chosen and 50 employees from each of these organisations, who had ever filed a grievance, were chosen by ease and snowball sampling. Thus, a representative group of 100 workers was chosen. The primary data was collected related to causes of grievance among the employees and awareness and satisfaction of the employees with respect to the prevailing grievance handling mechanism in the company.

Method of Data Collection

The present study has been undertaken to study the awareness and satisfaction of employees with regard to grievance handling mechanism in cycle manufacturing units in Ludhiana. All of the workers at the Ludhiana cycle manufacturing companies made up the study's population, from which the sample was chosen as described above. A structured, unmasked questionnaire was used to gather primary data. Information about parameters

including knowledge of the grievance procedure, satisfaction with the grievance handling committee's operation, etc. Data were analyzed using suitable statistical tools such as Test of significance.

Data Analysis

Following data collection, master tables were created, and the data was then analyzed using the appropriate statistical methods. Scores were given from 1 to 5 for the level of agreement (1 being strongly disagree/very unsatisfied, 2 being disagree/dissatisfied, 3 being neutral, 4 being agree/satisfied, and 5 being extremely agree/highly satisfied), and participants were asked to evaluate their level of agreement and satisfaction. In order to analyse primary data, the following statistical methods were used: Test of significance (t-test), Mean, Standard Deviation, Percentage, and Frequency.

Results and Discussions

The findings are presented in the following sections:

Respondents' general and demographic profiles Causes of grievance among employees in selected cycle manufacturing units.

Awareness and satisfaction of employees with respect to the grievance handling mechanism in the cycle manufacturing units.

The respondents' demographic profile.

In order to better comprehend the causes of grievances among the employees and have better insight on the level of awareness and satisfaction they have with the existing Grievance Handling Mechanisms in their organisations, the demographic profile of the respondents was analysed.

Table 1: Distribution of the respondents on the basis of their demographic profile.

Gender	Frequency	Percentage
Male	68	68.0
Female	32	32.0
Total	100	100.0

On analyzing the data, it was found that the majority of the workers (51%) had 5-10 years of work experience in their present organization, followed by less than 5 years (40%), then 10-15 years (5%) and then more than 15 years only 4%. This showed that, on an average the employees have been working in the present organization for nearly between 5-10 years.

On analysis, it was found that out of all the employees working in cycle manufacturing industry, 82% were full time employees and 18% were part time employees which showed that the majority of employees were permanent in their respective organizations.

It was found that, the maximum number of employees fell under the category of income less than Rs.10,000 per month (59%), followed by the income group Rs. 10,000-25,000 (38%) and only 3% of the respondents fell under the category of Rs.25,000-35000.

Causes of grievance among employees in selected cycle manufacturing units

Under this section the analysis was done to find out what were the leading causes that led to maximum grievances among the employees in the cycle manufacturing units in Ludhiana. The analysis has been discussed further as follows:

Grievances faced by employees in the past.

The respondents were asked if they had faced any kind of grievance in the past. All the employees admitted to have faced grievance in some form in the past.

Causes of Grievances.

The employees were asked about their causes of grievances, which were further divided into four sub parts:

Table 2.1: Distribution of respondents with respect to the causes of grievance faced by them.

(Responses to Multiple choice question)

Causes	Frequency	Percent
General working conditions	79	79
Supervision	50	50
Wages and salary	39	39
Management policy	28	28

Age	Frequency	Percent
Less than 20 years	4	4.0
20-30 years	41	41.0
30-40 years	47	47.0
40-50 years	8	8.0
Total	100	100.0

Work Experience	Frequency	Percent
Less than 5 years	40	40.0
5-10 years	51	51.0
10-15 years	5	5.0
More than 15 years	4	4.0
Total	100	100.0

Work status	Frequency	Percent
Full time	82	82.0
Part time	18	18.0
Total	100	100.0

Position/Designation	Frequency	Percent
Manager	12	12.0
Supervisor	30	30.0
Labour	58	58.0
Total	100	100.0

Education	Frequency	Percent
Matric	35	35.0
Senior secondary	22	22.0
Graduate	9	9.0
Other	34	34.0
Total	100	100.0

Income in Rs. Per month	Frequency	Percent
Less than 10000	59	59.0
10000-25000	38	38.0
25000-35000	3	3.0
Total	100	100.0

Family Size	Frequency	Percent
Less than 4 members	39	39.0
4-8 members	59	59.0
More than 8 members	2	2.0
Total	100	100.0

On analysing the data in this table, it was found that approximately 79% of the respondents had faced the grievances related to general working conditions, nearly 50% had faced grievances related to supervision, approximately 39% had faced problems with respect to wages and salary and only 28% employees had faced grievances related to management policy. It showed that the overall condition of wages and salary, supervision and management policy in the cycle manufacturing industry in Ludhiana is satisfactory.

Awareness and satisfaction of employees with respect to the grievance handling mechanism in the cycle manufacturing units.

To check the level of awareness regarding the existing Grievance Handling Mechanism in the organization, various frequency tables and one sample t-test techniques were employed, the results have been discussed in the following sections:

Employee awareness of the organization's procedure for managing grievances.

The frequency table was created to determine the proportion of workers who were aware of their organization's grievance management procedure.

Table 3: *Distribution of respondents on the basis of level of awareness among them about the Grievance Handling Mechanism of their organization.*

Are you aware about the Grievance Handling Mechanism (GHM) of your organization?	Frequency	Percent
Yes	83	83.0
No	17	17.0
Total	100	100.0

Analysis revealed that only 17% of respondents indicated they were unaware of the organization's current grievance handling procedure, whereas 83% of respondents said they were aware of it. This analysis clearly indicated that the level of awareness was quite high among the respondents which showed a positive trend in this industry.

Satisfaction or Dissatisfaction with respect to the existing Grievance Handling Mechanism of the organization.

The employees were asked to rate their opinion for level of satisfaction with respect to the existing Grievance Handling Mechanism of their organization on a 5-point Likert scale.

Table 4: Distribution of respondents on the basis of Satisfaction or Dissatisfaction with respect to the existing Grievance Handling Mechanism (GHM) of the organization.

Satisfaction or Dissatisfaction with Existing GHM				
Statements	Mean	Std. Deviation	t value	p value Sig. (2-tailed)
General awareness regarding GHP in your organization	3.52	.99	5.25*	.000
Person of contact	3.30	.67	4.45*	.00
Effectiveness of GHP of your organization	3.19	.73	2.59*	.01
Smoothness in working of existing GHP	2.99	.72	-.14	.89
Satisfaction w.r.t. GH policy of your organization	3.77	.96	8.00*	.00
Importance given to grievance handling in your organization	3.31	.65	4.79*	.00
Duration of time taken to solve your grievance	2.73	.80	3.37*	.00
Attitude of management w.r.t. GHP	3.35	.77	4.54*	.00
Simplicity of procedure	2.85	.74	2.02*	.04
Explanation of GHP	3.04	.82	.49	.63
Satisfaction in case of temporary relief	3.66	.74	8.90*	.00
Attitude of colleagues after grievance redressal	3.40	.73	5.52*	.00
Satisfaction in terms of efforts made by management to solve grievance	3.15	.61	2.46*	.02

***Significant at 5% level of significance**

t=1.96

Table 4 shows that the maximum mean score which was compared against the assumed mean ($\mu=3$) was given to the statement “Satisfaction w.r.t. GH policy of your organization” (3.77), followed by the mean score for the statement “Satisfaction in case of temporary relief” (3.66), followed by the mean score for the statement “General awareness regarding GHP in your organization” (3.52), followed by the mean score for the statement “Attitude of colleagues after grievance redressal” (3.40) followed by the mean score for the statement “Attitude of management w.r.t. GHP” (3.35).

Using a single sample t-test, the degree of significance was determined. It was noted that the statements “Satisfaction w.r.t. GH policy of your organization” ($t=8.000$, $p=0$), followed by the statement “Satisfaction in case of temporary relief” ($t=8.900$, $p=0$), were found to be statistically significant.

For the statement “Explanation of GHP” ($t=0.490$, $p=0.625$) followed by the statement “Smoothness in working of existing GHP” the actual mean was significantly different from the assumed mean ($\mu=3$) at 5% level of ($t=-0.139$, $p=0.889$). The analysis showed that these statements were found to be statistically non-significant.

Measuring the overall level of satisfaction regarding the organisation's existing Grievance Handling Mechanism

The respondents were asked to choose only one option out of the five to check the overall level of satisfaction. Table 5 below specifies the options and percentage of respondents with respect to given options.

Table 5: *Distribution of respondents based on their overall satisfaction with the organization's existing grievance handling procedure*

How satisfied are you with the existing Grievance Handling Mechanism of your organization?	Frequency	Percent
Highly Dissatisfied	1	1.0
Dissatisfied	16	16.0
Neutral	36	36.0
Satisfied	44	44.0
Highly Satisfied	3	3.0
Total	100	100.0

On analysing Table 5 carefully, we can conclude that, out of all the respondents who had faced grievances in the past, 44% were satisfied with the existing GHM in their respective organizations. Regarding the current Grievance Redressal Procedure in their organisations, 36% of respondents were neutral, 16% were dissatisfied, 3% were highly satisfied, and just 1% were severely dissatisfied. The picture is quite satisfactory but there is a lot of scope for improvement in this scenario.

Conclusion

There is a great need for the timely redressal of grievances faced by the employees. In India, the need for grievance redressal is paramount in view of the growing industrialization and service industry. As industrialization increases, naturally, more people are employed in these industries, and there are increased cases of grievances. There is a need to understand the main causes of grievances among the employees and provide solutions. Employees need to have awareness about the redressal system, so that they can work happily and be more productive and efficient. The Human Resource departments of the organizations conduct the grievance redressal generally but the authorities may vary from organization to organization.

RECOMMENDATIONS OF THE STUDY

- Awareness regarding the GHM should be promoted among the labour class.
- There is need for improvement in the general working conditions of the cycle manufacturing units.
- Human errors while calculating the wages should be minimized.
- Though the problem is not common, yet the organizations should try to bring improvements where there is a problem of non-availability of tools.

The overall situation of awareness and satisfaction with the grievance handling procedure is satisfactory but the managements can put in more efforts to bring greater awareness among the employees.

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HR TRAINING AND DEVELOPMENT METHODS: PERCEPTIONS OF MID-CAREER BANK MANAGERS IN PUBLIC AND PRIVATE SECTOR BANKS

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HR Training and Development Methods: Perceptions of Mid-Career Bank Managers in Public and Private Sector Banks " is a research article. There are drastic changes in society due to globalisation, privatisation, liberalization, increased technology, corporate downsizing, endless mergers, and acquisitions. We observe that in the public as well as private sector hierarchy, all levels of employees have some career path ahead for them which adds meaning to their life and career. At the starting level of their career, training, guidance and support are given. But as their career progresses, it becomes difficult to fixed job, regardless of past performances. Training may be seen as a methodical, planned process with the organisational goal of imparting and providing learning opportunities that will improve an employee and enable him to contribute more significantly to the achievement of an organization's goals and objectives. It is a systematic process for improving people's knowledge and abilities towards a particular goal. The learners gain new abilities in problem-solving, technical knowledge, and expertise. Additionally, it makes them aware of the policies and procedures that should govern their activity. Employee performance at their current work is enhanced by training, which also gets them ready for prospective new assignments. Data was collected from Three public and three private sector banks from Telangana state only.

Keywords: *Training and Development Methods, Banks, Public sector and Private sector, Mid-Career*

Introduction

“Mid-career”

The conception of “Mid-career” has varied definitions within the literature. The term is employed to denote tenure in the very position and period in an occupation as per the observations of (Hall, 1976). There is no accord on the type of people who are susceptible to mid-career crisis. Researchers in the field of career management have identified totally different age groups experiencing mid-career crisis. If an individual's career may be equally divided into three stages of around fifteen years each, between the ages of 20 and 65

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then mid-career may be between 35 and 50 years(Comfort and Mercy,2018) as there is lack of accord among researchers regarding the effects of mid-career crisis, research is required to examine the phenomena through the literature of various career stages.

TRAINING AND DEVELOPMENT METHODS PROVIDED TO BANK MANAGERS IN PUBLIC AND PRIVATE SECTOR BANKS

Overview of Training and Development methods

According to **Edwin B. Flippo**,(Gupta,2003),"Training is the act of increasing an employee's knowledge and skill for performing a particular job,"

According to **Advice Saint**,(Gupta ,2003)," Training covers all organisational attempts to instruct, coach, educate, and develop employees' technical expertise, understanding of organisational ideas and practises, as well as their attitudes towards the organisation”.

Development is different from training. Non-managerial staff develop technical knowledge and abilities through training, a brief process that makes use of a system and a planned method. It alludes to guidelines for a machine's technical and mechanical functions. It is mostly intended for non-managers. It is for a brief period of time and has a clear work-related goal. It teaches someone how to do their current job satisfactorily. It is mostly the result of initiatives taken by the management and of other outside motivation also. Thus, training is a reactive process.

Development is a prolonged educational process that makes use of a planned and regulated technique to teach managerial staff general-purpose conceptual and theoretical knowledge. It is geared towards managers and contains philosophical and theoretical educational themes. Long-term development and broader education are both involved. It entails advancing the person's preparation for future employment, personal development, and motivation from inside. Training is complemented by development because only when learning goes far beyond routine can human resources exhibit their full potential. Therefore, development is training that is focused on the future and the personal development of the employee.

Training Methods and Techniques

Training is categorised according to where the instruction takes place. It occurs in a variety of settings, whether on the work or off, inside or outside the firm. Utilising tools, techniques, and approaches is a necessity. The following are the training techniques:



A. *On the job training*

All company or industrial training revolves upon on-the-job training. This is the traditional way of learning, where a learner works under the supervision and direction of an instructor or other trained person while also receiving practical application of the theories and concepts they are learning.

1. Job Instruction Training: A four-step instructional method is used in the technique of job instruction training. In essence, it serves to instruct the staff on how to carry out their current duties. The coach could be a trainer, manager, or colleague.

2. Coaching: It includes providing direct, one-on-one instructions and supervision, frequently accompanied by lengthy demonstrations, ongoing criticism, and correction. It benefits the student by increasing motivation and minimising the issue. Coaching effectiveness is dependent on the coach's tolerance and interpersonal skills.

3. Mentoring: In this process, a senior employee of the company takes on the duty of grooming and training a junior employee. As a teacher, guide, counsellor, philosopher, role model, supporter, and facilitator, the senior serves as a mentor. It aids in an employee's psychological development, effectiveness, and organisational integration. Depending on the workplace culture and management commitment, it occurs on both a formal and informal level.

4. Position Rotation: The trainee's background in the organisation is broadened. The trainee switches jobs frequently, forming relationships with numerous people in the organisation and facilitating future departmental cooperation. Examples include replacements, promotions, and transfers.

5. Apprenticeship: It is not only available to skilled artisans. It was for the legal, medical, and academic professions, among others. But in modern organisations, a combination of classroom instruction and on-the-job training is utilised to develop skilled staff.

6. Committee assignments: With this approach, trainees are required to complete unique tasks and resolve actual organisational issues.

A. *Off the Job Training*

1. Vestibule Training: In this strategy, actual job conditions are simulated or reproduced in a training facility called a vestibule. With the use of tools and machines that are identical to those used at work, skilled trainers are hired to deliver instruction. This is typically used to swiftly train a large number of employees.



2. *Apprenticeship Training*: An “earn while you learn” programme The most popular and traditional method for instruction in industrial trades, crafts, and technical fields is this one. In a training facility, participants receive both theoretical and practical instruction.
3. *Classroom Training*: It is a traditional form of instruction where classes are held in a classroom at either internal or external places that may be institutions, universities, or professional settings. The learner is given lectures, case studies, group discussions, and audio-visual aids to help them understand the knowledge and abilities. Conceptual instruction, problem-solving techniques, orientation, and safety training programmes are the key goals. Courses on upgrading and maintaining skills could be included.
4. *Internship Training*: Selected applicants in this training continue their regular studies for the required time. In order to gain practical knowledge and abilities, they also work in various offices; this strikes a healthy mix between theory and practice.
5. *Conferences*: The participants combine their knowledge and insights to develop better solutions to the challenges that are frequently discussed. Buzz sessions, which break up the conference into smaller groups for in-depth discussion, can be a part of it. It enables learners to approach the issues from a wider perspective.
6. *Role playing*: Realistic behaviour is used in hypothetical scenarios as a form of human engagement. It entails doing, acting, and practising. As a result, the trainee can diversify his experience by taking on several positions.
7. *Programmed Learning*: There are three stages to the learning process: asking trainees questions, giving them information to consider, having them respond, and receiving feedback on the accuracy of their responses.

