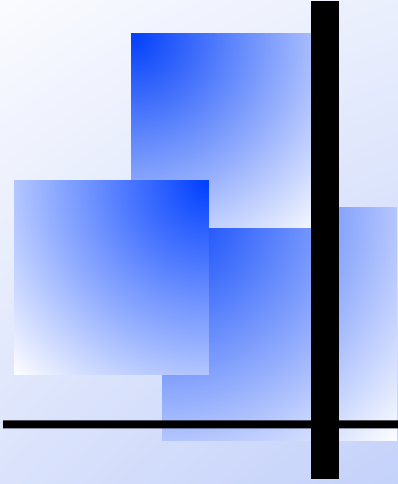




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Greetings!

I have great pleasure in presenting to all of you this issue of the Sydenham Management Research Journal '24 [SMR '24]. As you all have been keenly associated with the Government of Maharashtra's Sydenham Institute of Management Studies, Research and Entrepreneurship Education [SIMSREE] in various capacities over various timelines, I am sure that you too would be awaiting this edition with unabated anticipation.

While we at SIMSREE take immense pride in being a consistent driver of cutting-edge research, especially in the fields of Management, Business, and Commercial Studies, we also conscientiously strive to encourage young and established researchers to write and present their data and knowledge, which can and should be of utility to posterity to carry this inevitably cherished legacy forward.

You will be able to read in this Journal, engaging peer-reviewed articles which have been assiduously and diligently reviewed by scholarly reviewers, and approved by the editor and chief editor of SMR.

I take this opportunity to thank each one of you, my dear fellow researchers, be it in the capacity of a fraternal academic, student, expert, peer, RECON club, Research Head, reviewers to continue to patronize and be aligned to this journal and together I am sure that we shall strive to keep making steep progress in the field of contemporary research publication environment.

Best Wishes,

Dr. S. S. Dhure

Director - SIMSREE

Jai Hind !

Greetings and a very purposeful Welcome to the latest edition of *The SMR : Sydenham Management Review Journal '24*. As we continue to navigate the evolving landscape of business and management, this journal serves as a testament to the incredible contributions of academia, practitioners, and thought leaders in shaping the future of management theory and practice.

In this edition, we present a diverse range of research papers, articles and peer submissions that explore both timeless concepts and emerging trends in management. The articles cover critical areas such as strategic leadership, organizational behaviour, marketing innovations, and financial decision-making, with an added focus on sustainability, digital transformation, and the integration of Artificial Intelligence in management processes. In a time when businesses are facing unprecedented challenges, from economic volatility to rapidly changing technology, these papers offer valuable insights into how organizations can stay ahead of the curve and create value for all stakeholders.

This journal aims to bridge the gap between learnings and doings. The articles in this issue offer actionable strategies and frameworks, supported by empirical research and case studies, that can guide managers and leaders in making informed decisions.

This issue also highlights the importance of cross-disciplinary research in today's interconnected world. Management is no longer confined to traditional boundaries, and the problems faced by organizations often require holistic solutions that draw upon insights from economics, sociology, technology, and environmental studies. We are pleased to present research that reflects this interdisciplinary approach, helping to build a broader and more integrated understanding of management.

I would like to express my gratitude to the contributors for their dedication to excellence in research and for their willingness to share their knowledge with the wider management community. I would also like to extend my thanks to our esteemed peer reviewers, whose rigorous feedback and thoughtful critiques ensure the quality and integrity of the journal.

As we continue our journey to foster thought leadership and innovation in management education, we invite our readers, you, the students, academics, industry leaders, and policy makers, to not limit your association with us at SMR not only with this edition but to also in

the coming times, be a part of this journey by means of being contributors, peer reviewers, ambassadors and important patrons to it.

Thank you for your continued support, and we look forward to sharing more cutting-edge research with you in future editions.

With Regards,

Aashish Pawaskar

Chief Editor

Sydenham Management Research Journal '24

Associate Professor, SIMSREE

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Dear Readers,

Welcome to the latest issue of Sydenham Management Review. This issue delves into the pressing challenges and opportunities shaping the future of organizational leadership and strategy. As businesses navigate evolving markets, this volume offers critical perspectives to drive informed decision-making.

In this issue, we explore diverse topics in the area of Marketing, Human Resource Finance, and operations. Together, these contributions provide a holistic view of the shifting landscape of management practices.

I extend my heartfelt gratitude to our contributors, peer reviewers, research head, and chief editor for their commitment to delivering exceptional scholarship.

I hope you find the articles insightful and applicable in your professional endeavours. We look forward to receiving your feedback and contributions for future editions.

Warm regards,

Dr. Hanumant Ubale

Editor

Sydenham Management Review

Assistant Professor, SIMSREE

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Dear readers,

Welcome to the latest issue of Sydenham Management Research Journal 24 (SMR 24). SIMSREE as an institution is at the forefront of mitigating business challenges and empowering our students to take on the complex and rapidly evolving global business landscape. Along with quality education, we emphasise and cultivate a disciplined approach towards research in evolving business practices and this is evidently reflected in the latest issue of SMR 24.

The research papers in this article are carefully examined by reviewers and they present a holistic and radical approach to solving various business problems, also the valuable findings and recommendations of the research papers and articles published in this journal throw a guiding light for navigating a volatile and uncertain business scenario.

I am sure, you will find these articles and papers engaging, relevant, practical and interesting.

I also hope and request the readers, contributors, reviewers and all the stakeholders to continue and augment their association with SIMSREE & SMR for the forthcoming future editions.

With Regards,
Rohan Ahale
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Dear Readers

With a great pleasure, I would like to invite you to get immersed in the ‘SMR 2024’, the Sydenham Management Review 2024. The SMR 2024 encompasses research papers on the topics such as Women Entrepreneurs, Quality Management, Mental health and Wellness, Wealth Advisory Services, Consumer Buying Behaviour, Women Empowerment, Social Media Sentiment, Green Finance, Gamified Finance, Professional Qualities, CSR as a Branding Tool, Organizational Success in New World Order, trends in mergers and acquisitions, Crypto-currency, Digital Payments, HRM in unorganized Sector. You will be able to read in this Journal papers on all the domains of Management, such as Marketing, Finance, Human Resource Management, Operations and Systems. I express my gratitude to all the researchers and authors who have contributed their papers for this issue of SMR 2024.

I would like to thank all the contributors in making this SMR 2024 issue, the Director SIMSREE, Editorial and Advisory members, Chief Editor, Editor, Asst. Editor, Reviewers, Chairpersons, faculty members and admin staff of SIMSREE and the student’s RECON club of SIMSREE.

Best Wishes

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QUALITY MANAGEMENT IN HEALTHCARE USING CONTROL CHART FOR DAMA: A CASE STUDY

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Abstract: “Quality management is an approach that aims at long term success by focusing on customer satisfaction through improvement in process, product, service and culture”. Many organizations have arrived at the conclusion that “effective quality management can enhance their competitive abilities and provide advantages in the marketplace”. This paper discusses the quality management in healthcare industry using control chart for DAMA cases. Discharge against medical advice (DAMA) is given when patient is not recovered completely to leave the hospital but due to some reason he demands for discharge and he gets discharged by the hospital even if it's not medically advisable. DAMA is taken by patients when they are unwilling to continue the treatment/ service from that hospital. Some of the important reasons for taking DAMA being patient's dissatisfaction with the care and treatment provided by hospital, hospital environment or facilities and even high length of stays. Need for the study: The hospitals often face the issue of increase in number of DAMA cases. DAMA is one of the big concerns and a challenge for people in the health care field. The literature shows the causes, costs associated, prevalence, reasons, consequences of DAMA. It is mentioned in many studies that DAMA is also considered as performance indicator for hospitals. The low proportion of self-discharging from hospital indicates good quality healthcare and patient satisfaction which is beneficial for any hospital. So, it is extremely important to know whether the healthcare organizations have the proportion of DAMA cases in control or not. Objective of the study is to suggest a Statistical Process control tool (a suitable control chart) that can monitor the control over DAMA cases in a hospital and also checking the efficiency/performance of the tool that is suggested and applied to the data, in checking the process control. Methodology: In this study, the control chart p for monitoring proportion of self-discharge in hospital is suggested so that one can find out whether the process is in control or not and is applied to covid patients' data collected from a multispecialty hospital. Result: The data analysis revealed that the proportion of patients taking DAMA from the hospital is out of control. So, the concerned healthcare organisation should try to find out the reasons behind taking the DAMA and try to improve their quality of treatment, facilities and service delivery and also try to verify the overall process control over DAMA cases for other departments or diagnostic related groups.

Keywords: *Quality Management, DAMA, Healthcare, Control charts, Covid*

1. Introduction

“Quality management is an approach that aims at long term success by focusing on customer satisfaction through improvement in process, product, service and culture”. Many organizations have arrived at the conclusion that “effective quality management can enhance

their competitive abilities and provide advantages in the marketplace”, (John C. Anderson, 1994). The demand for quality has been a part of human nature, (R W. Hoyer, 2001). Now a days, Organizations all over the world have started recognizing the importance of quality and quality management,(John C. Anderson, 1994). The healthcare organisations are not an exception in this and are adopting the quality management practices for continuous improvement and better service delivery in order to satisfy and attract as many number of patients as possible. There are many variables that can be studied in healthcare industry like length of stays of patients, hospital readmission rates, discharge processes etc. out of which we primarily choose a type of discharge called discharge against medical advice (DAMA) for our study.

The hospital records show mainly three types of discharges namely:

1. Clear discharge or simply Discharge, where patients are leaving the hospital when the hospital gives discharge saying that the patient has recovered enough to leave the hospital.
2. DAMA (discharge against medical advice) is given when patient is not recovered completely to leave the hospital but because the patient is unwilling to continue the treatment/ service from that hospital, he gets discharged by the hospital even if it's not medically advisable.
3. DOR (discharge on request) is given on the request of patient when he is unwilling to continue the treatment/ service from that hospital. The patient here is not recovered completely but wants to leave because of some personal reasons like inconvenience, accessibility issues etc. so the healthcare organisation prescribes certain medicines, follow-ups/ checkups need to be done in future and gives DOR.

There can be many reasons behind taking DAMA or DOR. Some of the important reasons being patient's high LOS, dissatisfaction with the care, treatment or environment, lack of hospital facilities etc. (Ensieh Ashrafi, 2017), (Fatemeh Alidoust, 2022), (Asseel Albayati, 2021) , (Fariba Azizzadeh, 2021).

The low proportion of self-discharging from hospital indicates good quality healthcare and patient satisfaction which is beneficial for any hospital. Hence It is mentioned in many studies that the type of discharge can be considered as one of the performance measures for healthcare organization. Avoiding to take DAMA from hospital is beneficial from patient's prospect as well. Since DAMA increases the risk of patient relapse, readmission,

complications and even death,(Ensieh Ashrafi, 2017) (Fatemeh Alidoust, 2022). Also, the total cost of treatment might be increase by up to 50 % as compared to routine discharge because of taking the DAMA, (Ashraf El-Metwally, 2019).

1.1. Need for the study

DAMA is one of the big concerns and a challenge for people in the health care field in India, (Bhoomadevi A, 2019). The literature shows the causes, costs associated, prevalence, reasons, consequences of DAMA(Fariba Azizzadeh, 2021)(Ensieh Ashrafi, 2017). The percentage of (AMA) discharge ranges between 4 to 15% in critically ill patients in India, (Raveesh BN, 2021).The hospitals often face the issue of increase in number of DAMA cases. So, it is extremely important to know whether the healthcare organizations have the proportion of DAMA cases in control or not in order to facilitate quality management in the healthcare organisation.

1.2. Objective of the study

Objective of the study is to identify a suitable control chart that can monitor the control over DAMA cases which can be implemented by the hospital in the journey of quality management and improvement and also checking the performance of the control chart which is applied to the data collected from a multispecialty hospital's records in Nagpur, in checking the process control.

A literature review is the second section of the present study, which reflects the studies done so far on the causes, costs associated, prevalence, reasons, consequences of DAMA. The other sections, Section 3, describes the data, source, and research methodology adopted. Section 4 showcases the results derived from the research, analysis, and its robustness. Section 5 concludes the study along with a comprehensive discussion of the research findings and related works. Finally, Section 6 showcases the limitations and future scope.

2. Literature review

The intention of this chapter is to understand and develop the basis for undertaking this research by referring to the studies done so far with the purpose of conveying the knowledge and ideas that have been established on this topic previously. A lot of research has been done on the type of discharging in patients from hospitals till date.

An article by Alfandre (2009) reviews the prevalence, costs, predictors, and potential interventions for DAMA. The study (William N. Southern, 2012) shows that “the risk of death within 30 days and significantly increased risk for readmission is associated with discharge against medical advice”. In this article, Discharges against medical advice and planned discharges are compared with respect to sociodemographic characteristics and measures of co-morbidity and illness severity, using t-tests, Mann-Whitney, or chi-squared tests.

Another study (Eberechukwu Onukwugha, 2010) aims to identify the reasons for DAMA based on patient and multi-category provider focus group interviews (FGIs). Eighteen patients, 5 physicians, 6 nurses and 4 social workers participated in the FGIs. It was observed that 1) drug addiction, 2) pain management, 3) external obligations, 4) wait time, 5) doctor’s bedside manner, 6) teaching hospital setting, and 7) communication are some reasons behind DAMA.

In a study by Ensieh Ashrafi (2017), the causes and predictors of DAMA were determined. Using the information of hospitalized patients, data was collected through clinical records, nursing unit reports and telephone calls. Logistic regression and chi-square test are employed in data analysis. “Among the causes of DAMA, the high rates were related to personal problems (39.04%), going to other centres (34.93%) and the lowest level was related to dissatisfaction with the physician (3.08%)”, (Ensieh Ashrafi, 2017). Age groups, gender, locations were found to be predictors of DAMA, (EnsiehAshrafi, 2017). Article concludes that “to control and reduce the DAMA rates, practical measures such as creating a suitable environment for patients, providing consulting services for youth, improving staff relations, providing assistance for patients in need, and removing accommodation problems of patients and their companions are required”. In-depth semi-structured interviews with families and patients who took DAMA were conducted in a study by Fatemeh Alidoust(2022), about the inner motivation and roots of DAMA. The patient’s insistence, miss the beloved one, sense of improvement, outside hospital concerns, dissatisfaction with the quality of medical care, and worries about the hospitalization consequences are six categories into which the findings were classified, (Fatemeh Alidoust, 2022).

“Leaving against medical advice affects both the patient and the healthcare provider”, (Asseel Albayati, 2021). 49 articles were reviewed in the study (Asseel Albayati, 2021)and to explore reasons for leaving against medical advice (AMA), Ishikawa fishbone root cause analysis (RCA) was employed, which highlights the consequences of discharge against medical

advice (DAMA). In addition, the article (Asseel Albayati, 2021) explored the preventive strategies, as well as interventions to ameliorate leaving AMA.

An article (Fariba Azizzadeh, 2021) mentioned that “Discharge against medical advice (DAMA) is one of the symptoms of patient dissatisfaction that has adverse effects on patient treatment and increases hospital costs”. The purpose of this study (Fariba Azizzadeh, 2021) was to identify the causes of DAMA and finally to provide strategies for reducing it. The data was collected through in-depth interviews and analysed using thematic analysis method. Findings indicate that “the rate of DAMA has a significant proportion that needs intervention and evaluation. Three types of problems for DAMA after an interview with patients were identified: (1) Problems with the patient, (2) problems with care issues, and (3) problems with hospital facilities”, (Fariba Azizzadeh, 2021). Problems related to the patient was found to be the most common reasons for DAMA, (Fariba Azizzadeh, 2021).

Study Ashraf El-Metwally (2019) mentions that “discharge against medical advice (DAMA) in the Emergency Department (ED) is an issue of great concern because it may result in adverse consequences at a later stage”. It further adds that “outcomes of DAMA can have significantly damaging effects, causing possible relapses of disease, readmission, and increases in medical costs for the patient”, (Ashraf El-Metwally, 2019). Data was analysed using independent t-test/chi-square/ANOVA (analysis of variance) and logistic regression and concluded that “DAMA is more likely among younger male patients (≤ 40 years of age)”, (Ashraf El-Metwally, 2019). “Most of the patients with DAMA were presented to the urgent care of the Emergency Department”, (Ashraf El-Metwally, 2019). The study by Ashraf El-Metwally, (2019) further recommended that “the patients should be given some financial support to bear the expenses of the hospital stay from the healthcare facility or from the state”.

Another study (Bhoomadevi A, 2019) intended to find out the major diagnostic categories in terms of discharge against medical advice. Therefore, the purpose of this study was to identify the complex reasons for discharge against medical advice (DAMA). Data was collected through interview scheduling and questionnaire. It was found that almost every patient was aware about the costs associated with DAMA. 3 categories identified for DAMA as 31% DAMA patients left the hospital for affordability issue, 8 % preferred other hospital for known physicians, 2 % preferred other hospital for accessibility, (Bhoomadevi A, 2019). The reasons identified for DAMA were mainly Financial Constraints, unwillingness to proceed with the treatment, distance, no progress and other personal reasons, (Bhoomadevi

A, 2019). Study concludes that every effort should be made to encourage the patient to stay under the care of the physician. In order to increase awareness of the patients regarding the dangers and consequences of leaving the hospital, effective communication should be established and strengthened between patients, physician and other medical staff.

Raveesh BN(2021) aimed at understanding the pattern of discharge against physician's advice and also, it's probable association with patient sociodemographic details, disease and treatment characteristics, (Raveesh BN, 2021). Data was collected through a survey of patients who left AMA from a government tertiary care hospital in India. "Descriptive statistics and the chi-square test were used to identify associations between various sociodemographic factors, documentation and treatment details and DAMA", (Raveesh BN, 2021). The results suggest a significant high prevalence of DAMA.

The literature shows the causes, costs associated, prevalence, reasons, consequences of DAMA. It is mentioned in many studies that DAMA is also considered as performance indicator for hospitals. High proportions of patients taking DAMA is an issue many healthcare organizations are facing. So, it is extremely important to know whether the healthcare organizations have the proportion of DAMA cases in control or not.

Quality management in healthcare can be done using many statistical methods like control charts, 5 stages of DMAIC approach, Japanese 5S concept, 6 sigma concept etc. Control chart- the primary tool of SPC is used to understand the variation that is always there in the processes and signals when something is going wrong or may go wrong. For improving the quality in healthcare organizations, there are many researches that incorporate control charts to monitor the process control in healthcare organization like (Susan Nelson Robinson, 2014) (Benneyan 2001) etc. In this study, control chart p for proportion of self-discharge in hospital is suggested in order to know whether the process is in control or not and applied to covid patients' data collected from a multispecialty hospital in Nagpur.

3. Data and Research Methodology

3.1. Data

For the application of Control chart technique to check whether the proportion of discharge against medical advice (DAMA) cases is in control or not, secondary data of patients who were admitted because of corona virus infection is collected from covid ward of a multispecialty private hospital setting in Nagpur. The data was collected on patient's age,

gender, length of stay and type of discharge from hospitals records of covid-19 ward over a period of nine months.

Sample composition:

A total of 393 patients suffering from covid were got admitted during September 2020 to May 2021. Out of 393 patients 268(68.2%) were males and 125(31.8%) were females. The age distribution of patients is given in table 1.

Table 1: Age Distribution of COVID patients.

Age group	Frequency	Percentage
21-31	31	7.9
31-41	69	17.6
41-51	73	18.6
51-61	98	24.9
61-71	75	19.1
71-81	32	8.1
81-91	14	3.6
91-101	1	.3
Total	393	100.0
Source: Authors computation		

3.2. *Methodology*

In order to check the control over DAMA cases control chart p for proportion of defectives is suggested to be applied. Applying p chart for monitoring control over DAMA proportions, the healthcare organisation can check whether the proportion of discharges against medical advice taken by patients in their organisation is in control or not.

Let n_i be the total number of discharges in i^{th} month

d_i be the number of discharge against medical advice DAMA or on request DOR in i^{th} month

$p_i = \frac{d_i}{n_i}$ be the proportion of self discharges in i^{th} month

$$\bar{p} = \frac{\sum di}{\sum ni}$$

The variable control limits of p control chart for proportions of DAMA cases is given by following formulae.

$$UCL = \bar{p} + 3 \sqrt{\frac{\bar{p}(1-\bar{p})}{ni}}$$

$$CL = \bar{p}$$

$$LCL = \bar{p} - 3 \sqrt{\frac{\bar{p}(1-\bar{p})}{ni}}$$

In order to check the efficiency of control chart p which is applied to the collected data, we make use of Operating Characteristic (O. C) curve, which is a performance measure of control chart. “O C curve is a measure of goodness of a control chart. It is used to investigate the control chart’s ability to detect changes in process parameters. It is a plot of the probability of type II error versus the shift in of a process parameter value from its in control value”, (Mitra, 2010). It is further known that “O.C curve makes it possible for us to determine the chances of not detecting a shift of a certain magnitude in a process parameter on a control chart”. For obtaining O C curve for p chart, we plot proportion ‘p’ on x axis and “probability of type II error that is the probability of concluding that the process is in control when p is the proportion of defectives ‘β’ on y axis”, (Mitra, 2010).

4. Data Analysis

The variable control limits of p control chart for proportions of DAMA cases is given by following formulae.

$$UCL = \bar{p} + 3 \sqrt{\frac{\bar{p}(1-\bar{p})}{ni}}$$

$$CL = \bar{p}$$

$$LCL = \bar{p} - 3 \sqrt{\frac{\bar{p}(1-\bar{p})}{ni}}$$

The above control chart p for proportion of patients who have taken DAMA is applied to the data using statistical software R to get the results as follows.

Table 2: Control limits for control chart p.

ni	di	pi	LCLp	UCLp
89	4	0.04494	0.04006	0.27036
22	1	0.04545	0	0.38682
8	2	0.25	0	0.53929
16	1	0.0625	0	0.42679
24	8	0.3333	0	0.37696
39	5	0.1282	0	0.32916
98	12	0.1224	0.04548	0.26495
85	25	0.29411	0.03738	0.27304
12	3	0.25	0	0.46881
Central line = 0.1552163				
Standard deviation = 0.3621107				
Source: Authors computation				

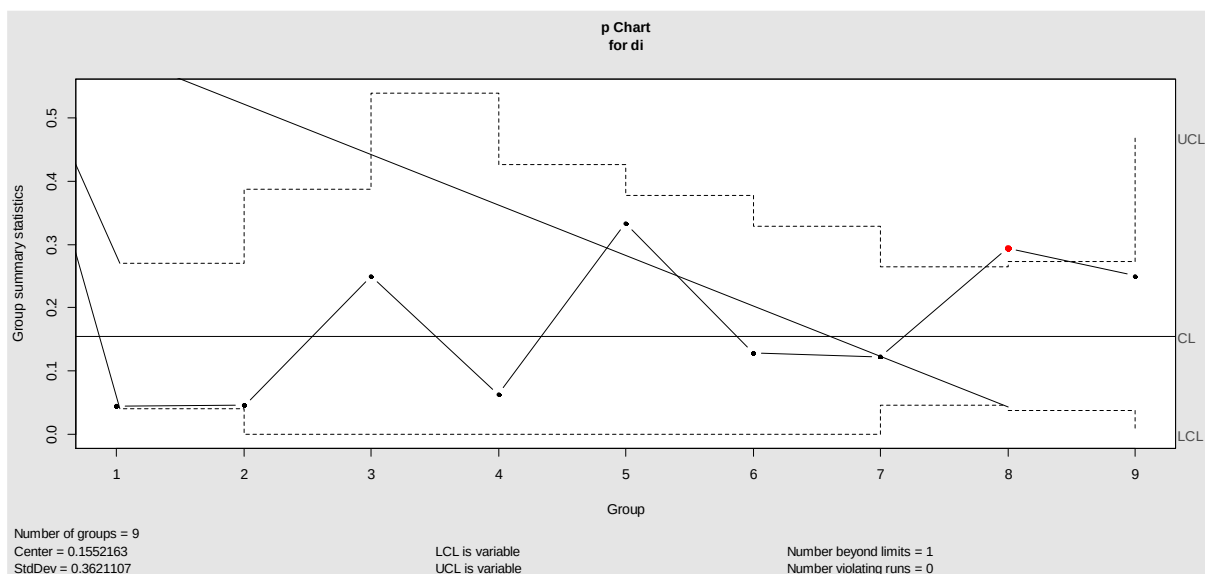


Figure 1: Control chart p for DAMA cases with variable control limits.

Source: Authors computation

Conclusion:

From the table and the control chart above it can be concluded that “process is out of control which indicates that the proportion of patients taking DAMA is out of control”.

OC Curve for p chart:

“Operating characteristic curve is one of the performance measures of control chart”, (Mitra, 2010). In this case, the OC curve is obtained by plotting the proportion of DAMA cases ‘ p ’ on x axis and corresponding probability of type two error ‘ β ’ on y axis. Where β is “the probability of concluding that the process is in control when it is actually out of control” and is given as follows.

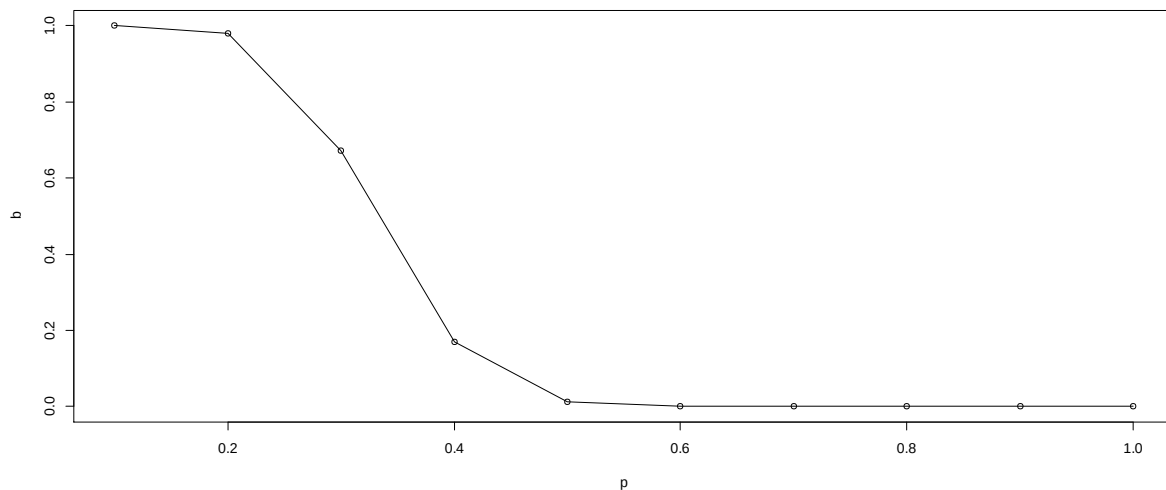


Figure 2: O.C. curve for control chart p for proportion of DAMA cases

Source: Authors computation

Conclusion:

From the above OC curve, it can be observed that as the proportion of DAMA cases increases from 0.1 and move towards 0.5, the probability of concluding that the process is in control go on decreasing and approaching 0. OC curve shows that the control chart performs well.

5. Conclusion and Discussion

The control chart p is suggested to be applied to monitor the proportion of DAMA cases. And is applied to the secondary data collected from a multispeciality hospital. Also, the efficiency of the applied control chart is checked using the performance measure O.C curve fulfilling the study objective. According to data analysis, the proportion of DAMA cases in the hospital under study as indicated by the control chart is out of control. The OC curve shows that the control chart performs well.

Whenever an out of control signal is generated by the control chart the hospital should search for the possible causes in order to correct them and bring back the process in control. There can be many reasons that lead the patient or his family member to take the discharge before the hospital gives a green signal for clear discharge. Some of them are mentioned below.

1. patient or his family members are not happy with the service provided by healthcare organisation.
2. Service is not worth the cost and Facilities are not up to the expectations.
3. Treatment is not satisfactory.
4. Length of stay is higher compared to their expectation (or patience).
5. The treatment is not affordable to them.
6. The hospital is not accessible to them.
7. The healthcare organisation may be inconvenient for them due to some other personal problems etc.

If the reason behind taking self-discharge is one of the reasons numbered between 5 to 7 as mentioned above, the hospital can't do anything, they have to tolerate it. On the other hand If the reason behind taking self-discharge is one of the reasons numbered between 1 to 4, the hospital have the scope to improve the facilities, total cost or billing related issues, treatment delivery and overall service quality to minimize the no of DAMA and DOR cases in future and in turn improve their performance.

6. Limitations and Scope for further research

The limitation of this study is that it is done for covid patient's data only but the hospital can conduct similar types of studies for any diagnostic related group or any department (in patient ward). Hospital can also check the effectiveness of the measures taken by them to control the proportion of DAMA in order to grow their business.

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ENHANCING SUSTAINABILITY FOR WOMEN ENTREPRENEURS: THE ROLE AND CHALLENGES OF SELF-HELP GROUP

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Abstract: This research delves into the role that Self Help Groups (SHGs) play in supporting the sustainability of entrepreneurs, in the Micro, Small and Medium Enterprises (MSME) sector in India. In contemporary era in India, where gender biasness in business is not able and women are scared to opt for jobs due to increasing crime against women, SHGs serve as important pillar and supporter for women entrepreneurs by making various provisions which helps women to set their own identity and start a new venture. This study aims to analyze not only the various facilities provided by SHGs to the women entrepreneur's but also whether SHGs are helpful for women entrepreneurs in having sustainable business growth in competitive market with special focus on access to Finance, Marketing support, Technological assistance, Business guidance and counselling and education and resolving hindrances to entry into entrepreneurship. Mixed research methods are used for this paper. Data for this study has been collected in the form of survey and interviews from SHGs in Mumbai from women entrepreneurs who are members of these groups. The quantitative and qualitative data help the researcher to give comprehensive knowledge about the given topic which has highlighted the various challenges and barriers faced by these women such as cultural issues, restricted resource access and the challenges of maintaining sustainable business growth in a competitive market. The study highlights a gap that could have an influence, on the sustainability and future of women entrepreneurs. At present Self-Help Groups (SHGs) are insufficient in providing the marketing support and access to technological support that these entrepreneurs frantically require. This deficiency is not an oversight; it serves as a significant obstacle to their development and sustainability. Envision the scenario the potential waiting to be unlocked if SHGs were provided with the required resources and support. This study focuses on the need for all necessary support structures within SHGs establishing a basis for more promising and thriving future for women entrepreneurs.

Keywords: *Self-Help Groups, Women Entrepreneurs, Sustainability, Micro, Small and Medium Enterprises (MSME), Entrepreneurial Challenges, Financial Inclusion, Empowerment, Social Capital, Economic Development, Gender Equality, Capacity Building, Business Development Services, Rural Entrepreneurship, Market Access, Policy Framework.*

Introduction

In today's changing landscape there is a growing focus, on supporting and sustaining women entrepreneurs in the realm of Micro, Small and Medium Enterprises (MSMEs). Being an active participant of encouraging and empowering women SHGs provides them with financial, social and different required resources to start their new ventures. This study delves into the impact of SHGs on sustainable business growth of business owned by their women members.

In India the situation is distinct, both economic and social factors together responsible for how women direct their journey of entrepreneurship. While many steps and efforts have been taken in promoting gender equality and encouraging women economically, women entrepreneurs encounter hurdles such as difficulty in access to funding, facing markets competition and managing multiple responsibilities. Self Help Groups (SHGs) endorsed by government and NGOs play a crucial role in resolving these challenges by offering financial assistance, training and guidance and counselling.

This research delves into the impact of Self-Help Groups (SHGs), on empowering entrepreneurs to manage and overcome obstacles in operating Micro, Small and Medium Enterprises (MSMEs). It explores how SHGs empower women entrepreneurs by inclusivity and offer vital business support services which are necessary for the long-term sustainability of businesses owned and run by women. Furthermore, the research investigates the hurdles faced by SHGs that could hinder their ability to support entrepreneurs, such as constraints in size reach and sustainability of these groups themselves.

This paper aims to enhance the conversation on women's entrepreneurship, empowerment and economic advancement by focusing on the context. It strives to offer perspectives on how self-help groups (SHGs) can be better utilized to empower women entrepreneurs thus promoting both gender equality and economic progress.

Purpose of Study

The aim of this research is to investigate how Self-Help Groups (SHGs) influence the long-term success of entrepreneurs, in the MSME sector. Although India has been experiencing growth and implementing forward thinking policies to support entrepreneurship women entrepreneurs encounter challenges that hinder their business growth and longevity. These obstacles range from

access and limited business connections to a lack of understanding about market trends and societal norms that create unique challenges, for women.

Self Help Groups, a component of India's microfinance and women's empowerment initiatives present an opportunity to tackle these obstacles. SHGs do not just help via microcredit. Also act as a means, for empowering women socially and enhancing the capabilities of female entrepreneurs. This research aims to investigate how involvement, in SHGs can enable credit access improve abilities and nurture connections thus promoting the long-term growth of women run MSMEs.

14% of India's entrepreneurs are women, with many of them working in the MSME sector. The potential impact of Self-Help Groups (SHGs) on the economy is significant. However, there is data on how effective SHGs are in helping women entrepreneurs sustain their businesses in the long term. This study aims to address this gap by exploring the roles and challenges that SHGs play in empowering women entrepreneurs. Our goal is to provide insights for policymakers, practitioners and scholars on how SHGs can support the growing number of women led businesses, in India.

Literature review

The researcher conducted a literature review focusing on keywords such as entrepreneurship, women entrepreneurs, SHGs, and urban SHGs. The primary theme of the study is on the influence of SHGs on the empowerment of women entrepreneurs. Relevant literature, both classic and contemporary, was sourced from databases including Web of Science, JSTOR, Scopus, ProQuest, ResearchGate, as well as from books and government reports accessible through e-resources.

1.1 Entrepreneurship and Entrepreneurs Origin

- The term "Entrepreneur" originated in 17th and 18th century France, marking the beginning of a multidimensional phenomenon touching upon various disciplines.
- "Entrepreneurship" finds its etymology in the French "Entreprendre" and the German "Unternehmen," both meaning "to undertake."

- According to Cantillon (1700), an entrepreneur engages in profit-oriented exchanges and exercises business judgment amidst uncertainty.
- Thunen&Mangoldt from Germany distinguished between capital providers and entrepreneurs, emphasizing the latter's role in taking risks, a crucial component of entrepreneurship.
- Elizabeth Miranda noted that entrepreneurship emerged as individuals began innovating new business ideas, fostering economic growth and competition with established firms.
- Hirsch, Peter, and Shepherd provided a 17th-century definition of entrepreneurship as managing large-scale projects supported by government-provided economic funds.
- In the late 20th century, Merriam Webster defined an entrepreneur as someone who organizes, manages, and assumes the risks of a business or enterprise.
- Entrepreneurship in Canada saw significant growth with the development of student entrepreneurs in 1986.
- Historian Peter Connolly observed that in Greece, entrepreneurship involves promoting business activities and receiving city-level rewards for such efforts.
- Entrepreneurship has profoundly influenced global economies over time, reflecting significant changes.

According to Preetha et al. (2024)The findings highlight a gap that could have an impact, on the future of female entrepreneurs. Currently Self-Help Groups (SHGs) are lacking in providing the marketing and technological assistance that these entrepreneurs desperately require. This deficiency is not an oversight; it serves as a significant obstacle to their development and sustainability. Just imagine the potential waiting to be unlocked if SHGs were furnished with the resources and support systems. By implementing marketing strategies and embracing advancements female entrepreneurs could surpass existing limitations achieving unprecedented levels of success and innovation. This discovery emphasizes the pressing need for all encompassing support structures within SHGs paving the way for a brighter and more prosperous future for women, in business. He entrepreneurial mindset is defined by traits such, as creativity, innovation and the skill to adapt to uncertainties, in the market. Embarking on entrepreneurship involves navigating a path that includes spotting opportunities, for innovation, in products, services or processes. It also entails managing resources to seize these opportunities

ultimately contributing to the betterment of society. Entrepreneurs are vital for driving progress as they create job opportunities in developing countries facing high unemployment rates thus propelling national advancement. Kimi&Garg. (2024).The ethical dimensions of entrepreneurship have been highlighted throughout its history showcasing the adaptation of strategies to fit local settings. This emphasizes the importance of support and educational norms, in nurturing skills.Polzunova et al. (2023).Furthermore, entrepreneurship entails more than personal profit; it encompasses social influence, demanding agility, perseverance, quickness, adaptability, and resilience, coupled with a commitment to innovation, growth, passion, and initiativeMoore (2023).

The idea of growth theory, in entrepreneurship highlights the role of talent in organizations stressing the importance of providing a person with the required skills and knowledge to compete effectively in a constantly changing market and meet evolving consumer needs. Acs et al. (2009) emphasizes in their research on growth theory and knowledge sharing in entrepreneurship the importance of innovation, knowledge, technology and entrepreneurship in driving progress. The theory emphasizes that continuous innovation is key to maximizing profits and staying ahead of competitors. It sees knowledge as an asset that can be nurtured within organizations through developing human talent. Organizations promote innovation by inspiring employees to develop skills, ideas and technologies for consumers leading to increased profitability and market share for both individuals and company.

This approach is relevant to research on Self Help Groups (SHGs) where these groups can promote innovation and harness the talent of women members who have business ideas that require support to grow into ventures. This positive relationship is beneficial for both SHGs and the women entrepreneurs, within them contributing to growth by establishing successful and sustainable businesses.

Self-help groups, known as SHGs serve as community-initiated organizations that utilize microfinance and microcredit to encourage efforts, among their members. They play an important role in improving the economic and social development by facilitating the establishment of sustainable businesses by their members. This concept closely relates to New Institutional Economics, which explores the functions of institutions and organizations.

1.2 Women Entrepreneurs, their Relevance and contribution to economic Growth

Women who start businesses are essential, for the economy's growth as highlighted in India's New Industrial Policy of 1991. The policy stresses the significance of encouraging entrepreneurship through training programs (Nayanshree&Raghunandan 2015). Studies show that women entrepreneurs have a outlook and a strong desire to bring value to their families and communities thereby boosting economic opportunities (Vinay& Singh 2015). They play roles in driving both progress and social development by contributing to savings, job creation and innovation while also enhancing living standards (Malyadri, 2014; Yadav& Scott 2014). Despite challenges like production costs and societal restrictions (Singh, 2014) targeted training initiatives and skill enhancement programs are crucial for overcoming these hurdles (Garga&Bagga 2009).

On a scale female entrepreneurs make contributions to economies by impacting the GDP of nations such as the UK, Germany and Korea (Black & Alexandra 2007; OECD, 2004). Programs like the Self-Help Group (SHG) model in India have been instrumental in supporting women entrepreneurs and promoting business growth with backing from organizations, like NABARD since 1991.

Empowering women through education and raising awareness of support systems is crucial, in helping them tackle obstacles and thrive in their pursuits (Candida & Brush 1992; International Workshop, on Women Entrepreneurship, 1988).

1.3 SHG's Relevance

The concept of Self-Help Groups (SHGs) was introduced in India during the 1880s, when the British-controlled Government of Madras in South India adopted a German experiment to address poverty. This initiative led to the formation of credit cooperatives, which by 1946 had over 9 million impoverished members, laying the base for SHGs in India. As per SHG Maharashtra report, the SHG movement in Maharashtra began in 1947 when women in Amravati formed an SHG with a modest contribution of 25 paise each. Informally, 'Chaitanya' Gramin Mahila Bal Yuvak Sanstha started promoting SHGs in Pune District in 1988.

In Gujarat, the SEWA bank, established in 1974, pioneered microfinance initiatives for poor women, setting a precedent later followed by groups such as 'Annapurna MahilaMandal' in Maharashtra and the 'Working Women's Forum' in Tamil Nadu, sponsored by NABARD.

The Shramashakti report of 1988 and the national perspective plan for 1991-92 highlighted the Indian government's recognition of the need to financially support rural poor, leading to Reserve Bank of India's inclusion of SHG lending under priority sector lending in 1996 and its integration into the Swarna Jayanti Gram SwarajgarYojana in 1999. Ujagare&Bhagwat (2017) noted MYRADA's initiation of self-help affinity groups as a pilot study funded by NABARD. In 2001, the Planning Commission of India established the National Rural Livelihoods Mission (NRLM), reconstituting and restructuring the Swarna Jayanti Gram SwarajgarYojana to combat poverty through social mobility and financial inclusion. Thus, SHGs gained formal structure in India through NABARD by 1992.

Ananya et al (2024), Self Help Groups (SHGs) are crucial, in establishing structures in rural economies by empowering women promoting community progress and enhancing social unity. With their setup and initiatives to enhance capabilities SHGs contribute significantly to these domains, play a role, in driving economic change promoting self-reliance and long-term prosperity in local areas Kumar et al. (2024). Within a framework of systems, they combine behavioral elements to establish a supportive system, for women. This network facilitates sharing resources and gaining access to credit opportunities Kumar and panda (2024). Furthermore, self-help groups serve as spaces, for women to enhance their connections advocate for services and drive societal transformation in their communities Linda et al (2024). Through enabling opportunities, for group decision making, education and sharing of information Self Help Groups (SHGs) play a role in fostering the creation of organizational structures that promote fair and comprehensive progress India.

Objectives of Study

1. Analyze the impact of Self-Help Groups (SHGs) on sustainability and business growth of women entrepreneurs in the Micro, Small and Medium Enterprises (MSME) industry.
2. Explore the impact of Self-Help Groups (SHGs) on developing and improving abilities and entrepreneurial skills within women entrepreneurs.

3. Identify the challenges and hindrances faced by women entrepreneurs within SHGs.
4. Provide suggestions and recommendations for enhancing the effectiveness of Self Help Groups (SHGs) in empowering entrepreneurs.

Theoretical Background

The study's theoretical basis lies in the blend of economics, social capital theory and entrepreneurship theory. This creates a framework to grasp how Self-Help Groups (SHGs) assist women entrepreneurs in the MSME sector.

Feminist economics challenges stories by highlighting the overlooking of gender gaps, in accessing resources, opportunities and decision-making authority. It emphasizes the importance of creating systems that're inclusive and cater to the unique requirements and obstacles faced by women. In this context Self Help Groups (SHGs) play a role in promoting inclusivity as they offer an alternative to conventional banking structures that may not adequately address the socio-economic realities of female business owners particularly, in developing countries.

Social capital theory deepens our comprehension by highlighting the importance of connections, relationships and trust in achieving both social goals. Self Help Groups (SHGs) do more, than act as middlemen; they serve as vibrant communities that foster social bonds among members. Through gatherings, shared goals and mutual support SHGs empower entrepreneurs to build trust, access valuable resources and information and establish networks crucial for starting, growing and maintaining businesses.

Entrepreneurship theory, which focuses on spotting opportunities fostering creativity and adding value sheds light on how female entrepreneurs leverage SHG assistance to navigate the landscape. It recognizes entrepreneurship as an interplay involving skills, environmental elements and social ties. SHGs play a role in this process by offering a supportive setting that enhances women's entrepreneurial abilities, boosts their self-assurance and strengthens their resilience.

This theoretical view point forms a base for analyzing the effects of SHGs on development and sustainability of women entrepreneurs directing research, towards comprehensive understandings and actionable suggestions.

Methodology

To carry out this research, a mixed-methods was employed, combining quantitative and qualitative techniques to gather comprehensive data on the influence of Self-Help Groups (SHGs) on the sustainability of women entrepreneurs in the MSME sector.

Data Source: This study uses both Primary as well as secondary data sources. In secondary source, data has been collected from a range of published materials covering different aspects of entrepreneurship, female entrepreneurs and Self-Help Groups (SHGs). This includes government official reports, academic research articles, reports and research publications, from journals as well as books.

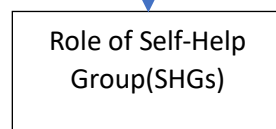
On the hand primary data is collected with the help of survey questionnaires and interview methods. By analyzing these data sources, the study aims to offer a comprehensive understanding of the topic at hand.

Focused Group: To explore the sustainability of entrepreneurs and the roles and challenges faced by Self Help Groups (SHGs), in their business development, a structured questionnaire with ended questions was developed to gather primary data from 200 women entrepreneurs who are the part of SHGs in Mumbai. Additionally, the researcher uses a structured questionnaire to conduct in depth interviews with 8 SHG leaders or managers from Mumbai to acquire knowledge about the obstacles encountered by SHGs in empowering women entrepreneurs and the impact of their SHGs, on the business growth of women entrepreneurs.

A pilot study was carried out to evaluate the survey with 30 self-help group (SHG) women entrepreneurs, from Mumbai. Adjustments were made to the survey based on their feedback. The gathered data and information were examined to refine the survey, for data collection incorporating insights provided by the participants during the study.

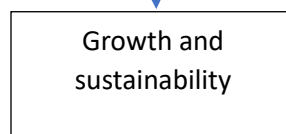
Sample: A sample for this research consists of women entrepreneurs, from self-help groups (SHGs) operating micro, small and medium enterprises (MSMEs) in Mumbai. The data was gathered through probability sampling specifically employing a method called random sampling. The industries were categorized on the basis of MSME Act of 2006, by the Government of India. Then samples were collected from each category. The collected data was analyzed using techniques to test hypotheses address research questions and support the objectives of the study. The research outcomes and their discussion were presented, leading to conclusions and recommendations.

Independent Variable



Access to finance, Training and development, Marketing assistance, Availability of technical support, Personal growth, Business Guidance and Counseling, Education.

Dependent variable



Market expansion and Technological Growth

Questionnaire Development

To gather data, a structured survey was used. The survey consisted of questions rated on a 5-point Likert scale to analyze how Self-Help Groups (SHGs) contribute to the sustainability of women entrepreneurs.

The survey was divided into four sections.

Section A dealt with demographic information of participants, like the participants name, address, qualifications and age etc. Additionally basic information about the organization, such as its name, size and revenue were collected.

Section B covered questions concerning the progress of women entrepreneurs and the influence of SHGs on their sustainability and growth. Factors considered to assess women entrepreneurs' development included advancements, market expansion, technological improvements, workforce expansion and infrastructure development. To analyze SHGs role and challenges factors like marketing assistance, financial aid and support training opportunities, access to resources, personal development opportunities, business guidance, and educational support were considered.

Section C delved into how SHGs promote entrepreneurship. It featured queries, about the roles played by SHGs and whether these roles affect women entrepreneurs' income levels, investments, and business operations.

Section D focused on Sustainability and business growth.

This segment delved into inquiries regarding the perspectives of business owners, on the expansion of their businesses and their ambitions, for their ventures.

By structuring the survey in these four segments the research sought to gather information on the facets of self-help groups (SHGs) and women's entrepreneurship.

Ethics Concerns: We received clearance from the review board at our institution. All participants provided consent with a focus on maintaining confidentiality and anonymity.

Hypothesis

H1: The role of Self-help group (SHGs) positively impacts the growth and sustainability of women entrepreneurs.

H0: The role of Self-help group (SHGs) does not positively impact the growth and sustainability of women entrepreneurs.

H1a: The role of Self-help group (SHGs) positively impact market expansion of women entrepreneurs

H0a: The role of Self-help group (SHGs) does not positively impact market expansion of women entrepreneurs.

H1b: The role of Self-help group positively impact technological growth of women entrepreneurs

H0b: The role of Self-help group does not positively impact technological growth of women entrepreneurs

Data Analysis:

The researchers examined the data gathered through a organized questionnaire, with answer options. They used methods to test their study's hypotheses and explore how self-help groups (SHGs) influence the sustainability and business growth of entrepreneurs. The analysis included applying approaches to confirm the hypotheses and assessing how much SHGs in Mumbai assist in women's entrepreneurial achievements and business expansion. This comprehensive examination aided in pinpointing the factors and connections that define SHGs effectiveness and role, in aiding women entrepreneurs.

The analysis was conducted using statistical software to compute frequencies, percentages, and mean scores for the responses. Inferential statistics, such as chi-square tests and correlation analysis, were used to identify significant relationships between variables.

1. Market Growth and Expansion

200 women entrepreneur were surveyed to study the factors influencing market expansion for enhancing their business sustainability and growth. They rated the significance of these factors on a 5-point scale, with "important" receiving the rating of 5 followed by "Important" at 4 "Neutral" at 3 "Not very important" at 2 and "Not important at all" at 1 (considered the least significant). The participants expressed their opinions on each factor's importance using this scale.

H1a: Self-help group (SHGs) positively impact market expansion of women entrepreneurs

H0a: Self-help group (SHGs) does not positively impact market expansion of women entrepreneurs.

The ANOVA (Analysis of Variance) and Multiple Linear Regression Analysis were employed to advance the hypothesis testing.

Model	R	R Square	DF	F	Sig
1	0.614	0.389	7	20.348	0.000b

Table 1: Market Growth and expansion- ANOVA

a: Dependent variable: Market Growth and Expansion

b: Independent: Impact of SHGs: i.e. Access to finance, Training and development, Marketing assistance, Availability of technical support, Personal growth, Business Guidance and Counseling, Education.

The independent variables are statistically significant in predicting the dependent variable, as indicated by $F(7, 95) = 20.348$, $p < .0005$, demonstrating that the regression model is a good fit for the data. The ANOVA table confirms that the entire model significantly fits the data. It can be concluded that the dependent variable, market expansion, is explained by 61.4% of the variance, accounting for all the independent variables: Access to finance, Training and development, Marketing assistance, Availability of technical support, Personal growth, Business Guidance and Counseling, Education. The F-test was employed to check the model's goodness of fit, and the p-value was used to test the null hypothesis against an alpha value of 0.05. Since the p-value is less than 0.05, the null hypothesis is rejected.

2. Technological Growth

H1b: Self-help group positively impact technological growth of women entrepreneurs

H0b: Self-help group does not positively impact technological growth of women entrepreneurs

Model	R	R Square	DF	F	Sig
2	0.594	0.377	7	20.327	0.000b

Table 2 :Technological Growth- ANOVA

a: Dependent variable: Technological Growth

b: Independent: Impact of SHGs i.e. Access to finance, Training and development, Marketing assistance, Availability of technical support, Personal growth, Business Guidance and Counseling, Education

The independent variables are statistically significant in estimating the dependent variable, as evidenced by $F(7, 95) = 20.327$, $p < .0005$, showing that the regression model is a good fit for the data. The ANOVA as shown above confirms that the entire model is a good fit for the data. It can be concluded that the dependent variable, technological growth is 59.4%, accounting for all the independent variables i.e. access to finance, training and development, marketing assistance, personal growth, availability of technical resources, business guidance and counseling, and education. The F-test was used to assess the model's accuracy, and the p-value was used to test the null hypothesis against an alpha value of 0.05. Since the p-value is less than 0.05, the null hypothesis is rejected.

The present study utilizes ANOVA to test the research hypothesis. Findings reveal an association between all seven role factors (access to finance, training and development, marketing assistance, personal growth, availability of technical resources, business guidance and counseling, and education.) are significantly related to business growth variable. The model is relatively significant which shows that all variables have a moderate to low influence on growth and sustainability aspects.

Based on the findings and outcomes of the ANOVA analysis it can be concluded that the factors related to self-help groups (SHGs) are closely linked to a few growth variables. This shows that their impact, on the empowerment of women entrepreneurs is limited. As such the primary

research hypothesis stating that "SHGs have an impact on women entrepreneurs' growth" is upheld. The statistical evaluation conducted in the study within the Mumbai shows that SHGs are not making enough contribution, to fostering women entrepreneurs progress.

Findings, Discussion and Conclusion

Finding: sustainability and growth of women owned business is positively related with expanding their business beyond national boundary. By expanding their business outside the national boundary women entrepreneurs can enhance profit margins and revenue by leveraging cost distribution methods. Many self-help groups (SHGs) are involved in small scale enterprises like dairy, farming etc. These Women entrepreneurs face marketing challenges due to lack of marketing assistance. Hence it is vital to develop connections with banks and create opportunities for promoting and distributing their goods both locally and internationally.

Suggestion:1) SHGs need support to enhance their marketing and promotional skills due to their limited exposure and experience. One effective way to achieve this is by establishing connections with SHGs, federations and government bodies. By collaborating and forming partnerships with these organizations SHGs can gain access, to resources training opportunities and assistance that can aid them in understanding market trends creating marketing strategies and improving their overall promotional efforts. Sharing knowledge and working together within these networks can greatly increase SHGs ability to reach an audience and strengthen their presence in the market.

2) For marketing, the government needs to set up training centers that would help women entrepreneur to learn marketing skills to promote their products. Also, the government should provide a platform and arrange exhibitions where SHG women entrepreneur can effectively showcase their products.

A prime example of such marketing support platform is set by NABARD launched in Tamil Nadu in association with the Bharathi Foundation. This program has significantly helped SHG women entrepreneurs improve their marketing skills and increase visibility of their products.

Finding 2: The growth of women entrepreneurs, in business is greatly impacted by advancements in technology and their access, to tech tools. This helps them stay ahead, retain customers and grow their business reach leading to revenues. In today's age it's essential for self-help group

(SHG) women entrepreneurs to upgrade their tech skills and computerize their equipment to make the most of new opportunities.

Suggestions: The recent research indicates that women entrepreneurs, in SHGs face a gap in knowledge, skills and education related to advancements and digital tools. As a result, it is suggested that government programs offer updates, resources and training sessions to help these women entrepreneurs stay informed, about the technology trends.

Limitations of the study

The study's constraints involve depending on data reported by individuals themselves which could be influenced by opinions and the sample size, which might not accurately reflect the range of women entrepreneurs, in Self Help Groups. Moreover, the examination mainly focused on numbers and additional qualitative investigation could offer a understanding of the journeys of women entrepreneurs, in Self Help Groups.

Scope for further research

The current study focuses on Mumbai and a similar study could be carried out nationwide to explore whether the impact of self-help groups (SHGs) on growth varies based on demographics and how this variation manifests. Additionally, research could investigate whether the challenges encountered by SHGs differ from those faced by SHG federations. Conducting research in cities and states, across India could help determine if the obstacles faced by SHGs in Mumbai are representative of those encountered nationwide. Furthermore, a study could be undertaken to assess whether the individual characteristics and motivations of entrepreneurs vary depending on demographics.

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A STUDY ON CHANGING BUSINESS PRACTICES TOWARDS PRIORITIZING MENTAL HEALTH AND WELLNESS AT THE WORKPLACE WITH RESPECT TO HOSPITALITY SECTOR

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Abstract: The significance of mental health and wellness in the workplace has gained attention in recent years, especially in the hospitality industry. This study is to investigate how business practices in the hospitality sector are evolving to prioritize mental health and wellness. The study uses quantitative research methodology- employee surveys from the hospitality industry, which looks at the viewpoints and experiences of people who work in different capacities within the hotel industry in an effort to pinpoint the main variables affecting how mental health and wellness programs are incorporated into operational procedures. The study's findings point to a paradigm shift in the hospitality sector that recognizes mental health and wellness as essential to both employee well-being and business sustainability. It also emphasizes the significance of preventative measures like training initiatives, flexible work schedules, availability of mental health resources, and destigmatizing discussions about mental health concerns. Overall, by offering insights into the changing landscape of business practices related to mental health and wellness in the hospitality sector, this research adds to the body of literature. The goal is to improve organizational performance and resilience in an increasingly competitive industry landscape, as well as to enhance employee well-being and foster a supportive work environment. Purpose of the Study: This study aims to investigate how business practices are evolving in the hospitality industry, with a particular emphasis on how they support mental health and wellness in the workplace. The purpose of this study is to shed light on how companies may effectively support the mental health of their workforce without sacrificing productivity or ability to compete in the market. This study aims to support the adoption of policies and practices that promote a supportive and inclusive work environment for the holistic well-being of hospitality professionals. It also seeks to add to the increasing body of knowledge surrounding mental health initiatives in the workplace by providing useful recommendations specific to the hospitality industry. Objectives of the Study: To assess the effectiveness of existing mental health well-being practices in promoting employee wellness within the hospitality sector. To identify deficiencies and propose optimal practices to enhance mental health support, contributing to overall employee wellness. Research Gap: Mental Health problems are rampant in the hospitality sector and current practices may overlook the unique challenges and demands faced by hospitality professionals. This study aims to bridge this gap by investigating evolving business practices and identifying practical approaches to prioritize mental health in hospitality workplaces. Research Methodology: This quantitative study employs structured questionnaires as the primary tool for data collection, utilizing a survey method to gather relevant data on mental health and wellness practices in the hospitality sector, with major focus front life staff. Type of Research: Descriptive at 1st Stage & Causal at 2nd Stage, Sampling method: Stratified and Simple Random sampling, Sample Size: 100 Result: Key gaps identified, highlight the need for tailored interventions to address specific challenges within the hospitality industry. Recommendations focus on implementing

comprehensive support systems and promoting a culture of openness and understanding around mental health issues to improve overall employee well-being.

Keywords: *Mental- health, Employee well-being, Hospitality, Wellness, Business practices*

Introduction:

Recent years have seen a rise in awareness of the importance of mental health and wellness in the workplace, particularly in the hospitality sector. The goal of this study is to find out how business procedures in the hotel industry are changing to put mental health and wellness first. The study uses quantitative research methodology- employee surveys from the hospitality industry, which looks at the viewpoints and experiences of people working with different capacities within the hotel industry in an effort to pinpoint the main variables affecting how mental health and wellness programs are incorporated into operational procedures. Mental health issues like depression and anxiety bring great harm to employees and companies (Thanem &Elraz, 2022), especially in the hospitality field (Saah et al., 2021).

The results of the study indicate a paradigm shift in the hospitality industry, acknowledging the importance of mental health and wellness for the viability of businesses as well as the well-being of employees. Additionally, it highlights how important it is to take preventative actions including offering mental health resources, flexible work schedules, training programs, and de-stigmatizing conversations about mental health issues. Hospitality employees need to regulate how they can express themselves emotionally according to the requirements of their organization (Lee& Madera, 2019), given that providing service with a smile is always a widely adopted belief (Woo & Chan, 2020). Such job demands can be stressful for employees of this industry (Jeung et al., 2018).

All things considered, this research contributes to the body of literature by providing insights into the evolving terrain of business practices linked to mental health and wellness in the hotel industry. The objective is to boost employee wellbeing and create a positive work environment while also improving organizational performance and resilience in a landscape of businesses that is becoming more and more competitive. Since these jobs involve to regular interactions with customers, reinforcing, suppressing, or faking emotions are much long-term processes rather than short-term (Teoh et al., 2019). Consequently, emotional labor may lead to systemic psychological effects such mental health problems, exhaustion, and burnout (Lee & Madera, 2019; Xu et al., 2020a).

Purpose of the Study:

The purpose of this research is to examine how business practices in the hospitality sector are changing, with a focus on how they promote workplace wellness and mental health. The purpose of this study is to highlight how companies may effectively support the mental wellbeing of their employees, without sacrificing productivity or ability to compete in the

market. The purpose of this study is to assist the implementation of practices and policies that foster an inclusive and supportive work environment for the overall well-being of professionals in the hospitality industry. It also aims to contribute to the growing corpus of knowledge about workplace mental health initiatives by offering practical advice tailored to the hospitality sector.

Objectives of the Study:

1. To assess the effectiveness of existing mental health well-being practices in promoting employee wellness within the hospitality sector
2. To identify deficiencies and propose optimal practices to enhance mental health support, contributing to overall employee wellness.

Hypothesis:

H0: There is no impact of company practices/initiatives on employee well-being w.r.t. hospitality sector

Hypothesis Testing

H0: There is no impact of company practices/initiatives on employee well-being w.r.t. hospitality sector

H1: There is a positive impact of company practices/initiatives on employee well-being w.r.t. hospitality sector

X² (Chi-Square Value)	96.44
DF	4
P-Value	0.00
Decision	Rejecting the Null Hypothesis

Literature Review:

Ibrahim A. Elshaer (2023)The purpose of this study was to examine the impact of coping strategies on the mental health and quality of life of front-line hotel employees following the COVID-19 pandemic. Specifically, depression, anxiety, and stress were found to be common mental health issues among tourism workers that can have a negative impact on their quality of life. On the other hand, problem-solving coping strategies were associated with lower levels of these mental health issues among hotel employees.

Xiong, W., Huang, M., Okumus, B., Leung, X. Y., Cai, X., & Fan, F. (2023). “How emotional labor affect hotel employees’ mental health: A longitudinal study”, indicated that hotel employees experienced increased anxiety and depression within the first three months of their new jobs.

Simon Morrison (2023) Human Focus, The Importance of Mental Health in Hospitality, the inherent pressures of hospitality work, combined with a demanding public, contribute to many workers feeling overwhelmed. Stress, depression and anxiety are commonplace among hospitality workers.

Lillian Nejad and Dr. Kylie Thomson addressing the mental health requirement of workers in the Australian hospitality industry. It includes the industry-specific factors that may lead to mental-health conditions among hospitality workers, current hospitality-specific interventions, Mental health conditions are prevalent in the community, and there is indications that suggest that the prevalence of mental health difficulties experienced by workers in the hospitality industry may exceed community rates

Chase Izell, (2022) Addressing Mental Health of Hospitality Employees: An Exploratory Study, to provide evidence of declining mental health in the hospitality industry while illuminating the key contributors to such decline within the workplace and evaluating the receptivity to a series of presented initiatives that hospitality companies can use to address the challenge. key contributor to mental health decline in hospitality workers, the causes of stress were evaluated as being related to multiple areas such as long hours, scheduling and shift issues, an unmanageable workload, relationships and co-workers, not making enough money, a lack of inspiration, and as an overarching theme, a lack of management.

Elizabeth Pratt (2023) Hospitality and Real Estate Workers Report Highest Rates of Mental Health Problems. Mental health problems were also common in the hospitality industry. This included those working in accommodation and food services. 23.8% of the people working in this industry reported mental health troubles. The researchers suggest this may be because these industries require workers to have face to face contact with the public. Employees may also have to work irregular or long hours in this roles. Face to face roles with the public may also expose employees to violence or be emotionally damaging, which could contribute to higher rates of mental health issues.

Ossian Muscad (2023) Mental Health in Hospitality: Understanding its Importance and Impact, highlighting that poor mental health can have a wide-reaching impact, affecting individual performance, team dynamics, and customer service quality.

Dong Yoon Yoo (2023) The hospitality industry is characterized by high levels of emotional labor, a feature that has major implications for employees' psychological well-being (The Hospitality Stress Matrix: Exploring Job Stressors and Their Effects on Psychological Well-Being). According to Hochschild, emotional labor is controlling one's emotions to conform to the demands of a company or job function. This is particularly relevant in the service-oriented hotel industry. No matter how they really feel, employees are usually expected to have a pleasant and approachable demeanor. This may lead to emotional strife and burnout,

which is defined as physical, psychological, and emotional exhaustion. This emotional gap can be extremely stressful and result in a decline in psychological health, a decrease in job satisfaction, and a rise in the desire to quit.

Research Problem:

“The hospitality industry is rife with mental health issues, and present procedures may fail to take into account the particular difficulties and responsibilities that hospitality workers confront. By examining the efficacy of current business strategies and helping firms create workable solutions to promote mental health in hospitality environments, this study seeks to close this gap.”

Research Methodology:

This quantitative study uses structured questionnaires as its main data collection instrument. It uses a survey to collect pertinent information on wellness and mental health practices in the hospitality industry, with a particular emphasis on front desk staff.

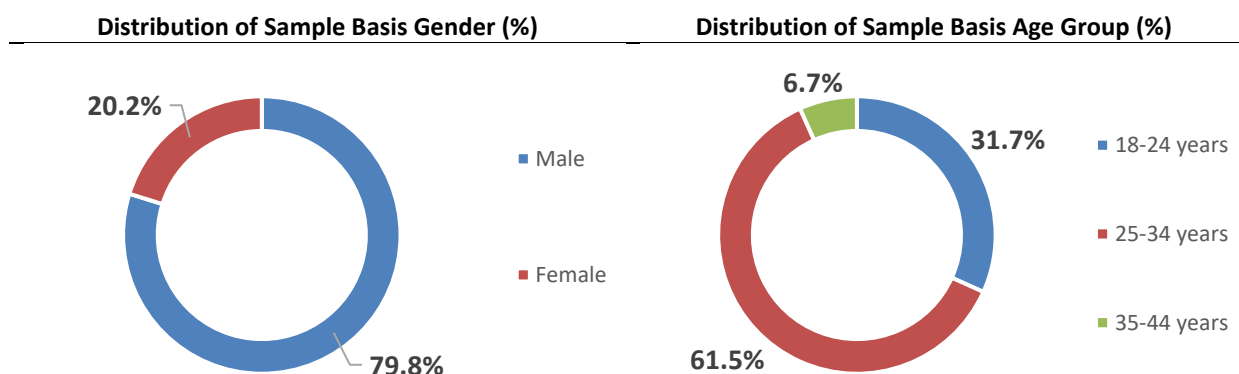
Type of Research: Descriptive at 1st Stage & Causal at 2nd Stage

Sampling method: Stratified and Simple Random sampling

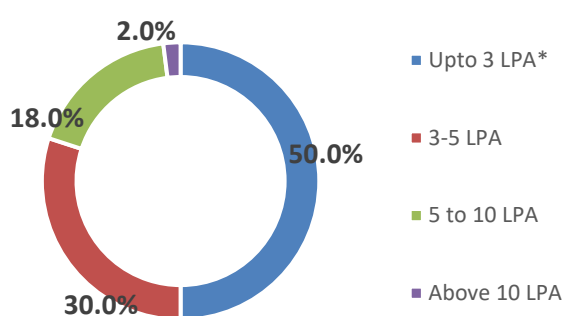
Sample Size: 104

Data Analysis:

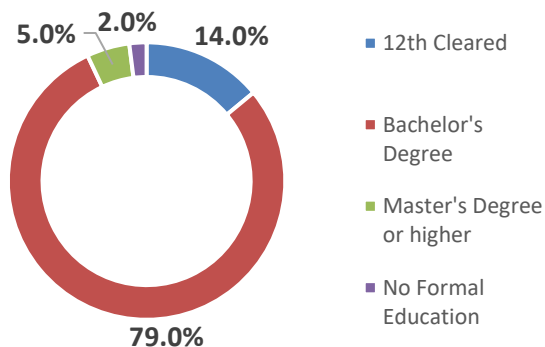
Data for this study was collected from employees of the hospitality sector and the representation are as follows:



Distribution of Sample Basis Salary Bracket (%)

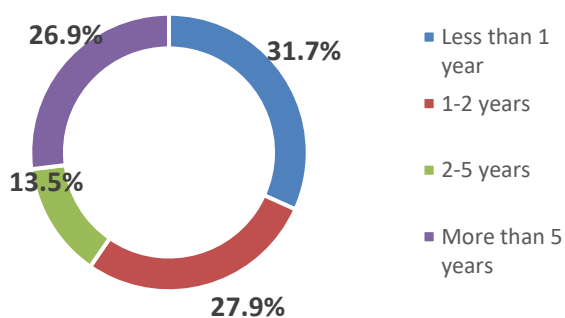


Distribution of Sample Basis Education (%)

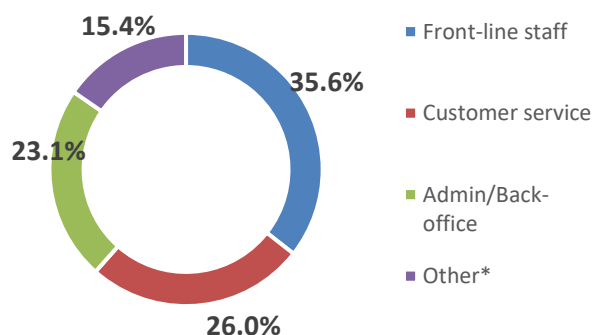


*LPA is Lakhs per Annum

Distribution of Sample Basis Experience (%)

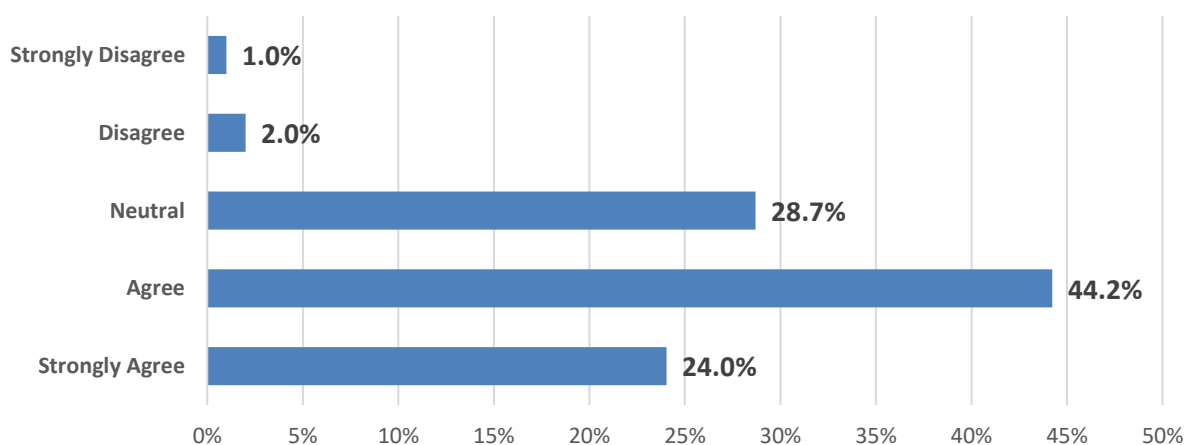


Distribution of Sample Basis Position (%)

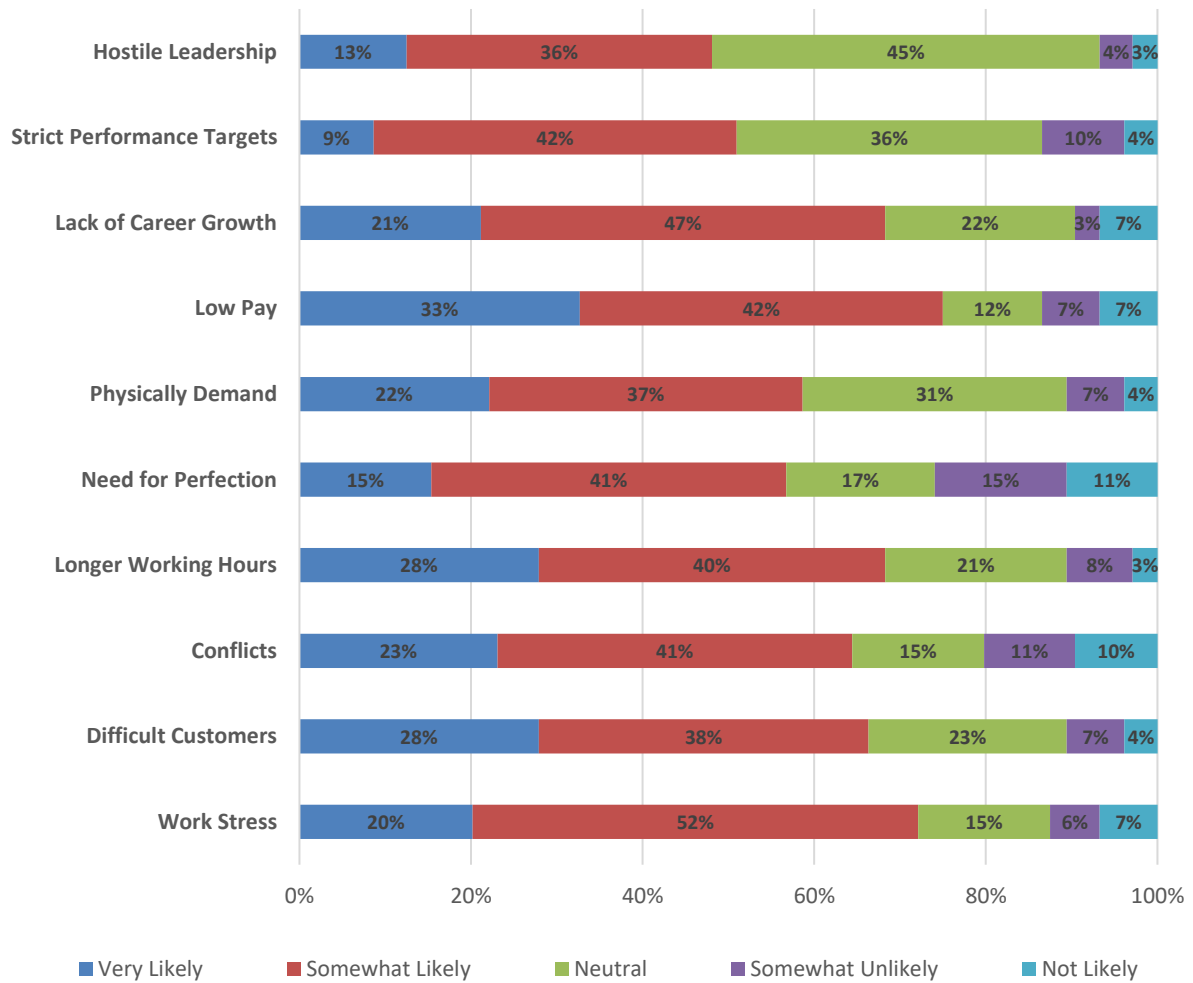


*Positions include HR, Director of Business Development, Kitchen Staff, Coordinators etc.