C. Electronic training

1. *Audio-visual*: It includes video conferencing, audio-video recordings, overheads, films, power point presentations, television slides, and more. These training methods can be successful and are frequently employed. However, there is no opportunity for the trainee to ask questions or express doubts to receive clarifications.
2. *Computer Based Training*: A learner interacts with computer-based or CD-ROM systems to develop his knowledge or abilities. The exam is taken using a computer so that management can keep track of each trainee's development and requirements.



3. *Electronic Performance Support Systems (EPSS)*: This approach emphasises on the abilities that employees require daily to carry out their duties. The EPSS is a collection of computerised tools and displays that integrate automation into applications, automate phone assistance, documentation, and training, and deliver support that is quicker, less expensive, and more efficient than conventional approaches.

4. *Tele training*: This method involves a trainer instructing a group of employees at distant locations through television from a central site. Since the workers receive their education at home and the business is not responsible for covering their travel or lodging expenses, it is incredibly cost-effective.

5. *Videoconferencing*: Employees who are geographically distant from one another or the trainer are trained using this method. It enables people in one area to interact online with individuals or groups spread across many cities using a combination of audio and video technology.

6. *Internet*: For computer-based training, many banks rely on the internet and their private intranets. The programmes are available to employees whenever they choose. There are no costs associated with distribution, and whenever necessary, adjustments can be made to the programmes at the central site.

7. *Business Portals*: Training-focused learning portals are a common place to find and receive training. These portals enter into agreements with employers and offer training choices to the staff of the companies. As a result, training becomes constantly available rather than being restricted to teacher-led conventional classes or to occasional training sessions.

Training And Development Methods As Factors Affecting The Bank Managers Of Select Public And Private Banks

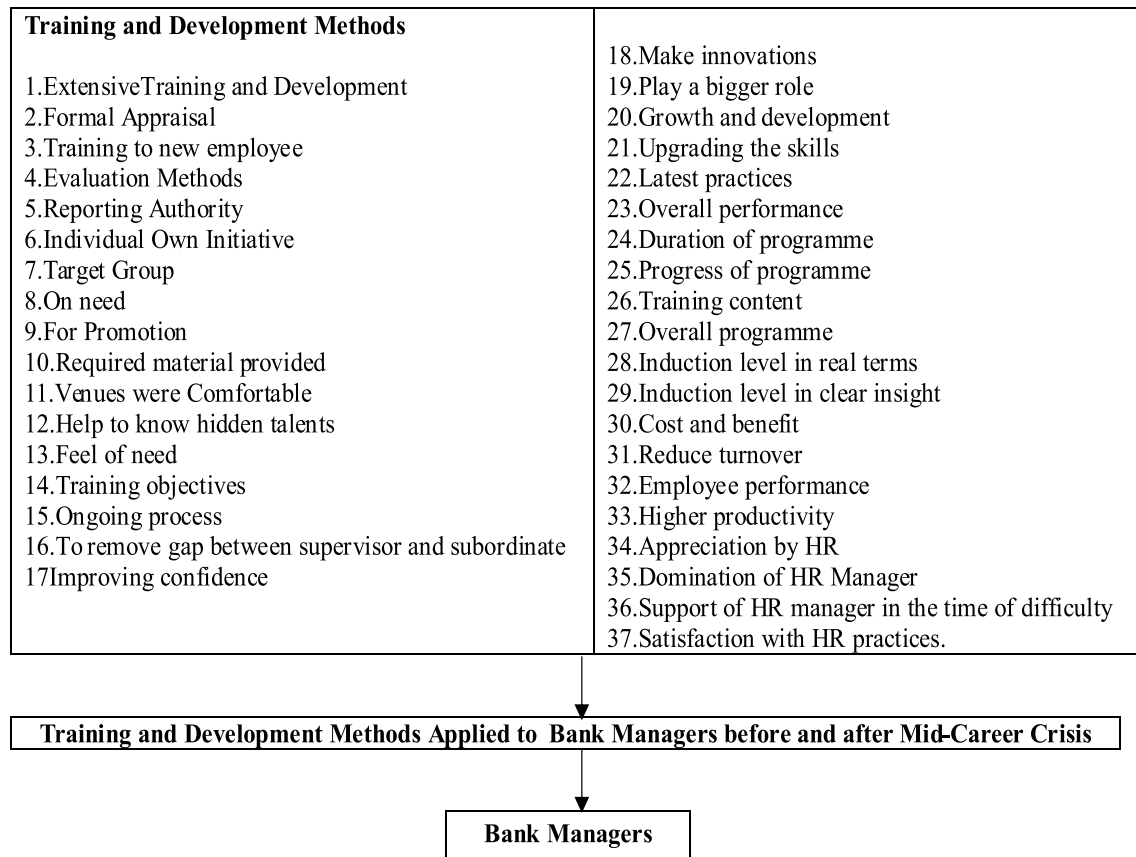


Figure 1. A Theoretical Overview of Training and Development Methods among Bank Managers of both Public and Private Sector banks before and after facing Mid-Career Crisis Stage

1. Extensive Training and Development. It increases the morale among employees, as well as job satisfaction, employee satisfaction, efficiency process, financial gain, new technologies and methods and innovation in strategies and products.

2. Formal Appraisal. It is a system which involves setting guidelines, arranging meetings and interviews, forms, times of review and assessment systems and reporting this encourages culture of open communication

3. Training to new employee. They provide training and development programs to new employees who are entering the banking industry by educating employees about new skills.



4. Evaluation Methods bank uses various evaluation methods to evaluate employee performance. some of the methods are self-evaluation, behaviour checklist, 360-degree feedback, management by objectives and rating scale.

5. Reporting Authority Raw or summary data needed by regulators to evaluate a bank operation and its overall health are submitted to the Reporting Authority.

6. Individual's Own Initiative as a bank employee he or she must be tough in problematic situations and spot, and take advantage of opportunities.

7. Target Group. It is a situation where individuals or groups that are in the same geographical area that is cities, individual municipal, and rural district are trained together.

8. On need in this current situation bank employers check whether they require new employees or require any new methods to train the existing employees. Bank employers should always check whether there is need for training and development.

9. For Promotion It is the ladder where bank employees need to climb very carefully and intelligently in order enjoy and adjust in the banking environment where several perks and benefits are given. Bank employees need to complete at least two years of service to get promotion in the present job.

10. Required material provided to bank employees when they are in the job. It guarantees the given on a contractual obligation between the bank by providing required material at the time of work.

11. Venues that are comfortable The area or venue, or place must be comfortable and well-furnished. which is decided by the employers or the owners at the time of training and development of programs which are provided to bank employees at the time of training.

12. Help to know hidden talents Sometimes a bank employer tries to judge the bank employees by conducting some tests in order to find out their hidden talents.

13. Feel of need arises only then the training programs are conducted by bank employers to bank employees.

14. Training objectives is where the bank employer develops specific and useful knowledge, skills and techniques to be given to employees so that they perform the training well and meet the training objectives accordingly.

15. Ongoing process is where training is regarded as an ongoing process where training programs or projects are taken up by bank employers by making sure that team members



are retaining the information and skills. By this privilege bank, employees need to perform well in their jobs.

16. To remove gap between supervisor and subordinate It can be removed by good interaction between organisational leaders and their subordinates in order achieve the personal and organisational goals.

17 Improving confidence A situation where bank employees can improve their positive thinking, practice, training, knowledge and communication with other people. Confidence only comes from the feeling of well-being, acceptance of your mind and body and belief in the bank employee's ability, skills and experience.

18. Make innovations Here bank employers give bank employees an opportunity to innovate with new ideas for improvement in the banking sector.

19. Play a bigger role A situation where employers give bank employees a bigger role to play so that they improve and become more tough in decision making.

20. Growth and development It can only be maintained by developing the core business of the bank, investing in adjacent business areas, moving completely for a new product market.

21. Upgrading the skills Here, bank employees are given time to upgrade their knowledge by attending professional development courses, online resources, attending events, online networking, and other certification courses.

22. Latest practices in order overcome the changes in banking, bank employers organise courses on latest practices for bank employees on topics like digitization, mobile banking, unified payment interface, block chain, artificial intelligence, robotic world, Fintech companies, and others related to latest practices.

23. Overall performance of bank employees can be measured by taking business per employee ratio which is related to the employee productivity. It can be calculated by dividing the total business of the bank by number of employees. Higher the ratio the better it is.

24. Duration of programme This explains about the time bank employees have taken for undertaking banking courses like PGDM in banking and financial service, PGDM in retail banking, PGDM in Banking Management. These courses are for 2 to 3 years.

25. Progress of programme is arranged to sustain the banking activities for further



improvement in public and private banks for progress of banking community at large.

26. Training content is the content which is provided to learners at the time of official training which includes all the related information, knowledge or skills in the form of text, static visual and video, audio, and interactive elements.

27. Overall programme is connected to the training programs which is conducted to make the bank employees sure about the relevance of the training and by improving or gaining knowledge and other bank related skills.

28. Induction level in real terms is the process of welcoming the new employees to the organisation by supporting them to adjust to their new roles and working environment. As starting a new job and new place can be a stressful experience to the new employee, by this gesture he or she will be comfortable and start the job happily.

29. Induction level in clear insight where new employees are given the clear insight of job work environment and roles to play. So, this the step which helps the new employees to know clear picture about their work that is what to do and what not to do.

30. Cost and benefit which displays the measuring results, valuing results and comparing results with costs. It gives the comprehensive picture of projects and helps direct funds for development of effectiveness.

31. Reduce turnover It is a situation where the employer needs to very careful while dealing with employees in critical situations like up and down of jobs in the time of turnover and replacement of jobs. Employer should never disrespect, ridicule, or shame employees at any time. Employers must listen to employees, use their ideas via communication and value them by praising them for their good efforts. This will help to reduce the turnover of employees in a short period.

32. Employee performance wheremembers of staff fulfil the duties of their role, and complete required tasks in the workplace. It helps the employees to reach their full potential by improving overall performance with positive effects on morale and quality of work.

33. Higher productivity It is important to know whether the bank has achieved higher productivity or not. In this situation the employer checks the amount of work produced by an employee in a specific period. This measures goals and quality of work.

34. Appreciation by HR This is where HR managers appreciate the good qualities and good work of the employees in the bank.



35. Domination of HR Manager is where they play a major role like administrative, change management and people management. It includes hiring, monitoring of employees, managing payroll and benefits and other developments of policies and guidelines.

36. Support of HR manager in the time of difficulty This is yes or sometimes no depending upon the situation. The role of HR manager helps the bank employees directly or indirectly. The Human resource department is responsible for finding such talented manpower and placing them in the right positions in the banks. Their responsibility is to choose competent workers who can manage the regular financial risks that the bank must take.

37. Satisfaction with HR practices It is a situation where the bank employees are satisfied or dissatisfied with the HR practices such as training and development, performance appraisal, reward and compensation and employee empowerment which improve the performance.

Review of Literature

Jyothi (2017) states that the rapidly changing business environment in the banking sector and the constant challenges it poses to organizations and businesses, consistently require increase knowledge and skill sets. Banks are facing several critical pressures, including a short supply of leaders, the need to develop and engage employees, and issues with turnover. One of the biggest challenges being faced by professionals in HR management today is the development of an effective HR strategy that aligns with and supports your organization's short- and long-term business goals. But even as high unemployment persists, employers are still facing a shortage of candidates with the right skills and experience to fill critical jobs. The paper examines how training and development affect banking sector employees.

According to Das (2018) for organisations and individuals to survive and achieve their shared objectives, both need to grow and advance at the same time. Therefore, every modern management must develop the organisation through the development of its people resources. The crucial component of human resource development is employee training, which is a specialised service.

Paulson (2018) has talked about mid-career training for the police. The author belongs to the Indian Police Service and is involved in training of IPS Officers right from the Probationary Level on joining the Additional Directors General of Police through Mid-Career Training Programmes at various Levels aimed at the participants who have already



acquired a minimum experience in their career at that particular levels. The design is to be dovetailed into “locus” and “focus” framework to find its relevance and utility at various managerial levels.

Research Gap:

Training may be viewed as a systematic and planned process which has its organisational purpose to impart and provide learning experiences, that will bring about improvement in an employee thus enabling him to make his contributions in greater measure in meeting the goals and objectives of an organisations. It is an organised procedure for increasing the knowledge and skills of people for specific purposes. The learners gain new abilities in problem-solving, technical knowledge, and expertise. It also gives an awareness of the rules and procedures to guide their behaviour. Training improves the performance of employees on present jobs and prepares them for taking up new assignments in future. The review of literature shows that some research work has been done on training and development methods in the banking sector. Due to large number of job applications which emerge especially from the use of online recruitment, there have been discussions about how organizations can manage all these applications. Due to lack of training, employees are not able to reach their goals. However, the banking sector has been particularly adept at utilising technology in the training process. Till now, no studies have been done on perceptions of mid-career bank managers in public and private sector banks. An

attempt is made to throw light by bringing out the employees' perceptions towards the theoretical framework on training and development methods before and after their mid-career phase.

Objectives of the Study:

1. To present an overview of mid-career training.
2. To study the mid-career training among select public and private sector banks.
3. To understand the theoretical framework on training and development methods
4. To study and analyse with demographic factors and gender as base.

Need and Significance of the Study

1. This study is taken up to understand how the training and development methods are creating benefits for bank managers before and after facing mid-career training in their careers.



2. **Training plays a vital role for both employer and employees.**
3. **If a banking sector wants to draw out best from its employees, then it should arrange best training and developments methods.**

RESEARCH METHODOLOGY

Sources of data

The data in this research came from both primary and secondary sources.

Primary data:

The primary data was collected from respondents through a structured questionnaire prepared and distributed through Google Forms. The questionnaire was administered to the bank managers, who included Senior Branch Managers, Branch Managers and Managers, Deputy Managers and Assistant Managers only. Data was collected from individuals from Hyderabad and Secunderabad cities and Karnataka state. The data was supplemented by conducting personal interviews. The questionnaire consisted of two parts. Section A dealt with the bank managers' demographic profile of the respondents. Section B of the questionnaire consisted of questions about the employees' perceptions towards training and development methods. Almost all the information presented in the report is primary data.

Secondary data: The secondary data relating to the study was collected from research articles, books, and websites.

Sample Size:

The sample was selected by simple random sampling technique. The total number of respondents selected for the study was 553 of which 451 responded to the questionnaire. Among the remaining 102 questionnaires, some were not returned, some were incomplete.

Sample Justification:

Hyderabad has earned a reputation as India's centre for banking education. The city of Hyderabad has contributed significantly to the nation's and the world's efforts to teach many bankers. Both the public and private sector organizations are numerous in Hyderabad. Both public and private sector banks have many branches. Candidates who have the best social skills, technical skills, and overall personality development skills are given the training to help them fit in with the jobs.



Constructions of Questionnaire:

Considering the research objectives, a structured questionnaire with 37 questions divided into two sections was constructed.

Likert's scaling Techniques was used as ordinal commonly used in survey research. Five-point levels of statements with answers like **SD: Strongly Disagree** **SWD: Somewhat Disagree** **D: Disagree** **NADA: Neither Agree nor Disagree** **SA: Strongly Agree**.

Statistical Tools:

The data collected was analysed with the help of Cronbach's Alpha Reliability test, Frequencies and Percentages and T test, by covering only the demographic factor of Gender.

Scope of the study and period of the study

1. The study examines the training and developments methods, the morale among employees, job satisfaction, employee satisfaction, efficiency process financial benefit, innovative strategies and products, new technology and methodologies.
2. The period of the study is limited to ten months, from January to October 2022.

Limitations of the Study

Despite taking due care, this study may have the following limitations, which are due to the limitations of the data.

1. Opinions expressed by the bank branch managers cannot be generalized.
2. The study is confined to the bank branches of State bank of India, Andhra Bank and Central Bank of India as public sector bank and HDFC Bank, Axis Bank and Kotak Mahindra Bank as private sector banks in Greater Hyderabad Municipal Corporation (GHMC), Telangana State.
3. The sample size consists of 451 employees only. Findings of the study have their limitations.
4. The respondents may not have thorough knowledge of how the various changes impacted their careers.
5. Since the banking sector is very large it was not possible to cover all departments and divisions.



6. The bank managers included Senior Branch Managers, Branch Managers and Managers, Deputy Managers and Assistant Managers only.

Data Analysis and Interpretation

Perceptions towards Training and Development Methods in Select Public and Private Sector Banks among Mid-Career Bank Managers

1. H_0 : There is no significant difference in the opinions in terms towards training and developments methods among mid-career bank managers of select public and private sector banks.
2. H_1 : There is a significant difference in the opinions in terms towards training and developments methods among mid-career bank managers of select public and private sector banks.

TRAINING AND DEVELOPMENT METHODS:

RESULTS FOR BANK MANAGERS

Table 1

Reliability Statistics Results

Cronbach's Alpha	N of Items
.926	37

Source: SPSS generated values

A total of 37 items related to bank managers were taken into consideration for the study. The result of using SPSS to apply Cronbach's Alpha is a value of 0.926. The items taken into consideration for the data collection have considerably high internal consistency, as the value is higher than 0.7000.

Table 2

Training and Development Methods

Note: SD: Strongly Disagree SWD: Somewhat Disagree D:Disagree NADA: Neither Agree nor Disagree SA: Strongly Agree



	SD		SWDA		DA		NADA		SA		Total
	F	%	F	%	F	%	F	%	F	%	F
Extensive training and development	6	1.3%	4	.9%	178	39.5%	154	34.1%	109	24.2%	451
Identification of formal appraisal	33	7.3%	6	1.3%	48	10.6%	140	31.0%	224	49.7%	451
Formal training to new employees	38	8.4%	3	.7%	60	13.3%	124	27.5%	226	50.1%	451
Formal evaluation methods	39	8.6%	1	.2%	54	12.0%	156	34.6%	201	44.6%	451
Training by reporting authority	40	8.9%	1	.2%	50	11.1%	107	23.7%	253	56.1%	451
Individual's own initiative	41	9.1%	3	.7%	41	9.1%	160	35.5%	206	45.7%	451
Target group is selected	35	7.8%	2	.4%	41	9.1%	139	30.8%	234	51.9%	451
Training based on need	8	1.8%	0	0.0%	9	2.0%	140	31.0%	294	65.2%	451
For promotion	3	.7%	24	5.3%	13	2.9%	140	31.0%	271	60.1%	451
Required material and assistance	1	.2%	3	.7%	7	1.6%	181	40.1%	259	57.4%	451
Well managed and good venues	2	.4%	0	0.0%	3	.7%	143	31.7%	303	67.2%	451
Hidden talents, capabilities, and potential	2	.4%	0	0.0%	27	6.0%	130	28.8%	292	64.7%	451
Need for training	3	.7%	0	0.0%	13	2.9%	237	52.5%	198	43.9%	451
Achievement of training objectives	3	.7%	0	0.0%	15	3.3%	144	31.9%	289	64.1%	451
Ongoing process	2	.4%	0	0.0%	11	2.4%	163	36.1%	275	61.0%	451
Bridging gap between supervisor and subordinate	5	1.1%	0	0.0%	8	1.8%	140	31.0%	298	66.1%	451
Improving confidence and commitment	3	.7%	2	.4%	9	2.0%	174	38.6%	263	58.3%	451
Make innovations at workplace	2	.4%	0	0.0%	13	2.9%	132	29.3%	304	67.4%	451
Play a bigger role	2	.4%	2	.4%	16	3.5%	164	36.4%	267	59.2%	451

Relevant to growth and development	4	.9%	2	.4%	11	2.4%	149	33.0%	285	63.2%	451
Upgrading skills	2	.4%	2	.4%	5	1.1%	168	37.3%	274	60.8%	451
Updated with latest practices	25	5.5%	3	.7%	6	1.3%	112	24.8%	305	67.6%	451
Overall performance	3	.7%	0	0.0%	7	1.6%	140	31.0%	301	66.7%	451
Duration of programme	3	.7%	1	.2%	5	1.1%	149	33.0%	293	65.0%	451
Progress of programme	3	.7%	3	.7%	11	2.4%	118	26.2%	316	70.1%	451
Training content	3	.7%	1	.2%	13	2.9%	134	29.7%	300	66.5%	451
Overall programme	2	.4%	0	0.0%	11	2.4%	127	28.2%	311	69.0%	451
Induction level training	3	.7%	0	0.0%	17	3.8%	75	16.6%	356	78.9%	451
Helps to gain clear insights	2	.4%	3	.7%	14	3.1%	182	40.4%	250	55.4%	451
Cost and benefits	2	.4%	1	.2%	37	8.2%	254	56.3%	157	34.8%	451
Reduce turnover	2	.4%	11	2.4%	36	8.0%	240	53.2%	162	35.9%	451
Higher employee performance	2	.4%	9	2.0%	14	3.1%	229	50.8%	197	43.7%	451
Higher productivity	3	.7%	0	0.0%	29	6.4%	229	50.8%	190	42.1%	451
HR appreciates good work	10	2.2%	1	.2%	168	37.3%	144	31.9%	128	28.4%	451
Domination of HR in current job	15	3.3%	2	.4%	245	54.3%	119	26.4%	70	15.5%	451
Support of HR Manager in time of difficulty	13	2.9%	1	.2%	38	8.4%	158	35.0%	241	53.4%	451
Satisfaction with HR practices and policies	4	.9%	1	.2%	26	5.8%	81	18.0%	339	75.2%	451

Source: Primary Data

From Table 2, it is observed that out of 451 bank managers 41(9.1%) have stated that they strongly disagree for Individual own initiative as stated by bank managers that the consideration of individual own initiative for training programme, 24(7.3%) have stated that they somewhat disagree for promotion as stated by bank managers that the design of training programme for promotion, 245 (54.3%) have stated that they

disagree for Domination of HR in current job as stated by bank managers that the wish to change current job due to domination of HR manager ?, 254 (56.3%) have stated that they neither agree nor disagree for Cost and benefits as stated by bank managers that the existence of system for calculating cost and benefit, 356 (78.9%) have stated that they strongly agree for Induction level training as stated by bank managers that Induction level training help in real terms.

T TEST CONDUCTED TO TEST THE MEAN DIFFERENCE IN TRAINING AND DEVELOPMENT METHODS AMONG BANK MANAGERS IN PUBLIC AND PRIVATE SECTOR BANKS WITH THE DEMOGRAPHIC VARIABLE AS GENDER

Table 3

Training and Development Methods among Bank Managers in Public and Private sector – by Gender with Group Statistics

Bank_ Type			N	Mean	Std. Deviation	Std. Error Mean
Public Sector	Training and Development Methods	Male	164	168.5427	9.74355	.76084
		Female	64	166.9688	8.82091	1.10261
Private Sector	Training and Development Methods	Male	144	157.0694	19.16679	1.59723
		Female	79	157.5190	14.90987	1.67749

Source: Primary Data

Table 4 Independent Samples Test

Bank_ Type			t-test for Equality of Means		
			t	df	Sig. (2-tailed)
Public	Training and Development Methods	Equal variances assumed	1.125	226	.262
Private	Training and Development Methods	Equal variances assumed	-.181	221	.857

Source: SPSS Generated Values



H_0 = There is no significant mean difference of the respondents with gender as basis in terms of training and development methods among select mid-career public sector bank managers.

H_1 = There is a significant mean difference of the respondents with gender as basis in terms of training and development methods among select mid-career public sector bank managers.

From Tables 3 and 4 in public sector for the variable training and development methods we observe that, males are 164 with Mean 168.5427 and SD is 9.74355, whereas females are 64 with Mean 166.9688 and SD is 8.82091. The calculated t-value is 1.125 with $df=226$, $p=0.262 < 0.05$. Table value at 5% level of significance at 226 degrees of freedom is 0.261782. Here calculated value is less than table value, hence we accept the null hypothesis and conclude that there is no significant mean difference of the respondents with gender as basis in terms of training and development methods among select public sector bank manager in their mid-career.

Findings of the Study and Conclusions

1. Frequency analysis for career development practices among mid-career bank managers of select public and private sector banks.

It was observed that out of 451 bank managers 41 (9.1%) have stated that they strongly disagree for Individual own initiative as stated by bank managers that the consideration of individual own initiative for training programme, 24 (7.3%) have stated that they somewhat disagree for promotion as stated by bank managers that the design of training programme for promotion, 245 (54.3%) have stated that they disagree for Domination of HR in current job as stated by bank managers that the wish to change current job due to domination of HR manager ?, 254 (56.3%) have stated neither agree nor disagree for Cost and benefits as stated by bank managers that the existence of system for calculating cost and benefit, 356 (78.9%) have stated that they strongly agree for Induction level training as stated by bank managers that Induction level training help in real terms.

1. T Test results for training and developments methods in public and private sector banks with Gender as variable.

There is no significant mean difference of the respondents with gender as basis in terms of training and development methods among bank managers of select public sector and private sector in their mid-career crisis. Hence, accept the null hypothesis.



Suggestions:

1. To provide online training.
2. To provide proper orientation training to the employees in the new job.
3. To adjust the new employees to the new social and task groups, arrange a new-hire celebration or welcome celebration.
4. Overtime should be provided for team training.
5. To benefit from diversity, organisations must offer diversity training.
6. Conduct some special programs to handle stress, tension, frustration, and conflict.
7. To provide a good climate for learning, growth and coordination.

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**AN INVESTIGATION INTO THE EFFICIENCY AND
VOLATILITY OF THE STOCK MARKET IN RELATION TO
GENERAL ELECTION RESULTS ANNOUNCEMENTS IN INDIA
(2004-2019)**

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ABSTRACT

Political events can impact the stock market's volatility and cause negative returns for investors. To explore the correlation between the General Election results and the stock market performance of listed Indian companies on the National Stock Exchange (NSE), this study examines the situation from 2004 to 2019. The study analyzed secondary data from 118 companies across 32 sectors between 2004 and 2019, using NSE share price indices as a representation of Indian stock prices. The results of the study suggest that political information had an impact on stock returns during the period from 2004 to 2019. The investors earned a positive return during the event, indicating that political events can lead to market inefficiencies. The study's findings suggest that investors initially overreacted to the announcement of general election results, but they later adjusted to the situation. Interestingly, the investors earned a higher return in 2014 compared to 2009, when the political party changed. However, in 2019, as the market had already absorbed the information, investors did not earn a higher return. These findings suggest that the stock price only includes some relevant information, and investors are making abnormal returns.

Introduction

The General Election in India has become a significant event for investors and the stock market as it can significantly impact investor sentiment, market volatility, and policy decisions. To explore the correlation between the General Election results and the stock market performance of listed Indian companies on the National Stock Exchange (NSE), this study examines the situation from 2004 to 2019. Several studies have investigated the relationship between political events and stock market performance, and findings suggest that political events can cause volatility and negative returns in a stock market. Investors should also consider political risks when making investment decisions, as the outcome of

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the General Election can influence the stock market's performance, leading investors to re-evaluate their portfolio allocations. The paper is organized into five sections, including a literature review, study objectives, methodology, sample analysis, and concluding thoughts and observations.

Political events can impact the stock market's volatility and cause negative returns for investors, as found by Kongprajya (2010), and Baxter and Jermann (1997) indicated that investors tend to overlook global diversification, resulting in concentrated political risks. Therefore, it is crucial for Indian investors to consider political risks when making investment decisions, as the General Election in India can influence the stock market's performance. Investors may re-evaluate their portfolio allocations based on the expected outcome of the election, with an increase in investments in industries expected to benefit from the new government's policies or a reduction in exposure to negatively impacted industries.

The paper is organized in five sections. Section 1 is an introduction, giving the background to the study. The second section presents a comprehensive literature review. The objectives of the study are outlined in Section 3. The methodology used to determine the impact of the stock market on the announcement of General Election results is explained in Section 4. The results of the sample analysis are presented in Section 5. The paper concludes with final thoughts and observations in the last section.

Literature Review

This section provides a comprehensive literature review on the relationship between General Election results and the stock market. Various studies and research reports on this topic have been collected and analyzed to present a detailed understanding of how election results impact stock prices. Numerous researchers such as Abidin (2010), Pantzalis et al. (2000), Huang (1985), Döpke (2006), and MacRae (1977) have studied the relationship between the stock market and general elections. Other studies, such as those by Manning (1989), Bialkowski et al. (2008), Mitra et al. (2022), Joshi (2013), and Ali (2021), have investigated the impact of election results on the stock market in different regions of the world, providing valuable insights into the relationship between the two. Lobo (2000) and Gemmill (1992) have also highlighted the link between stock market returns and political administration, providing further evidence for the impact of political events on the stock market. Siokis and Kapopoulos (2007) studied how government policies, such as increased spending and consumption, can cause inflation and lead to changes in investor sentiment. Their findings suggest that anticipating policy changes during election periods increases

uncertainty, affecting market sentiments. Leblang and Mukherjee (2005) argued that financial markets can react to elections in various ways.

Meanwhile, Lee and Brahmasrene (2019) suggest that macroeconomic variables significantly impact stock prices more than global factors. Huang's (1985) study found a statistically significant relationship between stock market returns and elections. Still, the impact of the election outcome on the stock market is not uniform and depends on the party that comes into power. According to the study, stock market returns tend to be harmful in the first two years after an election and improve in the third and fourth year due to the market's dislike of uncertainty that a new party can bring.

Objectives of the Study

The following are the objectives.

- To examine the stock market reaction to general election results in India from 2004 to 2019.
- To observe whether a change in political party causes stronger market effects or re-election of the same party.
- To observe which party's victory significantly influences stock market returns.
- To study the implication of cumulative abnormal return, volatility and liquidity to market efficiency.
- To test the validity of the Efficient Market Hypothesis.

Research Methodology

Sources of data and period of the study

The study analyzed secondary data from 118 companies across 32 sectors between 2004 and 2019, using NSE share price indices as a representation of Indian stock prices. Oehler (2013) chose specific sectors, such as mining, construction, manufacturing, transportation, wholesale trade, retail trade, and financial services, and selected companies based on their market capitalization. The study also collected pre-election data from the Gallup poll to measure the competitiveness of the election. Ramesh (2015) investigated the impact of the 2014 national

elections in India on the stock prices of 30 companies listed on the BSE SENSEX. The study utilized the event study methodology to examine shareholder returns around election days, analyzing stock prices over various time frames ranging from -15 to +15 days and -2 to +2 days, and -15 to -2 days, respectively, and +2 to +15 days. The study's analysis revealed a noteworthy positive cumulative average abnormal return (CAAR) during different event windows, indicating that the market responded favourably to the possibility of a change in government and the election of a new administration. The study aimed to evaluate the impact of General Elections on the Indian stock market and contrast market sentiment across four different elections. Its specific objective was to determine whether a shift in a political party or re-election of the same party had a more significant effect on the market.

Hypotheses

Null hypothesis (H₀): The announcement of a general election result has no significant effect on the return earned by investors.

The alternate hypothesis (H₁): The announcement of a general election result significantly affects the return earned by investors, resulting in abnormal returns.

Methods used for the analysis

The Efficient Market Hypothesis (EMH) asserts that all available information is reflected in asset prices, precluding the possibility of consistently beating the market. To evaluate this proposition, the event study methodology analyzes the influence of specific events, such as political events or corporate announcements, on stock prices. By examining the impact of these events on the stock price, we can assess if the market has already factored in the information. If the event has little to no effect on the stock price, it supports the EMH; if the event alters the stock price, it suggests that the market has not fully incorporated the information, challenging the EMH. Consequently, the event study methodology is a favoured method for testing the efficiency of financial markets.