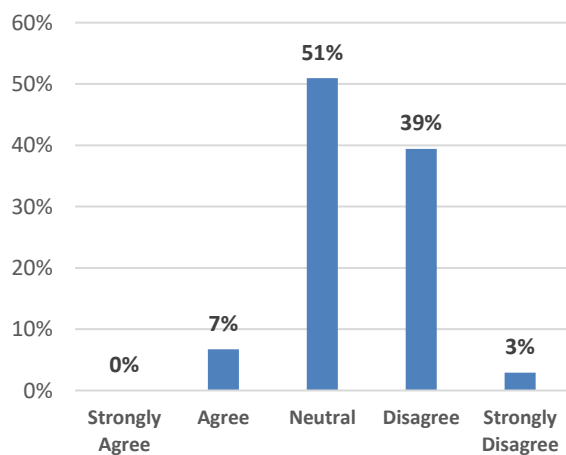
Do you feel that employees working in the hospitality sector are prone to mental health issues



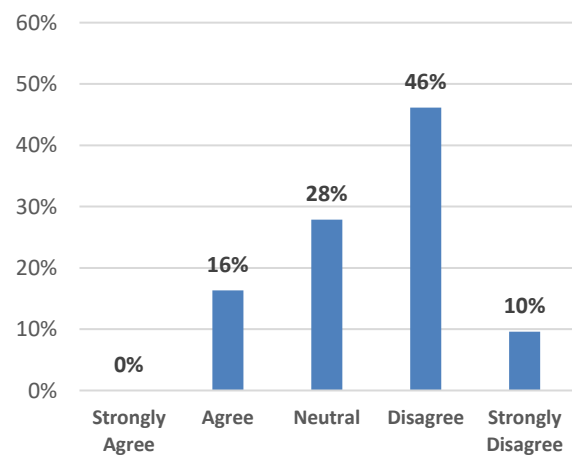
Reasons and their potential to cause mental health issues



Do you feel that your organization undertakes adequate practices to help employees cope with challenges that lead to mental health issues?

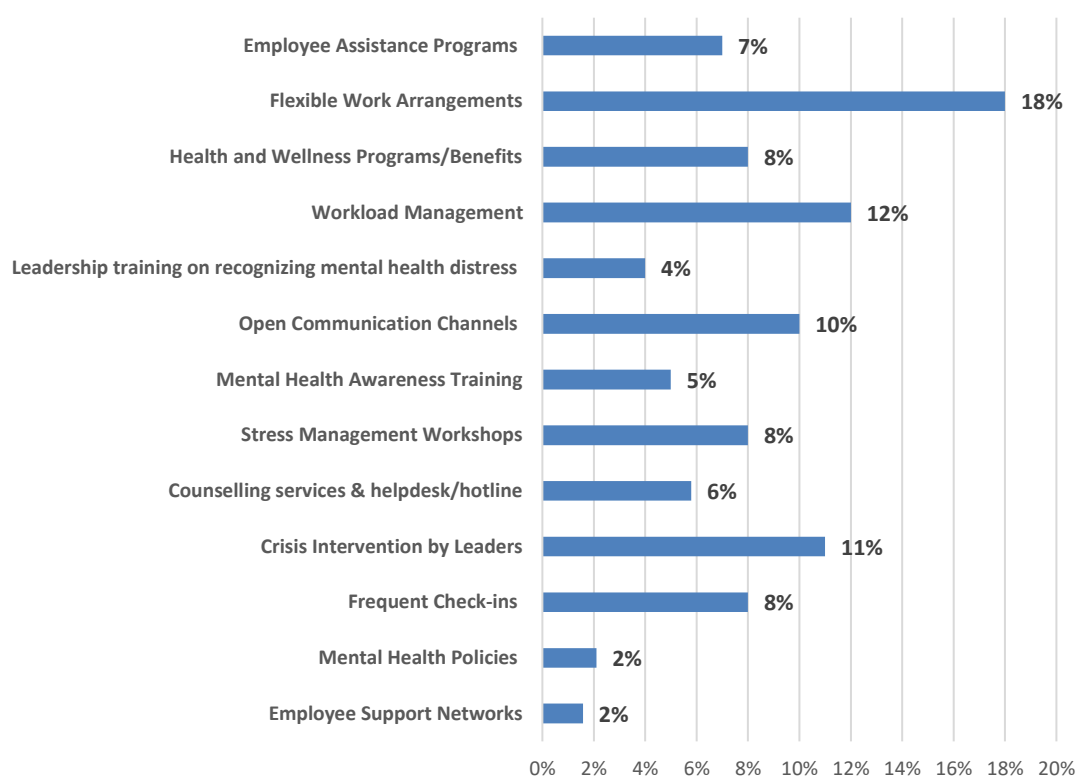
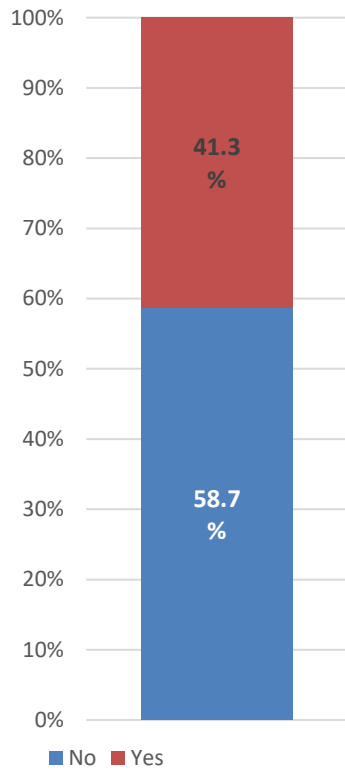


Do you feel that the practices undertaken by your organization are effective in helping employees cope with mental-health challenges?

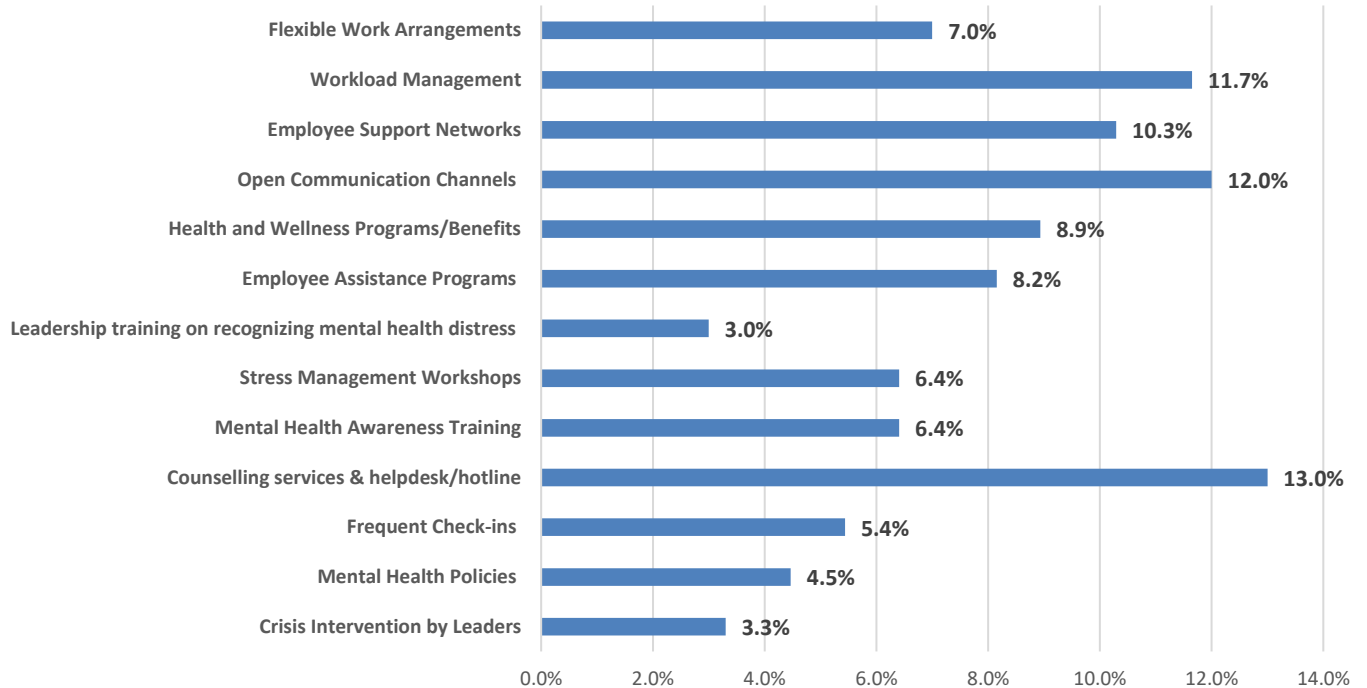


Does your organization take initiatives to promote mental wellness among employees

If yes, what are the initiatives taken by your organization to promote mental wellness among the employees



Which practices do you think should definitely be undertaken by organizations in Hospitality Sector to help employees cope with mental health issues.



Findings

- The Sample is not very gender diverse as around 80% of the respondents are male and the majority of respondents are between the age group of 25 to 34 years
- Almost half the sample are in the income group of up to 3 LPA and around 79% have completed their bachelor's degree, and the work experience of the majority is up to 2 years as frontline staff or Customer service.
- A Significant finding of this study states that over 70% employees of hospitality agree that they are prone to mental health issues
- Dealing with difficult customers, long working hours and low pay are the most likely reasons that cause mental health issues among hospitality employees.
- More than half the sample are neutral about their company taking adequate steps to help employees towards coping with mental health challenges, and they also feel that the initiatives taken by the company are not effective enough
- Only about 41% of the sample agrees that their company takes adequate steps to help employees manage the mental health challenges and the larger sample of about 59% shared that their company takes no measures towards helping them cope with mental health challenges.
- Among the minority of employees who agree that their organization takes adequate steps for their mental wellbeing, have shared that flexible working is the most prevalent practice, followed by work load management and crisis intervention by leaders
- Respondents believe that counselling services, open communication channels and workload management are must-have initiatives by companies to help manage employees' mental health.

Recommendations

- Personal Counselling and testing should be adopted as a practice for hospitality employees, through certified mental health professionals
- Analysis of Time sheet and hours spent, duty wise shifts and workload distribution
- Timely RnR practices for front-line and entry level staff for positive reinforcement
- Workshops, Seminars- to address specific stressors, and develop strategies to tackle common stressors like difficult customers, long hours, and low pay, including customer service training and flexible scheduling.
- Promote Mental Health Awareness: Implement mental health education to help employees recognize and manage mental distress early on and break stigmas.
- Improve Organizational Support: Enhance company initiatives for mental health support, focusing on fostering open communication, reducing stigma, and offering comprehensive policies such as counselling services and flexible work arrangements.
- Continuous Feedback and Improvement: Encourage regular feedback from employees to identify areas for improvement in existing mental health practices and policies.

- Leadership Training: Invest in leadership training to equip managers with the skills needed to effectively support their teams' mental health, including crisis intervention and workload management.

Conclusion:

This study highlights the critical need for comprehensive support systems that are suited to the particular difficulties experienced by employees and provides insight into the changing landscape of mental health and wellness practices within the hospitality industry. Results highlight how common mental health problems are among those working in the hotel industry, with factors like stressful work situations and interactions with clients playing a major role. Notwithstanding the implementation of certain programs, there is a notable disparity between the perceived efficacy of organizational endeavours and their ability to effectively tackle mental health issues. The proposals that have been made in the future are intended to close this disparity by supporting tailored counselling services, workload analysis, mental health education initiatives, and improved organizational support systems.

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WEALTH ADVISORY SERVICES IN INDIA-NEED AND IMPACT

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Abstract: Choice of an investment asset class depends on risk taking ability of investors. Making a choice is tough as there are many options or avenues of investments. There is a lot of innovation in the Financial Products and Derivative segment is luring many investors, this makes the investment exercise difficult, particularly those without the domain knowledge. Cyber Crimes is a new risk faced by Investors. Both kinds of Investors, those with or without the skillsets of Investing, may face the time constraint in doing research about investment options. They logically must prefer to invest with the help of PMS-Portfolio Management Services. There has been a boom in the Wealth Advisory sector. However, many investors do not use their services. Investments made without proper study or without prudent advice may result in erosion of portfolio value. This is bound to lead to psychological issues like depression. Purpose: To understand the structure, quality, and accessibility of Wealth Management Services. To explore their contribution and whether they satisfy the needs of the investors. Methodology: Questionnaire and Interview methods were used. Random samples were taken of 500 respondents and responses analyzed using statistical tools. Interviews were taken of 25 wealth managers and their replies sorted and classified on excel sheets. Secondary data was collected from websites of regulatory bodies and of financial intermediaries. Journal articles and newspaper reports too were analyzed. Conclusion: Quality of services differ widely, from poor to excellent. There are no rating agencies ranking them. There is no accredited repository helping investors identify ethical and good advisors. Awareness of the availability of such services is low. Redressal of issues of victims of cybercrime and fraud is not satisfactory. Regulation of Wealth Management Services is not adequate. Wealth Advisors need to prove their credibility and create a relationship of trust with their clients.

Keywords: *Investors, Services, Cybercrime, Complex*

Introduction:

Retail Portfolio Management is an important economic activity. Every country needs a robust Capital Market. People need to invest in the Capital Markets so that businesspeople obtain Capital. Capital is one of the most important factors of production and the ideal way is to raise it through the Capital Markets where people invest their savings.

It could be called a social responsibility as it results in a dignified way of life. Investments if made using proper tools and strategy can help individuals to reduce stress during difficult times, help achieve their aspirations and make them financially independent.

Despite rapid developments and changes, the age-old wisdom still holds good-Save for a Rainy Day; Do Not Put All Your Eggs in One Basket. Investing is a must but investment today is not merely spending lesser than you are earning and keeping the surplus safe.

Inflation, VUCA environment has made the exercise of investment a complex task. Investors need to beat inflation and aim for a happy retired life.

Culturally, Indians believe in Savings. However, converting the Savings into prudent Investments is a challenge. Digitization of financial services has many benefits but a challenge to those not tech savvy. The KYC compliances can sometimes be time consuming and complex. Inflation is a big culprit which erodes Capital. So also, scamsters and conmen cheat people with Ponzi schemes. Cyber crime has added another dimension of risk.

Policy Statement is a tool that all investors must use. The Policy Statement primarily list the goals of Investors. Long term and Short Term. In both types of goal, further classification into high priority and low priority. It also mentions risk appetite which is an important aspect. Choice of asset classes and more importantly weights to be given to each of the asset class. Action to be taken when macro issues impact the markets. Discipline in investing is necessary so that one does not succumb to the emotions of greed and fear. This can be achieved by abiding to the clauses in the Policy Statement. The next step after preparation of Policy Statement is to prepare the Portfolio Construction plan and implement it. Focus must be to reduce risk and that can be achieved by Diversification. Policy Statement cannot be a permanent one. As investors' circumstances change and/or the macro-economic factors, policy statement must be changed. In an individual's life, savings may increase or decrease, liabilities may increase or decrease, goals may change, as age progresses, risk appetite too changes.

Capital Markets have given excellent returns. But many are hesitant to enter the Capital Markets. Reasons could be many. They are overwhelmed by the technology and jargons. They have heard riches to rags stories of stock market investors and are fearful of investing in shares and securities. They have lost money by following tips and herd mentality and do not want to ever enter the stock markets.

An average informed investor will have a portfolio that is a mix of equity shares and mutual funds. REITS and Exchange Traded Funds are becoming popular. They also may have some bonds. Equity shares are purchased in IPOs or from the stock markets. Stock market or secondary market transactions could be with the help of brokers or one operating from one's computer or smart phone the tripartite account. Mutual Funds too can be purchased with the help of Agents or going to the websites of the Mutual Funds. Bonds are usually opted for by reading their ratings. Investors naively believe in tips they receive from friends, social media,

and other modes. In the markets, sometimes rumours propel huge buying or selling transactions. Investors succumb to the herd mentality. They may buy bonds attracted by the high interest rates not mindful of the risk it has. They thus construct a portfolio not aligned to their needs.

Investors find it difficult to prepare their policy statement, create investment buckets that mature as per their goals, beat inflation, get cheated, fall victim to cyber-crime, do not have time to make investment decisions, are not able to function in a digital world, become victims of greed and fear and often end up with a portfolio that does not align with their requirements.

Wealth Managers could be an answer to the issues faced by investors. They are trained and experienced in portfolio construction and management. Wealth Management is a wide term that includes advisory services in financial planning; portfolio construction; preparation of will; tax planning and legal counsel. They may advise and implement too. Individuals, brokers, and most financial intermediaries offer them. Kotak Wealth Management, Edelweiss, HDFC, and JM Financial are some of the known wealth management service providers. The activity of wealth management today could also be managed by robots and is called robo-advisory services. Machines are programmed that generate portfolios when data is fed in of investors age, investable amount, risk etc.

The objective of this research is to understand the structure of wealth advisory services in India, if investors are satisfied with them, their quality, accessibility, and impact. To explore if any changes are needed in their working. To understand the awareness level of investors of availability of these services.

Need for Study:

There are entities offering wealth management services and there are investors that need them. But somehow the access and reach of the services is not reaching the investors. There is a gap.

Objective of this paper to understand Investors' awareness of the various investment products and investment strategies available, their perception of Stock Markets, and their willingness to pay for portfolio management services. Further, to understand the skill and efficiency of Wealth Advisors and accessibility of small investors to reputed Wealth Advisory Service providers.

Literature Review:

Anthony and Govindrajana (2007) have authored a quintessential book on Management Control Systems. The chapter on Financial Performance highlights the importance of strategy, planning and discipline. The case studies discussed in their book highlights how fundamentally a company becomes strong or weak. It depends on factors like management competency, acumen in taking prudent decisions based on reports generated, preparation of realistic budgets, doing variance analysis in a matured way and above all having robust, agile, and appropriate management control systems. The book stresses the importance of collection of relevant information, explains the ways of collecting information. It describes formats or tables to present information that helps to analyse data better. It highlights the importance of controls in Financial Service organizations so that clients can be served in a fair and ethical manner.

Sarish and Ajay Jain (2012) in their article titled- “Analysis Regarding Mutual Funds Awareness and Opinions” have reported their findings after analysing their primary data collected from investors following the questionnaire and interview method. Their findings suggest that investors prefer to have their investments in Insurance and Fixed Deposits; they want good returns and safety; their awareness of mutual funds were created due to the Advertisements through various ways and interaction with Financial Advisors and their bankers. Those who invest in mutual funds prefer to have SIP-Systematic Investment Plan.

The AMFI website defines a mutual fund as an investment vehicle. The investment is collective. It collects amounts from many investors. It puts them together. The pool of money created, it invests in financial products like shares, debentures/bonds -both corporate and government and also short-term instruments. The Mutual Fund Manager take investment decisions. Trained professionals head the Funds. Each Fund has stated objective and investors have invested to achieve that objective. The investments by the manager must be thus aligned to that objective. Income generated is of the investors. It is distributed to them after deducting expenses, there are rules as to the nature, disclosure and amount of the expenses deducted. Distribution to the shareholders is in proportion of their investment amount. SEBI has rules called SEBI (Mutual Funds) Regulation, 1996 that regulates Mutual Fund. They are to be formed as Trusts and are thus regulated by The Indian Trust Act of 1882. The choice in Mutual Funds is very wide. They could be Active and Passive. Various Schemes like Large

cap, Small cap, Arbitrage, Contra, Equity, Debt, Hybrid, Sector specific like Banking, Information Technology and the choice of schemes is indeed wide.

David A. Dubofsky (1992) have in their book on Options explained valuation of derivative instruments, and factors impacting their valuation. Quantitative finance is used. The issues faced by Option writers and option buyers are described. Intrinsic value, time value, in-the money, deep in- the- money, market makers, bid ask prices are elaborated with examples. The book also tells how to read Option prices quoted in financial newspapers and elsewhere.

David Pett (2014) in his article, has explained that using robots in portfolio management services has decreased costs to about just 1% of the assets under management (AUM). He has reported his findings on interviewing four Robo Advisory Firms. He has described their technique in handling portfolios of two different categories. One being young investors with long term investment horizon and the other being retired people whose investment period is shorter due to age and their interest being more in income generating assets. The advice given were not similar clearly indicating that all robots are not the same and may differ in interpreting data fed in as input.

Daniel Schutzer (1990) has written on Artificial Intelligence which even today guides many in research and application of AI. He has explained that machines started doing the physical work done by animals and then started doing the physical work done by human beings. This was the automation age. But now, AI will replace mental work done by humans. Its application can be done in various fields and its application must be necessary and beneficial.

Elizabeth Kasner (2014) has categorized investors. Passive investors desiring index investing, factor investors, those interested in emerging markets or only in domestic market, and those wanting to reduce tax burden. She has tried to match the investor with the advisory firm considering the strength of the latter and need of the former. She has chosen firms like Wealth front, Betterment, Future Advisor, c Cvestor, WiseBanyan and Invesance.

Gordon Davis and Margretha Olson (2000) have written a book on Management Information System. They have explained the linkages between Risk, Size and Structure. How financial advisory firms must adopt technology considering these linkages. How to manage and control hardware and software costs.

Hal M. Bundrik (2015) has explained the working of Robots or machines in wealth advisory services. He has called them smart money machines. The machines are automated with

algorithms suited for computers. Many Portfolio Managers are using them and the number of users is increasing. Machines are replacing human beings in various mid-level jobs. They have now entered the portfolio management space too. Their assets under management are increasing and particularly the young investors are preferring them. The author has tried to rate them on various parameters and arrived at top nine robo wealth advisory firms and kept the tenth space vacant for any new entrant to rate and include.

Libby Kane (2014) has compared the working of human portfolio managers with robo portfolio managers. Her findings are that human advisors are more expensive as compared to the robo advisors. The pricing structure of Robo Advisory firms given online are more transparent and simpler than that of advisory Firms where human beings give service. Access is easier to reputed Robo Advisory firms as there is no minimum portfolio value required which is normally there for reputed human advisory firms. When it comes to aligning goals, understanding investors needs, humans are more effective. For long term investors with clear goals and clarity in range of ROI needed, machined advisors would be suitable. Pricing, transparency, speed, time horizon of investors, their personality are some of the variables that can decide which type of advisor is more suitable.

Reilly and Brown (2003) have in their book titled Investment Analysis and Portfolio Management described in detail the Investor Life Cycle. How as per our age our goals change and our risk appetite changes. When we are younger, we are in the Accumulation phase, we can take risks and portfolios rise sharply in value. As we reach or cross middle age, we go for safer products, our earning capacity may not see high growth. This is called the Consolidation Stage. The last stage as we become senior and super senior citizens, is called the Gifting and Spending phase. There is a sharp decline in our portfolio as we may shift them to risk free products. We may now indulge and spend on our hobbies, keeping an adequate amount for our remaining life, we can start gifting to our near and dear ones. In the last stage one must be mindful of medical emergencies and inflation. The authors have emphasized on the importance of preliminaries, the essentials before one starts investing. They are insurance and adequate liquidity. Insurance is the best hedge instrument. For anything untoward happening, one does not have to break an investment done for another purpose. One is not wiped off their investment portfolio. Insurance is a must. There are varied types and one must choose wisely. Adequate liquidity helps to take benefit of unexpected opportunities and tide over unpredicted financial difficulties without touching the investments.

SantacruzLujer (2012) has explained the theory and practice of asset allocation in Australian environment. There is a lot of literature and research on asset allocation theories. If a portfolio comprises of cash, debt and equities, the allocation must be optimal to maximize returns as per risk appetite. There is the Modern Portfolio Theory of Markowitz that explains how to statistically plot the efficient frontier and arrive at optimal portfolios. How it is possible to minimize unsystematic risk. The author arrives at the finding that the level of awareness of wealth advisors of these theories is high but extent of their application is low.

The website of 5Paisa (2023) describes Wealth Management as comprehensive management of an individual's financial life. It is a process involving strategy and processes. It comprises range of services like financial planning, tax saving, smooth transfer of wealth to beneficiaries and most importantly risk management. It is customized service. The risk appetite and circumstances of each client is considered unique and accordingly financial plans are designed. Its aim is to ensure peace of mind to clients and with their expertise help them to achieve their investment goals.

Literature Review Table:

Author	Year	Published in	Area of Research	Gap
Anthony and Govindrajan	2007	Book published by McGraw Hill Education	Control Systems that help Management to perform better	Agility of the System to adjust to volatility in markets
Ajay Jain and Sarish	2012	VSRD International Journal of Business & Management Research	Mutual Funds - Awareness	How to increase the awareness
AMFI- Association of Mutual Funds in India	2023	Website- www.amfiindia.com	Information as to meaning, types and characteristics of mutual funds	Access and awareness of this website is low
David A. Dubofsky	1992	Book published by McGraw Hill International	Options and Financial Futures	Examples or ways for practitioners to

				apply the theories
David Pett	2014	E article in Financial Post	Robo Advisors-how they give customized advice	How to choose the suitable robo advisor
DanielSchutzer	1990	International Journal-Expert Systems with Applications.	Usage of AI in various fields	How to do risk management for cyber crimes
Elizabeth Kasner	2014	E article on etf website	Linking Robo Advisors and Investors	How to evaluate needs of investors
Gordon Davis and Margretha Olson	2000	Book published by Tata McGraw Hill Education.	Adoption of technology in Information Systems	Ways to reduce risks of technology
Hal M. Bundrik	2015	E Article on the website of Thetstreet	Use of Robots in wealth advisory services	Cost Benefit Ratio for Advisors and lack of human interface for investors
Libby Kane	2014	Business Insider	Comparison of Robo Advisors and Humans	There is no standard quality of machines and humans
Reilly and Brown	2003	Book published by Cengage	Investment Analysis and Portfolio Management	To apply the concepts and tools in actual construction and management of portfolio

SantacruzLujer	2012	Paper published in Conference proceedings of the 18 th International Business Research Conference at Las Vegas	Asset allocation theory and practice gap	Ways to bridge the gap
5Paisa wealth advisors	2023	Website www.5paisa.com	Description of Wealth Advisors	Needs of Investors

Identification of Variables:

Considering the Gaps arrived at in the above table, table is prepared for Identification of Variables to help draft questionnaire and interview questions. To direct the focus of the Research.

Table of Variables

Independent Variable	Moderating Variable	Dependent Variable
Change of Strategy and Processes	Extent of Market Volatility	Agility of Systems
Awareness of Investment Avenues	Ease of Access	Modes of Communication
Quality Service of Wealth Advisors	Training and expertise	Use of tools and techniques
Investors and technology	Data Base of investors	Online training for technology
Robo Advisors	Control over data input and monitoring machine programming	Low costs and speed in service delivery
Technology in Wealth Advisory Services	Risk Mitigation Techniques and controls	Privacy of Data and security of System
Availing of Wealth Advisory Services	Trust, dialogue, Reports, Comparisons	Trust

Objectives and Hypothesis:

Objective 1 To study the awareness of modern investment according to investment pattern.

Null Hypothesis H_{01} : There is no significant difference in modern investment according to investment pattern.

Alternate Hypothesis H_{11} : There is a significant difference in modern investment according to investment pattern.

Objective 2 To study the awareness of most prominent factor of modern investment by the investors.

Null Hypothesis H_{02} : There is no uniform awareness of factor of modern investment by the investors.

Alternate Hypothesis H_{12} : There is uniform awareness of factor of modern investment by the investors.

Objective 3 To study the association between pattern of investment and decision of the investors.

Null Hypothesis H_{03} : There is no association between pattern of investment and decision of the investors.

Alternate Hypothesis H_{13} : There is an association between pattern of investment and decision of the investors.

Research Methodology:

Research Design: As basically people are the main drivers in a service sector, questionnaire was prepared and got filled by 500 people. The sample was chosen from the population from Mumbai and Pune. Interview Method was also followed. Twenty-five Wealth managers and executives of reputed big wealth advisory firms were interviewed. Data was collected by Questionnaire and Interview method from 525 people.

Sample Design Questionnaire was sent to 500 persons based in Mumbai and Pune. The investors were in the age group of 18 to 65. They were in the income level of Rs.6 lakhs and above. 60% were males and 40% were females. The study was conducted in the month of January 2024.

AGE GROUP	Nos	%
18-30	25	10
30-45	325	65

45-65	145	24
above 65	5	1
TOTAL	500	100

Further, 25 telephonic interviews were conducted. The responses were charted on excel sheets and the commonalities identified. Interviews were of persons working for Wealth Advisory firms. 12 were females and 13 were males. All 25 were in the age group of 30 to 45.

Questionnaire Design: The Questionnaire was prepared based on the Table of Variables prepared. Pilot study conducted, more clarity got into the questions and then sent to 500 people. It contained 10 questions targeted to meet the aim of this study. The questions dealt with awareness, ease of access to information, competency in handling technology, trust in advisors, reasons for fear in investing in capital markets, willingness to spend for advice, perception of robo advisors, understanding types of risks, need of policy statement, knowing goals and awareness of importance of weights amongst asset classes.

Schedule 1 is the copy of the Questionnaire sent.

Interview Questions: The questions were designed considering the purpose of study and variables identified in secondary data analysis. The same questions were asked to the 25 interviewees to understand their type of clients, level of technology used, understanding of theoretical concepts, controls to minimise risk of conflict of interest, measures taken to protect privacy and protection from cyber-crime, quality, accessibility, and ease of reach. Conclusions were drawn as per commonality in the answers.

Schedule II gives the list of questions asked in the interviews.

Data Design: Primary Data was collected by Questionnaire method and Interview method. Secondary data was collected from various relevant websites, journals and books written on Financial Planning and Information Systems. The findings were analysed using descriptive statistics and excel tools and conclusions drawn.

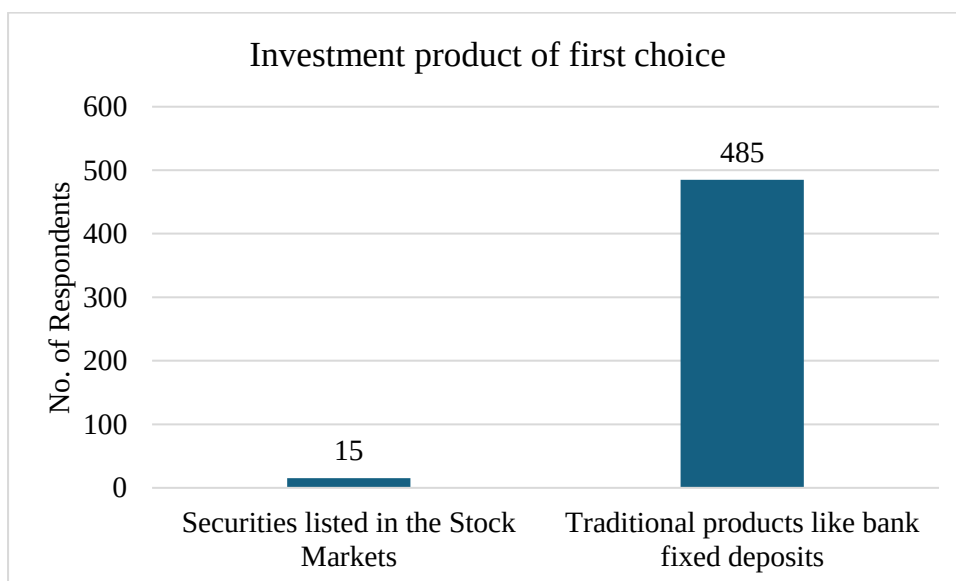
Data Analysis:

Analysis of investment product of first choice

Q 1. Choose anyone which would be your investment product of first choice.

	Frequency	Percent	Valid Percent	Cumulative Percent
Securities listed in the Stock Markets	15	3.0	3.0	3.0
Traditional products like bank fixed deposits	485	97.0	97.0	100.0
Total	500	100.0	100.0	

The frequency numbers indicate the preferences of 500 respondents regarding their first choice of investment product. A significant majority of 485 respondents (97%) chose traditional investment products, like bank fixed deposits, while only 15 respondents (3%) preferred securities listed in the stock markets. This distribution shows a clear tendency towards safer and more secure investment options, reflecting a conservative investment mindset among most of the respondents. The total count of respondents remains consistent at 500, providing a comprehensive view of their investment preferences. The following information is shown below in bar diagram.



Analysis of awareness of Modern Investment

Question	No	Yes
Are you aware of the difference between dividend pay-out and growth schemes of mutual funds?	487	13
Have you suffered losses in your investments due to being a victim of a scam or being cheated?	12	488

Do you think there is adequate information freely available about the company you wish to invest in?	8	492
Are you familiar with the concept of Investor Life-Cycle?	489	11
Have you prepared your policy statement?	495	5
Are you consciously trying to have a diversified portfolio?	490	10
Do you rely on and believe in the news published in newspapers and aired on TV?	0	500

Above question is rated as follows:

No = 0

Yes = 1

Using above responses, mean score of Awareness of Modern Investment is obtained using formula given below.

Mean score of Awareness of Modern Investment

$$= \frac{\text{Totalscoreof rating of respondent(for 7 statements)} \times 100}{\text{Maximum rating}(7)}$$

Using above formula mean scores are obtained for each respondent and also for all 500 respondents. Descriptive statistics is as follows:

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Awareness of Modern Investment	500	14	100	43.40	5.940
Valid N (listwise)	500				

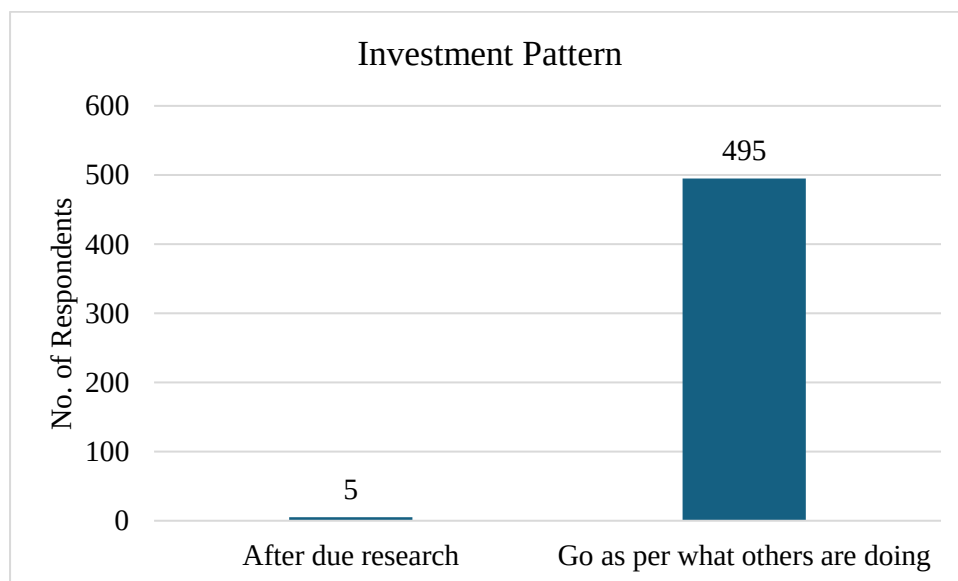
Above table indicate that mean score of Awareness of modern investment is 43.40 per cent with standard deviation 5.59, suggesting low variation in the responses.