The study utilized the event study methodology to examine how the stock market responded to the disclosure of general election results on social media. Fama et al. (1969) used the market model methodology to assume a linear connection between individual security and the market portfolio's returns. Compared to other models like the Capital Asset Pricing Model and the Index Model, this model is more efficient in identifying abnormal returns, making it a powerful tool in various. Salamudin et al. (1999) have also validated the credibility of the results obtained from the market model methodology.

The present study used econometric tools, such as the Breusch Godfrey serial correlation L.M. Test and ARCH, to analyze the volatility of selected stocks before and after the announcement of general election results. The data were collected daily from the NSE, covering 100 days before and after the event, with the event window defined as $t=-100$ to $t=+100$ relative to the event day $t=0$. The research by Chavali, et al. (2020) examined the impact of national elections on India's stock market using the event study methodology. The study had randomly selected a sample of 31 BSE-listed companies, covering 82 days for the 2014 election, including 39 days before and 42 days after the declaration of results. The study found that the event window for the 2019 election was 83 days, including 41 days before and after the event. The results showed a significantly positive AAR, suggesting a positive market reaction. The research concluded that the impact of elections on the market can vary, even if the same party wins, and the semi-strong form of the Efficient Market Hypothesis holds in emerging markets such as India.

The dates of the general election results for the years 2004, 2009, 2014, and 2019 were collected from social media. The results were declared on May 13th 2004, May 18th 2009, May 16th 2014, and May 23rd 2019.

The study employed the formula $R_t = \ln(P_t/P_{t-1})$, where P_t and P_{t-1} refer to the daily closing stock prices of the Nifty50 Index. OLS method was used to estimate the conditional mean equation, and the residuals obtained were tested for serial correlation and heteroscedasticity through the Breusch-Godfrey Serial Correlation Lagrange Multiplier (L.M.) Test. The null hypothesis of no serial correlation was evaluated using the chi-square p-value. The GARCH model was used to assess the heteroscedasticity problem by testing the null hypothesis of no ARCH effect, and the p-value was set to less than 0.05 as the criterion for accepting or rejecting the null hypothesis.

Methodology

This research aimed to assess the importance of daily average abnormal return (AAR) and cumulative average abnormal return (CAAR) by analyzing the results for each of the 201-day event windows. The study examined a sample of 118 companies during the General Elections from 2004 to 2019 and looked at 100 pre-election and 100 post-election announcements (Annexure-I). The findings for each of these event windows are presented in Annexure I. The study used test statistics obtained through the M.S. Excel descriptive analysis tool to test the null hypothesis. The results indicated that the AARs were positive on the announcement days. However, the study observed significantly positive AARs on most post-election result announcement days, implying that political information

influenced NSE. Specifically, on the announcement date (t_0) in 2004, AAR was positive at 0.32%, which was highly insignificant (at the 5% level), indicating that political information did not influence NSE. In 2009 and 2014, AAR on the announcement date (t_0) was 0.00%, which was highly significant (at a 5% level), implying that political information influenced NSE. In 2019, AAR on the announcement date (t_0) was 0.01%, which was highly insignificant (at a 5% level), indicating that political information not influenced NSE. The CAAR from 2009 to 2019 was reported as 0.00%, which was highly significant (at a 5% level), implying that political information influenced NSE. However, the CAAR for 2004 was reported as 0.33%, which indicates that political news had an impact, but the results were not highly significant.

The results of the study suggest that political information had an impact on stock returns during the period from 2004 to 2019. The investors earned a positive return during the event, indicating that political events can lead to market inefficiencies. The study's findings suggest that investors initially overreacted to the announcement of general election results, but they later adjusted to the situation. Interestingly, the investors earned a higher return in 2014 compared to 2009, when the political party changed. However, in 2019, as the market had already absorbed the information, investors did not earn a higher return. These findings suggest that the stock price only includes some relevant information, and investors are making abnormal returns.

Table 3 presents the abnormal returns of a sample of 118 companies due to the General Elections from 2004 to 2019. The table displays the mean, median, maximum, minimum, standard deviation, skewness, Kurtosis, Jarque-Bera statistic, and the probability of the Jarque-Bera statistic for each election year.

The "Mean" column indicates the average return of each year. A negative mean return suggests that the overall stock market performed poorly, while a positive mean return marks a profitable year for investors. In 2009, the mean return was -7.11%, indicating a significant decline in the stock market. However, in 2014, the mean return was 1.62%, showing that the change in the political party benefits the investors.

The "Std.Dev." column represents the standard deviation of the returns for each year. The standard deviation measures the variability or dispersion of the returns around the mean. In 2009, the returns were the most dispersed, with a standard deviation of 5.08%. These findings indicate that the returns in 2009 exhibited greater volatility than in other years. However, the p-value of 0.40%, i.e., greater than 0.05, suggests that the returns are normally distributed.

The "Skewness" column shows the skewness of the returns. Skewness measures the degree of asymmetry of a distribution. Positive skewness means that the distribution is skewed to the right, while negative skewness indicates that the distribution is skewed to the left. In 2004, the returns were positively skewed, with a skewness of 1.14%. This suggests there were more extreme positive returns in 2004 than unnecessary negative returns, which means the stock market was volatile.

The "Kurtosis" column shows the Kurtosis of the returns. Kurtosis measures the degree of peakedness and fatness of the tails of a distribution. A high kurtosis value indicates that the distribution has fatter tails than the normal distribution. In 2004, the kurtosis value was 8.77, indicating that the distribution had very fat tails. This implies that the stock market was more volatile and had more extreme returns in 2004 than in the other years.

The column labelled "Jarque-Bera" represents the test statistic for the Jarque-Bera test, which assesses whether the returns conform to a normal distribution. A higher value for the Jarque-Bera statistic indicates that the returns are not normally distributed. In 2004, the Jarque-Bera value was 344.10, indicating that the returns were not normally distributed. This suggests that the announcement of the general election result influenced the returns.

Finally, the "Probability" column shows the p-value associated with the Jarque-Bera test. A p-value less than 0.05 indicates that the returns are not normally distributed. In 2004 and 2014, the p-value was less than 0.05, indicating that the returns were not normally distributed. This implies that the returns were affected by factors other than random chance, such as market events or economic conditions.

Table-3: Descriptive statistics of Abnormal Returns from 2004 to 2019

	2004	2009	2014	2019
MEAN	-2.84	-7.11	1.62	2.05
MEDIAN	-0.00	-0.25	-0.61	0.18
MAXIMUM	0.04	13.45	12.85	11.65
MINIMUM	-0.37	-19.69	-8.63	-15.75
STD.DEV.	0.00	5.08	4.18	4.83
SKEWNESS	1.14	0.01	0.66	-0.12
KURTOSIS	8.77	3.46	3.69	2.79
JARQUE-BERA	344.10	1.79	18.84	0.84
PROBABILITY	0.00	0.40	0.00	0.65

From Fig. 1, the Kurtosis of abnormal returns in 2004, 2009, 2014, and 2019 can provide valuable insights into the risk and volatility of the stock market in those respective years. A kurtosis value of 8.77 means that the distribution of returns was heavily tailed, indicating a high probability of extreme positive and negative returns. Such a high level of Kurtosis implies a higher risk and volatility in the stock market in 2004, with the possibility of significant price fluctuations. However, the lower kurtosis values in 2009, 2014, and 2019 suggest that the distribution of returns was less heavy-tailed, indicating a lower probability of extreme positive and negative returns and hence lower risk and volatility in the stock market in those years.

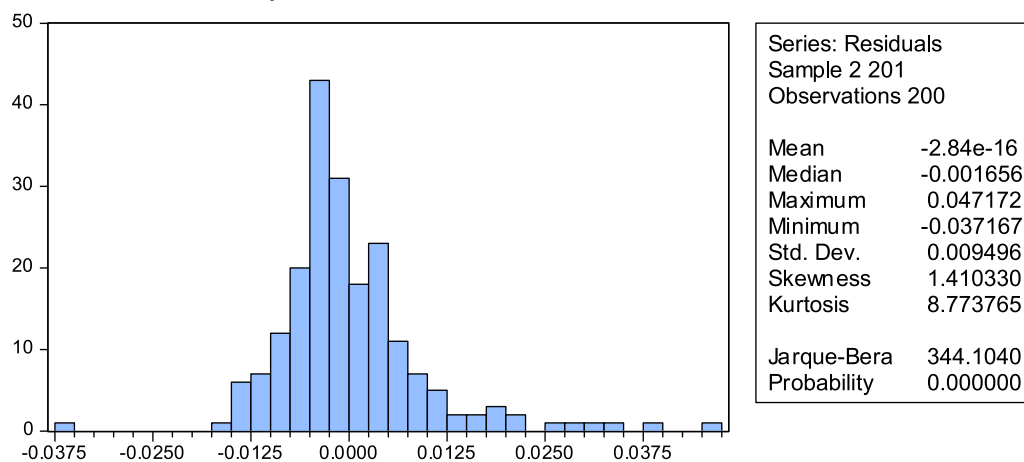


Table 4 provided in the regression analysis output, shows the coefficients, standard errors, t-statistics, and probabilities for the intercept and AAR variable for four years, 2004-2019. The method used for analysis was Least Squares. The t-test was used to determine the significance of the coefficient of the independent variable (AAR(-1)) and test the null hypothesis that it is equal to zero. The t-statistic is obtained by dividing the estimated coefficient by its standard error, and a smaller p-value indicates strong evidence against the null hypothesis.

Based on the output, it is evident that a significant relationship exists between the lagged value of AAR and the current value of AAR for each year. Notably, the coefficient of the lagged value of AAR was significant at the 0.01 and 0.05 levels in 2009 and 2014, respectively. However, in 2004 and 2019, this coefficient was not significant.

Table-4: The results of regression analysis for the dependent variable AAR from 2004 to 2019

Year	C Coefficient	Std. Error	t-Statistic	Prob.
2004	-0.864979	0.070319	-12.30078	0.0000
2009	-0.985936	0.370493	-2.661150	0.0084
2014	-0.478836	0.299857	-1.596881	0.1119
2019	0.555382	0.345996	1.605167	0.1101

Table 5 displays the findings of the Breusch-Godfrey Serial Correlation L.M. test conducted from 2004 to 2019. This statistical test is utilized to identify whether there exists serial correlation or autocorrelation within time-series data. Autocorrelation denotes the correlation of a particular variable with itself throughout time.

In 2004, the data showed that the F-statistic is 1.577757 with a probability of 0.2090, indicating no significant serial correlation. Similarly, the Obs*R-squared value is 3.168895, with a likelihood of the Chi-Square value being 0.2051.

In 2009, the F-statistic was 1.146011, with a probability of 0.3200, and the Obs*R-squared value was 2.311764, with a probability of the Chi-Square value being 0.3148. Both these values suggest no significant serial correlation in the data for 2009.

The data for 2014 shows an F-statistic of 0.604417 with a probability of 0.5474. The Obs*R-squared value is 1.225942, with a probability of the Chi-Square value being 0.5417. These values suggest no significant serial correlation in the data for 2014.

Finally, in 2019, the F-statistic is 1.105153 with a probability of 0.3332, and the Obs*R-squared value is 2.230264 with a probability of the Chi-Square value being 0.3279. These values indicate no significant serial correlation in the data for 2019.

Across all four years, the Breusch-Godfrey Serial Correlation L.M. test results show no significant serial correlation in the data. It implies that the data points in each year are not significantly correlated with each other.

Table 5. Breusch-Godfrey Serial Correlation L.M. Test Results for 2004-2019

Year	F-statistic	Prob. F(2,196)	Obs*R-squared
2004	1.577757	0.2090	3.168895
2009	1.146011	0.3200	2.311764
2014	0.604417	0.5474	1.225942
2019	1.105153	0.3332	2.230264

Table 6 shows the results of the Heteroskedasticity Test using ARCH for 2004, 2009, 2014, and 2019. In 2004, the F-statistic was 48.03023 with a p-value of 0.0000, indicating strong evidence of heteroskedasticity in the residuals. The Obs*R-squared was 39.00750 with a Prob. Chi-Square (1) of 0.0000, further confirming the presence of heteroskedasticity.

In 2009, the F-statistic was 0.131773 with a p-value of 0.7170, indicating no evidence of heteroskedasticity in the residuals. The Obs*R-squared was 0.133022 with a Prob—Chi-Square (1) of 0.7153, suggesting no significant heteroskedasticity.

In 2014, the F-statistic was 0.636660 with a p-value of 0.4259, indicating no evidence of heteroskedasticity in the residuals. The Obs*R-squared was 0.641052 with a Prob—Chi-Square (1) of 0.4233, suggesting no significant heteroskedasticity.

In 2019, the F-statistic was 0.116498 with a p-value of 0.7332, indicating no evidence of heteroskedasticity in the residuals. The Obs*R-squared was 0.117611 with a Prob—Chi-Square (1) of 0.7316, suggesting no significant heteroskedasticity.

Comparing the four years' results, we saw strong evidence of heteroskedasticity in 2004 but no evidence of heteroskedasticity in the other three years. It suggests that the residuals of the regression models were more homoscedastic in the later years than in 2004. To understand the volatility effect GARCH model is applied.

Table 6. Heteroskedasticity Test Results: ARCH (Annexure-I 2004, 2009, 2014, and 2019)

Year	F-statistic	Prob. F (1,197)	Obs*R-squared	Prob. Chi-Square (1)
2004	48.03023	0.0000	39.00750	0.0000
2009	0.131773	0.7170	0.133022	0.7153
2014	0.636660	0.4259	0.641052	0.4233
2019	0.116498	0.7332	0.117611	0.7316

Table 7 below presents a GARCH model that uses ML ARCH distribution to

estimate the risk spillover effect of the dependent variable AAR. The sample consists of 201 observations, and the model includes variables such as $RESID(-1)^2$, $GARCH(-1)$, $AAR(-1)$, and $AAR(-2)$ to capture the spillover effect.

However, the coefficient estimates for these variables are not significant at the 5% significance level, indicating no evidence of a risk spill over effect in the data. The R-squared and adjusted R-squared values are negative. The Durbin-Watson statistic is close to zero.

Table 7: - GARCH model (2004)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	1.368852	2.413828	0.567088	0.5707
$RESID(-1)^2$	0.234044	815.0835	0.000287	0.9998
$GARCH(-1)$	-1.038435	1.275314	-0.814258	0.4155
$AAR(-1)$	-0.094430	1153.029	-8.19E-05	0.9999
$AAR(-2)$	-0.335590	361.7763	-0.000928	0.9993
T-DIST. DOF	11809.16	20482300	0.000577	0.9995
R-squared	-10921.665085			
Adjusted R-squared	-10866.777320			
S.E. of regression	0.998027			
Sum squared resid	198.2154			
Log-likelihood	-281.9824			
Mean dependent var	-0.997981			
S.D. dependent var	0.009574			
Akaike info criterion	2.894296			
Schwarz criterion	2.993591			
Hannan-Quinn criteria.	2.934483			

Conclusion

This study aimed to investigate the impact of election results on the Indian stock market between 2004 and 2019, using a 201-day event window and focusing on 118 companies from 32 sectors based on market capitalization. The study found that while government economic policies can affect stock prices, investors earned more returns during the 2009 and 2014 general elections than in other years. This goes against the Efficient Market Hypothesis (EMH) that investors cannot receive abnormal returns during the semi-strong form of efficiency.

The results showed that in 2004, the average abnormal return (AAR) on the announcement date was 0.32%, with evidence of autocorrelation and ARCH effect in the residuals but no risk spillover effect. However, from 2009 onwards, there was no ARCH effect, and in 2009, the AAR was 0.00% on the announcement date, indicating investors earned a profit when the same political party was re-elected.

In 2014, with the unexpected victory of the Bharatiya Janata Party, the AAR on the announcement date was 0.05%, and investors earned a profit seven days after the announcement. In 2019, the AAR on the announcement date was 0.001%, which was significant. Still, investors earned abnormal returns three days after the announcement of the election results, suggesting that investors can make abnormal returns if they invest during elections. The events had a significant positive announcement effect, and the EMH was proven invalid because buyers earned abnormal returns in the semi-strong form of the market.

The study suggests that political information impacted stock returns from 2004-2019, indicating that political events can lead to market inefficiencies. The findings suggest that investors initially overreacted to the announcement of general election results but later adjusted to the situation. The study found that investors earned a higher return in 2014 compared to 2009, when there was a change in the political party. However, in 2019, the market had already absorbed the information. Investors did not earn a higher return, suggesting that the stock price only includes some relevant information and investors are making abnormal returns.

Annexure I

Impact of Event (General election) Announcement on Stock Price Performance

Event window	2004				2009				2014				2019			
	AAR	CAAR	sig - 2 tail AAR	sig - 2 tail CAAR	AAR	CAAR	sig - 2 tail AAR	sig - 2 tail CAAR	AAR	CAAR	sig - 2 tail AAR	sig - 2 tail CAAR	AAR	CAAR	sig - 2 tail AAR	sig - 2 tail CAAR
T100-	-1.00	-1.01	0.32	0.32	-2.48	-5.07	0.01	0.00	-6.28	-2.89	0.00	0.00	-.29	.04	.77	.97
T99-	-1.01	-1.00	0.32	0.32	-4.66	-5.91	0.00	0.00	2.25	-3.67	0.03	0.00	.00	-4.94	1.00	.00
T98-	-1.00	-1.00	0.32	0.32	-4.00	-6.19	0.00	0.00	-7.79	-8.18	0.00	0.00	-7.39	-7.05	.00	.00
T97-	-1.01	-1.00	0.32	0.32	-5.48	-4.73	0.00	0.00	-4.27	-3.72	0.00	0.00	-1.87	-1.38	.06	.17
T96-	-1.00	-1.00	0.32	0.32	-0.78	-4.40	0.44	0.00	-1.24	-2.70	0.22	0.01	-.15	6.28	.88	.00
T95-	-1.00	-1.00	0.32	0.32	-6.34	-2.77	0.00	0.01	-3.11	-4.46	0.00	0.00	8.94	10.13	.00	.00
T94-	-1.01	-1.01	0.32	0.32	2.90	2.03	0.00	0.04	-2.16	-0.59	0.03	0.55	7.58	4.87	.00	.00
T93-	-1.01	-1.00	0.32	0.32	-1.19	-0.47	0.24	0.64	0.79	-1.97	0.43	0.05	-2.39	-2.35	.02	.02
T92-	-0.99	-0.99	0.32	0.32	0.18	1.89	0.86	0.06	-3.05	-3.17	0.00	0.00	-.58	-.84	.57	.40
T91-	-0.99	-1.00	0.32	0.32	2.66	6.44	0.01	0.00	-1.70	7.54	0.09	0.00	-.07	.84	.94	.40
T90-	-1.01	-1.01	0.32	0.32	7.03	5.57	0.00	0.00	10.21	7.21	0.00	0.00	1.30	.63	.20	.53
T89-	-1.01	-1.00	0.32	0.32	1.40	-0.11	0.16	0.92	-0.42	-1.59	0.67	0.12	-.86	.62	.39	.54
T88-	-1.00	-0.99	0.32	0.32	-2.20	-2.77	0.03	0.01	-1.30	0.08	0.20	0.94	1.39	4.23	.17	.00
T87-	-0.99	-0.99	0.32	0.32	-2.57	-8.77	0.01	0.00	1.69	-0.26	0.09	0.80	4.35	-.72	.00	.48
T86-	-0.99	-1.00	0.32	0.32	-8.52	-9.66	0.00	0.00	-1.61	0.93	0.11	0.36	-5.69	-4.05	.00	.00
T85-	-1.01	-1.01	0.31	0.32	-4.51	-9.72	0.00	0.00	3.35	5.48	0.00	0.00	1.39	2.74	.17	.01
T84-	-1.00	-0.99	0.32	0.32	-8.46	-9.13	0.00	0.00	4.80	2.34	0.00	0.02	2.27	4.17	.03	.00
T83-	-0.99	-0.99	0.32	0.32	-5.14	-0.67	0.00	0.51	-1.18	-0.24	0.24	0.81	3.83	5.48	.00	.00
T82-	-1.00	-1.00	0.32	0.32	2.66	3.15	0.01	0.00	1.38	-1.29	0.17	0.20	2.99	4.19	.00	.00
T81-	-1.01	-1.00	0.32	0.32	3.66	9.53	0.00	0.00	-3.23	-0.48	0.00	0.63	3.46	4.88	.00	.00
T80-	-1.00	-0.99	0.32	0.32	9.88	9.02	0.00	0.00	2.52	6.67	0.01	0.00	2.73	3.34	.01	.00
T79-	-0.99	-0.99	0.33	0.32	3.82	2.64	0.00	0.01	6.43	3.48	0.00	0.00	2.41	5.00	.02	.00
T78-	-1.00	-1.00	0.32	0.32	-0.83	3.76	0.41	0.00	-2.47	-2.79	0.02	0.01	4.21	7.75	.00	.00
T77-	-0.99	-0.98	0.32	0.33	5.89	1.14	0.00	0.26	-1.24	-1.99	0.22	0.05	5.49	4.35	.00	.00
T76-	-0.97	-0.98	0.33	0.33	-5.08	-0.86	0.00	0.39	-1.58	-0.63	0.12	0.53	-1.14	-1.84	.26	.07
T75-	-0.99	-0.98	0.33	0.33	3.09	2.57	0.00	0.01	0.48	7.02	0.63	0.00	-1.54	-4.01	.13	.00
T74-	-0.98	-0.99	0.33	0.32	-0.27	1.28	0.79	0.20	10.31	12.15	0.00	0.00	-4.78	-2.41	.00	.02
T73-	-1.01	-1.00	0.31	0.32	2.19	3.27	0.03	0.00	10.80	9.46	0.00	0.00	.28	2.81	.78	.01
T72-	-0.99	-0.99	0.32	0.32	2.63	5.19	0.01	0.00	-0.90	-0.64	0.37	0.52	3.52	4.04	.00	.00
T71-	-1.00	-0.99	0.32	0.32	6.65	5.49	0.00	0.00	0.32	4.96	0.75	0.00	2.21	-1.06	.03	.29
T70-	-0.99	-0.98	0.33	0.33	0.09	0.14	0.93	0.89	7.62	2.54	0.00	0.01	-3.79	-3.78	.00	.00
T69-	-0.98	-0.99	0.33	0.32	-0.08	-1.51	0.94	0.13	-3.63	1.03	0.00	0.31	-2.15	3.95	.03	.00
T68-	-1.01	-1.00	0.31	0.32	-2.01	-5.85	0.05	0.00	1.24	1.18	0.22	0.24	5.64	1.13	.00	.26
T67-	-1.00	-1.00	0.32	0.32	-5.68	-0.82	0.00	0.41	-1.29	-3.98	0.20	0.00	1.04	1.07	.30	.29
T66-	-1.00	-1.00	0.32	0.32	4.74	1.67	0.00	0.10	-4.57	-3.68	0.00	0.00	2.78	4.31	.01	.00
T65-	-1.01	-1.00	0.32	0.32	0.05	0.77	0.96	0.44	0.15	-2.32	0.88	0.02	3.79	3.77	.00	.00
T64-	-1.00	-1.00	0.32	0.32	2.47	2.34	0.01	0.02	-2.15	-1.09	0.03	0.28	.87	5.57	.39	.00
T63-	-1.00	-1.00	0.32	0.32	1.80	-1.15	0.08	0.25	0.77	1.49	0.44	0.14	6.20	8.25	.00	.00
T62-	-1.00	-1.00	0.32	0.32	-7.85	-8.94	0.00	0.00	1.12	2.03	0.27	0.04	5.53	2.37	.00	.02

T61-	-1.01	-1.00	0.32	0.32	-5.90	-6.15	0.00	0.00	1.63	5.61	0.11	0.00	-2.86	-7.43	.01	.00
T60-	-1.00	-1.00	0.32	0.32	-2.34	-1.22	0.02	0.23	6.17	5.27	0.00	0.00	-7.10	-7.72	.00	.00
T59-	-1.00	-1.00	0.32	0.32	0.31	-0.14	0.75	0.89	-0.48	0.08	0.64	0.94	-3.83	-5.80	.00	.00
T58-	-1.00	-0.99	0.32	0.32	-1.20	-4.63	0.23	0.00	0.05	-2.10	0.96	0.04	-4.69	-6.70	.00	.00
T57-	-0.99	-0.99	0.33	0.32	-5.84	4.10	0.00	0.00	-4.38	-4.93	0.00	0.00	-4.38	-1.02	.00	.31
T56-	-1.00	-0.99	0.32	0.32	11.23	12.08	0.00	0.00	-2.54	-1.25	0.01	0.21	2.90	1.50	.00	.14
T55-	-0.99	-1.00	0.32	0.32	7.67	6.06	0.00	0.00	0.73	-2.23	0.47	0.03	-.62	-2.01	.54	.05
T54-	-1.00	-1.00	0.32	0.32	0.30	0.53	0.76	0.60	-4.68	-5.16	0.00	0.00	-2.04	-8.11	.04	.00
T53-	-0.99	-1.00	0.32	0.32	1.12	5.73	0.27	0.00	-2.85	-2.55	0.01	0.01	-8.45	-11.74	.00	.00
T52-	-1.00	-1.00	0.32	0.32	7.74	7.80	0.00	0.00	-0.52	-2.62	0.60	0.01	-10.58	-6.50	.00	.00
T51-	-1.00	-1.00	0.32	0.32	4.36	0.76	0.00	0.45	-3.12	-3.05	0.00	0.00	-1.68	-.48	.10	.63
T50-	-1.00	-1.00	0.32	0.32	-3.19	-1.30	0.00	0.20	-1.04	0.25	0.30	0.80	2.63	2.78	.01	.01
T49-	-1.00	-1.00	0.32	0.32	1.27	1.90	0.21	0.06	1.07	-2.32	0.29	0.02	1.76	-4.29	.08	.00
T48-	-1.00	-1.00	0.32	0.32	1.01	5.69	0.32	0.00	-6.70	-6.61	0.00	0.00	-6.96	-9.15	.00	.00
T47-	-1.00	-1.00	0.32	0.32	6.36	8.11	0.00	0.00	-2.92	-5.92	0.00	0.00	-6.40	-1.38	.00	.17
T46-	-1.00	-1.00	0.32	0.32	5.80	4.21	0.00	0.00	-6.47	-4.94	0.00	0.00	3.88	4.16	.00	.00
T45-	-1.00	-1.00	0.32	0.32	0.83	5.25	0.41	0.00	-1.29	-2.63	0.20	0.01	1.57	1.71	.12	.09
T44-	-1.00	-1.00	0.32	0.32	5.10	3.06	0.00	0.00	-2.51	-1.19	0.01	0.24	1.33	1.01	.19	.32
T43-	-0.99	-1.00	0.32	0.32	-1.71	3.74	0.09	0.00	1.51	1.11	0.13	0.27	-.16	-1.51	.87	.13
T42-	-1.00	-0.99	0.32	0.32	5.33	1.28	0.00	0.20	0.13	2.22	0.90	0.03	-2.33	1.59	.02	.11
T41-	-0.99	-0.99	0.32	0.32	-3.71	-8.79	0.00	0.00	1.89	2.40	0.06	0.02	4.48	6.63	.00	.00
T40-	-0.99	-1.00	0.32	0.32	-10.11	-10.06	0.00	0.00	0.65	-1.04	0.52	0.30	4.80	8.48	.00	.00
T39-	-1.00	-1.00	0.32	0.32	-7.14	-6.14	0.00	0.00	-2.94	-3.64	0.00	0.00	8.00	2.77	.00	.01
T38-	-0.99	-1.00	0.32	0.32	1.31	-2.28	0.19	0.02	-2.52	-0.46	0.01	0.65	-4.06	-2.09	.00	.04
T37-	-1.00	-0.99	0.32	0.32	-3.90	-4.90	0.00	0.00	2.89	-1.56	0.00	0.12	1.89	-2.23	.06	.03
T36-	-0.98	-0.99	0.33	0.32	-3.03	-2.63	0.00	0.01	-4.05	-4.75	0.00	0.00	-4.34	-8.02	.00	.00
T35-	-1.00	-1.00	0.32	0.32	-0.68	-7.13	0.50	0.00	-1.43	-3.06	0.15	0.00	-5.65	-6.19	.00	.00
T34-	-1.00	-1.00	0.32	0.32	-7.82	-7.37	0.00	0.00	-2.97	-3.77	0.00	0.00	-3.04	-1.18	.00	.24
T33-	-1.01	-1.01	0.32	0.32	-0.42	-3.69	0.67	0.00	-2.67	-2.91	0.01	0.00	1.08	4.77	.28	.00
T32-	-1.01	-1.01	0.31	0.32	-2.94	-5.86	0.00	0.00	-1.40	-3.60	0.16	0.00	4.93	6.17	.00	.00
T31-	-1.00	-1.00	0.32	0.32	-5.08	-8.41	0.00	0.00	-4.22	-8.48	0.00	0.00	2.78	-.72	.01	.47
T30-	-1.00	-1.00	0.32	0.32	-7.50	1.60	0.00	0.11	-7.64	-9.15	0.00	0.00	-4.01	1.05	.00	.30
T29-	-1.00	-1.01	0.32	0.32	7.13	1.37	0.00	0.17	-4.49	-3.53	0.00	0.00	4.78	3.41	.00	.00
T28-	-1.01	-1.01	0.31	0.32	-6.93	-9.96	0.00	0.00	-0.57	-2.94	0.57	0.00	-.43	.67	.67	.51
T27-	-1.00	-1.00	0.32	0.32	-5.02	-10.83	0.00	0.00	-3.78	-0.65	0.00	0.52	1.19	1.70	.24	.09
T26-	-1.00	-1.00	0.32	0.32	-10.60	-9.87	0.00	0.00	3.44	1.09	0.00	0.28	.51	-1.05	.61	.29
T25-	-0.99	-1.00	0.32	0.32	-6.10	-10.09	0.00	0.00	-1.45	-0.33	0.15	0.75	-3.51	-4.99	.00	.00
T24-	-1.00	-1.00	0.32	0.32	-8.76	-8.71	0.00	0.00	1.13	-3.70	0.26	0.00	-3.88	-4.99	.00	.00
T23-	-1.00	-1.00	0.32	0.32	-4.33	-7.19	0.00	0.00	-6.94	-6.22	0.00	0.00	-2.54	3.23	.01	.00
T22-	-1.00	-1.00	0.32	0.32	-5.09	-9.05	0.00	0.00	-2.61	-2.62	0.01	0.01	6.42	10.70	.00	.00
T21-	-1.00	-1.00	0.32	0.32	-9.60	0.49	0.00	0.63	-1.25	0.92	0.21	0.36	9.63	7.10	.00	.00
T20-	-1.00	-1.00	0.32	0.32	7.43	5.25	0.00	0.00	1.87	3.49	0.06	0.00	.83	-.92	.41	.36
T19-	-1.00	-1.00	0.32	0.32	-2.49	-4.10	0.01	0.00	4.31	-1.26	0.00	0.21	-2.27	.34	.03	.74
T18-	-1.01	-1.00	0.32	0.32	-3.22	-1.67	0.00	0.10	-7.26	-7.33	0.00	0.00	3.49	2.07	.00	.04
T17-	-0.99	-1.00	0.32	0.32	1.01	3.07	0.31	0.00	-4.41	-3.06	0.00	0.00	-.61	1.78	.55	.08