Analysis of investment pattern

Q 9. You invest-After due research
Go as per what others are doing

	Frequency	Percent	Valid Percent	Cumulative Percent
After due research	5	1.0	1.0	1.0
Go as per what others are doing	495	99.0	99.0	100.0
Total	500	100.0	100.0	

The frequency numbers for this question reveal that an overwhelming majority of respondents (99%) make their investment decisions based on what others are doing, rather than conducting their own research. Only a small portion, 5 respondents (1%), invest after due research. This suggests that most investors in the sample follow a herd mentality, relying on the actions and decisions of others, possibly due to a lack of knowledge, time, or confidence in conducting independent research. The total number of respondents remains 500, offering a clear picture of this collective behaviour. The following information is shown below in bar diagram.

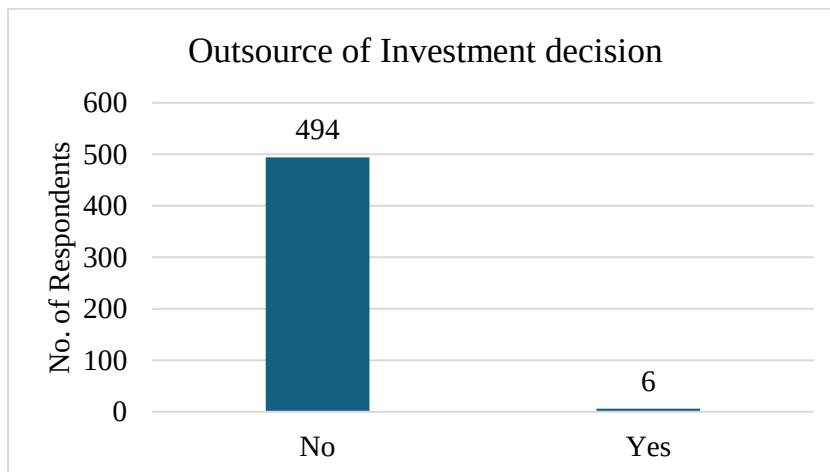


Analysis of Outsource of Investment decision

Q.10 Outsource of Investment decision				
	Frequency	Percent	Valid Percent	Cumulative Percent
No	494	98.8	98.8	98.8
Yes	6	1.2	1.2	100.0
Total	500	100.0	100.0	

The frequency data for this question shows that a vast majority of respondents (98.8%) do not outsource their investment decisions, preferring to manage them personally. Only a small

minority of 6 respondents (1.2%) choose to outsource their investment decisions. This indicates that most investors in the sample prefer to retain control over their investment choices, possibly due to a desire to avoid additional costs, a lack of trust in external advisors, or a preference for self-management. The total number of respondents remains 500, providing a clear understanding of their approach to handling investment decisions. The following information is shown below in bar diagram.



Objective 1 To study the awareness of modern investment according to investment pattern.

Null Hypothesis H_{01} : There is no significant difference in modern investment according to investment pattern.

Alternate Hypothesis H_{11} : There is a significant difference in modern investment according to investment pattern.

To Test above null Hypothesis independent sample test is applied and t-test is obtained.

Independent Samples Test					
	t-test for Equality of Means				
	T	df	P-value	Mean Difference	Std. Error Difference
Awareness of Modern Investment	15.750	498	.000	20.059	1.274

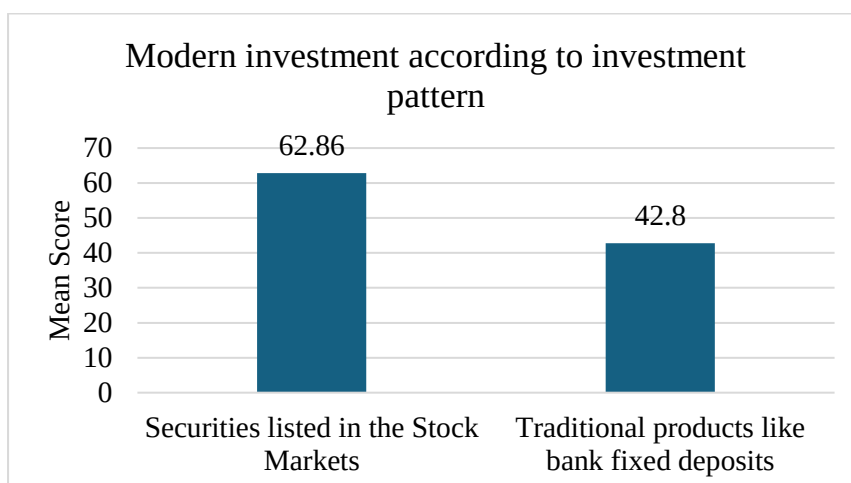
Interpretation: Above table indicate that p-value is 0.000. It is Less than 0.005. Therefore, t-test is rejected. **Hence Null Hypothesis is rejected and Alternate Hypothesis is accepted.**

Conclusion: There is a significant difference in modern investment according to investment pattern.

Findings: To understand the findings of Hypothesis, mean score of modern investment according to investment pattern is obtained and shown below.

Group Statistics					
	Q 1. Choose anyone which would be your investment product of first choice. Securities listed in the Stock Markets. Traditional products like bank fixed deposits	N	Mean	Std. Deviation	Std. Error Mean
Awareness of Modern Investment	Securities listed in the Stock Markets	15	62.86	16.903	4.364
	Traditional products like bank fixed deposits	485	42.80	4.002	.182

The group statistics reveal that respondents who prefer securities listed in the stock markets have a significantly higher mean awareness of modern investment options (62.86) compared to those who choose traditional products like bank fixed deposits (42.80). However, the awareness within the stock market group is more varied, as indicated by a higher standard deviation (16.903) and standard error (4.364). In contrast, the traditional products group displays more consistency in their awareness levels, with a much lower standard deviation (4.002) and standard error (0.182), indicating a more uniform understanding of modern investments within this group. The following information is shown below in bar diagram.



Objective 2 To study the awareness of most prominent factor of modern investment by the investors.

Null Hypothesis H_{02} : There is no uniform awareness of factor of modern investment by the investors.

Alternate Hypothesis H_{12} : There is uniform awareness of factor of modern investment by the investors.

To Test above null Hypothesis Friedman sample test is applied and chi-square test is obtained.

Test Statistics ^a	
N	500
Chi-Square	2839.177
Df	6
p-value	.000
a. Friedman Test	

Interpretation: Above table indicate that p-value is 0.000. It is Less than 0.005. Therefore, chi-square test is rejected. **Hence Null Hypothesis is rejected and Alternate Hypothesis is accepted.**

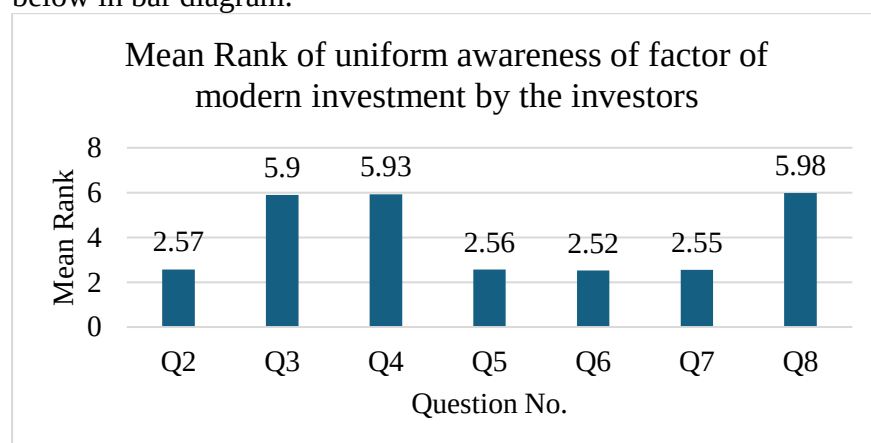
Conclusion: There is uniform awareness of factor of modern investment by the investors.

Findings: To understand the findings of Hypothesis, mean score of uniform awareness of factor of modern investment by the investors is obtained and shown below.

Ranks	
	Mean Rank
Q 2. Are you aware of the difference between dividend pay-out and growth schemes of mutual funds	2.57
Q 3. Have you suffered losses in your investments as you were a victim of a scam or being cheated or conned by scamsters	5.90
Q 4. Do you think there is adequate information freely available about the company you wish to invest in invest	5.93
Q 5. Are you familiar with concept of Investor Life-Cycle	2.56
Q 6. Have you prepared your policy statement	2.52

Q 7. Are you consciously trying to have a diversified portfolio	2.55
Q 8. Do you rely on and believe in the news published in newspapers and aired on TV	5.98

The mean score importance data provides insight into how respondents rank different investment-related questions in terms of their importance. Questions related to scams (5.90), information availability (5.93), and reliance on news (5.98) have higher mean scores, indicating that these issues are viewed as more significant by respondents. In contrast, concepts such as the investor life-cycle (2.56), policy statements (2.52), and diversification (2.55) have lower mean scores, suggesting they are considered less important. This ranking highlight that respondents prioritize external factors like available information and media influence over personal investment planning strategies. The following information is shown below in bar diagram.



Objective 3 To study the association between pattern of investment and decision of the investors.

Null Hypothesis H_{03} : There is no association between pattern of investment and decision of the investors.

Alternate Hypothesis H_{13} : There is an association between pattern of investment and decision of the investors.

To Test above null Hypothesis chi-square test is applied and obtained.

Chi-Square Tests			
	Value	df	p-value
Pearson Chi-Square	163.300 ^a	1	.000

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .15.

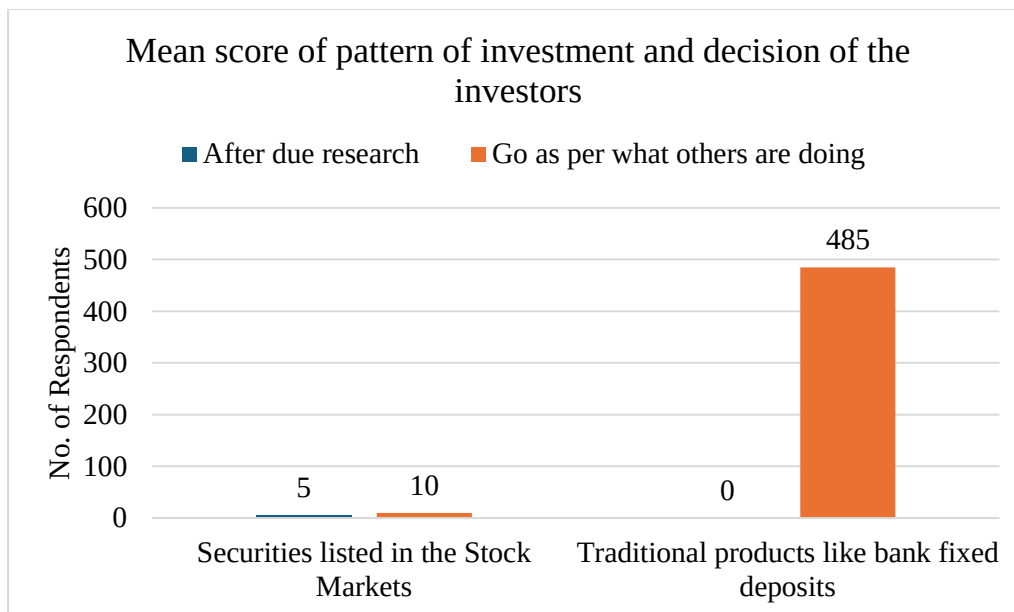
Interpretation: Above table indicate that p-value is 0.000. It is Less than 0.005. Therefore, chi-square test is rejected. **Hence Null Hypothesis is rejected and Alternate Hypothesis is accepted.**

Conclusion: There is an association between pattern of investment and decision of the investors.

Findings: To understand the findings of Hypothesis, mean score of pattern of investment and decision of the investors is obtained and shown below.

Q 9. You invest-After due research Go as per what others are doing * Q 1. Choose anyone which would be your investment product of first choice. Crosstabulation				
Count				
		Q 1. Investment pattern		Total
		Securities listed in the Stock Markets	Traditional products like bank fixed deposits	
Q 9. Decision of Investment	After due research	5	0	5
	Go as per what others are doing	10	485	495
Total		15	485	500

The crosstabulation data highlights the relationship between investment patterns and decision-making approaches. Among the 15 respondents who prefer securities listed in the stock markets, 5 (33.3%) make their investment decisions after conducting due research, while the remaining 10 (66.7%) follow what others are doing. In contrast, all 485 respondents who favour traditional products like bank fixed deposits rely on what others are doing, with none conducting due research. This indicates a strong herd mentality among those preferring traditional products, while those who opt for stock market investments are more likely to engage in independent research before making decisions. The following information is shown below in bar diagram.



Conclusion

- There is a class of investors who primarily invest in traditional investments like bank fixed deposits, post office schemes and PPF. They dabble in stocks only for short term gains. They do not trust the stock markets for long term investments.
- Despite aggressive marketing by various financial advisory firms, also by regulatory bodies like SEBI and AMFI, awareness is low about the various investment options.
- Many have been victims of fraud. Cheated into investing in schemes that turned out to be Ponzi schemes and lost their money.
- Investors are so used to having access to free information that they are reluctant to pay for financial advice suitable to their needs.
- Investors are not aware of the concept of diversification, investor life cycle, policy statement and need of goal setting.
- Media reports like TV news and newspaper articles influence the investors a lot.
- Investors are willing to outsource their investment activity but need to be actively involved.
- Investors busy in their career find little time for their investment activity and succumb to herd mentality.
- There is a lot of faith in government schemes and Banks.
- People go to wealth advisors or wealth advisory firms, not so much on their market reputation or advertisements but on word of mouth, recommendations by trusted friends and colleagues.

- Collaborations: Technology will improve speed, efficiency, reduce conflict of interest, lower cost. Technology today is very fluid and keeps getting updated or becoming obsolete fast. It makes business sense for Wealth Advisors to collaborate with FinTech Entrepreneurs.
- Sunrise Sector: The application of technology has made advisory services available to all, irrespective of the value of their portfolio. India has a humungous population and a burgeoning middle class; the wealth advisory sector is bound to see exponential growth. It is still a blue ocean and an excellent career option.
- Downsides of Technology: Outage and leakages must be avoided. Strong systems and controls need to be installed. Adequate time and resources to be invested in Research to prevent cyber-crime.
- Qualifications, Training and Ratings: Wealth Advisors must have some basic qualification in Capital Markets. They must complete some basic hours of training every year as market conditions are changing and new products are emerging. Wealth Advisory Firms must be rated by accredited bodies like AMFI or SEBI.
- Inclusiveness: Whatever be the level of savings, every individual must have access to investment advisory services. Story of India lies in the masses. India will soon be the most populous country of the world. 40% of India's population is below 40 years of age. About 68% of our population is in rural parts involved in agriculture and allied activities. The wealth advisory services must reach them and when rural savings enter the Capital Markets, the sheer volume due to number of investors will reduce India's dependence on FIIs and FDIs.
- Proactive Laws and Ombudsmen: Any activity has black sheep that commit frauds and incompetent people that make mistakes. Wealth Advisors engage in the serious activity of Wealth management that could lead to rapid economic development of the country. They need to be monitored to reduce frauds and errors. Investors need quick solutions to their grievances and should not have to take the arduous route of going to the Courts. Ombudsmen need to be appointed.
- Awareness and Trust: Greater efforts need to be put in by regulatory bodies, wealth advisory firms to spread awareness of need and manner of investments. An environment of trust must be created. A platform must be created where investors and advisors can interact with advisors not having conflict of interest.

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SCHEDULE I

QUESTIONNAIRE

PRIMARY DATA COLLECTION

Q 1. Choose anyone which would be your investment product of first choice *

- Securities listed in the Stock Markets
- Traditional products like bank fixed deposits

Q 2. Are you aware of the difference between dividend pay-out and growth schemes of mutual funds *

- YES
- NO

Q 3. Have you suffered losses in your investments as you were a victim of a scam or being cheated or conned by scamsters *

- YES
- NO

Q 4. Do you think there is adequate information freely available about the company you wish to invest in *

- YES
- NO

Q 5. Are you familiar with concept of Investor Life-Cycle *

- YES
- NO

Q 6. Have you prepared your policy statement *

- YES

- NO

Q 7. Are you consciously trying to have a diversified portfolio *

- YES
- NO

Q 8. Do you rely on and believe in the news published in newspapers and aired on TV *

- YES
- NO

Q 9. You invest *

- After due research
- Go as per what others are doing

Q 10. You would rather outsource your investment activity as you do not have the time and are ready to pay for it *

- YES
- NO

SCHEDULE II

List of Interview Questions

1. Your Qualification
2. Trainings or Re Skilling Workshops attended
3. How do you remain updated with the current financial news
4. Have you invested in Technology, can you elaborate
5. What are the steps you have taken to protect your client data privacy
6. Can you give adequate time to speak to your clients
7. What is the approximate growth rate of the portfolios you manage

A STUDY OF CONSUMER BUYING BEHAVIOUR TOWARDS GREEN GYMNASIUM & FITNESS SERVICES: A 'RETHINK' ON THE BUSINESS PRACTICES

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Abstract: The renewed consumers around the world have changed in terms of lifestyle, buying green products. However, the study of green practices in the 'Service sector' is limited. Environmental impacts such as global warming are prompting enterprises to re-align themselves with alternative resources and green technologies. The study provides new understandings towards sustainable options in the Gymnasium & Fitness services. Purpose/ Need of the study: The purpose of this study is to explore the aspects of changing consumer buying behaviour with the theoretical backdrop of the Theory of Planned behaviour (TPB) in the context of sustainability towards gymnasiums and fitness services in India. The study also prompts the businesses to realign themselves towards technical options adopting environment - friendly methods thereby satisfying all stakeholders. Research Methodology/ approach-The study examined the Conceptual framework with TPB extended with an added construct by identifying the determinants that may influence the consumer behaviour towards environment-friendly gymnasiums. The data was collected through secondary data sources and primary data via a survey questionnaire. A total of 40 actual gymnasium going consumers responded to the questionnaire. Data analysis was done through Quantitative methods via SPSS 29.0, MS Excel and Qualitative methods via personal interview. Originality/value-This study gives new understandings towards influencing factors leading to positive consumer behaviour towards eco-friendly gymnasium¹&fitness² services. The study also associates the breach between consumers, business enterprises and environmental resources recommending the best practice son providing affordable quality services to Indian consumers, achieving sustainability. Findings-The findings suggest consumers' positive attitude, intention towards buying green fitness services. The subjective norms and the environmental concerns are positively co-related with the buying behaviour.

Key words: *Green & Sustainable, Gymnasium & Fitness services (GGFS), Extended Theory of Planned behaviour (TPB) , Environmental friendly behaviour, Green service practices*

1. Introduction:

The 'Earth Summit' United Nations Conference on Environment and Development (UNCED), was held in Rio de Janeiro, Brazil, in 1992 emphasizing Environmental

¹The meaning of Gymnasium is *a large room used for various indoor sports and usually equipped with gymnastic apparatus.*

² Fitness centre is *a place where you go to exercise, for example by lifting weights or using other equipment*

sustainability, as the key concern to safeguard the environment for the future generations. Environmental hazards like, climate changes, global warming, loss of bio diversity are making the businesses to re-think their practices. **‘Environmental friendly behaviour’** can be understood *as an attitude that consumers may display towards the matters related to environment*. **‘Environmentally sustainable or green service practices’** can be defined as *the provision of services that take into account environmental sustainability* (Foster et al. 2000), (Goodman 2000, Wolfson et al. 2010). *Green Gymnasium & Fitness service centres are those that utilise eco-friendly, sustainable methods in their business practices*. The concern over environmental issues are resulting in consumption of eco-friendly products, energy efficient items affecting the buying decisions of consumers (Laroche, Bergeron et.al, 2001).

These transformations are initiating new Green technologies¹ for the marketers to incorporate them. Consumer choices and competitive pressure to reduce adverse environmental impact on businesses have encouraged firms to adopt green service practices, (Hume and Gallagher, 2010). However, there is little knowledge on how service-oriented firms may utilize their efforts in providing green services to consumers, improve performance adopting environmental compliance & cost competitiveness (King and Lenox 2002, Markely and Davis, 2007) and there is a gap in the literature on the relationship between different variables in the services sector. This study attempts to explore the aspects of consumer behaviour in the context of sustainable & green services provided by gymnasiums and fitness services with theoretical framework that could broaden the reach of the study by applying relevant variables in a coherent manner.

Firstly, this paper explores the business practices, factors affecting the Green services of Gymnasiums & Fitness centres enterprises. Secondly, it examines the relationship effect of variables like consumer attitude, the subjective norm, and perceived behavioural control and the extended variable environmental concern towards buying intention of consumers for the environment and environmentally sustainable green gymnasium services (Maichum et al., 2016). Thirdly, the study also analyses the effect of consumer’s buying intention with the independent variables and the buying behaviour of consumers towards green gymnasiums and fitness centre services.

¹Green technologies are approaches and solutions with the scope beyond environmental technologies. The term “green” has been defined as the union of sustainable and friendly, under the contexts of environment, economy, societies and technologies.

1.2 Need of the study:

This study attempts towards filling this research gap by applying the ‘Extended Theory of planned behaviour’ (Ajzen, 1991) to understand the buying behaviour of the consumers towards environmentally sustainable green Gymsnasiums & Fitness centres in the context of Indian consumers. The current Consumer choices, awareness of healthy lifestyles have increased the demand for exercise products and services have created an awareness to apply green methods to improve firm’s sustainability practices. The past studies towards green product buying behaviour, opportunity and challenges have looked upon on issues in green consumerism (Jauhari & Manaktola, 2007; Jain & Kaur, 2004; Mishra & Sharma, 2010; Datta, 2011). However, the study of green practices in the service sector (Kassinis and Sorterious 2003) is limited.

Gymnasium & Fitness services have a socio-cultural role and social CER (Corporate environmental responsibility) in promoting the local economy, strengthening the holistic welfare of the society and the nation. India is amongst vulnerable to the impacts of climate change ranking 7th out of 181 in the Global Climate Risk Index 2021 has committed to reach net zero by 2070, and to take significant steps before 2030 to reach this goal (Khanna & Purkayastha, 2022).

The study attempts to make businesses re-think on their business strategies, optimising the best practices, making the services affordable, maintaining the service quality in the changing business environment. The study finally tries to bridge the gap, suggesting cost effective optimal green business practices to make the services affordable without negotiating on the quality and excellence of the service.

1.3 Scope of the study:

India's Gymnasium & fitness services market (for both products and services) is worth \$6.5448 billion with an average CAGR of 9.95% between 2016 and 2020 and is growing ahead. According to a report, by Rentechdigital.com, there are a total of 92, 019 Gymsnasiums fitness centres in India as of January 09, 2024 (Smart scrapers, 2024).

The scope of the study extends to the services sector, entrepreneurs, consumers, equipment manufacturers and all stake holders of the fitness industry in India which is chiefly driven by health and well-being for people. **‘Make-in-India’ and ‘Start-up India’** initiatives are

expanding the scope of India’s entrepreneurial ecosystem attracting investors, increasing new businesses, generating jobs and creating **competitive advantage** (ibef,2023).

1.4 RisingDemand for Gymnasium & Fitness services:

Fitness services consist of *Gymnasiums, Aerobic / Zumba,Yoga etc.* The ‘Fitness’ equipment comprises equipment such as Treadmills, Stationary bikes, Free weights, Plate loaded machines etc. However, according to the article from Business world, “*the gymnasium & fitness industry in India is yet not organized, with just a handful of organized players in the market*” (Ojha, 2017). The Govt. of India, introduced the ‘**Gymnasiums and fitness centres (regulation) bill, 2015**’, to provide for organized retailing, regulation and control of gymnasiums and fitness centres (Darda, 2015). The Act controls the un-necessary mushrooming of fitness centres who lack infrastructure and operate without prescribed regulations charging heavy fees from the public. Today, Indian consumers have access to **Gyms and fitness studios** on smartphones forboth online- offlineoptions. Recent reports, that only 33 percent of urban Indians have easy access to a gym suggests market demand for sale of both gymnasium services and products. Mr. N Kamath, CEO ‘Zerodha’, on Twitter, shared that the “*adoption of gym memberships in India is as low as 50 lakhs (or 0.3 percent of Indians go to a gym*”. The entrepreneur emphasized the need of more Fitness centres stating that “*strength training is crucial for increasing health span*”.

Gymnasium structure in brief: A standardized (sample) Gymnasium may have the following features for the consumers.

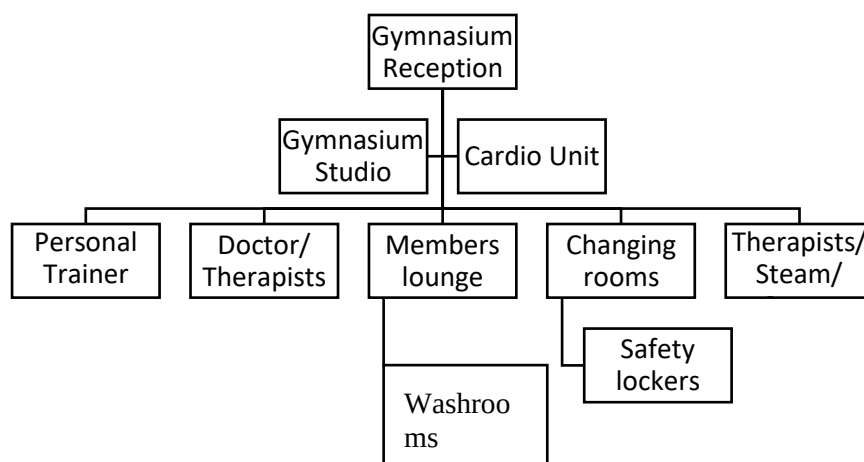


Fig. 1.0Source: Self

Business Models of Gymnasium/ Fitness centres	Features
Membership model	Different membership options for consumers, In coming constant revenue, Members may leave if there is no value addition
Pay as you go	Consumers/ members pay as they use the services, No continuous revenue, Can be combined with other services.
Digital Business platform	Consumers join/ connect digitally, Continuous stable Internet connectivity for both parties.
Hybrid Model- Offline / Online	Provision to join via both

Table 1.0Source: (Weller, 2021)

1.5Environmental Impacts of Gymnasium & Fitness services:

The services consumes resources that can be environmentally damaging (Burja 2009; Callaway and Dobrzykowski, 2009; Ellger and Scheiner, 1997, Grove et al. 1996). Gyms are equipped with a range of “Electronic” equipment, including Treadmills, Cross-trainers, bikes and other cardio machines that require high energy consumption. International Fitness association (IFA)too does not have jurisdiction over gym temperatures basis the requirement of consumers. Gyms & Fitness centres also generate a considerable amount of ‘Waste’, largely due to the use of disposable products like plastic cups, water bottles and other single use items. According to an article by m8 group UK, *“the replacement of gym equipment contributes to the disposal of large, bulky items that may not always be recyclable. The most notable environmental impacts of gyms and fitness centres is their substantial energy consumption”*(Becky,2023).Green and environmentally friendly gyms can create a sustainable set of business practices at an operational level, thereby reducing their business costs, creating value for the consumers for the fee they pay.

1.5.1Factors affecting the Gymnasium & Fitness centres:

The main factors affecting the GGFS are – Consumer choices & requirements, the location and convenience, Infrastructure, Equipment, Operations, Government permits and approvals, Franchising costs, Target consumers and positioning of the services. Gymnasium services are

expensive and affordability is a concern for many prospective customers. According to an article in Mint, Motwani N, Co- Founder, Fitternity’ “*most of the fitness centres have no access to better technology, user capacity is low and the opportunity to manage and expand gets minimal* (Krishna R, 2019).

1.5.2 Eco friendly Green Gymnasiums & Fitness practices:

The concept of ‘Green and sustainable’ is being adopted by the Gymnasiums and Fitness centres gradually due to ecological impacts and consumers’ disposition towards clean, pure spaces. A green gym cares for the environmental impacts. These may consist of using energy-compliant equipment and lighting, accepting eco-friendly cleaning practices, recycling, reduction in water usage and removing plastic. Gyms may move towards sustainability by introducing measures to reduce environmental impact over time, or they might use sustainability as part of their Best practices and pursue **eco-friendly policies and practices from day one**. The advancement of Information Technology (IT) globally has transformed not only the way people think, but also the way people act. For example, according to the blog, the Gym Group is the UK’s **first carbon-neutral gym and its planning to achieve ‘net zero’² by 2045**. Also by buying **100% renewable energy, interchanging all lighting with LEDs, and recycling 95% of waste helped them achieve sustainability**.

Similarly, other gyms have begun their sustainability journey by implementing **new waste management systems and banning single-use plastic**. Gyms are also improving water efficiency within the shower rooms and swimming pools. **VOC-free cleaning agents** are used as an alternative to harsh industrial-strength chemical cleaners that can trigger respiratory issues in some people and contribute to poor air quality. In **Navi Mumbai, Nerul Gymkhana** has adopted green measures “Go Green” adoption through solar panels in Gymkhana that generates 162 KW energy leading to reduction of 153 tonnes of CO₂ per annum which is equivalent to planting of 1784 trees. Gym owners and operators are considering various sustainability measures, such as **efficient equipment, air quality monitoring, indoor planting, and eco-friendly practices**. Although upfront expenses involved, the long-term benefits and positive impact on the environment and the gym's reputation makes sustainable practices a worthwhile investment.

²Net zero is the balance between the amount of greenhouse gas (GHG) that's produced and the amount that's removed from the atmosphere. It can be achieved through a combination of emission reduction and emission removal.

Apart from solar power, another form of **microgeneration is human power**. Energy generated while exercising by humans can be captured. For example, an **electricity-generating indoor cycling bike that captures and converts human power and turns it into clean electricity**. This off-sets non-renewable energy bills with renewable energy. In principle, the energy from human power can be used to rotate a DC motor which works as a generator. The electricity generated can be stored in a battery to re-use. An inverter circuit is used to convert the DC current from battery to AC current, the voltage is stepped-up to 230V (according to Indian devices) and can be used to power the devices (Bonde et al., 2017).

1.5.3 Involving Artificial Intelligence (AI) in Gymnasium & Fitness centres:

Smart Energy Storage System, empowers members to drive their energy directly into the facility. Technology is helping towards achieving net-zero. A single cycle session can generate enough clean electricity to light few homes for a day (Jain et al., 2023)

2.0 Literature Review:

Literature on Consumer behaviour is diverse, extensive and keeps changing, as the changes occur in society, thought processes of consumers, economics and technology impacts the way consumers behave (Peighambrari, Sattari et. al, 2016).

Past studies have used the Theory of Planned behaviour (TPB) for assessing consumer buying intention for green products and that Environmental concerns and knowledge are important factors influencing the purchasing decision for green products (Paul J et.al. 2016; (Maichum et al., 2016). Therefore, products and services agreeable to consumers regarding cost, quality, performance and product-related eco-concerns should be extended to the consumers (Vazifehdoust, H, et.al. 2013). According to Gilg et al. (2005), green consumption is a relatively new area of research. Environmental concern can be an interpreter of specific behaviour, which can be analysed by the attitude or disposition of consumers towards a behaviour, for example, environment (Weigel, R.H. *Environmental Psychology: Directions and Perspectives*; pp.257–287). Article by FIT Marketing LLC, LinkedIn, (2023), on, ‘*Sustainable Fitness balancing*’ also delves into the need for gyms to consider various sustainability measures, such as efficient equipment, monitoring air quality, indoor planting, and eco-friendly practices, and explores the potential challenges associated with implementing these changes. The authors have impressed upon studying consumer choices &

behaviour to improve businesses. TPB was considered as one of the most useful framework in explaining human behaviour in the wide range of fields and more specifically it has great applicability in the field of environmental psychology **Yadav& Pathak, 2017) (Stern, 2005).**

Barbosa, Sabino..et..al (2022), in their study, '*Systematic Literature review on the determinants of service quality influencing customer satisfaction in fitness centres*' mention the importance of investigating the determinants to influence customer satisfaction. Mentioning the importance of Value co-creation in Gymsnasiums & Fitness centres authors (Chiu, Sheen, Liet..al.,2017)identified the role of consumer behaviour in creating value and relationship between satisfaction and repurchase intention in commercial fitness centres in Taipei(Chiu, Sheen, Liet..al.,2017).In their exploratory research, study analysed the women's perspective towards health and fitness industry stating that there is a demand for health and fitness industry in the country like India due to the increasing health issues, to overcome hectic stressful and busy life(Bharathi, 2018). The idea of clean and green energy usage was studied by Authors,(**Tahseen, Shamkhee, salih et..al.2021**) in their study on Zero-energy designs &infrastructure about zero-energy based buildings based on the geographical conditions of specific terrains. Electricity reduction, water sources, lighting equipment, can be applied in case of designing the Gymnasium & Fitness centres.

The qualitative study by, **Quismondo, García-Unanue..et..al, (2020)** on the best practices for fitness centre management shows the interest of consumers in fitness services asking for optimal service management, stability and sustainability of the business. The themes emerged were customer service, offered service, marketing, facilities, existence of loyalty programs, enough tangible quality, offline and online facilities.

Rezai et al, (2016) state about the application of TPB towards green food consumption in Malaysia mentioning that the consumers' intention towards organic food consumption is vital to the adoption of green products (Maichum et al., 2016). Authors, Bonini and Oppenheim, and Paul et al., (2016) showed on how to achieve environmental sustainability. Authors Jones et al., and Sutton, (2004) define environmental sustainability as "*the ability to maintain things or qualities that are of significant value in the physical environment*". Authors(Maichum,Penget..al2016), in their research on sustainable green products identified that knowledge and interest in sustainable consumption is expected to impact the buying decisions of consumers. Thus, environmental problems and their hostile influence on human health has be come an important concern for the humanity. (Maichum, K. 2016, October).

3.0 Objectives of the Study:

- To understand Green Gymnasium & Fitness centre services and factors affecting such services.
- To find out the influence of environmental concern, attitude, subjective norms, perceived behavioural control of consumers towards buying intention of Green Gymnasium & Fitness centre services leading to final buying behaviour.
- To study if the buying intention of consumers positively mediates and co relates with environmental concern, attitude, perceived behavioural control towards actual buying behaviour towards Green Gymnasium & Fitness centre services.

4.0 Theoretical framework and Hypothesis development:

4.1 The Theory of Planned behaviour:

The theory of planned behaviour (TPB) is rooted in the fields of psychology and sociology, and contains a study of attitudes predicting intentional behaviour (Ajzen,1991). The theory states that human beliefs influence attitudes and shape behavioural intentions (Loureiro & Araújo, 2014; Canguende-Valentim, C. and Vale, V. (2022)). The theory provides deep understanding of personal and social factors when applied to various studies on consumer behaviour (Ling, 2009; Sanyal et al., 2014; Jain & Khan, 2017).

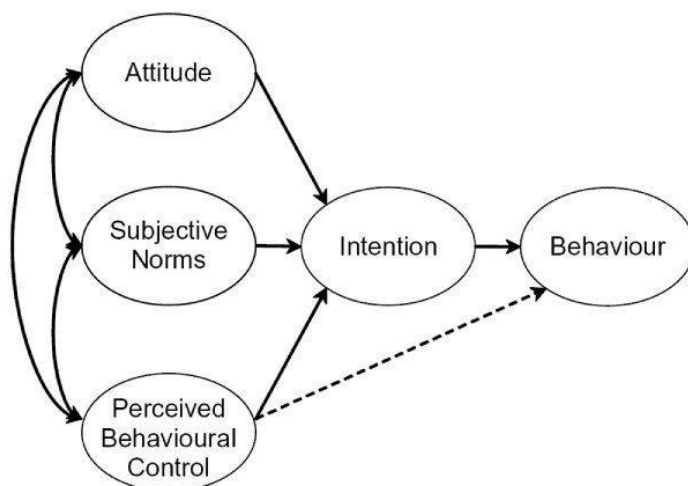


Fig.2.0 Source: Theory of Planned Behaviour (Ajzen, 1991).