T16-	-1.00	-1.00	0.32	0.32	3.43	-0.08	0.00	0.94	1.56	0.42	0.12	0.68	3.00	4.94	.00	.00
T15-	-1.01	-1.00	0.32	0.32	-4.32	-6.62	0.00	0.00	-0.68	1.63	0.50	0.10	3.71	4.32	.00	.00
T14-	-1.00	-1.00	0.32	0.32	-5.48	-1.67	0.00	0.10	2.88	2.22	0.00	0.03	2.57	5.79	.01	.00
T13-	-1.00	-0.99	0.32	0.32	3.04	8.69	0.00	0.00	0.59	2.19	0.55	0.03	5.71	7.61	.00	.00
T12-	-0.98	-0.99	0.33	0.32	9.62	2.67	0.00	0.01	2.43	4.79	0.02	0.00	6.15	9.06	.00	.00
T11-	-1.00	-1.00	0.32	0.32	-7.76	-13.61	0.00	0.00	4.22	3.04	0.00	0.00	7.57	7.25	.00	.00
T10-	-1.00	-1.00	0.32	0.32	-11.43	-10.41	0.00	0.00	-0.60	1.75	0.55	0.08	1.67	1.43	.10	.16
T9-	-1.00	-0.99	0.32	0.32	-3.92	-1.66	0.00	0.10	2.71	2.10	0.01	0.04	.35	8.14	.73	.00
T8-	-0.99	-1.00	0.32	0.32	0.59	-3.60	0.55	0.00	0.28	2.73	0.78	0.01	9.87	6.07	.00	.00
T7-	-1.01	-1.01	0.31	0.32	-6.62	-2.61	0.00	0.01	2.40	1.26	0.02	0.21	-2.70	-.31	.01	.76
T6-	-1.00	-1.00	0.32	0.32	3.58	4.75	0.00	0.00	-0.24	-4.96	0.81	0.00	2.78	-.51	.01	.61
T5-	-1.01	-1.00	0.32	0.32	3.46	-1.25	0.00	0.21	-7.06	-6.68	0.00	0.00	-3.82	-4.46	.00	.00
T4-	-1.00	-1.00	0.32	0.32	-5.47	-4.40	0.00	0.00	-3.52	-6.39	0.00	0.00	-2.74	-11.57	.01	.00
T3-	-0.99	-0.99	0.32	0.33	0.62	-1.15	0.53	0.25	-5.58	-5.84	0.00	0.00	-12.22	-6.99	.00	.00
T2-	-0.98	-0.98	0.33	0.33	-1.50	-4.63	0.14	0.00	-2.81	0.15	0.01	0.88	7.90	5.33	.00	.00
T1-	-0.98	-0.99	0.33	0.32	-5.00	-21.34	0.00	0.00	3.57	-0.71	0.00	0.48	-1.71	.67	.09	.50
T0	-1.00	-0.98	0.32	0.33	-21.71	-15.89	0.00	0.00	-2.88	-7.30	0.00	0.00	2.69	-6.72	.01	.00
T1	-0.96	-0.95	0.34	0.34	-2.59	-7.14	0.01	0.00	-7.80	-8.93	0.00	0.00	-10.31	-11.27	.00	.00
T2	-0.95	-0.98	0.35	0.33	-8.33	-7.65	0.00	0.00	-4.99	-5.13	0.00	0.00	-6.96	-6.39	.00	.00
T3	-1.03	-1.02	0.31	0.31	-1.33	-4.43	0.19	0.00	-2.96	-5.14	0.00	0.00	-.30	4.25	.76	.00
T4	-1.02	-1.01	0.31	0.31	-4.96	-5.14	0.00	0.00	-5.22	-6.08	0.00	0.00	6.83	4.28	.00	.00
T5	-1.00	-1.00	0.32	0.32	-1.77	4.63	0.08	0.00	-3.94	1.46	0.00	0.15	.05	2.11	.96	.04
T6	-1.00	-1.01	0.32	0.32	6.67	-0.53	0.00	0.60	5.85	8.01	0.00	0.00	2.64	-.75	.01	.46
T7	-1.01	-1.00	0.31	0.32	-8.68	-7.39	0.00	0.00	5.79	1.81	0.00	0.07	-4.96	-.82	.00	.41
T8	-1.00	-1.00	0.32	0.32	-0.80	-4.99	0.42	0.00	-1.91	0.72	0.06	0.47	4.06	10.39	.00	.00
T9	-1.00	-1.00	0.32	0.32	-6.23	-7.44	0.00	0.00	3.61	1.39	0.00	0.17	8.87	8.51	.00	.00
T10	-0.99	-0.99	0.32	0.33	-5.63	-5.82	0.00	0.00	-1.18	-6.90	0.24	0.00	1.54	1.82	.13	.07
T11	-0.98	-0.98	0.33	0.33	-2.93	-5.53	0.00	0.00	-5.61	-7.88	0.00	0.00	1.23	-1.28	.22	.20
T12	-0.99	-1.00	0.33	0.32	-4.63	-4.48	0.00	0.00	-4.88	-6.44	0.00	0.00	-2.69	.04	.01	.97
T13	-1.00	-1.00	0.32	0.32	-2.11	0.11	0.04	0.91	-3.79	-7.10	0.00	0.00	2.73	5.64	.01	.00
T14	-1.00	-1.00	0.32	0.32	2.01	8.23	0.05	0.00	-6.95	-8.01	0.00	0.00	2.59	1.37	.01	.17
T15	-0.99	-1.00	0.32	0.32	8.08	2.95	0.00	0.00	-5.37	-7.02	0.00	0.00	1.27	1.72	.21	.09
T16	-1.00	-1.00	0.32	0.32	-5.78	-5.81	0.00	0.00	-3.89	-2.43	0.00	0.02	10.33	8.40	.00	.00
T17	-1.00	-1.00	0.32	0.32	-3.65	-1.08	0.00	0.28	0.55	2.17	0.58	0.03	1.06	4.11	.29	.00
T18	-1.00	-1.00	0.32	0.32	2.05	4.29	0.04	0.00	2.22	1.59	0.03	0.11	4.37	-.69	.00	.49
T19	-1.00	-1.00	0.32	0.32	4.41	7.02	0.00	0.00	-0.16	7.81	0.87	0.00	-7.94	-3.74	.00	.00
T20	-1.00	-1.00	0.32	0.32	5.48	1.65	0.00	0.10	9.68	8.12	0.00	0.00	1.74	3.50	.08	.00
T21	-0.99	-0.99	0.32	0.32	-3.59	6.76	0.00	0.00	-0.17	-5.71	0.87	0.00	2.89	-.25	.00	.80
T22	-0.99	-0.99	0.33	0.32	11.73	11.23	0.00	0.00	-6.27	-2.67	0.00	0.01	-4.22	-6.64	.00	.00
T23	-1.00	-1.00	0.32	0.32	6.66	2.77	0.00	0.01	2.99	3.92	0.00	0.00	-4.48	-6.12	.00	.00
T24	-1.00	-1.00	0.32	0.32	-5.84	-0.51	0.00	0.61	2.48	5.32	0.01	0.00	-3.47	-1.04	.00	.30
T25	-1.00	-1.00	0.32	0.32	4.35	1.81	0.00	0.07	4.80	1.69	0.00	0.09	1.56	1.43	.12	.15
T26	-1.00	-1.00	0.32	0.32	-1.45	-5.39	0.15	0.00	-2.07	-4.97	0.04	0.00	.23	.38	.82	.71
T27	-1.00	-0.99	0.32	0.32	-6.14	-4.10	0.00	0.00	-5.54	-5.31	0.00	0.00	.80	-.29	.42	.77
T28	-0.99	-0.99	0.32	0.32	-0.06	-4.62	0.96	0.00	-1.97	0.11	0.05	0.91	-.65	-.34	.52	.74

T29	-0.99	-0.99	0.33	0.32	-5.92	-6.20	0.00	0.00	1.55	-0.33	0.12	0.74	.00	7.50	1.00	.00
T30	-1.00	-1.00	0.32	0.32	-1.20	4.05	0.23	0.00	-2.12	-6.54	0.04	0.00	8.54	14.77	.00	.00
T31	-1.00	-1.01	0.32	0.32	6.58	1.95	0.00	0.05	-7.63	-7.36	0.00	0.00	13.77	3.48	.00	.00
T32	-1.01	-1.01	0.31	0.32	-4.29	-5.02	0.00	0.00	-3.11	-6.13	0.00	0.00	.68	1.88	.50	.06
T33	-1.00	-1.00	0.32	0.32	-2.10	-2.07	0.04	0.04	-5.24	-2.56	0.00	0.01	7.90	3.31	.00	.00
T34	-1.00	-1.00	0.32	0.32	-0.68	8.80	0.50	0.00	1.98	-0.32	0.05	0.75	-3.40	-3.35	.00	.00
T35	-0.99	-1.00	0.32	0.32	10.55	7.32	0.00	0.00	-1.58	-2.45	0.12	0.02	-1.24	2.13	.22	.04
T36	-1.00	-1.00	0.32	0.32	-1.19	2.67	0.24	0.01	-2.03	9.57	0.05	0.00	3.54	1.07	.00	.29
T37	-1.00	-1.00	0.32	0.32	4.98	3.25	0.00	0.00	11.99	11.41	0.00	0.00	-1.95	-1.25	.05	.21
T38	-1.01	-1.00	0.32	0.32	-0.30	5.49	0.76	0.00	5.03	3.11	0.00	0.00	.72	6.65	.47	.00
T39	-1.00	-0.99	0.32	0.32	7.94	7.26	0.00	0.00	-1.01	8.55	0.32	0.00	8.73	13.28	.00	.00
T40	-0.98	-0.98	0.33	0.33	3.75	-4.92	0.00	0.00	10.15	9.93	0.00	0.00	9.58	8.01	.00	.00
T41	-0.97	-0.99	0.33	0.32	-11.17	-13.73	0.00	0.00	0.64	-6.06	0.52	0.00	2.46	1.94	.02	.06
T42	-1.00	-1.00	0.32	0.32	-8.31	-10.38	0.00	0.00	-8.48	-9.81	0.00	0.00	-.22	4.51	.82	.00
T43	-0.99	-1.00	0.32	0.32	-4.30	-10.22	0.00	0.00	-7.16	-8.36	0.00	0.00	5.90	5.28	.00	.00
T44	-1.00	-1.00	0.32	0.32	-10.95	-11.70	0.00	0.00	-4.92	-2.80	0.00	0.01	.22	-2.58	.83	.01
T45	-1.01	-1.01	0.32	0.32	-7.79	-7.49	0.00	0.00	1.13	-1.64	0.26	0.10	-3.82	3.71	.00	.00
T46	-1.01	-1.01	0.32	0.32	-1.10	0.62	0.27	0.54	-3.54	-4.27	0.00	0.00	6.99	10.54	.00	.00
T47	-1.00	-1.00	0.32	0.32	2.52	-4.45	0.01	0.00	-2.50	-0.44	0.01	0.66	8.65	5.23	.00	.00
T48	-1.00	-1.00	0.32	0.32	-9.18	-5.06	0.00	0.00	1.18	-0.20	0.24	0.85	-2.14	3.53	.03	.00
T49	-1.00	-1.00	0.32	0.32	-1.73	-3.61	0.09	0.00	-1.30	2.57	0.19	0.01	7.16	5.77	.00	.00
T50	-1.00	-1.00	0.32	0.32	-4.58	-6.05	0.00	0.00	5.16	1.65	0.00	0.10	1.01	6.10	.32	.00
T51	-1.00	-1.00	0.32	0.32	-3.87	-0.99	0.00	0.32	1.23	1.14	0.22	0.26	7.95	1.51	.00	.13
T52	-1.00	-1.00	0.32	0.32	2.44	0.43	0.02	0.67	-1.17	0.10	0.24	0.92	-6.20	-2.35	.00	.02
T53	-0.99	-1.00	0.32	0.32	-0.29	-1.94	0.77	0.05	2.07	5.55	0.04	0.00	3.99	.11	.00	.92
T54	-1.00	-0.98	0.32	0.33	-5.42	-6.58	0.00	0.00	5.60	0.99	0.00	0.32	-3.80	-3.95	.00	.00
T55	-0.96	-0.98	0.34	0.33	-4.69	-4.34	0.00	0.00	-4.29	-6.83	0.00	0.00	-2.57	4.95	.01	.00
T56	-1.00	-1.00	0.32	0.32	-1.10	-0.76	0.27	0.45	-4.88	-2.66	0.00	0.01	8.04	5.00	.00	.00
T57	-1.00	-1.00	0.32	0.32	0.20	7.02	0.84	0.00	2.63	2.28	0.01	0.02	-.91	-.32	.37	.75
T58	-1.00	-1.00	0.32	0.32	9.69	9.88	0.00	0.00	0.29	7.43	0.77	0.00	1.11	.21	.27	.84
T59	-1.00	-1.00	0.32	0.32	6.70	7.19	0.00	0.00	9.62	5.03	0.00	0.00	-1.66	3.67	.10	.00
T60	-1.01	-1.00	0.32	0.32	4.73	1.50	0.00	0.14	-3.57	-3.55	0.00	0.00	6.07	10.49	.00	.00
T61	-1.00	-1.00	0.32	0.32	-2.70	-3.56	0.01	0.00	-1.78	0.97	0.08	0.34	9.26	9.81	.00	.00
T62	-1.00	-1.00	0.32	0.32	-2.15	-11.87	0.03	0.00	2.64	-0.90	0.01	0.37	6.41	2.12	.00	.04
T63	-1.00	-1.00	0.32	0.32	-8.49	-4.16	0.00	0.00	-4.69	-8.18	0.00	0.00	-6.57	-10.90	.00	.00
T64	-0.99	-0.99	0.32	0.32	2.03	8.75	0.04	0.00	-8.35	-8.90	0.00	0.00	-7.86	-9.97	.00	.00
T65	-0.99	-1.00	0.32	0.32	7.61	1.76	0.00	0.08	-3.31	-4.42	0.00	0.00	-6.45	-1.48	.00	.14
T66	-1.00	-1.00	0.32	0.32	-6.10	-3.25	0.00	0.00	-1.91	-2.50	0.06	0.01	3.95	7.30	.00	.00
T67	-1.00	-0.99	0.32	0.32	2.87	-1.50	0.00	0.14	-1.70	-2.13	0.09	0.04	4.88	.40	.00	.69
T68	-0.97	-0.99	0.34	0.32	-5.70	-8.82	0.00	0.00	-0.74	0.89	0.46	0.38	-4.23	2.75	.00	.01
T69	-0.99	-1.00	0.32	0.32	-6.89	-9.84	0.00	0.00	0.91	1.43	0.36	0.15	4.99	4.20	.00	.00
T70	-1.01	-1.00	0.32	0.32	-9.20	-6.52	0.00	0.00	1.11	0.74	0.27	0.46	-.98	-4.43	.33	.00
T71	-0.99	-0.99	0.32	0.32	-1.81	-4.84	0.07	0.00	-4.90	-3.76	0.00	0.00	-4.60	-7.86	.00	.00
T72	-0.99	-1.00	0.32	0.32	-3.92	-4.24	0.00	0.00	-0.28	-5.18	0.78	0.00	-7.43	-8.89	.00	.00
T73	-1.01	-0.99	0.32	0.32	-2.49	-3.26	0.01	0.00	-6.08	-6.09	0.00	0.00	-6.19	-8.06	.00	.00