4.1.2 Extended Theory of Planned behaviour:

Theory of Planned Behaviour– can also be applied as an Extended theory of Planned behaviour (ETPB). (Ajzen,1991, Canguende-Valentim, C. and Vale, V. (2022).The TPB is comprised of constructs collectively representing a person's control over one's behaviour. These constructs are: Attitude, Subjective norms, Intention, Behaviour and Perceived behaviour control, as an outcome of personal perceived power. Ajzen stated that the theory is in agreement to include added predictors if it can be displayed that the theory of planned behaviour is open to the inclusion of additional predictors if they are integral and that it can be shown that they seize a significant relationship of the variance in intention or behaviour after the theory's current variables have been considered (Ajzen, 1991).This has provided flexibility to numerous researches in different contexts and this theory can be expanded from its original components and promotes the reliability and accuracy in predicting intention and behaviour across contexts.

4.1.3 Conceptual Framework:

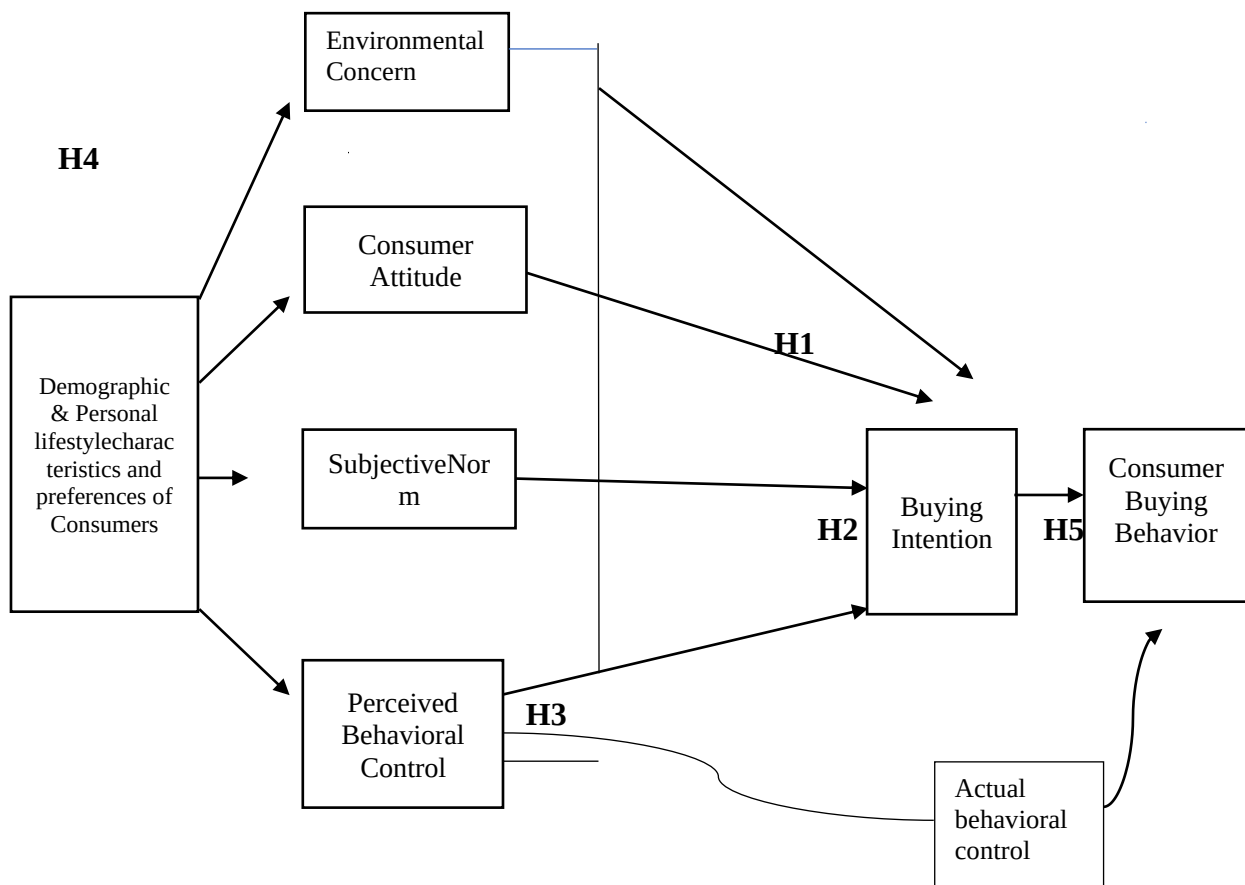


Fig. 3.0 Conceptual framework based on the Extended Theory of Planned behaviour; Source: Adapted from Ajzen, 1991

CBB: Dependent Variable; ATT, SN, PBC, EC- Independent Variable; BI: Mediating variable

4.1.4 Hypothesis development:

Attitude is an interaction in memory between a given object and a summary evaluation of this object. Attitude is likely to reveal the psychological assessment of a product by the consumer. Attitude is an interaction in memory between a given object and a summary evaluation of this object (Fazio, 1995). Attitude is likely to reveal the psychological assessment of a product by the consumer (Chen, 2014; Bonne, K.; Vermeir, I.; Bergeaud-Blackler, F.; Verbeke, W, 2007; Schiffman, L.G.; Kanuk, L.L. *Purchasing Behavior*, 2007; Eagly, A.H.; Chaiken, S, 1995, Maichum K, 2016). In particular, previous studies have focused on the relationship between attitudes and buying behaviour. For example, (Irland, 1993) concluded that consumer's buying intentions and behaviour are dependent upon their environmental attitudes. On the basis of past studies, we can arrive at hypothesis that,

Hypothesis 1:

(H1): Attitude towards Green Gymnasium & Fitness services (GGFS) has a positive relationship with the buying intention towards buying (GGFS).

(H1₀): Attitude toward Green Gymnasium & Fitness services (GGFS) do not have a positive relationship with the buying intention to buy (GGFS).

Hypothesis 2:

Subjective norm refers to the perceived pressure to perform or not to perform behaviour by the influence of other individuals (Ajzen, I, 1993). Subjective norm is the opinion that can have an influence in one's decision making (Hee S, 2000, Maichum K, 2016). Based on past studies, the subjective norm is a vital influence on intention to purchase green products (Paul J; Modi A; Maichum 2016). Hence, subjective norm is an important factor in supporting intention towards buying intention and we propose that:

(H2): Subjective norm has a positive effect on the buying intention to buy GGFS.

(H2₀): Subjective norm does not have a positive effect on buying intention to buy GGFS.

Hypothesis 3:

Perceived behavioural control is an individual's perceived ease or difficulty in performing a particular behaviour (Ajzen I, 1991). A given behaviour occurs in possibility when an individual has the ability and motivation to perform a particular behaviour. (Zhou et al..2013; Lee, N etal..2012; (Jayasankaraprasad, 2021). Thus, on the basis of past studies, we can propose the following hypothesis.

(H3): Perceived behavioural control has a positive relationship with buying intention towards buying GGFC.

(H3₀): Perceived behavioural control does not have a positive relationship with buying intention towards buying GGFS.

Hypothesis 4:

Environmental concern is one of the important sustainability variables in green marketing literature defined as the consumers' emotional involvement regarding different environmental matters (Kaman L, 2008; Lin et al., 2018; Maichum K, 2016). Environmental concern is also a critical factor in the consumer decision-making process (Mostafa, 2007). Consumers having a greater concern towards the environment may buy green products and services (Hansen, Cynthia, 2013). Hence the hypothesis can be suggested as:

H4: Environmental concern has a positive relationship with buying intention in consumers towards GGFS.

H4₀: Environmental concern does not have a positive relationship with buying intention of consumers towards GGFS.

Hypothesis 5:

Behavioural intention is defined as the perception of an individual towards the performance of a particular behaviour (Fishbein and Ajzen, 1975; Yang & Zhang, 2018). For example, the favourable conditions of the Green gymnasium & fitness service may act as catalyst to formulate the buying intention towards positive buying behaviour. Most researchers have validated the mediating role of behavioural intention on the buying behaviour in various

research settings (Jin and Kang, 2011; Bian and Forsythe, 2012; Li et al., 2012; Zhang and Kim, 2013). Thus we arrive at the following hypothesis:

H5. Buying Intention positively mediates between attitude, subjective norms, perceived behavioural control and the consumer buying behaviour towards GGFS.

H5₀. Buying intention does not positively mediates between attitude, subjective norms, perceived behavioural control and the consumer buying behaviour towards GGFS.

5. Research methodology and measurement

5.1 Data Collection and Sampling

Data were collected by using the questionnaire survey method. According to (Jain, Sheetal, 2017), this method has been used successfully in several similar empirical studies in the past (Phau and Prendergast, 2000; Park et al., 2007; Gao et al., 2009; Bian and Forsythe, 2012; Li et al., 2012; Zhan and He, 2012; Zhang and Kim, 2013). The questionnaire was applied via personal interviews and online survey. Prior to data collection, the items of the questionnaire were discussed with two experts in this domain to ensure that its face and content validity were as recommended by Zaichkowsky (1985). Further, the questionnaire was submitted to academicians who examined items for representativeness, specificity and clarity. After this process, a pilot study was conducted with Gymnasium staff members and consumers via the personal interviewing method to identify any difficult to understand questions. Accordingly, the final questionnaire was used for final data collection. The purposive sampling method was used to collect data and the sampling unit was the real consumers of Gymnasium and Fitness centres. The sampling frame was Navi Mumbai and 40 respondents were finally selected for the data analysis.

The questionnaire was divided into various sections, to assess all variables. As referred in the extant literature (Christodoulides et al., 2008; Han et al., 2010; Shukla, 2010, 2011), a qualifying question was asked of respondents to list the GGFS services used or preferred the respondents so that data were collected only from actual consumers of GGFS. Section 1, contained the respondents demographic characteristics, followed by Section 2, comprising of variables pertaining to consumers' personal preferences towards GGFs features and factors important to them, such as, Qualified trainers, proper gymnasium equipment, safe GGFS centres, the services they use, cardio, swimming pool and others, their awareness on the eco-friendly methods GGFS centres can use which may affect the consumers and the

environment. Section 3, 4, 5, 6, covered the variables based on consumers' attitudinal beliefs, the impacting subjective norms, their behavioural control, buying intention towards GGFS and section 7 covered their beliefs on environmental concerns to save earth and future generations. To control any analysis bias, the respondents were assured of anonymity and that there were no wrong or right answers and they should answer all the questions reflecting their true feelings.

Table 2.0, Sample demographic statistics display that the Females, with (60%) of the total consumers are buying the GGFS services more than males with (37.5%) and others with (2.5%) and in the age-group of 18 to 25 years (45.0%). The analysis shows the educational level of the consumers to high with Postgraduates (37.5%) and most of them are working females, service/ salaried (57.5%) with a family income between 5 to 10 lakh, (35%).

The Fig. 3.0 shows the consumer's personal preferences on the purchase of GGFS services and facilities with 29 (72.5%) buying Weight training facilities followed with 26 (65%) for Cardio training. Several other services like Yoga 11(27.5%) and swimming pool(7.5%) are also preferred by consumers.

The Fig. 4.0 shows the awareness and the choices the consumers have given on the environment saving methods the GGFS can adopt with 28(70%) consumers opting for using solar panel and LED lights, 22(55%) preferring to reduce plastic use, 19(47.5%) preferring minimising harsh chemical usage in cleaning and house-keeping, 18(45%) for responsible waste disposal, 17(42.5%) for using gymnasium products, equipment made from sustainable material, 16(40%) for improving air quality green options like placing planters at various points at the centre, 14(35%) choosing using smart technologies like Artificial intelligence (AI) to apply green options. This analysis coincides with the literature review in section 2.0.

5.2 Sample Descriptive Analysis

Table 2.0 Sample Demographic characteristics N=40

Gender	Frequency	Percentage (%)	Mean	Std. Deviation
Male	15	37.5	1.65	0.533
Female	24	60.0		
Others	01	2.5		
Age groups (Years)				
18 to 25	18	45.0	2.20	1.400
25 to 32	09	22.5		
33 to 40	4	10.0		
40 to 50	5	12.5		
Above 50	4	10.0		
Education				
Undergraduate	11	27.5	2.30	1.067
Graduate	11	27.5		
Postgraduate	15	37.5		
Professional	1	2.5		
Ph.D.	2	5		
Occupation			2.10	1.392
Service/ Salaried	23	57.5		
Business/ Self employed	3	7.5		
Home maker	1	2.5		
Student	13	32.5		
Annual Family Income (in Lakh)				
Below 5	12	30	2.40	1.336
5 to 10	14	35		
10 to 20	4	10		
20 to 30	6	15		
Above 30	4	10		

5.3 Sample Personal preferences towards GGFS

Fig. 3.0 Services preferred by consumers at Gymnasium & Fitness centers

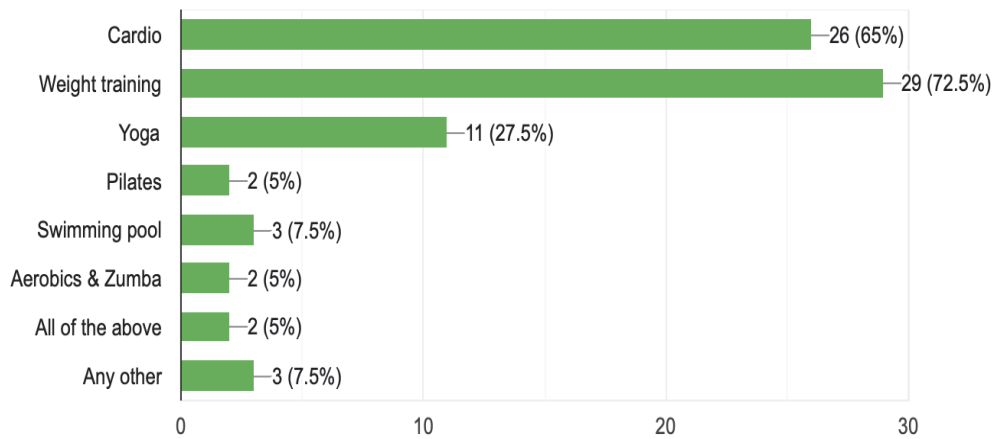
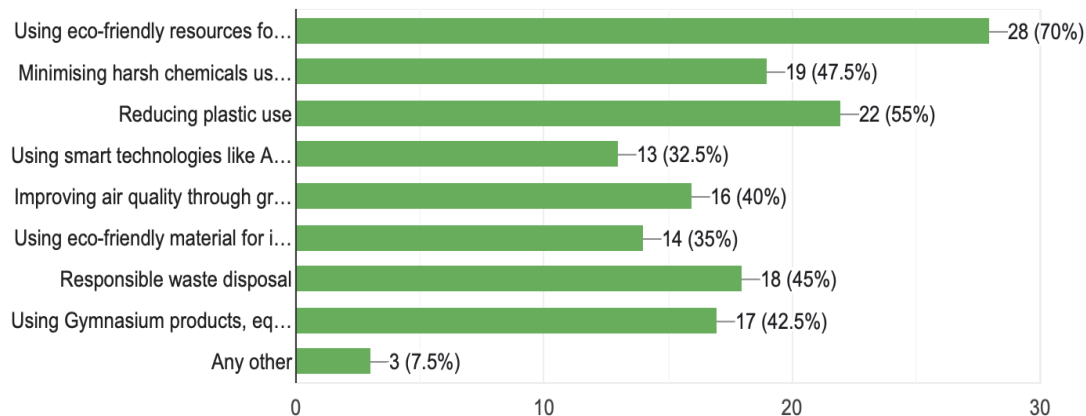


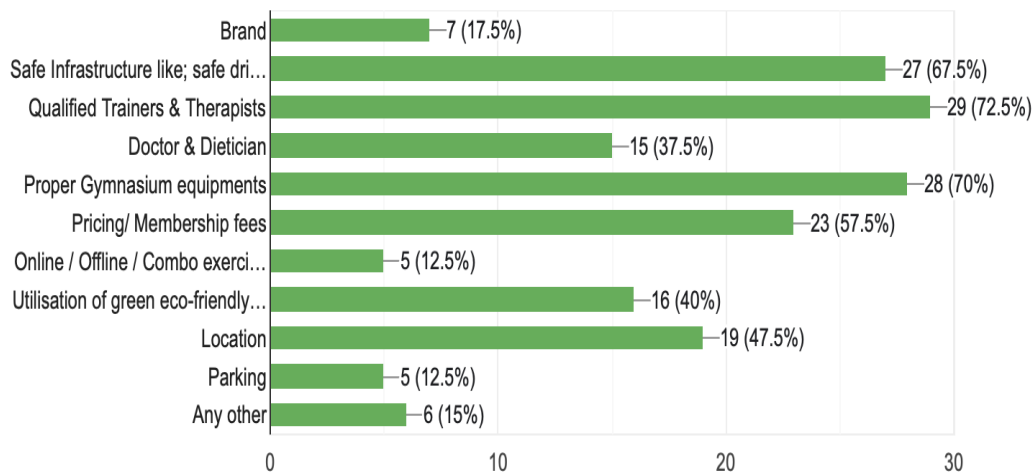
Fig. 3.0 Cardio: 65%, Weight Training: 72.5%, Yoga:27.5%, Pilates: 5%, Swimming Pool:7.5%, Aerobics & Zumba:5%

Fig. 4.0 Environmental - friendly methods preferred at Gymnasium & Fitness centres



Solar Panel & LED lights(70%), Reducing plastic use (55%), Minimising usage of harsh cleaning agents & chemicals (47.5%), Responsible waste disposal(45%), Eco-friendly gym equipment and products,from sustainable material (42.5%), Improving air quality through green options (35%), Using smart technologies like, AI(32.5%)

Fig. 5.0 *Gymnasium& Fitness centrefactors &featurespreferred by consumers*



The Fig. 5.0 highlights the Gymnasium & Fitness centre features which consumers prefer at GGFS centre with maximum 29 (72.5%) preferring Qualified trainers to be the most important factor preferred, 28 (70%) opting for Proper Gymnasium equipment, 27(67.5%) , followed with for safe infrastructure like drinking water, security, ample space, Location 19 (47.5%). Pricing/ Membership Fees 23(57.5%), Doctor & dietician 15(37.5%) as compared to Brand 7(17.5%), Parking 5(12.5%) and Offline-Online combo exercise facility 5(12.5%) and others.

5.2 Instrument development and measurement:

A total of seven constructs were used. The items (shown in Table) for each construct in the study were selected or adapted from the established, validated relevant studies, to measure consumer attitude, subjective norm, perceived behavioural control, buying intention and buying behaviour. The questionnaire used the measurement on 5-point Likert scale. Respondents were asked to indicate their preference on how much they ‘Strongly agree’ or ‘Strongly disagree’ on a particular topic where, strongly disagree=1; disagree = 2; neutral = 3; agree = 4; strongly agree = 5).

The items were derived or modified from prior studies by Ajzen, I. (2013).*Theory of Planned Behaviour, Questionnaire Measurement Instrument Database or the Social Science*. Items on Attitude, subjective norms, PBC related to green behaviour were adopted from (Paul,

J.&Modi, A.et.al, 2016) predicting green product consumption using theory of planned behaviour and reasoned action, Chen, A.; Peng, N., (2012), Liobikiene, G.; Mandravickaite, J et al, (2016), Biswas, A.; Roy, M(2015); Maichum K, 2016). Hence the content validity was established.

Descriptive statistics of the questionnaire items are provided in Table 3.0. Values are relatively favourable however the mean values were low for the item ‘Attitude’ as compared with the other constructs as green gymnasium and fitness options are still not very common in India.

Table 3.0 Descriptive statistics of the questionnaire items:N=40

Items	Mean	Std. Deviation
ATT1: Buying GGFS is favourable	2.80	1.114
ATT2: Buying GGFS is a good idea	2.95	1.300
ATT3: Buying Green Gymnasium & Fitness service is safe	3.88	.883
SN1: My family thinks that I should buy GGFS as compared to non-environment friendly ones	3.47	.905
SN2: Close friends think that I should buy the GGFS rather than from non-environment friendly ones	3.40	.928
SN3: Most people who are important to me think that I should buy GGFS rather than from non - environment friendly ones	3.40	.928
PBC1: I am confident that I can buy GGFS	3.62	.868
PBC2: I have resources time and willingness to buy branded GGFS	3.38	.979
PBC3: I see myself as capable of buying GGFS if I get the opportunity in future	3.68	.797
BI1: I intend to buy GGFS because of their positive environmental contribution	3.75	.899
BI2: I will consider switching to eco-friendly brands of GGFS centres for ecological reasons	3.83	.747
BI3: I plan to buy more services from the GGFS centres rather than from non-environment friendly ones	3.62	.979

EC1: I am very concerned about the state of the global environment	4.10	.841
EC3: Major social changes are necessary to protect the environment	4.17	.747
EC3: Government control is necessary for the service industries to inculcate them towards environment protection.	4.27	.679
EC4: Iamwillingtochangemyconsumptionpracticestohelpprotecttheenvironment	4.27	.599
CBB1: I finally choose ecofriendly GGFS over others that are not ecofriendly.	3.70	.853
CBB2: If I understand the huge impact that an o eco friendly gymnasium & fitness service may cause to the environment, I do not buy such services	3.80	.758
CBB3: I finally buy GGFS because human should I live in harmony with nature and save the environment	3.93	.888

Item Sources: (Vermier and Verbeke (2008); (Ajzen I, 1990); (Taylor & Todd, 1995); (Fu et al, 2016)ATT-Attitude, SN-Subjective Norms, PBC- Perceived behavioural control, EC-Environmental concern, BI-Buying intention, CBB- Consumer buying behaviour

5.4 Measure: Reliability and validity

Validity is a measure stating the accuracy of research. Construct validity refers to the extent to which a test measures what it is proposed to measure (J.A. Barten, ... C. Veenhof, 2012). It can be examined by exploring the instrument's correlation with other variables based on the theoretical association with the constructs which are to be measured (Campbell & Fiske, 1959; Straus et al., 1996; Hair et al., 2010).

The Table 4.0display the Cronbach's alpha values for all the variables are above 0.922 which shows that the instrument used for the present study was very good and reliable for the data collection of the variables (Nunally, 1978).

Principal component Analysis helps in examining the number of components, investigating the strength of the relationship between components (Grimm & Yarnold, 1995). It helps in understanding of the strengths and weaknesses of the measure in terms of content validity and structural/factorial validity (Aladwani&Palvia, 2002).

We can also see that items Buying intention is Highly loaded over (component 1 Environmental concern is moderately loaded, Consumer buying behaviour is moderate to highly corelated, Perceived behavioural control is moderately loaded and Attitude is highly

loaded towards the components (1 & 3). These items can be used as determinants for further analysis.

Factor Analysis and Reliability:

Table 4.0 Principal component Analysis and Cronbach Alpha

Construct	Item	Factor Extraction	Cronbach's α (0.922)
Attitude towards buying GGFS	ATT1	0.668	.924
	ATT2	0.823	.924
	ATT3	0.798	.913
Subjective Norms towards buying GGFS	SN1	0.823	.916
	SN2	0.852	.912
	SN3	0.813	.913
Perceived Behavioural Control	PBC1	0.744	.765
	PBC2	0.536	.979
	PBC3	0.727	.797
Buying Intention	BI1	0.806	.914
	BI2	0.703	.916
	BI3	0.822	.915
Environmental Concern	EC1	0.621	.919
	EC2	0.874	.918
	EC3	0.791	.921
Consumer buying behaviour	CBB1	0.763	.915
	CBB2	0.494	.918
	CBB3	0.610	.916

Table 5.0 Principal component analysis

Component Transformation Matrix

Component	1	2	3	4
Buying Intention	.872			

Perceived behavioural control		.503
Attitude	.813	.744

Rotation Method: Varimax with Kaiser Normalization.

[illegible]

B	0.	10	14	41	26	73	37												
C	29	6	2	**	**	**	**												
1	1																		
P	-																		
B	.3	-	0.	.3	.3	.3	.3	.5											
C	31	0.	11	52	15	39	67	32											
2	*	05	6	*	*	*	*	**	1										
P	-																		
B	.3	0.	0.	.5	.3	.5	.5	.5	.4										
C	95	06	05	60	97	61	61	98	56										
3	*	9	8	**	*	**	**	**	**	1									
	0.	0.	0.	.5	.4	.6	.5	.4	0.	.4									
BI	02	30	18	74	65	15	84	36	28	21									
1	7	7	7	**	**	**	**	**	4	**	1								
	-																		
	0.	0.	0.	.4	.5	.5	.5	0.	0.	.4	.7								
BI	02	26	20	71	05	47	84	29	26	19	73								
2	9	5	2	**	**	**	**	2	7	**	**	1							
	0.	0.	0.	.5	.5	.6	.6	.3	0.	0.	.8	.7							
BI	08	28	30	38	53	49	21	73	17	26	23	14							
3I	6	2	7	**	**	**	**	*	7	7	**	**	1						
	-																		
E	0.	0.	.4	0.	0.	0.	0.	0.	0.	0.	.4	.4	.3						
C	14	29	27	29	27	30	30	12	10	12	07	36	89						
1	9	5	**	4	3	9	9	3	9	6	**	**	*	1					
	-																		
E	0.			.3	0.	.3	0.	0.	0.	.3	.4	.4	.6						
C	16	0.	0.	84	17	77	30	18	15	99	87	24	0.	24					
2	4	29	22	*	7	*	3	3	3	*	**	**	23	**	1				
								-	-										
E			0.	0.	0.	0.	0.	0.	0.	0.	.4	.5	.4	.7					
C	0.	0.	13	27	15	26	18	03	04	07	10	02	0.	89	62				
3	06	21	2	3	7	9	7	8	3	5	**	**	2	**	**	1			
E	0.	.3	.3	0.	0.	0.	0.	0.	0.	0.	.4	.5	.3	.6	.6	.8			
C	06	92	81	30	22	30	30	05	08	08	17	69	56	06	92	19			
4	8	*	*	9	6	5	5	6	2	5	**	**	*	**	**	**	1		
C	-																		
B	0.	0.		.5	.5	.5	.5	.4	0.	0.	.7	.6	.6	.4	.3	.4	.4		
B	01	23	0.	96	21	76	44	33	26	26	02	39	60	00	26	12	67		
1	1	2	24	**	**	**	**	**	1	8	**	**	**	*	*	**	**	1	
C	-																		
B	0.	.3	0.	0.	.3	.4	.3	0.	0.	0.	.4	.3	.4	.6	.5	.3	.4	.5	
B	05	16	27	30	29	45	72	23	13	27	52	89	15	35	16	59	63	39	
2	1	*	6	7	*	**	*	4	8	2	**	*	**	**	**	*	**	**	1
C																			
B	0.	0.	0.	.6	.3	.5	.5	.4	0.	0.	.6	.4	.5	.3	.4	.4	.4	.7	.5
B	10	24	26	09	96	35	04	61	15	29	50	43	27	88	45	18	26	81	87
3	6	4	3	**	*	**	**	**	1	1	**	**	**	*	**	**	**	**	**

*. Correlation is significant at the 0.05 level (2-tailed).

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

5.6 Reporting Pearson Correlation:

The results were positive on the respective common acceptance levels. Hence, the measurement model was found suitable for the data. In addition, Table 5.6 shows that the inter-correlations among measurement variables in the research model. All correlations were significant ($p < 0.001$). Pearson correlation coefficient of consumer Attitude with Buying intention towards GGFS was found to be statistically moderately positively significant ($r = .595, p < .001$). Hence, H1 was stated to be supported. This shows that Consumers attitude towards buying GGFS is positively co related. Pearson correlation coefficient of Subjective norms, with Buying intention towards GGFS was found to be statistically highly positively significant ($r = .836, p < .001$). Hence, H2 was stated to be supported. This shows that subjective norms, the influence of family, friends towards buying GGFS is positively co related with consumer's buying intention. The Pearson correlation of consumer's Perceived Behavioural control was statistically moderately positively significant ($r = .637, p < .001$). Hence, H3 was stated to be supported. This shows that the consumer's perceived behavioural control on buying intention of GGFS is moderately positively correlated. The Pearson correlation of consumer's Environmental concern was shown to be statistically highly positively correlated ($r = .819, p < .001$). Hence, H4 was supported. The Consumer's environmental concern towards their buying intention of GGFS is positively correlated.

The Pearson correlation coefficient of consumer's buying intention towards the final buying behaviour is highly positively significant ($r = .702, p < .001$). Hence H5 is supported. Thus, the buying intention of consumers is positively co related with the consumer's final buying behaviour of GGFS.

5.7 Reporting Hayes Process Macro-Model 4 Analysis for Direct & Indirect effect of Mediation:

The Model summary provides Total effect summary of the models with R, R-sq, F Statistics & P-value for the overall model. The study aimed to test if BI (MV) positively mediates with Independent Variables- ATT, SN, PBC, EC and DV- CBB. Initial Person r correlation displays that all variables are in strong positive relationship with each other. For, Multiple regression analysis on PROCESS procedure, macro known as PROCESS (version 4), which was written by Andrew F. Hayes was used. This is mainly used for mediation analysis (Andrew F. Hayes, 2022). Table 7.0 provides the summary of the model with R, R-Sq, F Statistics & P-value for

the overall model. The table displays that Subjective norms(SN) positively co-relates with the consumer buying behaviour CBB towards GGFS and BI significantly mediates the relationship. ($\beta=.472$, 95%CI:.248, 0.696), $t=4.260$, $p<.001$). Furthermore, BI significantly mediates this relationship between ATT and CBB ($\beta=.375$, CI:95%, 0.138, .0.611), $t=3.201$, $p<.001$. It is estimated that positive affect accounts for 47.2% of Subjective norms effect on consumer buying behaviour. Thus, findings show that impact of friends, family etc. leads to significantly positive consumer buying behaviour towards GGFS.

ATT forms positive relationship with CBB and BI significantly mediates between ATT and CBB ($\beta=.375$, 95%CI:0.138, 0.611), $t=3.201$, $p<.001$). The findings state that Attitude of consumers towards buying behaviour for GGFS is positive.

PBC forms positive relationship with CBB and BI significantly mediates between ATT and CBB ($\beta=.383$, 95%CI:0.081, 0.685), $t=2.564$, $p<.001$). The findings suggest that the Perceived behavioural control of the consumers, the resources and the capabilities towards buying behaviour for GGFS is positive towards buying behaviour for GGFS.

EC forms positive relationship with CBB and BI significantly mediates between ATT and CBB ($\beta=0.684$, 95%CI:0.369, 0.999), $t=4.393$, $p<.001$). The findings displays that the Environmental concern of the consumers positively relates them to buy GGFS. The buying intention is statistically positively significant.

Fig. 7.0

Subjective Norms->Buying Intention->Consumer buying behaviour

	Total Effect β	Direct Effect β	Indirect Effect β	Confidence Interval		t-statistics	P value	Conclusion
				Lower bound	Upper bound			
SN->BI->CBB	0.472 (0.000)	0.178 (.000)	0.293	0.248	0.696	4.260	.000	Partial Mediation

Attitude->Buying Intention->Consumer buying behaviour

	Total Effect	Direct Effect	Indirect Effect	Confidence Interval		t-statistics	P value	Conclusion
				Lower bound	Upper bound			
ATT->BI->CBB	0.375 (0.000)	0.161 (.000)	0.214	0.138	0.611	3.201	.003	Partial Mediation

PBC->Buying Intention->Consumer buying behaviour

	Total Effect	Direct Effect	Indirect Effect	Confidence Interval		t-statistics	P value	Conclusion
				Lower bound	Upper bound			
PBC->BI->CBB	0.383 (0.000)	0.118 (.000)	0.265	0.081	0.685	2.564	.014	Partial Mediation

EC->Buying Intention->Consumer buying behaviour

	Total Effect	Direct Effect	Indirect Effect	Confidence Interval		t-statistics	P value	Conclusion
				Lower bound	Upper bound			
EC->BI->CBB	0.684 (0.000)	0.378 (.000)	0.306	0.369	0.999	4.393	.000	Partial Mediation

5.8 Discussion

Thus, the Hypothesis formulated for the study of consumer buying behaviour towards Green gymnasium & Fitness services is presented below.

(H1)1 Attitude toward Green Gymnasium & Fitness services (GGFS) has a positive relationship and effect on the buying intention to purchase (GGFS) is positively supported.

(H2): Subjective norm has a positive relationship effect on the buying intention to buy GGFS is positively supported.

(H3): Perceived behavioural control has a positive relationship and effect on intention to purchase GGFC is positively supported.

(H4): Environmental concern positively influences the buying intention of GGFS.

(H5): Buying intention positively mediates between Attitude, Subjective norms, Perceived behavioural control and Environmental concern and the final consumer buying behaviour.

6.0 Result & conclusion:

This study investigated the consumer buying behaviour towards Green gymnasium & Fitness services (GGFS) with a theoretical backdrop of extended TPB model, in which environmental concern was added as an extended antecedents of attitude, subjective norm and perceived behavioural control. The purpose was to investigate consumer buying intention and the final

behaviour towards buying green gymnasium & fitness services in the context of Indian consumers. The result suggested that consumers' to buy green products can be predicted by attitude, subjective norm; perceive behavioural control, environmental concern as well as environmental knowledge. The attitude towards environmentally sustainable gymnasium & fitness services was found to be positively and significantly related to the purchase intention for the same. This finding is also consistent with the results assessed on similar relationship in the study done by Chan and Lau (2002) and Ramayah et al. (2012). The empirical finding reported that subjective norms have positive and high correlation on purchase intention for buying green gymnasium services when compared to attitude and perceived behavioural control of the TPB model. The result indicates the collectivist nature of society of India, where, the friends/family members' influence is high when it comes to consumers final buying behaviour. The perceived behavioural control had a moderate influence on the consumers buying behaviour. We can also say that the study can serve as a reference to investigate the validity of ETPB model for study in other settings and with a larger sample size in the Indian context. The study can be applied considering environmental issues in other geographies with different behavioural determinants. The findings of this study have provided valued knowledge on the prerequisite of the buying intention which finally leads to the actual behaviour for buying green services. At this juncture, it is of immense importance for marketers to include the element of environmental sustainability in their marketing strategy. This also propels services to include consumer buying behaviour study while formulating strategies.

7.0 Managerial Implications, Further scope of research & Limitations:

These findings can help the policy makers, business enterprises to formulate their practices and the further course of actions with a responsibility towards sustainability. The respondents exhibit a positive buying intention towards buying green gymnasium & Fitness services and that the marketers can further sensitize the consumers towards adopting green sustainable practices via the services. Gymnasium & Fitness services have a wide range of options to implement to save environment creating a competitive advantage. The green technologies entail a platform for business enterprises to be tech-oriented and saving energy in the process. We arrive at the conclusion that the Consumer buying behaviour towards Green Gymnasium & Fitness centre is positive. Further research study can be done with a larger sample size in different cultural settings.

7.1 Limitations:

The study was conducted in a limited time period between 16th February, 2024 to 28th February, 2024. The study has considered only the Gymnasiums & Fitness centres from Navi Mumbai area.

Conflict of interest: The authors found no conflict of interest.

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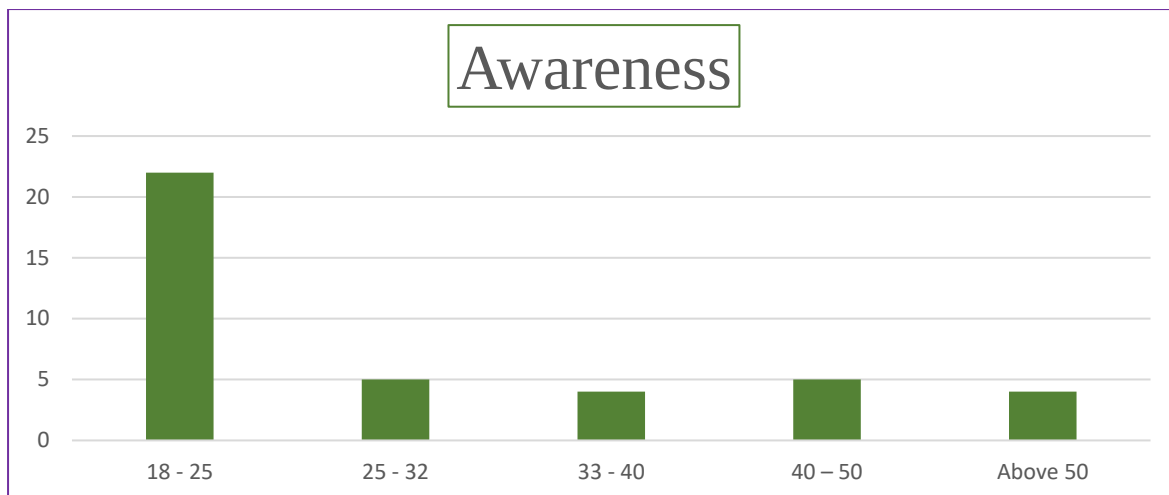
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Appendix:

Graphs (Descriptive Analysis)

Important Factors affecting consumer buying behavior in a green gym & fitness service
Qualified Trainers & Therapists: 72.5%; Safe Infrastructure: 67%, Proper gymnasium equipment: 70%, Pricing/ Membership fee- 57%.

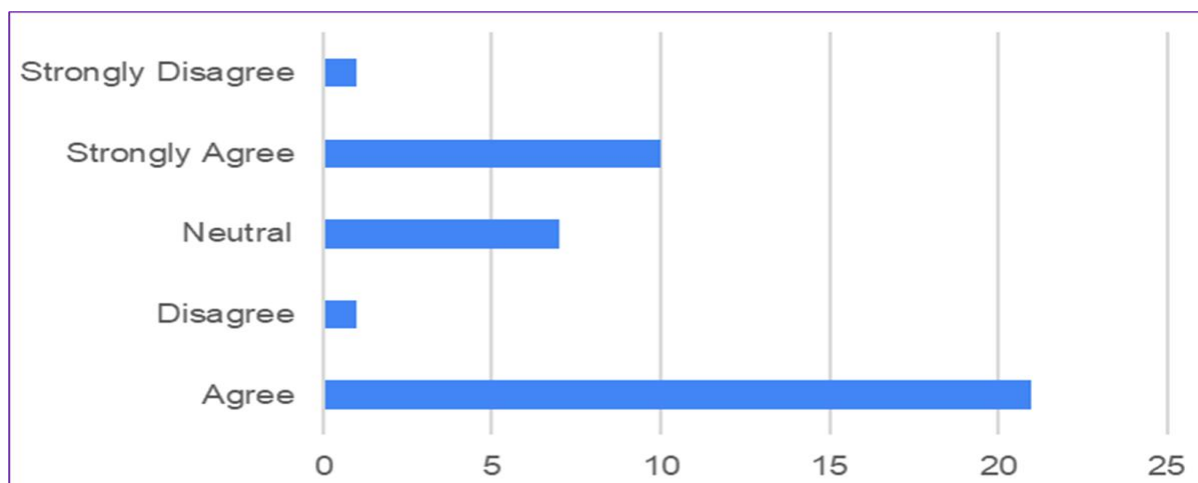
Environmental concern & awareness:



Age: 18-25 years are the most environmental concern & aware ness

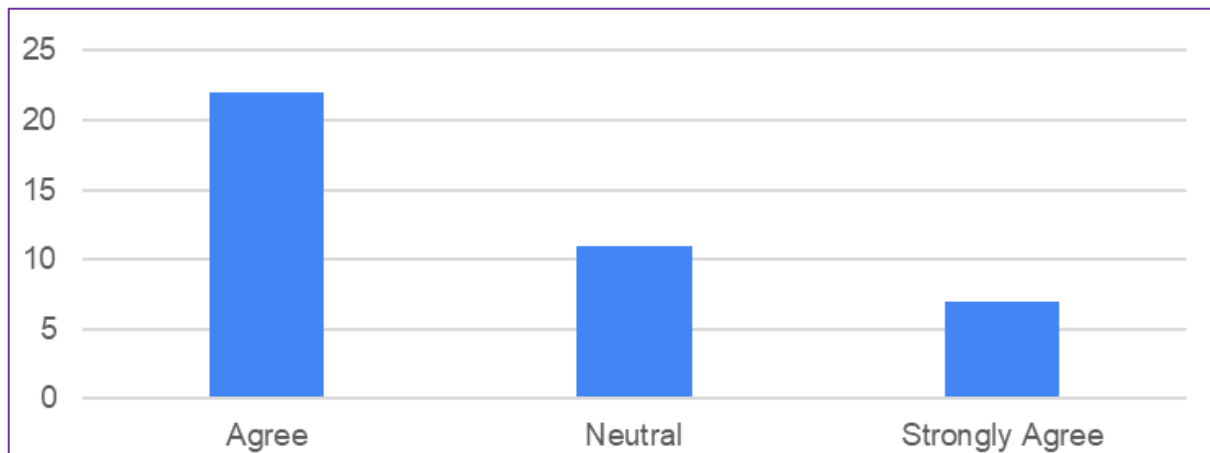
Attitude:

Buying green gymnasium & Fitness services is Favorable



22 respondents 'Agree' to buying Green Gymnasium & Fitness services, 10 respondents 'Strongly Agree', 7 respondents are 'Neutral', 2% respondents Disagree

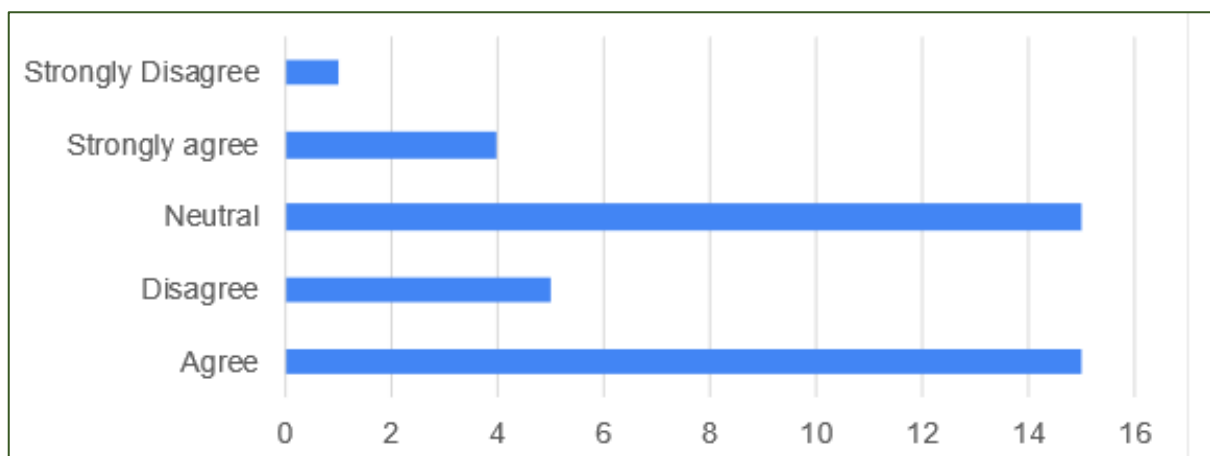
Buying Green Gymnasium & Fitness services is safe



22 respondents 'Agree' to buying green gymnasium services & Fitness services as safe, 11 respondents are 'Neutral', 7 respondents 'Strongly Agree'

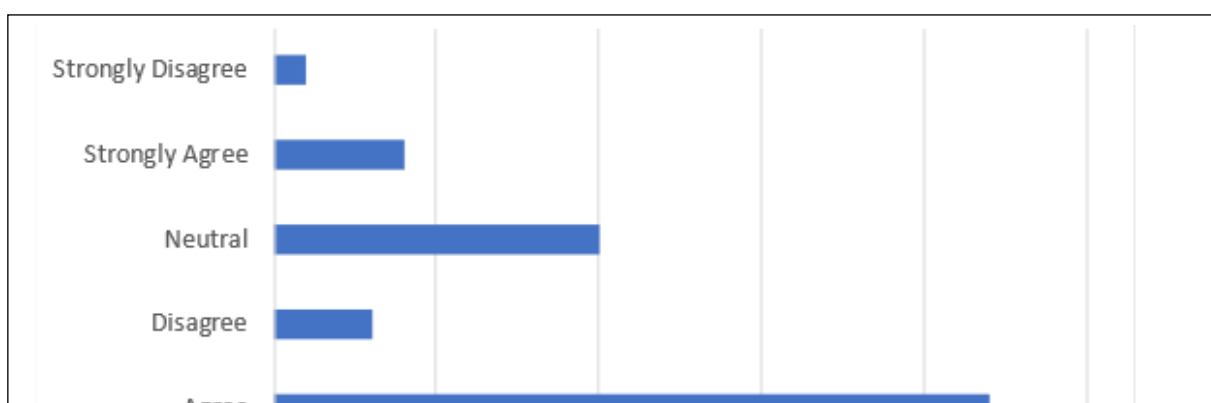
Subjective Norms:

Influence of Subjective norms, friends, family etc. on consumer buying behavior



15 respondents 'Agree' to the influence of friends, family, society etc. on consumer buying behaviour towards green gymnasium & fitness services, 14 respondents are 'Neutral, 5 respondents 'Disagree', 1 'Strongly agrees'

Perceived personal behavioral control:

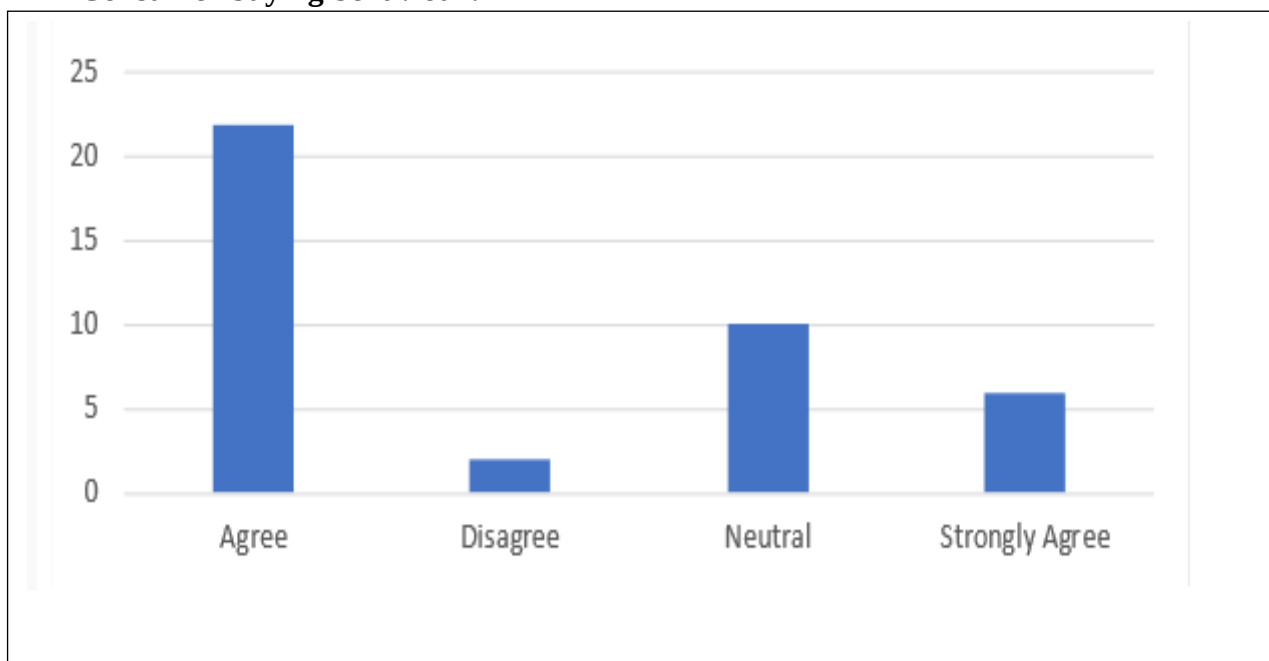


Consumer buying behavior

Consumer buying behaviour

22 respondents Agree to the positive effect of perceived personal behavioural control, 10 respondents are 'Neutral', 4 respondents 'Strongly agree', 3 respondents 'Disagree'

Consumer buying behaviour:



ROAD TO WOMEN EMPOWERMENT: A CASE RESEARCH PAPER ON 'SCOOTY SISTERS'

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Abstract: The increasing number of two-wheelers in Mumbai (27 Lakhs), particularly with the highest density in the country at 1350 per km and a significant proportion of women riders, has given rise to a unique opportunity in the field of women entrepreneurship. The trend of women taking up two-wheeler riding is driven by various factors: Working women and students, homemakers - who use two-wheelers for household chores find two-wheelers convenient for daily commuting, saving time and effort. The affordability and ease of manoeuvrability of two-wheelers make them a popular choice. India Two Wheeler Market Analysis. The increased adoption of two-wheelers has created a demand for training programs that address the specific urban challenges. The qualified trainers who can cater specifically to the needs and concerns of women riders, create a safe and encouraging environment for learners are in demand. Lady trainers are preferred by women learners as they can better understand and address the specific challenges and concerns faced by female riders. This has given an opportunity to lady trainers as entrepreneurs to start their own business in this domain. 'Scooty Sisters' is a venture named by the researcher to study the women training scooter market in south Mumbai which results in women empowerment. Their tailored approach in training fosters a supportive learning environment and encourages more women to take up two-wheeler riding. The primary objective of this case study is to explore the 'Scooty Sisters' initiative, examining how it contributes to women empowerment by providing specialized two-wheeler training programs in Mumbai. The study also aims to understand various challenges, promotional strategies and the role of social media in expanding the business. The case study is based on interview with 'Scooty Sisters' trainer and trainees. Preliminary findings indicate a positive impact of 'Scooty Sisters' on women empowerment, with increased confidence and independence among the learners. The tailored approach and the presence of lady trainers contribute significantly to creating a supportive learning environment, encouraging more women to embrace two-wheeler riding. It also shed light on how various promotional activities and social media presence can be leveraged to expand business.

Key words: *Women entrepreneurship, Women empowerment, Social change, Two-wheeler training*

1. INTRODUCTION

Mumbai's streets are buzzing with two-wheelers, boasting the highest density in the country. But amidst the throngs, a unique phenomenon is unfolding: women are increasingly taking

the handlebars. Driven by factors like convenience, affordability, and time-saving benefits, they are embracing two-wheelers for their daily commutes and errands.

This growing market, however, presents a challenge: the lack of training programs specifically tailored to women riders. Navigating Mumbai's urban complexities requires specific skills and confidence, often better understood by fellow women. This case research paper presents a venture that empowers women through specialized two-wheeler training. i.e. "Scooty Sister's". It is a social enterprise. The venture provides a service (scooter riding trainings) with the primary goal of empowering women and creating a social impact and empowerment. The Venture caters specifically to the needs of women riders, offering a safe and supportive learning environment with female instructors. It fosters a sense of community among women riders, encouraging them to support and empower each other. The Study explores how their tailored approach and the presence of female trainers foster a supportive learning environment, encouraging more women to embrace the freedom and independence of riding. The case also analyse the challenges they face, their promotional strategies, and the crucial role of social media in expanding their reach.

2. LITERATURE REVIEW

1. Kumari, N., Malik, J. S., & Ghalawat, S. (2019) studies SHG and concluded that marketing channel is top most priority for successfully run of startup

2. Rao, N. (1996). Empowerment through organisation: Women workers in the informal sector. *Indian Journal of Gender Studies*, 3(2), 171-197. Women's empowerment informal sector mainly depends upon with skills to operate the business being acquired outside the formal school system; and operating in unregulated and competitive markets.

3. Sowjanya & Hans (2019) through their study highlights the benefits of skill development. According to them education opens a door to lead a life of liberty, but skill development enables liberty meaningful by making people achieve prosperity they raised importance of women education as well as training and through which women can feel respected, confident, safe and can utilize their full potential.

4. Anjali Vyas (2018) propagates that women should be motivated to develop life skills, through which they can get employed, get better livelihood and confidence to earn for their family.

5. Mamta Mokta (2014) opined that women should be trained and motivated through skill development by government as well as self-help groups, NGO's and financial institutions.

The above literature helps us to formulate objectives of the study.

3.OBJECTIVES OF THE STUDY

- ✓ To understand the impact of “Scooty Sisters” on women's empowerment.
- ✓ To identify challenge & opportunities for them.
- ✓ To identify the role of promotional strategies and social media in expanding the reach of Scooty Sisters.

4.RESEARCH METHODOLOGY

This study focuses on women’s two-wheeler training institute of south Mumbai

As per Just Dial -Nearby there are 40 Set up available in South Mumbai.

This Study is conducted by collecting data from 5 trainer’s and 10 trainee’s through interview questionnaire to understand their business model.

The research focuses on Qualitative Research. The Interview mode was the most convenient method for this research owing to the fact that the research had to be conducted to understand the Journey of women empowerment.

5. DATA ANALYSIS

The data reveals the journey of a middle-class woman who identified a gap in scooter training for women and built a successful business addressing it. The case highlights the inspiring story of a woman entrepreneur who identified a need, addressed it with a unique approach, and created a positive impact on her community and beyond. It showcases the power of perseverance, understanding specific needs, and building a supportive network for success.

5.1 ANALYSIS OF THE TRAINER’S PROFILE

Trainer's Demographics	Woman 1	Woman 2	Woman 3	Woman 4	Woman 5
Age	37	43	52	33	48
Income through training	₹ 22,000	₹ 15,000	₹ 32,000	₹ 17,000	₹ 7,500
Education	SSC	Graduate	NIL	HSC	NIL
Marital Status	Married	Married	Married	Married	Married
Dependents	4	1	4	2	1

TABLE 1: Profiling of trainer’s.

Source: Author’s Compilation.

The above table shows the demographics of 5 women trainer’s scooter trainer’s.

- **Age:** The average age of the trained women is 40.4 years. The age ranges from 33 to 52 years old.
- **Income:** The average income through training is ₹20,600. The income through training ranges from ₹7,500 to ₹32,000 per month. This depends on number of clients they acquire per month.
- **Education:** The education level of the women varies, with some having no formal education (NIL) and others having completed their secondary schooling (SSC) or higher (Graduate).
- **Marital Status:** All the five women in the table are married.
- **Dependents:** The number of dependents the women have ranges from 1 to 4, with an average of 2.6 dependents.
- **Trainer's Experience:**

The Trainer's Journey: Empowering Women on Two Wheels

- **Motivation:**
 - Desire for freedom and independence offered by a scooter.
 - Seeing other women face similar struggles.
 - Vision to create a supportive space for women to learn.
- **Challenges:**
 - Juggling work, household chores, and public transport.
 - Lack of female instructors and intimidating training environment.
 - Difficulty securing funding as a woman entrepreneur.
- **Overcoming Obstacles:**
 - Saved diligently and sought support from loved ones and other entrepreneurs.
 - Built trust through word-of-mouth recommendations and focus on quality training.
- **Impact:**
 - Highlighting the growing trend of women breaking free from stereotypes.
 - Demonstrating the power of believing in oneself and fostering supportive communities.
- **Rewards:**
 - Witnessing students conquer fears, gain confidence, and experience joy of riding.
 - Building a community of empowered women who support each other.
- **Marketing Strategy:**
 - Word-of-mouth recommendations.
 - Collaboration with women's groups and community centers.
 - Engaging social media content showcasing student success stories.
- **Advice to aspiring women entrepreneurs:**
 - Believe in your dreams.
 - Network and don't be afraid to ask for help.

5.2 ANALYSIS OF THE TRAINEE'S PROFILE

Trainee Demographics	Woman 1	Woman 2	Woman 3	Woman 4	Woman 5	Woman 6	Woman 7	Woman 8	Woman 9	Woman 10
Age	20	45	53	36	38	27	24	48	39	26
Income(Monthly)	₹12,000	₹10,000	₹50,000	₹15,000	₹42,000	₹35,000	₹28,000	₹35,000	₹25,000	₹40,000
Education	Studying (Final Year)	Graduate	HSC	Post Graduate	HSC	Graduate	Student (Pursuing MBA)	SSC (Housewife)	MBA	Diploma
Marital Status	Not Married	Married	Married	Married	Married	Not Married	Not Married	Married	Married	Not Married
Dependents	0	2	3	1	2	2	0	0	3	2
Purpose	Daily commutes	Daily commutes	Daily commutes	Daily commutes	Daily commutes	Daily commutes	Daily commutes	Daily commutes	Daily commutes	Daily commutes

TABLE 1: Profiling of trainee's.

Source: Author's Compilation

The above table provided shows the demographics of 10 women who received scooter riding training.

- **Age:** The women in the table range in age from 20 to 53 years old, with an average age of 35.6 years. There is a wider spread of ages in the group, with some younger women and some older women seeking training.
- **Income:** The income (monthly) of the trainees varies considerably, ranging from ₹10,000 to ₹42,000. The average monthly income is ₹29,200.
- **Education:** The educational backgrounds of the trainees are diverse, ranging from students pursuing an MBA to those with no formal education (SSC - Housewife). This highlights the fact that women with varying levels of education are interested in acquiring scooter riding skills.
- **Marital Status:** Six out of the ten women are married, while the remaining four are not married. This suggests that marital status is not a significant factor in deciding to receive scooter riding training.
- **Dependents:** The number of dependents the women have ranges from 0 to 3, with an average of 1.5 dependents. This suggests that both women with and without dependents are interested in receiving scooter riding training.
- **Trainee's Experience:**
 - **Supportive community:** Women Trainer's fosters a safe space where trainees overcome doubts and find encouragement in each other's success.
 - **Overcoming fear:** Trainees dreamt of freedom on two wheels but were intimidated by city streets. Training helped them conquer their fears and ride with confidence.
 - **Time & money saved:** No more public transport struggles! Trainees save time and money while exploring the city at their own pace.
 - **Breaking stereotypes:** Every ride challenge societal norms and proves women's capabilities, paving the way for change
 - **Endless possibilities:** Learning to ride opens doors to new personal and professional opportunities.

- **Inspiration to others:** Trainees are eager to share their journey and inspire others to embark on their own path to empowerment.

SOCIAL IMPACT OF SCOOTY SISTER'S

1. Increased Mobility and Independence for Women:

- Both trainers and trainees have a diverse age range, indicating the program empowers women across age groups.
- The income range variation in both groups suggests the program caters to women from various economic backgrounds, potentially offering them greater independence through increased mobility.

2. Potential for Increased Income Generation:

- Trainers' income depends on the number of clients, implying the program has the potential to provide a sustainable livelihood for women trainers.

3. Breaking Societal Stereotypes:

- The program's existence itself challenges the prevalent societal norm of scooter riding being primarily a male domain.

4. Community Building:

- The program might foster a sense of community among women trainers and trainees, providing support and encouragement.

5.3 DIGITAL MEDIA PRESENCE OF VARIOUS VENTURE'S IN SOUTH MUMBAI

SR NO	Digital Media Practices	JUST DIAL	Social Media Presence	WEBSITE	RATINGS
1	Rehana Two Wheeler Trainer	Yes	Yes	Yes	4.8
2	Vaidya Motor Training School	Yes	Yes	Yes	4.2
3	Fortune Motor Training School	Yes	Yes	Yes	4
4	Shree Gajanan Motor Training School	Yes	No	Yes	3.8
5	Shubham Motor Training School	Yes	Yes	Yes	3.8
6	Poonam Training School	Yes	Yes	Yes	4.7
7	Happy Motor Driving School	Yes	Yes	Yes	5
8	Women On Wheels	Yes	Yes	Yes	4.8
9	Relax & Drive Classes	Yes	No	Yes	3.7
10	Women's Driving School	Yes	No	Yes	4.9

TABLE 3: Profiling of ventures across Mumbai.

Source: Author's Compilation

The above data depicts the data of 10 training schools in south Mumbai:

Wherein:

- **Social media presence:** All the driving schools have a presence on social media platforms like Just Dial, Facebook, and their website. Except 3 of them.

- **Website:** All the driving schools have a website.
- **Ratings:** The ratings of the driving schools range from 3.7 to 5 stars.

6. CONCLUSION: SCOOTY SISTERS AND THE FUTURE OF INDIA'S TWO-WHEELER MARKET

- **Scooty Sisters:** Transforming India's Two-Wheeler Market
- **Market shift:** More women are choosing scooters for freedom and convenience, driving a significant change in the world's largest two-wheeler market (India).
- **Future potential:**
 - Unlocks a vast, untapped segment of customers (women riders).
 - Contributes to a safer and more inclusive road environment.
 - Inspires aspiring women entrepreneurs and the two-wheeler industry.
- **Success factors:**
 - Catering to diverse needs.
 - Fostering a sense of community.
- **Data-driven approach:** Embracing data can solidify their position and empower the future of women riders in India.
 - **Understanding the audience:** Personalize learning, evaluate trainers, track progress.
 - **Building a thriving community:** Understand preferences, identify mentors, measure engagement.
 - **Expanding reach and impact:** Identify franchise locations, build partnerships, quantify social impact.

7. SUGGESTIONS

"Scooty Sisters" initiative empowers women in Mumbai by providing a safe and supportive space to learn scooter riding. However, to navigate the dynamic business landscape, the venture needs to consider a comprehensive approach encompassing thier strengths, weaknesses, opportunities, and threats (SWOT) along with the wider Political, Economic, Social, and Technological (PEST) factors.

Recognizing the power of digital connection, “ Scooty Sister’s”can create a Facebook and Instagram pages. This online community fostered a sense of belonging, allowing women to share experiences, offer tips, and celebrate milestones. Social Media presence can quickly gain traction, attracting local media attention and potential students

Leveraging Strengths, Addressing Weaknesses

- **Build on the strong foundation:** The unique niche, safe environment, and personalized training are invaluable assets. The venture should leverage these to attract and retain students.
- **Bridge the resource gap:** Seek mentorship to address their limited business experience. Collaborate with safety organizations to expand reach and access their resources.
- **Combat societal stigma:** Partner with NGOs and women's groups to organize workshops and awareness campaigns, challenging traditional mind-sets.

Capitalizing on Opportunities, Mitigating Threats

- **Expand strategically:** Explore franchise models to scale the business beyond Mumbai while maintaining quality control.
- **Embrace digital marketing:** Utilize social media platforms like Facebook and Instagram to share student success stories, testimonials, and safety tips, attracting a wider audience.
- **Forge partnerships:** Collaborate with scooter dealerships, safety organizations, and schools to offer bundled packages, workshops, and training programs, increasing visibility and credibility.
- **Stay informed, stay ahead:** Monitor government regulations, economic trends, and competitor activity to adapt and innovate.

Considerations from the PEST Landscape

- **Advocate for supportive policies:** Engage with local authorities to advocate for women's safety initiatives, dedicated parking zones, and potential subsidies for scooter ownership.
- **Address safety concerns:** Partner with traffic police to offer safety workshops, highlight responsible riding practices, and counter negative media narratives.
- **Embrace technological advancements:** Integrate traffic management apps and consider online training modules to enhance accessibility and cater to tech-savvy individuals.
- **Explore electric scooters:** As electric mobility gains traction, consider incorporating electric scooter training to cater to environmentally conscious riders and address rising fuel prices.

By implementing these suggestions and staying attuned to the evolving landscape, the venture can empower countless women, fostering not only their independence and mobility but also a more inclusive and equitable society.

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A STUDY OF IMPACT OF SOCIAL MEDIA SENTIMENT ON PAY TELEVISION VIEWERSHIP INTENT IN THE HINDI GENERAL ENTERTAINMENT CATEGORY

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Abstract: This research paper delves into the intriguing relationship between social media sentiment and the viewing intentions of audiences for Hindi general entertainment television content. The study explores how expressions of positive, negative, and neutral sentiments on social platforms can shape the viewership patterns of Hindi Pay TV audiences. Through a comprehensive survey involving 824 individuals representing the Hindi Pay TV audience demographics defined by the Broadcast Audience Research Council (BARC) of India, the researchers aimed to uncover the nuances of this phenomenon. The primary research was further bolstered by an extensive literature review encompassing 100 relevant research papers and articles, which helped establish the framework and hypotheses for the investigation. The findings of the study indicate a positive correlation between positive and neutral social media sentiments and the audience's intent to watch Hindi general entertainment content. However, the researchers made the intriguing observation that negative social media sentiment did not necessarily result in a decrease in viewership intent. This suggests that television programs receiving extensive criticism or unfavorable opinions online may not always lead to a loss of audience interest. These insights underscore the pivotal role that social media sentiment plays in shaping the viewership behavior of the Hindi GEC Pay TV audience. By closely monitoring and understanding audience sentiment on social platforms, television broadcasters and advertisers can make informed decisions about their programming and marketing strategies. This study contributes to the academic knowledge surrounding the interplay between television and social media in the Indian context, paving the way for further research in the media and entertainment sectors.

Keywords: *Viewership Intent, Social Media Sentiment, Hindi, GEC, Pay TV, Audience Behavior, India, Television, Entertainment*

Introduction

Given India's rapidly growing entertainment industry, social media and television viewership is as a critical area of study, of immense interest to television broadcasters, social media platforms, marketers and academic fraternity. Social media is redefining not only inter personal interactions between individuals but also interactions between individuals and organisations. Consumer sentiment towards brands and services has always been a critical factor for marketers. The advent of social media has given a visible outlet for consumers to express their sentiment towards brands and services which is visible to public at large. With India leading global social media application downloads in 2021 and a significant portion of mobile usage time dedicated to these platforms, understanding the impact of 'social media

sentiment' on television viewership has become increasingly important. Television remains the primary source of entertainment for a vast majority of the Indian population, with Pay Television (Pay TV) services, accessed through cable and Direct-To-Home (DTH) providers, accounting for a significant share of viewership. Within this domain, the Hindi General Entertainment Category (GEC) stands out, commanding a majority share of the Pay TV viewership and encompassing a range of programming from drama series to reality shows. The research problem at the heart of this study is the need to understand the extent to which social media sentiment influences viewership intentions within the Hindi GEC Pay TV sector. The objective is to empirically examine the correlation between online expressions of sentiment such as negative social sentiment, neutral social sentiment and positive sentiment and their subsequent impact on the audience's viewership intent to watch or not watch television programs. Relevant literature has established the influence of social media on consumer behaviour, with studies demonstrating that positive social media interactions can enhance purchase intent, while negative interactions may have the opposite effect. However, there remains a gap in understanding this relationship within the context of the Hindi GEC Pay TV sector in India, particularly given the sector's unique cultural and linguistic nuances. This study aims to address this gap by reviewing the existing literature on social media sentiment and its impact on consumer behaviour, while also considering the specificities of the Indian television industry. The popularity of Hindi GEC channels on social media platforms, as evidenced by the substantial following and engagement on their accounts, suggests a strong link between social media presence and television viewership. Yet, the relationship between social media sentiment and viewership intent remains underexplored, presenting an opportunity for this research to contribute valuable insights to the field. In summary, this introduction sets the stage for a study that seeks to understand how social media sentiment is shaping viewership patterns in the Hindi GEC Pay TV sector in India. By identifying the research problem and objectives, reviewing relevant literature, and highlighting the research gap, this introduction provides a comprehensive context for the subsequent investigation. In Hindi General Entertainment Category in India, channels like Star Plus, Sony Sab, and Colors are not just television entities but have become cultural touchstones with shows like 'Anupama' and 'KumKum Bhagya' becoming household names. These channels and their shows have amassed considerable followings on social media sites, with StarPlus boasting 1 crore fans on Facebook and Colors channel having 4.48 crore subscribers on YouTube, reflecting their popularity and the potential for social media to influence viewership (Social media pages of respective brands, 23rd September 2021). The

engagement on social media around these channels and their content, including public conversations about shows, reactions to episodes, and discussions about characters, provides a rich dataset for analyzing sentiment and its impact on viewership intent. With tools like Sprinklr revealing more than 20 lakh conversations per month related to Hindi GEC content, the scale of this engagement is substantial and indicative of the deep connection between social media interactions and television viewership in India. This introduction, therefore, not only highlights the specific research problem and the objectives but also situates the study in the context of the Indian media landscape, highlighting the centrality of the Hindi GEC and the potential influence of social media sentiment on its viewership.

Statement of the Problem and Need for the Study

Increasing social media influence on consumer behaviour has become a pivotal aspect of marketing and audience engagement strategies, particularly within the television industry. In a country such as India with a vast and diverse media consumption landscape, social media with its extensive reach and engagement has a profound impact. With a large portion of the population spending a considerable amount of time on social media sites, the sentiment expressed online has the potential to significantly alter television viewership patterns. The problem that this study addresses is related to how the viewership intention of audience within the Hindi General Entertainment Category (GEC) Pay TV sector in India gets influenced by interactions on social media. The significance of social media in audience engagement and content dissemination is undeniable, yet there remains a lack of comprehensive research examining how social media sentiment influences the audience's interest in watching Hindi general entertainment content (GEC) on pay television. This gap in research is particularly crucial given the dominant position of Hindi GECs in the Indian television market, with popular channels like Star Plus, Sony Sab, and Colors, as well as hit shows such as Anupama and Bigg Boss, which have amassed substantial followings both on television and online.

The need for this study is underscored by the evolving dynamics of television viewership, where social media platforms are increasingly serving as a secondary screen and a space for public discussions about television content. These public social media conversations, which include reactions to promotions, anticipation for new episodes, and post-show discussions, provide a rich source of data that can be analyzed to understand viewer sentiment. However, the relationship between the sentiment expressed in these conversations and actual viewership behavior remains underexplored.

Furthermore, the study is necessitated by the potential implications of its findings for broadcasters, advertisers, and social media platforms. Understanding whether social media sentiment can predict viewership intent, and to what extent, is crucial for developing effective marketing strategies and content creation. It also raises questions about the causality and correlation between high viewership ratings and social media conversations, and whether this relationship is bidirectional.

In summary, this study seeks to fill a significant research gap by investigating the connection between social media sentiment and its impact on viewership intent in the Hindi GEC pay television sector.

The findings of this research could provide valuable insights for industry stakeholders and contribute to the academic discourse on the interplay between traditional media consumption and digital social platforms in the Indian context.

Literature Review

Social media sentiment and its impact on television viewership has been receiving increasing interest in academic research, with various studies exploring the extent to which online interactions can predict or influence audience behaviors. The phenomenon of social media's influence on entertainment consumption is not confined to the digital realm but extends to traditional forms of media, such as television.

Social Media Influence on Entertainment Consumption:

Research has demonstrated the significant impact of Facebook "likes" on box office performance, suggesting a correlation between online engagement and entertainment consumption decisions (Dhar & Chang, 2009). This relationship is further supported by studies utilizing sentiment analysis on Twitter and other social media platforms to predict box office revenues, indicating the potential applicability of these findings to television viewership (Asur & Huberman, 2010).

Sentiment Analysis and Predictive Power:

Sentiment analysis has been employed to understand the demand for theater productions, offering insights that could be extrapolated to the television industry (Zhang, Dellarocas, & Awad, 2007). The predictive power of social media analytics, including sentiment analysis, extends to financial markets and consumer behavior, which may correlate with television viewership patterns (Bollen, Mao, & Zeng, 2011).

Brand-Generated Social Media Messages:

The emotional positivity of brand-generated social media messages has been found to impact consumer attention and information sharing (Stieglitz & Dang-Xuan, 2013). This suggests

that the way television channels and shows present themselves on social media could influence viewership by affecting audience engagement and the spread of information.

Cross-Domain Social Media Analytics:

‘Cross-domain social media analytics’ have been leveraged to understand the popularity of TV topics, indicating the broad applicability of social media sentiment analysis (Tang, Agarwal, O'Brien, & Meyer, 2012). This approach underscores the potential for social media sentiment to reflect the popularity and viewership intent of television content.

National Happiness and Sentiment Analysis:

Sentiment analysis techniques have also been applied to monitor national happiness indices, which could be indicative of social media sentiment and its broader impact, including on television viewership (Dodds, Harris, Kloumann, Bliss, & Danforth, 2011). The systematic review of sentiment and emotion analysis in social media provides a comprehensive understanding of how social media language can influence various domains, including television (Pang & Lee, 2008).