T74	-0.97	-0.99	0.33	0.32	-2.53	-1.45	0.01	0.15	-2.33	-1.68	0.02	0.09	-5.40	-3.59	.00	.00
T75	-1.01	-1.00	0.32	0.32	0.06	1.42	0.95	0.16	-0.48	1.28	0.63	0.20	.82	-3.19	.41	.00
T76	-1.00	-1.01	0.32	0.32	1.48	1.09	0.14	0.28	2.13	0.04	0.04	0.97	-6.56	-3.05	.00	.00
T77	-1.01	-1.01	0.31	0.32	-0.39	-2.31	0.69	0.02	-2.44	-6.56	0.02	0.00	1.01	7.91	.32	.00
T78	-1.00	-1.00	0.32	0.32	-1.95	-4.45	0.05	0.00	-6.73	-6.39	0.00	0.00	10.08	6.41	.00	.00
T79	-1.00	-1.00	0.32	0.32	-4.37	-8.34	0.00	0.00	-0.47	0.40	0.64	0.69	-1.80	2.33	.07	.02
T80	-1.00	-1.00	0.32	0.32	-6.79	-0.58	0.00	0.56	0.65	-1.67	0.52	0.10	2.83	-2.71	.01	.01
T81	-1.00	-1.00	0.32	0.32	1.18	1.39	0.24	0.17	-2.68	-2.65	0.01	0.01	-14.68	-13.51	.00	.00
T82	-1.00	-1.00	0.32	0.32	1.02	1.64	0.31	0.10	-0.91	-1.11	0.37	0.27	-6.53	-5.57	.00	.00
T83	-1.00	-1.00	0.32	0.32	0.40	0.39	0.69	0.70	-0.94	10.11	0.35	0.00	2.38	7.26	.02	.00
T84	-1.00	-1.00	0.32	0.32	-0.28	1.02	0.78	0.31	11.07	9.92	0.00	0.00	9.00	3.53	.00	.00
T85	-0.99	-1.00	0.32	0.32	1.01	0.64	0.31	0.52	-0.76	-7.63	0.45	0.00	-3.83	.11	.00	.91
T86	-1.00	-1.00	0.32	0.32	-7.32	-8.27	0.00	0.00	-9.24	-6.10	0.00	0.00	4.56	5.46	.00	.00
T87	-1.00	-1.00	0.32	0.32	-5.09	-5.28	0.00	0.00	-1.29	-1.57	0.20	0.12	3.51	7.51	.00	.00
T88	-1.00	-1.00	0.32	0.32	-2.03	-3.74	0.04	0.00	-0.53	7.41	0.60	0.00	7.10	7.12	.00	.00
T89	-1.00	-1.00	0.32	0.32	-3.50	-4.98	0.00	0.00	11.79	11.43	0.00	0.00	2.14	7.67	.03	.00
T90	-1.01	-1.00	0.32	0.32	-3.33	0.70	0.00	0.48	6.25	10.63	0.00	0.00	9.57	8.89	.00	.00
T91	-1.00	-1.00	0.32	0.32	5.40	1.42	0.00	0.16	10.11	6.44	0.00	0.00	4.40	-.70	.00	.49
T92	-1.00	-1.00	0.32	0.32	-3.21	-2.62	0.00	0.01	-3.40	-6.02	0.00	0.00	-5.44	-1.46	.00	.15
T93	-1.00	-1.00	0.32	0.32	-0.76	-3.66	0.45	0.00	-4.39	-3.47	0.00	0.00	4.85	3.01	.00	.00
T94	-1.00	-1.00	0.32	0.32	-4.15	-5.54	0.00	0.00	-1.12	0.45	0.27	0.66	-.95	-1.94	.34	.05
T95	-0.99	-1.00	0.32	0.32	-4.40	-1.70	0.00	0.09	2.18	5.06	0.03	0.00	-2.02	-3.26	.05	.00
T96	-1.00	-1.00	0.32	0.32	1.04	5.01	0.30	0.00	5.13	5.29	0.00	0.00	-2.81	-2.26	.01	.03
T97	-1.00	-1.00	0.32	0.32	6.48	4.87	0.00	0.00	0.66	-5.50	0.51	0.00	-.37	-5.29	.71	.00
T98	-1.00	-1.00	0.32	0.32	0.13	-1.05	0.90	0.30	-8.99	-1.01	0.00	0.31	-5.48	-7.46	.00	.00
T99	-1.00	-1.00	0.32	0.32	-0.57	-1.36	0.57	0.18	6.80	5.05	0.00	0.00	-5.27	-3.22	.00	.00
T100	-1.00	-1.00	0.32	0.32	-3.15	-3.21	0.00	0.00	-0.27	-0.27	0.79	0.79	.46	.46	.65	.65

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FINANCIAL INCLUSION: A RURAL SUSTAINABILITY APPROACH

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ABSTRACT

Financial inclusion means offering affordable financial services to underserved groups, including the uninsured and rural poor. By making traditional, organized lending more straightforward, the Indian government's financial inclusion policy encourages saving. Due to their limited means, low-income people are more vulnerable to economic stress. Formal banking services help vulnerable unbanked people save, indirectly building capital. Mass entrepreneurship can boost productivity and prosperity if appropriate and transparent finance is available. That process never ends. After achieving the primary goals, it is necessary to guarantee that they never change. Sustainable development and financial inclusion are not a mission or strategy. They plan to bring India and its impoverished inhabitants into mainstream society, by giving them affordable, reliable, and conveniently accessible sources to generate and enhance their subsistence, getting them out of poverty, and making them self-dependent, self-empowered, and self-reliant. Helping people obtain bank accounts and ensuring that financial institutions offer excellent services and have the correct infrastructure will enable financial inclusion to succeed.

Keywords : *Financial Inclusion, Sustainable Development, Organized Credit, Formal Banking Services*

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Introduction

The population of India is around 1.41 billion. India has about 6.64 lakh villages and covers 2.3% of the Earth. India's youth is its most significant demographic aspect, with over 65% of its population under 35. Indians will be, on average, 29 years old by 2020. With such a vast workforce, the government must help motivated young people start businesses and earn an income. The NSSO 59th round survey found that 51% of farmer households need more financial resources, 27% of farmer households use official credit, while 1/3 use non-formal borrowing and 73% of farm families need to borrow conventionally. Financial exclusion is higher in Northern Eastern, Central, and Eastern areas. 64% of agricultural households in these three locations were found to be economically marginalized. Conventional lenders were responsible for 19.66% of the total debt in these three sectors. Banks are unavailable to many rural Indians; only some of India's 6 lakh villages have banks. Approximately 80% of Indians are uninsured. Mortgages, mutual funds, and retirement savings are underpenetrated.

Literature Review

Financial Inclusion

According to the UN, financial inclusion provides affordable financial services to all households. Credit, insurance, payment, transfer, savings and deposit services, clear rules, industry performance standards, and sound and secure institutions that follow these criteria are required.

Financial inclusion has peaked in India. The economic system can help billions of low-income individuals enhance their lives. With the government and Reserve Bank of India's heightened focus on inclusion, profitable business models to help the impoverished have emerged. While Internet and technology access are making it easy and economical to contact and serve marginalized low-income families (Mishra, 2012), by providing affordable debt and equity financing (Singh, Ranjan, & Ahuja, 2012).

On December 29, 2003, former UN Secretary-General Kofi Annan stated that most impoverished people still lack trustworthy financial services like savings, credit, and insurance. Our primary issue is removing impediments to finance industry participation. We must build a financial services sector that empowers people. Figure 1 shows household access to financial services.

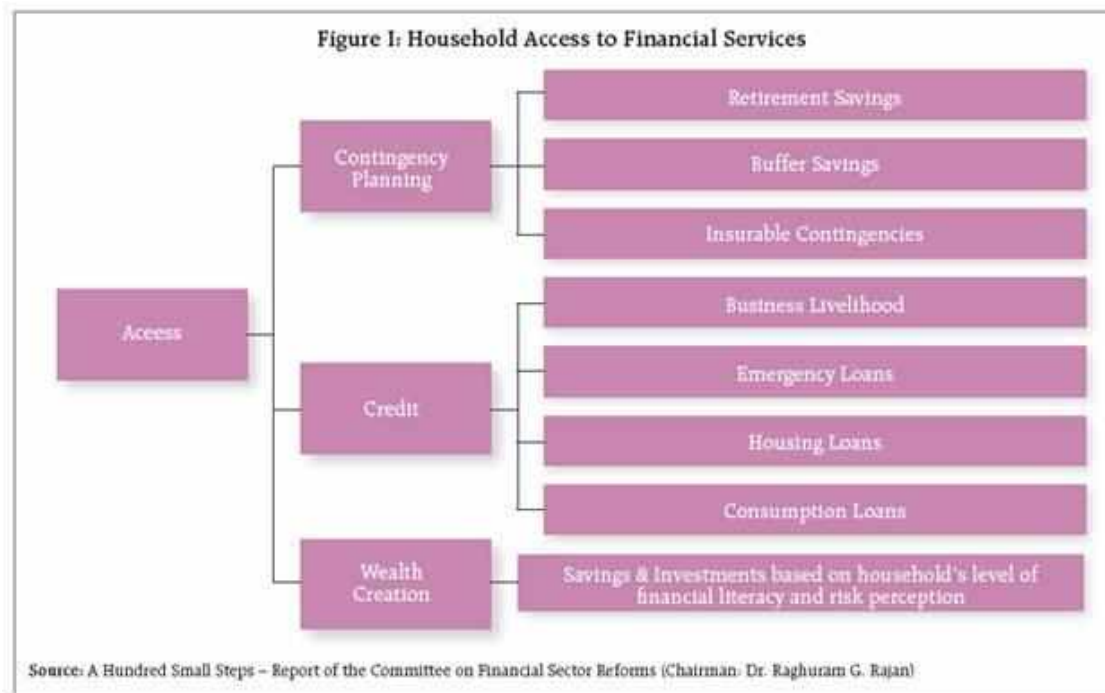


Fig. 1. Household Access to Financial Services

Sustainable Development

Brundtland Commission's 1987 report, "Our Common Future" popularised "sustainable development." The report defines sustainable development and states that most commonly sustainable development "allows future generations to better their living level relative to existing ones" (Smith & Rees, 1998; Singh, & Sharma, 2015).

Environmental resources are considered natural capital. This strategy addressed rural poverty and overexploitation (Barbier, 2006). Growth requires GDP growth. Individual and economic expansion may be included (Korowitz, 2012). Even if it improves people's quality of life, sustainable development may require resource reduction (Brown, 2011). In his research, "The Concept of Sustainable Economic Development," economist Edward Barbier (1987) stated that environmental protection and economic growth are not mutually contradictory.

The UN Millennium Declaration listed sustainable development as social progress, environmental protection and economic growth. It is the roadmap for ensuring the long-term success of any resource-intensive project that requires repeatability now and in the future. Sustainable development provides that future generations can use the Earth's



limited resources. Humans have tried numerous ways to progress. Some wars caused economic depression. Each goal includes quantifiable, realistic, and relevant objectives. They are feasible and affordable. The goals have measurable, reachable milestones. They are affordable. But we must collaborate to turn ideas into reality. To achieve the aims, a movement must raise awareness, accelerate policy changes, organize resources, and inspire global and local action. International non-intervention is impossible; everyone can contribute.

Initiatives

The Reserve Bank of India and the Indian government have worked toward financial inclusion and sustainable development. Here are some instances.

BSBD and no-frills accounts: No-frills checking accounts are simple bank accounts with low minimum balances and fees that allow a significant percentage of the population to utilize them. Such accounts should allow modest overdrafts, deposits, and withdrawals at bank branches, ATMs, electronic payments, and ATM cards.

Customer KYC standards: Banks relaxed the know-your-customer (KYC) criteria for creating minor accounts in August 2005, permitting the insertion of an existing account holder who had already gone through KYC. Banks may also request paperwork to verify the customer's identity and location. The Indian government's biometrics register now accepts letters with name, Aadhaar number, and address.

Business Correspondents (BCs): Since January 2006, banks have been authorized to use BCs and Business Facilitators (BFs). Using the BC model, banks can provide services to customers' doors, including cash-in-cash-out transactions. More persons and organizations have become BCs over time. For-profit corporations can be BCs since September 2010. To have better cash management, documentation, handling of client complaints, and BC oversight, financial institutions are advised to put up intermediate configurations between their BC and base branch sites. This branch could be a simple brick-and-mortar type structure with a core banking solution console, low-cost, passbook printer, and cash safe to handle more significant customer transactions.

Technology: Financial institutions are encouraged to employ ICT to solve loan delivery and outreach issues in remote and rural areas. The BC concept allows illiterate people to handle accounts via biometrics, making doorstep banking accessible to everybody. Thus, people may trust banks and feel safe doing financial transactions. Banks are encouraged to embrace Electronic Business Transfer (EBT) via BCs using ICT-based banking to



electronically transfer social benefits to beneficiaries' bank accounts and provide doorstep delivery of government benefits. Thus, cash usage and transaction expenses are decreasing.

General Credit Card (GCC): To help the poor get simple credit, rural and semi-urban banks have been urged to develop a 25,000-credit card facility. The strategy makes it easier for banks to lend to consumers based on cash flow without collateral or exposing their procedures. Revolving credit lets cardholders withdraw up to their limit.

Facilitating the opening and authorization of new branches in underserved rural areas: Subject to reporting, domestic Scheduled Commercial Banks (SCBs) can open branches in Tier 2 to Tier 6 cities with populations under 1 lakh, to solve the issue of unevenly distributed bank branches. Domestic SCBs can open branches in Sikkim and the North-Eastern States without obtaining approval of the Reserve Bank of India (RBI). With the hope of further liberalizing, scheduled commercial banks within the country (other than Regional Rural Banks (RRBs)) have been granted a blanket license to set up shop in Tier 1 financial hubs under specific stipulations. Further expansion of brick-and-mortar branch openings in rural areas and using BCs was thought necessary to increase banking penetration and financial inclusion speedily. Therefore, the monetary policy statement requires financial institutions to set aside 25 percent of new branches to be created each year for underserved rural communities.

Financial Literacy Centres (FLCs): Financial Literacy Centres (FLCs) and all rural branches of scheduled commercial banks were encouraged to host Financial Literacy Camps at regular intervals to promote financial education (at least once a month). Providing education and banking services would improve financial inclusion. By March 2013, 718 FLCs had been created. Awareness camps/choupals, talks, and seminars helped 2.2 million people from April 2012 to March 2013.

Financial Literacy through Self-Help Groups (SHGs) and Banks: A holistic strategy improves financial literacy, loan access, and financial security. Economic education increases demand by educating consumers about the financial services of banks and other institutions. Financial inclusion provides varied financial assistance from the supply side; these two methods promote future monetary stability. This paradigm can maintain more people faster and more economically. In March 2011, 7.46 million SHGs had 1.19 million loans of Rs. 145.57 billion and 70.16 billion in savings.

Micro finance Institutions (MFIs) and bank credit to Micro, Small & Medium Enterprises (MSME) growth: Although the RBI has chosen the bank-led approach to

financial inclusion, some non-bank financial companies (NBFCs) assisting local initiatives and focusing on microcredit have been recognized as NBFC-MFIs. About 30 RBI-approved MFIs exist. By September 2013, their assets had reached INR 19,000 crores. The MSME sector, which employs 59.7 million people across 26.1 million businesses, boosts rural financial inclusion and economic prosperity. Rural MSMEs can operate with bank loans.

Countrywide insurance penetration: In 2000-01, insurance premiums to GDP were 2.32; in 2010-11, 5.10. Life insurance covered 4.40 percent of the economy in 2010–2011, while non-life insurance covered 0.71 percent. Insurance coverage could increase considerably.

The Prime Minister's New Financial Inclusion Program (Pradhan Mantri Jan Dhan Yojana): In his first Independence Day address on August 15, 2014, Indian Prime Minister Narendra Modi announced this banking access plan. The “universal access to banking facilities” program began on August 28, 2014. The program's initial offerings include Basic banking accounts that allow for a 5,000-rupee overdraft after six months, RuPay debit cards that come with a 1 lakh rupee accident insurance, and RuPay Kissan Cards. Micro insurance, pensions, and other financial services will follow later (PM 'Jan Dhan' Yojana Launched, The Economic Times, 2014; PMINDIA, 2014). The Prime Minister personally wrote to the CEOs of every bank, urging them to prepare for the massive task of enrolling over 7.5 crores (75 million) households and opening their accounts before the program's official start (The Economic Times, 2014; PIB, Govt. of India). He stated in this communication that every citizen should have a bank account. 1.5 million bank accounts were opened on day one (Modi: Banking for all to end “financial untouchability”, 2014).