Social Media's Role in Public Discourse:

The influence of social media on public discourse and the expression of emotions towards media consumption, including television, has been studied, highlighting the role of social media in shaping audience perceptions and reactions (Chung & Zeng, 2016). This body of work emphasizes the importance of understanding the sentiment expressed on social media platforms as it can reflect public opinion and influence consumer behavior. To build upon the existing literature, additional studies have been conducted that further elucidate the relationship between social media sentiment and television viewership. For instance, research by Toubia and Stephen (2013) found that social media engagement could significantly impact television program ratings, suggesting that online word-of-mouth could be a strong predictor of viewership success. Similarly, a study by Schweidel and Moe (2014) explored the effect of social TV activity on future television viewing, indicating that social media conversations could have a lasting impact on audience engagement with television content. Moreover, the work of Duan, Gu, and Whinston (2008) on online word-of-mouth and product sales provides insights into how consumer discussions on social media platforms can influence purchasing decisions, which can be analogous to the decision to watch a television show. The research by Chevalier and Mayzlin (2006) on the effect of user-generated reviews on book sales further supports the notion that social media sentiment can significantly affect consumer behavior in the entertainment domain. These additional studies contribute to a more comprehensive understanding of the complex dynamics between social media sentiment and television

viewership, particularly within the context of the Hindi GEC in India. They underscore the need for this research to explore the specific impact social media interactions have on the viewership intent of Hindi GEC content on Pay TV.

Gaps and Identification of Variables

While the literature review has highlighted the influence of social media sentiment on various aspects of consumer behavior and entertainment consumption, there is a notable gap when it comes to Hindi General Entertainment Category (GEC) Pay TV sector in India. The existing scholarly landscape has primarily centered its attention on the intersection of social media and its consequential impact across diverse domains, including box office performance, financial markets, and brand engagement. However, a notable gap persists in the specific exploration of television viewership intent within the unique context of the Indian market. This lacuna is particularly significant given the profound cultural and linguistic diversity that characterizes the Indian audience, alongside the distinctive consumption patterns associated with Hindi GEC (General Entertainment Channel) content.

The current study aims to address this gap by focusing on the following key variables:

Independent Variable: Social Media Interactions This encompasses the multifaceted forms of engagement that users exhibit with Hindi GEC content on social media platforms, including likes, shares, comments, and mentions. These interactions serve as indicative measures of the audience's level of engagement and can be quantified to assess their potential influence on viewership intent.

Dependent Variable: Television Viewership Intent This refers to the audience's intention to watch or follow a particular Hindi GEC show on Pay TV. It represents a measure of potential viewership that may be influenced by various factors, including the sentiment expressed on social media.

Moderating Variables are the following.

Positive Sentiment: This includes all positive interactions and expressions related to Hindi GEC content on social media, such as positive comments, likes, and supportive hashtags.

Neutral Sentiment: This captures the neutral or indifferent interactions on social media where the sentiment expressed is neither positive nor negative.

Negative Sentiment: This encompasses all negative interactions and expressions related to Hindi GEC content on social media, such as criticisms, negative comments, and disparaging hashtags.

The study will explore how these different types of sentiment influence the viewership intent for Hindi GEC shows. By examining the relationship between social media interactions and television viewership intent, with a particular focus on the moderating role of sentiment, the research will provide valuable insights into the causal mechanisms at play in the Hindi GEC Pay TV sector. This will not only contribute to the academic literature but also offer practical implications for broadcasters, advertisers, and content creators who are looking to leverage social media for viewer engagement and retention.

Developing Theoretical Construct

The theoretical construct for this study is informed by a synthesis of communication and behavioral theories, which are linked to the research questions concerning the influence of social media sentiment on television viewership intent within the Hindi General Entertainment Category (GEC) in India.

‘Uses and Gratification Theory’:

This theory posits that individuals actively select media sources that satisfy their needs and desires. In the context of social media interactions, this theory suggests that users engage with Hindi GEC content to fulfill their needs for information, personal identity, integration and social interaction, and entertainment (Katz, E., Blumler, J. G., & Gurevitch, M., 1973).

Theory of Planned Behaviour:

Ajzen's ‘Theory of Planned Behaviour (TPB)’ is instrumental in understanding how attitudes, subjective norms, and perceived behavioral control influence an individual's intention to perform a behavior, such as watching a television show. Social media interactions can shape these attitudes and norms, thereby influencing viewership intentions (Ajzen, I., 1991).

Information Adoption Model:

‘The Information Adoption Model (IAM)’ explains how individuals process information from media and how it influences their decision-making. In the case of television viewership intent, this model suggests that the information and sentiments users encounter on social media can be adopted and lead to a behavioral intention, such as the decision to watch a Hindi GEC show (Sussman, S. W., & Siegal, W. S., 2003).

Social Influence Theory:

This theory elucidates how individuals conform to the influence of others within their social groups. Social media sentiment, whether positive, negative, or neutral, acts as a social influence that can modify viewers' perceptions and potentially their intention to watch television content (Kelman, H. C., 1958).

Theory of Reasoned Action:

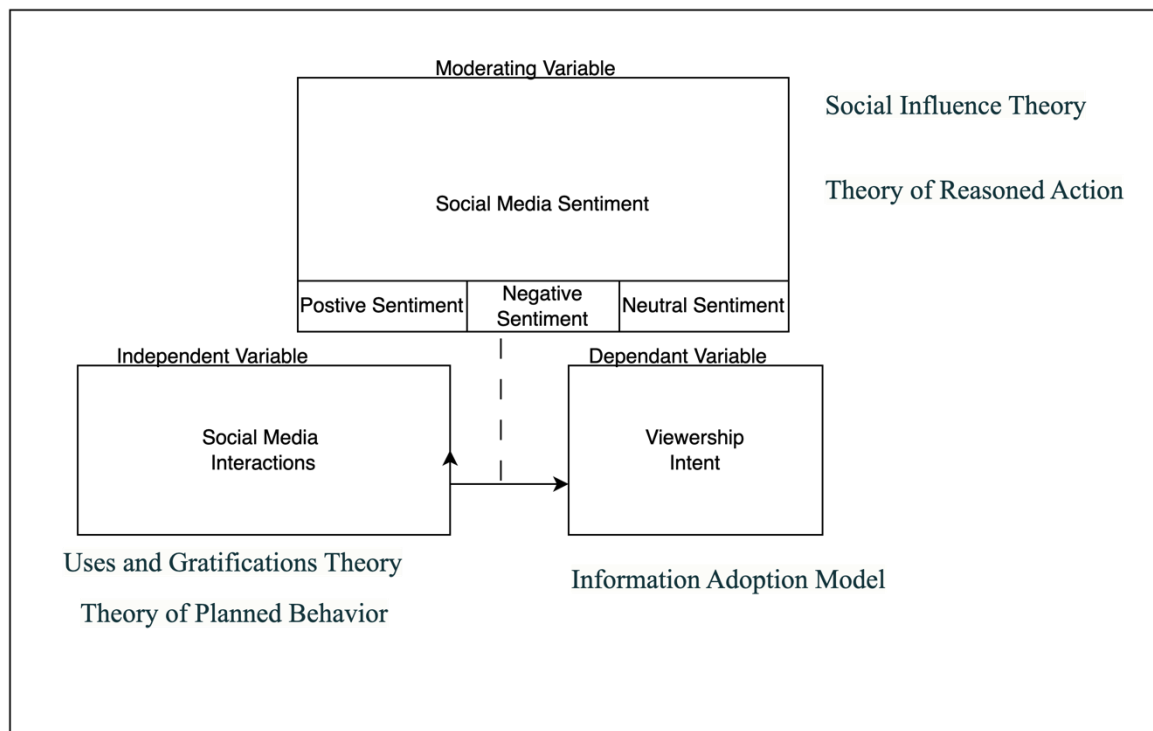
Fishbein and Ajzen's 'Theory of Reasoned Action (TRA)' focuses on the rational processes that precede voluntary behavior. It posits that individuals' behavior is directly related to their intention to perform that behavior, which is influenced by their attitudes toward the behavior and subjective norms. Social media sentiment contributes to forming these attitudes and norms, thereby affecting viewership intent (Fishbein, M., & Ajzen, I., 1975).

Linking Theories to Research Questions:

- RQ1: How does social media sentiment influence viewership decisions for Hindi GEC shows on Pay Television?
- RQ2: How does Positive social media sentiment influence viewership decisions for Hindi GEC shows on Pay Television?
 - 'The Uses and Gratification Theory' and 'TPB' suggest that positive interactions on social media fulfill users' needs and shape favorable attitudes, potentially leading to increased viewership decisions.
- RQ3: Does Neutral social media sentiment impact viewership decisions for Hindi GEC shows on Pay Television?
 - According to 'the IAM', positive sentiment adopted from social media can influence the decision-making process, leading to a higher likelihood of watching a show.
- RQ4: Does negative social media sentiment impact viewership decisions for Hindi GEC shows on Pay Television?
 - 'Social Influence Theory' and 'TRA' imply that negative sentiment can create adverse social norms and attitudes, possibly deterring viewership decisions.

By applying these theories, the study's theoretical framework aims to elucidate the mechanisms through which social media interactions and sentiment influence the intent to watch Hindi GEC shows on Pay TV. This framework will guide the empirical investigation and hypothesis testing in the subsequent phases of the research.

Figure 1 : Theoretical Construct and Justification



Hypotheses Development:

Informed by the theoretical construct that integrates ‘the Uses and Gratification theory’, ‘Theory of Planned Behaviour’, ‘Information Adoption Model’, ‘Social Influence theory’, and ‘Theory of Reasoned Action’, the following hypotheses are developed to address the research questions regarding the influence of social media sentiment on television viewership intent:

H1: There is a significant impact of ‘social media sentiment’ on consumers' viewership decision to watch or not watch a specific Hindi GEC show on Pay Television. This hypothesis is linked to the research question exploring the overall influence of social media sentiment on viewership decisions, drawing from ‘the Uses and Gratification theory’, which suggests that media use is an active choice driven by users' needs for information and entertainment (Katz, E., Blumler, J. G., & Gurevitch, M., 1973).

H2: There is a significant impact of positive social media sentiment on consumers' viewership decision to watch or not watch a specific Hindi GEC show on Pay Television. This hypothesis is associated with the research question that investigates the specific effect of positive sentiment, guided by ‘the Theory of Planned Behaviour’, which posits that

behavioral intentions are influenced by attitudes, which in turn can be shaped by positive evaluations on social media (Ajzen, I., 1991).

H3: There is a significant impact of negative social media sentiment on consumers' viewership decision to watch or not watch a specific Hindi GEC show on Pay Television. This hypothesis corresponds to the research question addressing the potential deterrent effect of negative sentiment, informed by 'the Social Influence theory', which indicates that social pressures can lead to conformity or avoidance behaviors (Kelman, H. C., 1958).

H4: There is a significant impact of neutral social media sentiment on consumers' viewership decision to watch or not watch a specific Hindi GEC show on Pay Television. This hypothesis is linked to the research question concerning the impact of neutral sentiment, drawing from 'the Theory of Reasoned Action', which suggests that without strong attitudes or normative beliefs, the influence on behavior may be limited (Fishbein, M., & Ajzen, I., 1975). These hypotheses will be empirically tested within the context of the Hindi GEC Pay TV sector in India. The study will examine the extent to which social media sentiment, as expressed through public conversations, influences the viewership decisions of consumers, considering the possibility that social media engagement may both reflect and affect the popularity of television programs.

Methodology

Research Design:

This study employed a mixed method approach, seamlessly integrating quantitative and qualitative data streams to explore the impact of social media interactions on viewership intentions for Hindi-language General Entertainment Category (GEC) Pay Television content in the Indian market. The primary data was obtained through the administration of a structured questionnaire to a sample of 824 individuals who actively engage with Hindi programming on pay television platforms. Supplementary data was gathered through an extensive literature review of 50 peer-reviewed journal articles, which informed the development of the research problem, the identification of relevant variables, and the selection of appropriate measurement techniques.

Sample Design was crafted to reflect the urban population aged 15 and above, drawing upon viewership data provided by the Broadcast Audience Research Council (BARC). Respondents were selected using a random sampling approach from state capital cities, representing the states that account for over 95% of the total viewership for Hindi GEC content. The sample was further stratified by gender to achieve a near-equal distribution,

mirroring the gender ratio reported by BARC. The final sample size of 824 respondents aligns with recommendations for adequate research sample sizes (Umasekaran, 2006).

Table 1 : Sample Design

State	Hindi GEC Pay TV Urban 15+ Viewership share as per BARC (1 st Jan 2021- 12 Nov 2021)	Locations	No of respondent by Gender		Total
			Male	Female	
Maharashtra region	21.97%	Mumbai	91	90	181
Gujarat	14.56%	Ahmedabad	60	60	120
Delhi	12.14%	Delhi	50	50	100
Madhya Pradesh	12.99%	Bhopal	56	51	107
Uttar Pradesh region	12.99%	Lucknow	57	50	107
Punjab and Haryana region	8.86%	Chandigarh	38	35	73
West Bengal	6.31%	Kolkata	25	27	52
Rajasthan region	4.98%	Jaipur	21	20	41
Bihar region	5.22%	Patna	20	23	43
		Total	418	406	824

Questionnaire Design:

The questionnaire was divided into two parts: Part (A) assessed the role of social media in shaping viewership intent for specific Hindi GEC Television programs, while Part (B) examined the influence of social media sentiment on viewership intent. The questionnaire included items measuring independent, dependent, and moderating variables, alongside demographic information such as age, gender, educational qualification, and occupation status. A five-point Likert scale was used to gauge agreement or disagreement with statements regarding the impact of variables on viewership intent. The reliability of the

questionnaire was verified through pilot testing and the calculation of Cronbach's Alpha, ensuring internal consistency and response quality.

Data Design:

Data collection was conducted using Google Forms, a choice driven by the pandemic situation and the challenges of conducting face-to-face interviews. The collected data was analyzed using DataTab, a cloud-based statistical analytics software. Descriptive analysis was performed, followed by hypothesis testing using non-parametric tests suitable for the ordinal nature of the dependent variable.

Statistical Analysis:

The Friedman Test was employed to test the hypotheses, assessing differences among the independent variable (social media interactions) moderated by social media sentiment, and their impact on the dependent variable (viewership intent). The test statistic followed the chi-square distribution, with post-hoc tests conducted for specific group differences.

Results

Descriptive Statistics:

The sample for this study comprised 824 respondents, with a balanced gender distribution of 50.73% male (418) and 49.27% female (406).

Table 1: Demographic profile of respondents in terms of Gender

Gender	Frequency	%
Male	418	50.73%
Female	406	49.27%
Total	824	100%

The demographic profile indicated a diverse representation from various state capitals, with the highest number of respondents from Mumbai (181), followed by Ahmedabad (120) and Lucknow (107).

Table 2: Demographic profile of respondents in terms of Location

Location	Frequency	%
Mumbai	181	21.97%
Ahmedabad	120	14.56%
Lucknow	107	12.99%
Bhopal	107	12.99%
Delhi	100	12.14%
Chandigarh	73	8.86%
Kolkata	52	6.31%
Patna	43	5.22%
Jaipur	41	4.98%
Total	824	100%

The sample was categorized into metro (333) and non-metro (491) locations, with respondents classified into young (under 30 years, 334 respondents) and old (over 30 years, 490 respondents) age groups. Educational backgrounds varied, with 372 respondents as Under Graduates and 452 as Graduates and above. Employment status was nearly evenly split, with 405 respondents classified as Unemployed and 419 as Employed.

Data Analysis:

Response Summary of Impact of ‘Social Media Sentiment’ on Television Viewership Intent

Respondents were asked to rate the impact of ‘social media sentiment’ on their viewership intent for Hindi GEC Drama content on a Likert scale from 1 (least impact) to 5 (most impact). Positive social media sentiment was reported to have a significant impact on viewership intent, with a mean score of 4.44 and a median of 5. Negative sentiment was found to have less impact, with a mean score of 2.62 and a median of 2. Neutral sentiment also showed a notable influence, with a mean score of 3.59 and a median of 4.

Descriptive Response summary of impact of ‘social media sentiment’ on Television Viewership Intent for Drama Content

	Influence of Positive Social Sentiment in Drama	Influence of Negative Social Sentiment in Drama	Influence of Neutral Social Sentiment in Drama
Least Impacts	20	218	30
Does Not Impact	25	246	98
Neutral	71	105	251
Impacts	168	142	247
Significantly Impacts	540	113	198
Total	824	824	824
Mean	4.44	2.62	3.59
Median	5	2	4

In the above table responses have been analyzed by the degree of impact respondents felt on their Viewership Intent due to the kind of Social Media Sentiment expressed about Drama Genre related social media interactions. The following inferences can be drawn based on the response summary.

Influence of Positive social media sentiment: 20 respondents indicated that positive social media sentiment has least impact on their viewership intent of TV Drama content. 25 respondents mentioned that it does not impact their viewership intent. 71 respondents were neutral indicating that it does not encourage or discourage them from watching Hindi TV Drama shows. 168 responses indicated impact and 540 responses indicated significant impact of positive social media sentiment on their viewership intent of drama content. The Mean Value of 4.44 and Median Value of 5 indicate that Positive Social Media Sentiment expressed in Drama Genre related conversations significantly impacts Viewership Intent. This means if Television viewers come across good opinions about specific Hindi GEC Drama shows, then they are more likely to watch those shows.

Influence of Negative social media sentiment: 218 respondents indicated that Negative social media sentiment has least impact on their viewership intent of TV Drama content. 246

respondents mentioned that it does not impact their viewership intent. 105 respondents were neutral indicating that it does not encourage or discourage them from watching Hindi TV Drama shows. 142 responses indicated impact and 113 responses indicated significant impact of Negative sentiment in social media interactions on their viewership intent of drama content. The Mean Value of 2.62 and Median Value of 2 indicate that Negative Social Media Sentiment expressed in Drama Genre related conversations does not impact Viewership Intent. This means if Television viewers come across bad opinions about specific Hindi GEC Drama shows, then their intent to watch the shows is not impacted.

Influence of Neutral social media sentiment: 30 respondents indicated that Neutral social media sentiment has least impact on their viewership intent of TV Drama content. 98 respondents mentioned that it does not impact their viewership intent. 251 respondents were neutral indicating that it does not encourage or discourage them from watching Hindi TV Drama shows. 247 responses indicated impact and 198 responses indicated significant impact of Neutral ‘social media sentiment’ on their viewership intent of drama content. The Mean Value of 3.59 and Median Value of 4 indicate that Neutral Social Media Sentiment expressed in Drama Genre related conversations significantly impacts Viewership Intent. This means if Television viewers come across neutral opinions about specific Hindi GEC Drama shows, then they are more likely to watch those shows.

Hypothesis Testing:

The Friedman Test was utilized to examine the impact of ‘social media sentiment’ on viewership intent. The test revealed a significant difference between the dependent variable across all sentiment types (Chi-square = 585.56, df = 2, $p < .001$), leading to the rejection of the null hypothesis. Pairwise comparisons indicated significant differences in viewership intent due to social media sentiment across all pairs, with positive sentiment having the most substantial impact, followed by neutral sentiment. Negative sentiment did not lead to a significant drop in viewership intent compared to positive and neutral sentiment types.

Friedman Test for Hypotheses : Viewership intent due to social media Sentiment

Friedman Test- Hypotheses testing- Social media sentiment and viewership intent				
Descriptive statistics				
	N	Mean	Median	Standard deviation
Influence of Positive Social Sentiment in Drama	824	4.44	5	0.94
Influence of Negative Social Sentiment in Drama	824	2.62	2	1.39
Influence of Neutral Social Sentiment in Drama	824	3.59	4	1.09
Ranks				
	Mean Rank			
Influence of Positive Social Sentiment in Drama	2.6			
Influence of Negative Social Sentiment in Drama	1.41			
Influence of Neutral Social Sentiment in Drama	1.98			
Mean, median and Standard deviation have been measured for Viewership intent based on the positive, negative and neutral social media sentiment for Drama Genre. The Friedman test measures one way repeated analysis of variance by ranks. Based on Mean Ranks in the table, positive social media sentiment in social media interactions has the most impact on viewership intent in Drama Genre followed by Neutral Sentiment. Conversations with negative social media sentiment do not have a significant influence on viewership intent.				
Statistics				
	Values			
Chi ²	585.56			

df	2				
p	<.001				
Subsequently Rank Sums have been calculated and Friedman test statistic obtained using Datatab. There is a difference between the dependent variables Viewership Intent due to Positive social sentiment, Viewership Intent due to Negative Social Sentiment and Viewership Intent Reality due to Neutral Sentiment. Thus, Friedman test showed that there was a significant difference between the dependent variable across all the sentiment types, p = <.001. Thus null hypothesesare rejected.					
Pairwise comparison					
	Test statistics	Standard error	Std. test statistics	p	Adj. p
Influence of Positive Social Sentiment in Drama - Influence of Negative Social Sentiment in Drama	1.19	0.05	24.19	<.001	<.001
Influence of Positive Social Sentiment in Drama - Influence of Neutral Social Sentiment in Drama	0.62	0.05	12.65	<.001	<.001
Influence of Negative Social Sentiment in Drama - Influence of Neutral Social Sentiment in Drama	-0.57	0.05	-11.5	<.001	<.001

Post-Hoc Analysis:

Post-hoc tests confirmed that the impact of viewership intent due to social media sentiment differed among the three pairs of sentiment comparison. All three pair combinations tested showed that the impact of viewership intent due to social media conversations is significant, with adjusted p-values $< .001$ for all comparisons.

Interpretation of Results:

The results suggest that social media sentiment has a significant influence on the viewership intent of the audience for Hindi GEC Drama shows on Pay Television. Positive social media

interactions were found to increase the likelihood of viewers watching Hindi Television Drama shows, while negative comments had a limited impact on viewership intent. These findings contrast with previous studies, such as Cespedes (2015). Cespedes (2015) suggested that 'social media sentiment' does not impact the core business metrics. The study concludes that there is a significant influence of 'social media sentiment' on viewership intent, highlighting the importance of social media engagement for broadcasters and advertisers in the Hindi GEC Pay TV sector in India.

Discussion and Interpretation of Results

The results of the study, have been analysed through Friedman Test and subsequent post-hoc tests. They indicate significant influence of social media sentiment on television viewership in India. Significant differences have been observed in viewership intent basis the sentiment of social media interactions. Positive social sentiment had substantial impact on viewership intent of audience. This was closely followed by neutral sentiment. However impact of negative social sentiment on audience behaviour to watch or not watch television shows has been limited. Given the ordinal nature of the dependent variable, viewership intent in the study Friedman Test, a non-parametric statistical technique, has been utilised for analysis of hypotheses. Friedman test measured one-way repeated analysis of variance by ranks. This helped examine the impact of all the types of social media sentiment on viewership intent. The significance of chi-square value (585.56) and also the p-value ($<.001$) ensured the null hypothesis is rejected. Thus concluding that social media sentiment impacts viewership intent of television audience. Further the post-hoc analysis highlighted the pairwise differences in viewership intent influenced by each of the sentiment types. The adjusted p-values are significant ($<.001$), thereby validating the significance of the findings. Thus the study highlights the impact of positive sentiment in social media interactions about hindi TV programs, as a leading indicator of viewership intent. This aligns with the theoretical construct that positive social proof and favourable attitudes, as elucidated by the 'Uses and Gratification theory' and 'the Theory of Planned Behaviour', can enhance audience attitude towards consumption of television content. The results are interpreted within the context of the theoretical construct, which draws upon the 'Uses and Gratification theory', 'Theory of Planned Behaviour', 'Information Adoption Model', 'Social Influence theory', and 'Theory of Reasoned Action'. The significant impact of positive sentiment supports 'the Uses and Gratification theory', which states that individuals engage with media that satisfies their needs, such as entertainment and social

interaction. 'The Theory of Planned Behaviour's' emphasis on attitudes and subjective norms shaping behavioral intent is evident in the influence of social media interactions on viewership intent. 'The Information Adoption Model's' relevance is reflected in the way television audience are influenced by social media, impacting their viewership related decisions to watch or not to watch Hindi GEC shows. 'The Social Influence theory's' postulation that individuals' behaviors are influenced by the expectations and behaviors of others is reflected in the influence of both negative and positive sentiments on viewership intent. Significantly, the influence of negative sentiment is limited and did not result in a large drop in viewership intent. The lack of strong attitudes or beliefs associated with neutral sentiment is rooted in 'The Theory of Reasoned Action' which explains its less definitive impact on audience viewership intent.

Validation of Theoretical Model:

The findings of this study validate the theoretical model by demonstrating that social media sentiment, as a form of social proof and a determinant of subjective norms, significantly influences viewership intent. The results align with the theoretical framework and support the hypotheses that positive social media sentiment is positively associated with viewership intent, while negative sentiment has a lesser, yet still present, impact. In conclusion, the study provides empirical evidence that supports the theoretical construct, highlighting the importance of social media sentiment in shaping viewership intent for Hindi GEC content on Pay TV in India. The findings have practical implications for media marketing and broadcasting strategies, emphasizing the need for a strong social media presence and positive audience engagement to boost viewership intent and, consequently, television ratings.

Conclusion

This research paper has systematically investigated the impact of 'social media sentiment' on viewership intent within the Hindi General Entertainment Category (GEC) Pay TV sector in India. The study's key findings reveal that positive social media sentiment significantly influences viewership intent, as indicated by the high mean and median scores. Negative sentiment, while less impactful, still affects viewership intent, and neutral sentiment also plays a notable role in shaping viewership decisions. The application of the Friedman Test and post-hoc analyses provided robust statistical evidence to support these findings. The significant chi-square value and the p-value ($<.001$) from the Friedman Test confirmed that differences in viewership intent are indeed influenced by the type of social media sentiment. The post-hoc tests further validated that positive sentiment has the most substantial impact on

viewership intent, followed by neutral sentiment, with negative sentiment having a limited effect. These findings have important implications for broadcasters, advertisers, and content creators within the Hindi GEC Pay TV sector. The study highlights the critical role of social media engagement in influencing audience behaviors and suggests that a strong social media presence, coupled with positive audience engagement, can significantly boost viewership intent and, consequently, television ratings. The contribution of this study to the existing literature is multifaceted. It extends the understanding of media influence theories, social proof, and consumer behavior models by applying them to the context of social media interactions and television viewership. The research provides empirical evidence that supports the theoretical construct developed from the Uses and Gratification theory, Theory of Planned Behaviour, Information Adoption Model, Social Influence theory, and Theory of Reasoned Action. It also offers a unique perspective on the relationship between social media sentiment and viewership intent in the culturally and linguistically diverse Indian market. In conclusion, this study underscores the significant influence of social media sentiment on the viewership intent of Hindi GEC content on Pay TV in India. It validates the theoretical model proposed and offers actionable insights for industry stakeholders looking to leverage social media for viewer engagement and retention. The findings suggest that social media sentiment is not only a reflection of audience preferences but can also be a driving force behind viewership behaviors, shaping the landscape of television viewership in the digital age.

Limitations of the Study

While this study provides valuable insights into the impact of ‘social media sentiment’ on television viewership intent, it is important to acknowledge certain limitations that may influence the interpretation of the findings.

Sample Bias:

As the study is based on responses from urban population as it is drawn from state capitals, it may not completely represent the diversity of the Hindi GEC television Indian audience, especially those smaller towns. This limitation can impact the relevance of the results to rural audience segments.

Measurement of Key Variables:

The study is based on self-reported responses to the questionnaire. This may be subject to desirability bias or shortcomings in respondents' understanding of the questions. Further, the use of ‘Likert scale’ to measure the extent of impact variables have on viewership intent may not capture the complexity of individuals' actual behaviour.

Social Media Sentiment Analysis:

The study measured impact of ‘social media sentiment’ based on respondents' perceptions of what they think are positive, negative, and neutral opinions expressed on various social media sites. This method does not consider the nuances and dynamics of social media interactions, such as mixed emotions or sarcasm, and contextually different interpretations which are difficult to categorize.

Temporal Limitations:

The research presented in this study captures the perspectives and intentions of the participants at the specific time when the investigation was conducted. It's essential to acknowledge that social media platforms, audience preferences, and television content can undergo dynamic changes over time, which may potentially impact the relationships and findings outlined in the study.

External Factors:

Additionally, the study design did not account for the influence of external factors such as marketing campaigns, word-of-mouth opinions, or news and current events from sources other than social media. These external elements could independently drive television viewership, without any direct correlation to social media sentiment.

Despite these limitations, the study has uncovered novel insights regarding the consumption behavior of Hindi general entertainment channel (GEC) pay TV viewers in India. Moving forward, future research in this domain can build upon these findings by involving a more diverse sample of participants and employing longitudinal research designs, as well as leveraging advanced social media sentiment analysis techniques.

Managerial Implications

The findings of this study have several practical implications for marketers, broadcasters, and social media platforms operating within the Hindi General Entertainment Category (GEC) Pay TV sector in India. The significant impact of positive social media sentiment on viewership intent suggests that leveraging social media platforms can be a powerful strategy to enhance audience engagement and drive viewership numbers.

For Marketers:

Marketers must prioritize crafting and disseminating content that encourages positive social media interactions, as these are strongly correlated with heightened viewership intent. Engaging audiences through interactive campaigns, contests, and fan-driven content can amplify positive sentiment and foster a loyal viewer community. Monitoring social media

sentiment provides real-time feedback on audience preferences, enabling agile marketing strategies aligned with viewer interests.

For Broadcasters:

Broadcasters should invest in robust social media strategies to promote their shows, capitalizing on the direct link between positive sentiment and viewership intent. Encouraging cast and crew to actively participate in social media can humanize the brand and create personal connections with the audience, further boosting positive sentiment. Understanding social media sentiment nuances can inform programming decisions, ensuring content resonates with the audience and stimulates engagement.

For Social Media Platforms:

Social media platforms can position themselves as essential partners for broadcasters by offering targeted advertising solutions and analytics tracking sentiment and engagement. Developing features that facilitate real-time interaction between viewers and television content, such as live-tweeting or integrated second-screen experiences, can enhance the impact of positive sentiment on viewership. Platforms should provide tools for broadcasters and marketers to effectively manage and respond to both positive and negative sentiment, helping to maintain a favorable online presence.

Stakeholders should consider implementing social listening tools to track and analyze social media sentiment, enabling proactive response to audience conversations. Collaborations between television channels and social media influencers can be an effective way to generate positive sentiment and attract new viewers. Training teams to handle social media management, including addressing negative sentiment tactfully, can mitigate potential adverse effects on viewership intent.

In conclusion, the study's findings underscore the significance of social media sentiment in shaping television viewership intent. By leveraging these insights, stakeholders can enhance their engagement strategies, tailor their content to audience preferences, and ultimately drive viewership and revenue in the competitive landscape of Hindi GEC Pay TV in India.

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EXPLORING SUSTAINABILITY INVESTING AND GREEN FINANCE: AN ANALYTICAL STUDY

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Abstract: There is a growing global concern over environmental degradation and climate change the integration of sustainability principles into investment strategies and financial decision-making has gained major importance. This research paper attempts to enlighten the path into the realm of sustainability investing and green finance. It also studies their ever-changing surroundings, impact, and scope for creating a more sustainable global economy. A well planned in- depth study aims to explain the theoretical methods and results associated with sustainability investing. It also seeks to identify the driving factors challenges, and opportunities while offering in-depth explanations regarding implications and possibilities for further research.

Keywords: *Sustainability investing, green finance, environmental sustainability, Environmental, Social, Governance (ESG) criteria, financial markets.*

Introduction: Investing for sustaining and green finance have emerged as important factors in addressing the environmental challenges in the process of achieving financial objectives. Investors, with the new found knowledge are combining environmental, social, and governance (ESG) criteria into their decision-making processes. This has led to reshaping the scope of financial markets. This research aims to dive into the implications and effectiveness of sound investing and green finance which in turn leads to promoting both environmental sustainability and financial gains.

Purpose of the study: The main aim of this study is to explore the intersection of sustainability investing and green finance and to assess their impact on environmental sustainability and financial markets. By understanding the motivations behind these investment strategies and their implementation, we aim to provide meaningful insights into how they contribute to sustainable development.

Literature Review: The literature review will cover recent research findings related to sustainability investing, green finance, ESG integration, impact investing, and corporate sustainability. It also attempts to examine the theoretical frameworks, empirical studies, and industry reports to provide a wide comprehensive understanding of the evolution, theories, methodologies, and outcomes of sustainability-focused investment practices.

Objectives:

- To examine the concepts of sustainability investing and green finance.
- To analyse the trends and growth of sustainability investing in financial markets.
- To assess the effectiveness of sustainability investing in achieving environmental objectives.
- To identify challenges and opportunities in the field of green finance.

Methodology:

This study consists of primary data collected by a survey that involved a sample size of 100 people and secondary data from published scholarly research papers, news articles from multiple resources as well as an analysis of active customer base in banking sectors about technology and green banking. It studies various approaches of exploring trends and aspects.

Developing theoretical construct and hypothesis:

Key Constructs:

- **Sustainability Investing Practices:** Inclusion of ESG factors into investment decision-making, shareholder activism for sustainability goals, and impact investing strategies.
- **Financial Performance Indicators:** Measures such as return on investment (ROI), volatility, risk-adjusted returns (Sharpe ratio), and market performance of green and sustainable investments.
- **Green Mortgages and Loans:** If a particular home buyer can show that the property for which they are borrowing agrees with specific environmental criteria, a bank or mortgage lender will provide them on favourable terms. This could be a newly constructed property that already has a sustainability rating or a building that the borrower agrees to invest in upgrading to increase its environmental efficiency. In other terms, a green mortgage is a loan given only for green structures. Banking sector has mortgages and loans with lucrative offers for customers who opt for energy

efficient homes that contain solar panels, geothermal heating or green water heaters. Some green loans are known to give 15% of the price of their house into loans for upgrading to green houses.

Under the SEBI Regulations, 2021, the Indian capital markets regulator, Securities Exchange Board of India (SEBI), regulates the issuance of listed green debt securities and specifies a unique set of disclosure obligations and responsibilities for green bond issuances in India.

- **Green Bonds & Certificates:** Green bonds are fixed income securities that fund investments having favourable effects on the environment. Green banking tries to "internalise environmental externalities and modify risk perceptions" in order to promote more environmentally friendly investments, and green bonds are a crucial part of these investments. It works through raising awareness of the financial risks associated with environmental change, improving the flow of funding to ecologically beneficial initiatives and effectively lowering their costs.

Green bond issuance was only \$2.6 billion as late as 2012. However, green bonds started to emerge in 2016. Chinese borrowers, who accounted for \$32.9 billion of the total, or more than one-third of all issuances, were largely responsible for the activity. However, the United States and the European Union are also among the leaders in this worldwide interest. According to research from the rating company Moody's, global investment in green bonds reached a record high in 2017 and totalled \$161 billion. Growth slowed in 2018, reaching only \$167 billion, but it picked up the next year because of a market that was becoming more climate-conscious. Record-breaking green issuances totalled \$266.5 billion in 2019 and nearly \$270 billion in 2020.

Green bonds are fixed income securities that fund investments having favourable effects on the environment. Green banking, as a whole, tries to "internalise environmental externalities and modify risk perceptions" in order to promote more environmentally friendly investments, and green bonds are a crucial part of this. Through market-based strategies, green finance can also assist in reducing these externalities. It works through raising awareness of the financial risks associated with environmental change, improving the flow of funding to ecologically beneficial initiatives, effectively lowering their costs, and other ways as well.

From 2008 to 2020, the World Bank, a significant green bond issuer, issued \$14.4 billion in green bonds. These funds have supported 111 projects all over the world, with a focus on sustainable transportation (27%), agriculture and land use (15%), and renewable energy and efficiency (33%). In India, The final Sovereign Green Bonds framework was authorised by India's finance minister, on November 9, 2022. The Green Bonds will help and encourage India's efforts to move to a cleaner energy source while also providing funding for renewable energy and green infrastructure initiatives.

Theoretical Basis:

- **Efficient Market Hypothesis:** Evaluating how ESG information is incorporated into market prices and whether sustainability investing offers competitive returns relative to traditional financial metrics.
- **Resource-Based View:** Analysing how sustainable business practices and green finance initiatives create competitive advantages and long-term value for stakeholders.