Initiative Challenges

These policies, programs, and systems alone cannot achieve sustainable development and financial inclusion. The process of bringing the unbanked into the financial system requires bureaucratic cooperation, political will, and RBI is determined to unlock the vast, unrealized potential of India's “bottom of the pyramid” economy, possibly starting the next revolution of growth, prosperity, and sustainable development (Ashok, 2022). Our outreach programs, stakeholder contacts, and comments indicate many challenges to sustainable development and financial inclusion (Tay, Tai, & Tan, 2022; Rajan, 2013).

Business Correspondents (BC): The BC model must reach disadvantaged villagers by addressing Low-income consumers with low transaction volumes that cost BCs money.

BCs must be well-paid to encourage financial inclusion business opportunities and reach underprivileged villagers. Bank branch support determines BC model effectiveness. BC oversight, cash management, and consumer complaints require small brick-and-mortar locations, and banks must train BCs.

Custom Networks and ATMs: Designing inexpensive new items for disadvantaged communities is essential. Banks should simplify credit disbursement and be flexible to wean villagers off moneylenders. On March 31, 2013, 10.1% of ATMs were in rural regions. For poor people, more ATMs are needed in rural and underbanked areas. Recent safety/security concerns should be taken into account while doing so.

Kisan Credit Card (KCC) and General Credit Card (GCC): KCCs/GCCs must be converted to electronic credit cards for farmers to use ATMs nationwide. Banks may issue multifunctional debit, KCC, and GCC cards in rural areas. To achieve true financial inclusion, banks should prefer small farmers over large farms when granting credit.

Urban Financial Inclusion and Basic Savings Bank Deposit (BSBD) accounts: Urban financial inclusion needs development. Rural-to-urban migration exacerbates the issue. Nearly half of BSBD accounts are inactive. Improve economic activities to use BSBD accounts effectively.

Uninsured Migrants: Migrants struggle to open bank accounts. Financial inclusion programs for commercial banks must address migrant needs. Banks must train frontline workers, inclusion. The process of bringing the unbanked into the financial system requires bureaucratic cooperation, political will, and RBI is determined to unlock the vast, unrealized potential of India's "bottom of the pyramid" economy, possibly starting the next revolution of growth, prosperity, and sustainable development (Ashok, 2022). Our outreach programs, stakeholder contacts, and comments indicate many challenges to sustainable development and financial inclusion (Tay, Tai, & Tan, 2022; Rajan, 2013).

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Uninsured Migrants: Migrants struggle to open bank accounts. Financial inclusion programs for commercial banks must address migrant needs. Banks must train frontline workers, **MSME-Financial Exclusion:** The 4th Census on the MSME sector showed that just 5.18% of units (including unregistered and registered ones) received institutional finance, while 2.05% received non-institutional finance and 92.77% of units had no financing or were self-financed. SIDBI should investigate why most MSME units need access to traditional loans.

Credit, Insurance, and SHG-Bank Linkage: As of March 31, 2011, SHG loans made up only 1.93% of gross bank credit. SHGs still need to acquire bank loans after a year. SHGs are having trouble getting bank loans, which NABARD should report to RBI. Rural areas are home to over 70% of the population. However, only three percent of the population is insured. Due to severe market saturation and competition in urban areas, life and non-life insurance companies have several business opportunities in rural locations.

EXPECTED INITIATIVES

Financial inclusion and sustainable development will result from the initiatives, plans, programs, policies, and systems in place.

Choices for living: The main issue for the rural masses is the lack of housing. Financial inclusion will enable such possibilities. Income does not necessarily improve life, but it can. Thus, social gifts replace the wealth trickle of economic growths (Gupta, 2016; Kumar, Kumar, & Behura, 2022). For hardship relief, a Basic Income Grant is suggested, that may reduce the over-harvesting of natural resources.

Economic/financial reforms and meaningful employment: The appropriate psychological makeup of the job holder is essential. Every job must accomplish its goal. Because rural professions are less structured but still need a lot of proficiency and expertise, they must be relevant. Therefore, when these occupations are formed, they must consider the knowledge and interest of the person involved because only then does the job have a purpose. With a total reworking of the economic/financial mechanisms that have sustained long-term poverty, efforts to reduce it will succeed. Because of our antiquated financial practices, which result in mass unemployment, poverty is rife.

Reducing wealth disparity and poverty: Poor folks require additional resources. If they consumed like the “consumer class,” it would be bad. Wealthy people have much larger environmental footprints than impoverished people. Even when we multiply the impoverished, 20% of the population—the wealthy—consume and pollute most of the planet. These facilities can enable them to work in handicrafts, cottage industries, household businesses, etc., alleviating poverty.

Training and education: It is required to transition from being redundant or unskilled in one type of economy to making a meaningful contribution towards a new economy founded on social fairness and environmental sustainability (Kumar et al., 2022). Training and education must assist the underemployed, young at risk and unemployed. Building government department capability is equally vital because these departments are responsible for delivering on development and poverty reduction. Even with the best intentions, policies like the Integrated Rural Development Programme need more substance, especially regarding sustainable development.

Conclusion

Financial inclusion is a process, not an assignment. Technology, the legal framework, and appropriate business models must work together to achieve sustained financial inclusion. Financial institutions can establish innovative business concepts to provide mainstream financial services to the underprivileged via ICT initiatives, particularly mobile and wireless. IT and the rapid expansion of the telecommunication network and service quality in developing nations like India could accelerate financial inclusion. Financial inclusion provides vulnerable social groups affordable access to mainstream financial services when and where needed. Instead of ownership, financial inclusion is sustained by the consumption intensity of financial products and services.

Financial inclusion is also important because most formal financial sector customers are

underserved. Banking inclusion is essential to social development, but over 2,000,000,000 people are still financially marginalized. India has 135 million financially excluded households, second to China. India's 34% formal financial sector participation shows an urban-rural divide. Financial inclusion measured by savings account usage intensity rather than ownership will be much lower. Economic inclusion was supply-driven and government-mandated until recently. Despite recent progress, the formal banking sector sees serving the impoverished as a social duty, rather than an economic opportunity. Supply-side initiatives must balance the needs of financially excluded consumers. Financially excluded consumers face complex goods, collateral, lack of credit history and bureaucratic procedures. “Demand-pull” requires financial institutions to redesign their products and services to meet the needs of financially excluded consumers.

High transaction costs, massive infrastructure investments, market development costs, and a lack of standards are supply-side barriers to financial inclusion. IT usage outside national public sector banks is limited in India, making the problem worse. Systemic solutions must address supply- and demand-side issues to sustain financial inclusion. All financial inclusion regulatory agencies, ecosystem stakeholders—financial institutions, civil society organizations, and technological service providers—must perform well. Effective interventions require collaboration.

Financial institutions benefit from ICT interventions develop innovative business strategies to serve the underprivileged. Wireless and mobile prevalence and the swift improvement of the telecommunication service and network quality could accelerate financial inclusion. Financial institutions can minimize transaction costs, reduce time-to-market, enhance outreach, facilitate service and product innovation, and accomplish downstream and upstream financial ecosystem integration using ICT.

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SPORTS LAW IN INDIA: LEGAL ISSUES AND CHALLENGES

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Ritu Agrawal²

Abstract

In India, sports have been known since the Vedic era and can be clearly seen in the historic era also referred as Vedic times. Several games, including hockey, wrestling, archery, etc. are thought to have their roots in India. Nonetheless, there is a disparity in passion and encouragement between sports in the present day and those with a long history. Sports are not given much attention at the grassroots level in India because every school mainly focuses on academics. Even though India has many federations that offer sports facilities, outside of cricket, India consistently does poorly in important competitions like the Olympics. The absence of uniform sports regulations in India is one of the key causes. Legislation that regulates sports and gathers all relevant authorities under one roof is necessary. India has very few laws, and the Supreme Court or High Courts of India hold hearings or decide cases involving unfair means. This is problematic because rulings made by the Supreme Court and High Court might occasionally be unfair because the judges do not all possess an equal level of competence in the sports industry. To enhance and contribute to sports jurisprudence, it is crucial that laws and regulations related to sports evolve in India.

Keywords: *Sports legislation, legal issues, The Sports Authority of India, National Sports Policy, National Sports Federations*

Introduction

India's soul is sport. With each passing day, sports, which are well-known and a significant component of Indian culture, get increasing attention, necessitating the need for appropriate laws and regulations to address any potential grey areas. Commercial sports can lead to a variety of legal difficulties that touch on all legal disciplines. Fairness and competition are two of the most frequently discussed topics in relation to sporting events or teams. The fair treatment of and labour rights for those who work at various sporting venues might give rise to similar legal difficulties. Trademark concerns arise when new or established teams decide to change their name or emblem. (Gaurang, 2007).

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Objectives of the Research

1. To evaluate in detail, the various managerial provisions and sports federations in India.
2. To examine the various legislations that govern sports and various authorities of sports that come under one roof of Indian Sports.

Research Methodology

- i. Research Method- Document-based Research Methodology
- ii. Secondary Sources- Online Articles, Books, Journals, Legal Research Papers
- iii. Citation Method- APA Style, 7th edition

Research Questions

1. What are the various provisions for sports and sports federations in India?
2. What are the various legislations that govern sports and various authorities of sports that come under one roof to eradicate the gender gap?

Research Gap

There are no concrete provisions that reduce the gender gap in the fields of opportunities provided in sports. There is also breach of Articles 14, 15, 16, and 39(a) of the Indian Constitution, resulting in unfair practices, including political interference in sports as well as discrimination in areas such as gender pay, equal opportunity, and opportunity gaps.

Literature Review

Sports legislation in India (Digvijay, 2022)

National Sports Policy, 1984/2001

To improve the calibre of sports in the nation, the National Sports Policy (NSP) was formulated in 1984. It stated, among other things, that the progress of implementation would be evaluated every five years to identify the next steps, if any, that should be taken. Throughout time, it has been apparent that though the NSP 1984 covers many aspects of fostering sports in the nation, its implementation is not yet complete.

The NSP 2001 was formulated to update the National Sports Policy of 1984. It covers three main goals:

1. Priorities should be set, the responsibilities of all the organisations involved in the promotion and development regarding sports should be identified. Those qualified to be covered under these regulations should be identified, and the steps that the Federations should take to obtain government sponsorship and assistance should be described.
2. The second group of provisions state that the Central Government must pursue the goals of "Broadening the Basis of Sports" and "achieve excellence in field of sports" along with the State Governments, the Olympic Association, and the National Sports Federation, in sports at the national and international levels.
3. To attain excellence at all levels, the various sports associations, National Sports Federations and the Sports Authority of India are expected to collaborate closely. The Indian Constitution's Concurrent List is being expanded to include "Sports" as part of the NSP, which also calls for the introduction of the required laws to address all issues that fall under both interstate and national authority.

Sports Law and Welfare Association of India (Prashant, 2020)

This is a national non-profit and professional organization that unites legal professionals and athletes to enhance understanding of, advance, and ethically practise laws related to sports in India for better awareness in sports. The association offers advice on a variety of topics, such as the regulation of authorities which govern sports, basic sports, issues related to intellectual property, and online court advocacy on behalf of athletes and sports organizations.

This association seeks to promote the exchange of various viewpoints and opinions on sports law, advance debate of legal issues impacting sports, and serve as a platform for attorneys representing participants in professional, college, Olympic, and events for the new athletes in terms of sports and conducts various recreation programmes, and educational institutions.

Sports Authority of India (Digvijay, 2022)

This organisation is regarded as the supreme authority to meet the demands and specifications of numerous sporting activities in India.

The IX Asian Games' triumph in Delhi set the bar for sports awareness and excitement among the local populace. This inspired the Indian government to place more emphasis on sports to promote physical and mental fitness among youth and to help them focus their energy.

It was also founded to run various programmes at various levels, such as sub-junior, junior and senior levels, as well as to foster excellence by improving the sportspeople's talents. It was also established to raise awareness of sport among various sports institutions and organizations.

Sports Broadcasting Law in India (Manish & Ajay, 2022)

The Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharati) Act was passed in 2007 with the aim of giving access to the greatest number of listeners and viewers, on a free to air basis, of sporting events of national importance. It mandates the mandatory sharing of sports broadcasting signals with Prasar Bharati and for matters related to or incidental thereto. According to the Act, no content right owner or holder of a television or radio broadcasting service provider may carry a live broadcast of any sport event of national importance via cable or would connect directly to home networks. It also shares the signals without the advertisements and directly to the household networks.

THE VARIOUS LEGISLATIONS THAT GOVERN SPORTS AND VARIOUS AUTHORITIES OF SPORTS THAT COME UNDER ONE ROOF OF INDIAN SPORTS.

The idea of male supremacy in sports has been seen throughout the world. “Porcelain Doll Femininity”.

- According to Chinappa Reddy (1982). “The phrase Equal pay for equal work is not merely a slogan; it is a constitutional objective that can be achieved by using constitutional remedies and upholding constitutional rights”. (p. 639).
- In the case Randhir Singh vs. Union of India & ors Equal remuneration for equal work for men and women is a stated constitutional goal in Article 39(d), which declares it as a Directive Principle. • However, India has also made an effort to uphold the principle of

"Equal pay for equal work" by enacting territorial laws. The country has also strengthened this principle by becoming a signatory to the Convention on the Elimination of all Forms of Discrimination Against Women, or CEDAW convention.

- Karun Nayar, is one of the famous cricketers who wasn't given opportunities due to the unjust fair practices like politics.

Therefore, it is important to note that these activities have to be eradicated for lawful practices of sports.

Analysis, Findings and Discussion

As is well known, the Indian Constitution and international treaties coexist, and women and men in the sports business both have equal economic rights.

1. These rights can be regarded as constitutional rights and are put into practice in terms of things like giving women access to resources, facilities, and equal pay with males. Also, we can see that there is still a pay gap.
2. Sportswomen now unquestionably have the complete legal authority to pursue legal action against such unlawful behaviour.
3. Despite the fact that both genders have been granted equal rights, there is still discrimination in areas like gender pay, the provision of facilities, and the allocation of resources.

Conclusion

Males were traditionally accorded more importance than women in India's historically male-dominated society, and women were frequently seen as less valuable than men.

1. Women have historically been constrained in their ability to display their skills and have been subject to a number of limitations.
2. Male sports have always been televised more frequently on various entertainment channels, such as televisions, YouTube, radios, etc., and this trend has continued into the present day. In addition, a significant amount of money is made through the

Indian Premier League (IPL), which results in large salaries for the male players. Nevertheless, none of these things prove that women do not put in a lot of effort.

3. Women have excelled in the field of sports. and have made just as much of an impact as their male colleagues to date. To represent your nation internationally while not giving everything you have is not an easy task. Women's sports are completely devoid of the factors that have a significant impact on an athlete's confidence and societal acceptance, including money, income, fame, social position, and political influence.

In the end, the phrase "Equal Pay for Equal Labor" rather than "More Money for More Pleasure" is used.

Thus, it must be crucial to treat men and women equally in society. Also, this will result in a country where there is no gender disparity in terms of employment prospects, compensation, or respect.

4. In addition, because of several political factors that influence sports, not everyone with genuine talent can wave their nation's flag at an international level without contributing.

Recommendations

The various recommendations are:

1. In a developing nation like India, it is only fair that women too are given the same level of compensation as the men playing in the same sport as now women are accepted as equal to men.
2. There should be the concept of equality in implementation of laws. This can be seen to a limited extent in a developing nation like India. And hence, it becomes disappointing for that nation. So it is very important that the concept of equality in its basic structure should be maintained.
3. There should be implementation of effective and coherent legislation for sports, which is the need of the hour as it gives major importance to women. Our judiciary must take some necessary steps to make sure that these legislations are followed and executed.
4. There should be the theory of equal work, equal pay. There should be no discrimination between men and women on any grounds. And hence women cannot be paid

less for doing the same work as done by the men.

When we talk about equal pay for equal work, any athlete who represents India in any sport must be recognised and valued. There should be no discrimination. It is clear that giving equal opportunities to female players is not very difficult, rather the implementation is difficult. So for that there must be strong legislations so that this is not an impossible task to perform.

5. There should be eradication of political involvement in sports to an extent that it does not lead to unlawful practices.

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The majority of the grievance processes are purely optional (Mamoria& Rao, 2014).
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References:

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