Structured Hypotheses:

Null Hypothesis (H0): There is no significant difference in financial performance indicators between sustainability-focused investments and conventional investments.

Alternative Hypothesis (H1): Sustainability-focused investments demonstrate superior financial performance indicators compared to conventional investments.

Sub-Hypotheses with Facts and Figures:

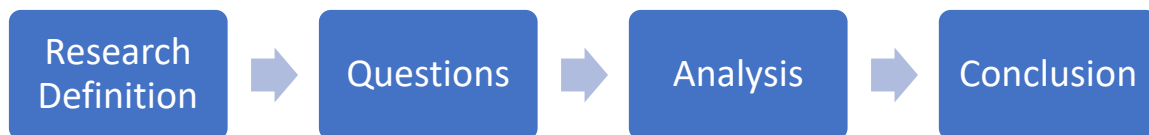
H1a: The average annual return of portfolios integrating sustainability criteria (based on ESG ratings) exceeds that of non-sustainable portfolios by at least 1-2% (Source: Global Sustainable Investment Alliance, 2023).

H1b: Green bonds issued globally have shown a growth rate of 47% annually since 2015, reaching \$1.45 trillion in 2022 (Source: Climate Bonds Initiative, 2023). This growth is indicative of increasing investor confidence in green finance instruments.

H1c: Companies with higher ESG scores have lower cost of capital and reduced risk of financial distress, as evidenced by studies showing a 20% lower cost of equity compared to lower-scoring peers (Source: Harvard Business Review, 2021).

H1d: Regions with supportive regulatory frameworks for green finance, such as the European Union's Green Deal, have seen a 30% increase in green investment flows, indicating policy effectiveness in stimulating sustainable economic activities (Source: European Commission, 2023).

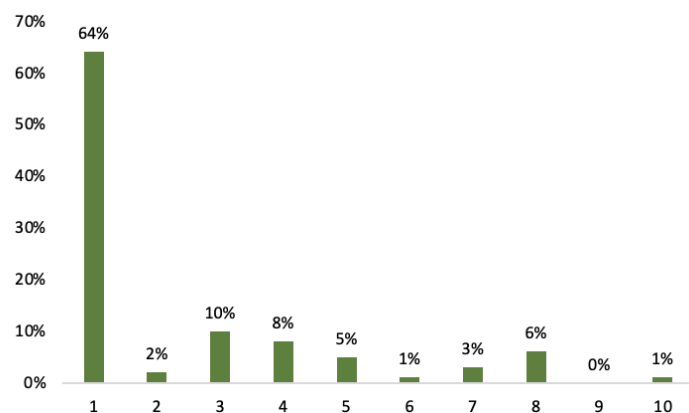
Sample design:



Result:

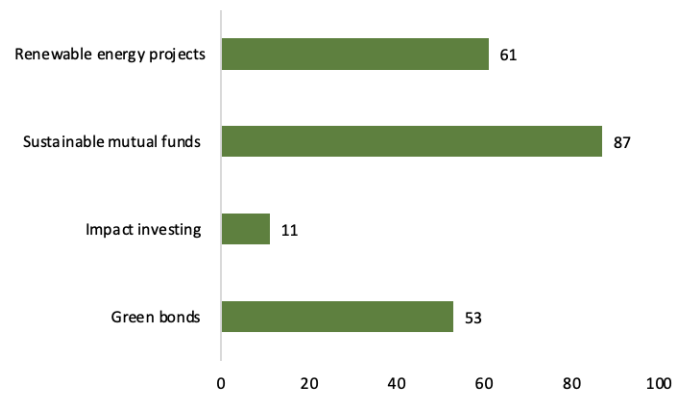
On a scale of 1-10, how familiar are you with sustainability investing and green finance? (1- Less often, 10 – Most often)

	Percentage
1	64%
2	2%
3	10%
4	8%
5	5%
6	1%
7	3%
8	6%
9	0%
10	1%



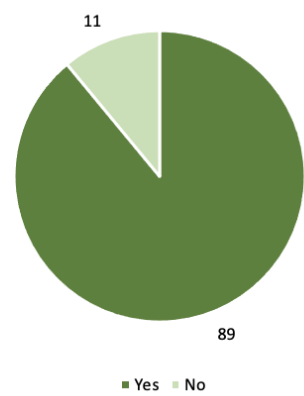
Which of the following sustainable investment options are you interested in? (select all that apply)

Options	Frequency
Green bonds	53
Impact investing	11
Sustainable mutual funds	87
Renewable energy projects	61



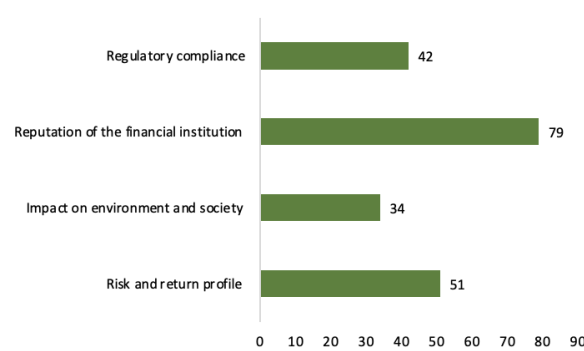
Do you currently have any investments that align with sustainable finance principles?

	Percentage
Yes	89
No	11



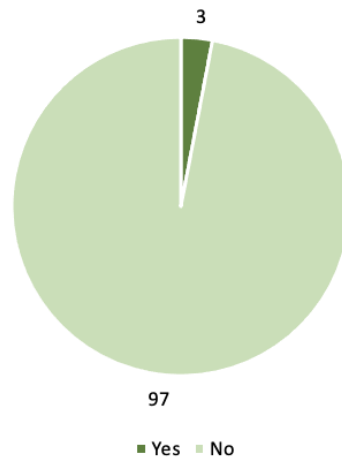
What factors would influence your decision to choose a sustainable finance product? (select all that apply)

Options	Frequency
Risk and return profile	51
Impact on environment and society	34
Reputation of the financial institution	79
Regulatory compliance	42



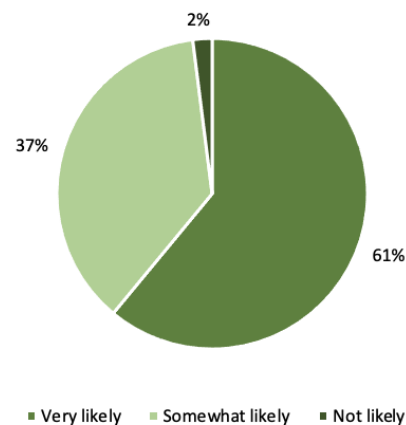
Have you participated in any sustainable finance training or educational programs?

	Percentage
Yes	3
No	97



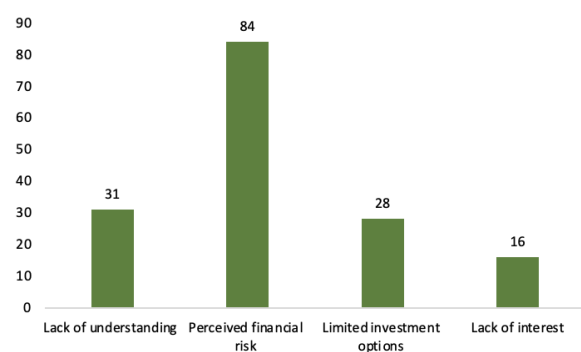
How likely are you to consider integrating sustainable finance practices in your personal finances in the next year?

	Percentage
Very likely	61%
Somewhat likely	37%
Not likely	2%



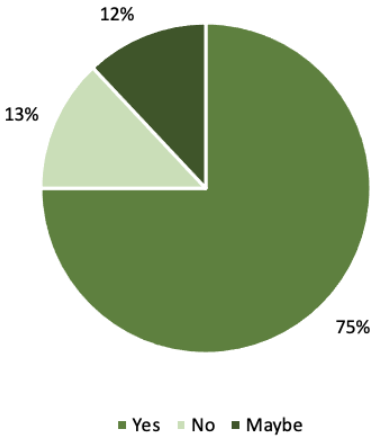
Which of the following reasons would prevent you from adopting sustainable finance practices? (select all that apply)

Options	Frequency
Lack of understanding	31
Perceived financial risk	84
Limited investment options	28
Lack of interest	16



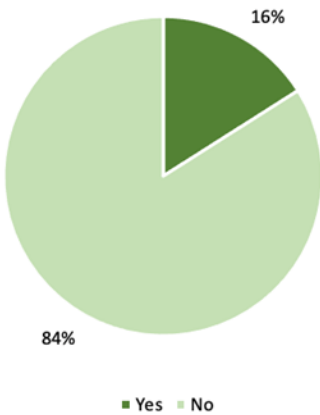
Do you believe sustainable finance can have a positive impact on addressing climate change?

	Percentage
Yes	75%
No	13%
Maybe	12%



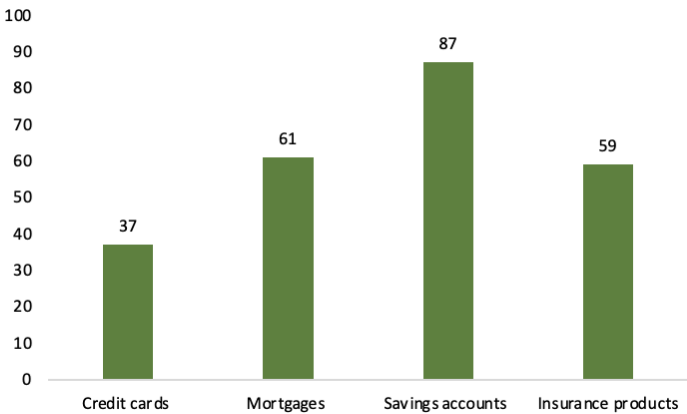
Are you aware of any sustainable finance initiatives in your country or region?

	Percentage
Yes	16%
No	84%



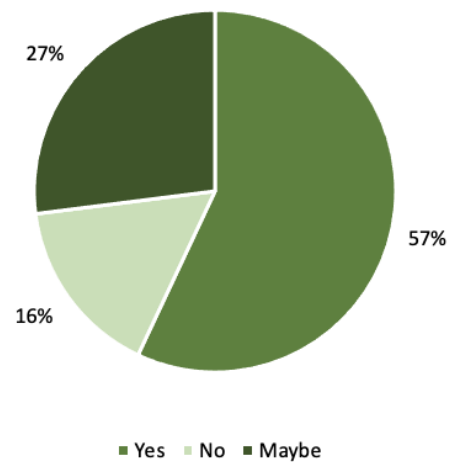
Which of the following financial products do you think should incorporate sustainable finance principles? (select all that apply)

	Frequency
Credit cards	37
Mortgages	61
Savings accounts	87
Insurance products	59



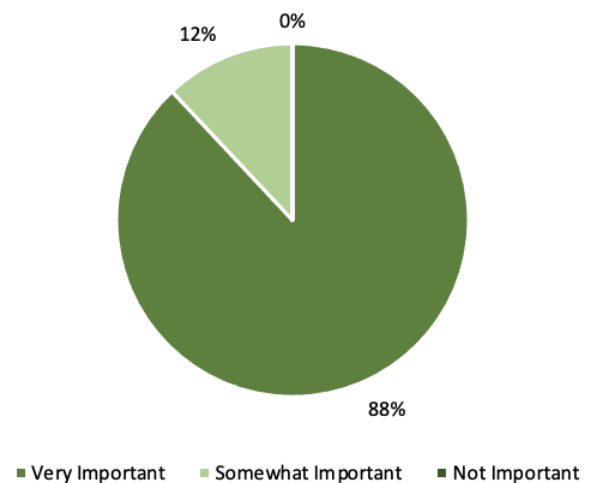
Do you think sustainable finance can lead to long-term financial stability?

	Percentage
Yes	57%
No	16%
Maybe	27%



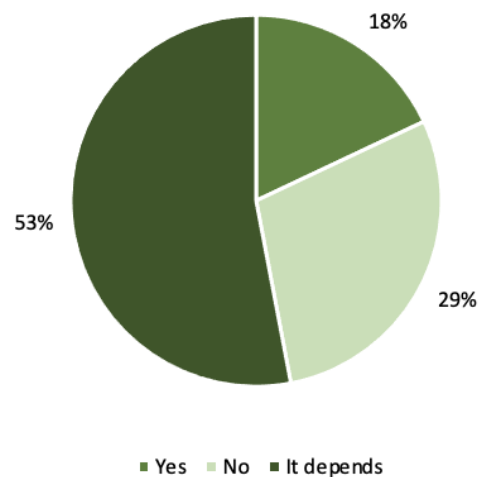
How would you rate the importance of transparency and disclosure in sustainable finance products?

	Percentage
Very Important	88%
Somewhat Important	12%
Not Important	0%



Do you believe sustainable finance can generate competitive financial returns?

	Percentage
Yes	18%
No	29%
It depends	53%



Analysis:

The majority of the respondents are not familiar with sustainability investing and green finance, with 64% rating their familiarity as the lowest possible score. This suggests a significant gap in awareness or education regarding these topics among the surveyed group. The data indicates that there is a high level of interest in sustainable mutual funds and renewable energy projects. These two options are significantly more popular than green bonds and impact investing among the surveyed group.

Potential Areas of Focus:

- **Educational Efforts:** There should be more emphasis on educational campaigns and informational resources.
- **Promotion of Less Popular Options:** Green bonds need more promotion and education to increase interest. Highlighting the benefits and impact of these options could attract more investors.

Tailored Investment Products: Financial institutions and advisors might consider developing and promoting more products related to sustainable mutual funds and renewable energy projects.

53% of the respondents think are not sure that sustainable finance can generate competitive returns. Involving ESG factors into savings accounts and insurance might help in increasing awareness. Lack of awareness might be the main hindrance as 97% of the respondents have not participated in any sustainable finance training or educational programs and 84% of them are not aware of any sustainable finance initiatives in the country or region.

Result and Discussion:

The results of this study will provide valuable insights into the role of sustainability investing and green finance in fostering environmental sustainability and financial growth. It will contribute to the existing body of knowledge by offering empirical evidence on the effectiveness of these strategies, identifying and mapping areas for further research and development. Finally, the results aim to inform investors, policymakers, and stakeholders

about the potential of sustainability investing in shaping a more sustainable and resilient financial systems.

Level / Key Criteria – Indicators	Efficacy - Green Finance dollars - Green House Gas (GHG)	Efficiency - Level of subsidies - Level of carbon pricing - Cost of intermediation	Resilience - Capital E&S risk - #FI ESG adherence	Transparency - Carbon disclosure adherence
Global Financial System	Paris agreement – December 2015	IMF, IEA, OECD calculated fossil fuel subsidies	Standard Setting Bodies defined standards for resilience from a financial stability perspective (BCBS, IAIS, IOSCO)	FSB Disclosure task force will focus on climate related financial disclosures – harmonize 400 standards
National Financial Sector	Nationally Determined Contributions Bangladesh Green Banking Statistics China Green Banking Guidelines	Fiscal policy determines subsidy level and carbon pricing	Several developing countries developed ESG standards	Every country/sector has own standard
Financial Institutions - Banks - Institutional Investors (Pension Funds, Insurers) - Other players - MDB (WBG)	WBG (Climate finance \$; GHG) Natural Capital Accounting	Financial institutions calculate transaction cost – cost of intermediation	Banks follow Basel Accord (capital for risk) Several financial institutions implemented ESG lending standards – Equator principles IFC implemented ESG standards – performance standard	Institutions follow own standards
Project / Financial Instruments e.g. Green Bonds	WBG – portfolio level (\$, GHG) - \$ Climate Finance (adaptation, mitigation) - GHG (gross, reduction)	Some project are subsidized, some are priced.	Banks measure capital add-on per exposure	WBG – transparent in dollars and GHG Some green institutions are transparent on carbon emission and risk

Conclusion:

The survey responses reflect a growing awareness and interest in sustainable finance initiatives. Respondents expressed a willingness to include sustainable finance practices into their personal investment strategies which would be decided by factors such as ethical values, financial performance expectations, and support from regulating and governing bodies.

The main challenges faced was the need for standardized metrics for measuring ESG performance, enhancing transparency in reporting, and solving barriers while implementing them. Addressing these challenges will be critical in achieving solutions and ensuring maximum impact on addressing the challenges such as climate change and social inequality.

In conclusion, this study highlights the scope of sustainability investing and green finance in remodelling financial markets towards a more resilient, equitable, and sustainable future. As stakeholders continue to collaborate and strategize, sustainable finance stands ahead to play a pivotal role in addressing the matter of achieving financial stability and healthy environmental and social outcomes on a global scale.

Managerial Implications:

Management can play an important role in establishing different sets of ideas and initiatives to have a sustainable outlook and also emphasize the importance of aligning financial objectives with environmental and social goals to strengthen proper risk management, stakeholder engagement, and long-term value creation.

1. Managers should combine investment strategies with sustainability criteria to take full advantage of the ever-growing investor demand for ethical and environmentally responsible financial products.
2. Inclusion of Environmental, Social, and Governance (ESG) factors into risk management outlay is crucial and essential. Developing new sustainable financial products, such as green bonds and impact investment funds, will go a long way in ensuring and strengthening financial institutions.
3. Implementing and ensuring transparent reporting standards for ESG performance metrics will go a long way in achieving success.

Limitations:

The study may be restricted by availability of relevant data, methodological constraints, and the dynamics of the changing nature of capital markets and regulatory laws. Further studies may be required to encompass and cover the wide areas of sustainability investment and finance.

Scope for Further Research:

Future research could be inclusive of exploring new and growing trends, innovative methodologies, and changing regulatory landscapes in sustainability investing and green

finance. Studies should also cover the impact of cultural, institutional, and sector-specific factors on sustainable investment practices. Evolving Technology and data analytics will play a key role in improving sustainability integration. Sustainability investing and green Finance will play a major role in enhancing the living conditions for the future generation.

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Questionnaire design:

On a scale of 1-10, how familiar are you with sustainability investing and green finance? (1- Less often, 10 – Most often)

Which of the following sustainable investment options are you interested in? (select all that apply)

Green bonds

Impact investing

Sustainable mutual funds

Renewable energy projects

Do you currently have any investments that align with sustainable finance principles?

Yes

No

**What factors would influence your decision to choose a sustainable finance product?
(select all that apply)**

Risk and return profile

Impact on environment and society

Reputation of the financial institution

Regulatory compliance

Have you participated in any sustainable finance training or educational programs?

Yes

No

How likely are you to consider including sustainable finance practices in your personal finances in the next year?

Very likely

Somewhat likely

Not likely

Which of the following reasons would prevent you from adopting sustainable finance practices? (select all that apply)

Lack of understanding

Perceived financial risk

Limited investment options

Lack of interest

Do you believe sustainable finance can have a positive impact on addressing climate change?

Yes

No

Maybe

Are you aware of any sustainable finance initiatives in your country or region?

Yes

No

Which of the following financial products do you think should incorporate sustainable finance principles? (select all that apply)

Credit cards

Mortgages

Savings accounts

Insurance products

Do you think sustainable finance can lead to long-term financial stability?

Yes

No

Maybe

How would you rate the importance of transparency and disclosure in sustainable finance products?

Very important

Somewhat important

Not important

Do you believe sustainable finance can generate competitive financial returns?

Yes

No

It depends

FINAI: GAMIFIED FINANCE LEARNING PLATFORM

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Abstract: Financial illiteracy in India is pervasive, leading to detrimental financial decisions and outcomes. In response, we developed FinAI, a software platform designed to simplify complex financial concepts through gamification. By offering accessible courses and clear explanations, FinAI empowers users, particularly beginners, to make informed financial decisions and capitalize on market opportunities. Our study addresses a pressing need for accessible and engaging financial education, aiming to mitigate the negative effects of financial illiteracy. Through FinAI's gamified approach, users can navigate courses and grasp complex financial terms, promoting financial literacy and enabling users to navigate the market effectively. Utilizing React.js and Node.js for frontend and backend development, Neon DB for database management, and hosting on Vercel, FinAI incorporates a chatbot named "Finbot" powered by Bard API (Application Programming Interface) and Finhub, providing comprehensive responses to user queries. A stock prediction model leveraging LSTM (Long Short-Term Memory) and ARIMA (Auto-Regressive Integrated Moving Average) machine learning models, along with the yfinance live data, offers insights into future stock prices. The platform also includes a news feed feature to enhance users' understanding of financial news and events. Through the implementation of energy points and experience points, users progress through course levels, with the option to purchase additional energy points contributing to the platform's revenue stream. Our study revealed significant interest among young students in learning financial concepts through FinAI, with ARIMA demonstrating superior accuracy in stock prediction. FinAI represents a crucial step towards addressing financial illiteracy in India, offering an accessible, engaging, and effective means of financial education.

Keywords: *Gamification, Financial literacy, Chatbot, Stock Prediction, ARIMA, LSTM, Web Application, FinAI*

I. INTRODUCTION

In today's rapidly evolving financial landscape, the acquisition of sound financial literacy skills has become increasingly essential for individuals to navigate the complexities of per- sonal

finance and investment decisions effectively. Traditional methods of financial education often struggle to engage and empower learners, particularly when faced with the daunting task of simplifying intricate financial concepts. In response to this challenge, innovative solutions leveraging technology and pedagogical advancements have emerged, seeking to revolutionize financial education and empower individuals to make informed financial decisions confidently [12]. One such pioneering initiative is the “FinAI: Gamified Finance Learning Platform,” which combines gamification techniques and artificial intelligence (AI) to simplify the teaching of complex financial concepts. By integrating elements of gamification, such as interactive quizzes and level-based progression, with AI-driven features like a financial chatbot and stock price prediction model, FinAI aims to create an immersive and engaging learning environment that fosters comprehension and skill development. The primary objective of this research is to comprehensively evaluate the effectiveness of FinAI in enhancing financial literacy and empowering users to make informed financial decisions. Through a rigorous analysis of user engagement, learning outcomes, and the impact of FinAI’s various features, this study seeks to elucidate the platform’s potential to revolutionize financial education. Key areas of investigation include the efficacy of FinAI’s gamified user interface in simplifying complex financial concepts, the accuracy and utility of its financial chatbot in addressing user queries and improving understanding, and the effectiveness of its stock price prediction model in guiding investment decisions. The study aims to assess the role of real-time news updates in keeping users informed about market developments and to evaluate the platform’s accessibility and user- friendliness across web and mobile platforms.

A. Conceptual Framework

The conceptual framework diagram as shown in Fig. 1 illustrates the foundational structure of the FinAI platform, emphasizing the central role of Financial Literacy and Education at the top level. This core component drives the platform’s overall objective to enhance users’ financial knowledge. The framework is further supported by two middle-level components: Gamification in Learning and Artificial Intelligence (AI) in Education. These elements represent the interactive and engaging aspects of the platform, such as quizzes, level

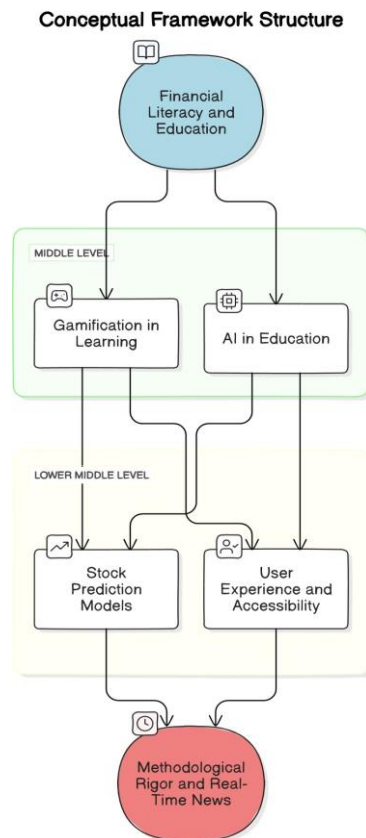


Fig. 1. Conceptual Framework

progression, and AI-driven tools like the financial chatbot and stock prediction models. Below these, the Stock Prediction Models and User Experience and Accessibility components focus on the technical aspects of the platform, ensuring ease of use and effective financial forecasting. Finally, the bottom level, Methodological Rigor and Real-Time News, ensures the accuracy and reliability of the financial information and predictions provided by the platform. The connections between these levels demonstrate the integrated approach of FinAI, from foundational education to practical, real-time financial decision-making tools.

II. LITERATURE SURVEY

In two distinct papers, the application of gamification in various educational contexts is explored. “Gamification Applications in E-learning: A Literature Review” delves into the integration of gamification elements within online learning environments, recognizing its potential to elevate motivation, user interaction, and overall social impact. Employing a qualitative approach and focusing on the keyword “gamification,” the paper identifies grades, leaderboards, and levels as pivotal gamified elements in online education. The findings under-

score the increasing acknowledgment of play as a potent tool for crafting engaging educational experiences and emphasize the significance of integrating gamification strategies within online learning platforms. “Can gamification improve financial behaviour? The moderating role of app expertise” delves into the realm of financial behaviour and explores the influence of gamification on financial well-being and savings motivation. By conducting surveys among college students and Mechanical Turk participants, the study reveals nuanced preferences for gamified features based on users’ prior experience with financial applications. While seasoned users seek a balance between social and economic features, novices prioritize financial functionalities. These insights not only inform game designers and financial services marketers about consumer preferences but also emphasize the potential of gamification to improve financial literacy and behaviour among diverse user groups. Together, these studies contribute to a deeper understanding of the multifaceted impact of gamification in education and finance, calling for further research to explore its full potential in enhancing learning outcomes and promoting financial well-being [2].

The impact of gamification on student engagement and involvement with e-learning systems is explored in an empirical study. Despite debates over its effectiveness in enhancing student engagement and learning outcomes, gamification is investigated as a potential tool for promoting continuous learning. The study incorporates a question board within an e-learning portal, allowing students and teachers to interact and confirm correct answers. Data collected over 10 months reveal that gamification can indeed attract users to educational systems and increase their interaction and involvement [4]. In another study, the use of gamification to teach and assess financial education among self-directed bank investors is examined. The research assesses the understanding of complex financial products and portfolio management among adult investors, highlighting areas where they exhibit low-level skills, particularly in comprehending complex financial product issues. Through an online multiple-choice quiz, the study evaluates participants’ financial literacy and suggests that while general financial knowledge is satisfactory, there is room for improvement in understanding high-risk financial products. These findings contribute valuable insights to ongoing research on distance learning through gamification, addressing the growing importance of financial education in contemporary society [5].

The study conducts a comparative analysis of ARIMA and LSTM models for predicting daily or monthly average prices of companies listed on the NASDAQ stock exchange, highlighting ARIMA’s consistent outperformance across various time periods. ARIMA demonstrates

superior accuracy compared to LSTM, particularly for longer-term forecasts, with approximately 3.4 times better accuracy for 30-day forecasts and about 1.8 times better accuracy for averaged 3-month periods. ARIMA exhibits dominance over LSTM in terms of mean absolute percentage error (MAPE) across different prediction horizons, achieving approximately 1.6 times better accuracy for averaged 1-month predictions and around 2.1 times better accuracy for averaged 9-month periods. Conversely, LSTM excels in short-term predictions, showcasing approximately 1.12 times better accuracy for 1-day forecasts. The paper also explores various aspects such as error metrics selection, parameter optimization, and the impact of input window sizes on LSTM performance [6]. In a separate investigation, the paper evaluates the efficacy of ARIMA, neural network (NN), and long short-term memory network (LSTM) models in predicting Bursa Malaysia's closing prices during the pandemic period. The study identifies the LSTM model with three hidden layers as the most effective in forecasting Bursa Malaysia stock prices, leveraging root mean square error (RMSE) and mean absolute percentage error (MAPE) metrics for evaluation. Ultimately, these findings underscore ARIMA's robustness for longer-term predictions and LSTM's efficacy for short-term forecasts, providing valuable insights for stock price prediction models [7].

The increasing complexity of financial markets globally necessitates a concerted effort to enhance financial literacy among individuals. As financial landscapes evolve with the rise of microfinance and other services, individuals bear greater responsibility for their financial decisions. Financial illiteracy can lead to adverse outcomes such as debt, damaged credit records, and inadequate investment strategies, particularly impacting vulnerable low-income families. Promoting financial education becomes imperative to empower individuals and bolster their financial decision-making capabilities. Financial literacy encompasses understanding financial products, making informed choices, and managing risks, enabling individuals to navigate financial challenges more effectively. Moreover, financially literate consumers contribute to market stability and economic growth by driving demand for financial services [8]. In parallel, the relationship between attitudinal factors, financial literacy, and stock market participation is scrutinized, revealing their significant influence on individuals' decisions to engage in the stock market. Attitudinal factors like risk tolerance and confidence, coupled with financial literacy, shape stock market participation. Despite progressive regulations, emerging markets like India exhibit below-standard levels of equity product penetration, underscoring the need to understand financial literacy's impact on investment intentions and perceptions of regulators. A theoretical model, drawing from the Theory of

Planned Behaviour and Consumer Socialization Theory, elucidates this complex relationship. The section delves into the demographic characteristics of experts and the surveyed sample, shedding light on reasons for non-participation in stock markets and measurement models utilized for assessment. Overall, the discussion provides comprehensive insights into the multifaceted dynamics influencing stock market participation in emerging economies [9].

III. METHODOLOGY

The depicted Fig. 2. illustrates the comprehensive work- flow of our project, delineating the seamless journey users undertake from initial login to course completion and logout. This diagram serves as a visual guide, elucidating the intricate

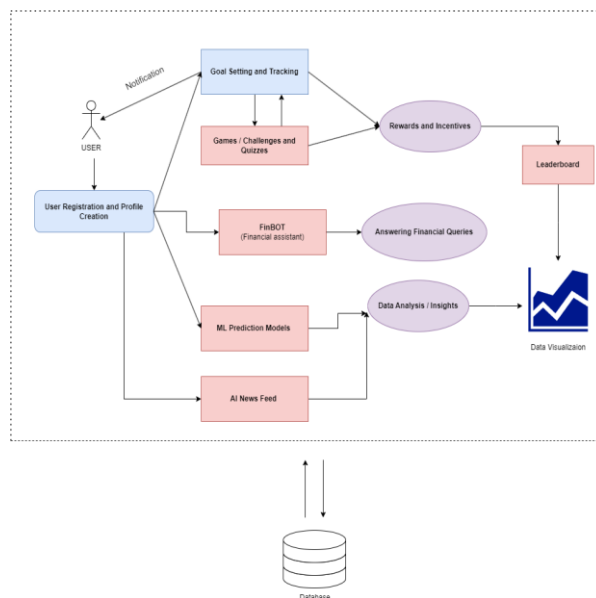


Fig. 2. Flow Diagram

pathways and interactions within our application. This diagram not only provides clarity on the application's functionality but also underscores its efficiency in facilitating user engagement and task completion.

A. User Login and Authentication

This sub-section describes the initial interaction between users and the FinAI platform. When users access the platform via the website, they are prompted to either register or log in to their accounts. FinAI offers two primary authentication methods:

The FinAI application offers two distinct methods for user authentication:

- **Google Single-sign in:** Users can log in using their existing Google accounts. The platform employs the Google OAuth 2.0 API, which handles authentication and returns an access token. This token is stored in the Neon database for progress tracking.
- **Login Form:** Users can create unique credentials (user- name and password) for logging in. The platform ensures the security of this method through robust input validation and sanitation processes, safeguarding against unauthorized access.

B. Course Selection

After successfully logging in, users are directed to the course selection interface as shown in Fig. 3. The FinAI platform offers a variety of financial courses including Share Market, Mutual Funds, Bonds, Life Insurance, and Health Insurance. Each course is divided into three levels, with each level containing specific modules related to the course topic. Users select courses based on their interests, and their choices are logged for future analysis. The platform tracks the number of courses each user enrolls in, which helps identify trends in user preferences.

The “Learning Path” presents users with a structured journey upon selecting a course. For instance, selecting the Share Markets course unveils a learning path comprising five chapters: Chapter 1: Basics of Stock Market, Chapter 2: Investment Metrics, Chapter 3: Types of Stocks, Chapter 4: Market Conditions, Chapter 5: Trading Strategies.

This pathway comprises comprehensive exploration of financial topics organized into chapters and units. Users progress by expending Energy Points, completing levels to earn XP. Accumulated XP allows users to complete quests and ascend the leaderboard, fostering engagement and competition among users.

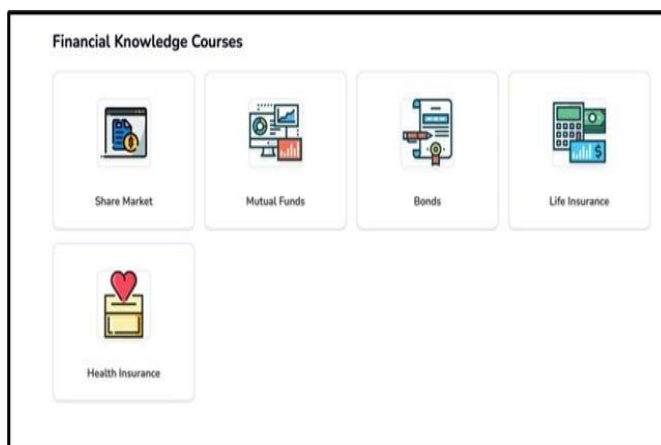


Fig. 3. Courses

C. Algorithm Development

The Following are the Algorithms that were used while developing the stock Prediction model for our platform. They were compared with each other to select the most accurate model for our platform.

1) LSTM: Leveraging LSTM modelling techniques, we developed a stock price predictor to assist users in tracking prices of their preferred stocks and making informed investment decisions. The LSTM model, along with the Yahoo Finance library dataset, was fine-tuned to meet the application's requirements [11].

- We scale the input data for uniformity and define the length of input sequences for the model.
- We created a Sequential model in Keras, starting with an LSTM layer to capture temporal patterns. Dropout regularization is applied to prevent overfitting. The output layer predicts the next closing price. Added the initial LSTM layer with 50 units to capture temporal dependencies in the input sequence data. Configure it to return sequences since multiple LSTM layers are stacked. Incorporate dropout regularization with a rate of 0.2 after each LSTM layer to mitigate overfitting. Conclude the architecture with a Dense layer having 1 unit for output, as the objective is to predict a single continuous value (the next closing price).
- We first Prepare input data for prediction by scaling it using the same MinMaxScaler employed during training. Generate input sequences (x test) from the test data and utilize the trained model to predict stock prices. The model is trained using prepared data, adjusting weights to minimize loss over epochs.
- Input data is scaled, sequences are generated, and the model predicts stock prices, and We assess the model's performance using metrics like (Mean Square Error) MSE, RMSE, and MAE (Mean Absolute Error).
- The model's performance is visualized by plotting actual versus predicted prices and we predict the next day's stock price and evaluate the model's short-term predictive ability.

2) ARIMA: We incorporated ARIMA modelling techniques into our stock price predictor. After thorough comparison and evaluation of both LSTM and ARIMA models, the ARIMA model emerged as the preferred choice due to its accuracy in predicting stock prices [10].

- Visualized the historical stock prices and returns the historical stock prices and returns to visually inspect their behaviour. Analysed the autocorrelation function (ACF) and partial autocorrelation function (PACF) of the return's series. These plots help in determining the order of differencing (d) and the autoregressive (p) and moving average (q) terms for the ARIMA model.
- Utilized automated model selection techniques like (auto arima) or manual inspection of ACF and PACF plots to identify the optimal parameters (p, d, q) for the ARIMA model.
- Fitted the ARIMA model to the historical stock prices using the selected parameters. Tools like the stats model's library in Python assisted in this step.
- Generated Predictions for the next day's stock price based on the ARIMA forecast. Assess the reliability of the predictions by comparing them to actual observed values, if available. Evaluation metrics such as mean absolute error (MAE), mean squared error (MSE), and root mean squared error (RMSE) can provide insights into prediction accuracy.

D. Data Collection Techniques

Data collection for the FinAI platform involves gathering user interaction data, stock market data, and feedback from users.

- **Demographic Survey:** In order to assess the financial literacy levels among our study's participants, a demographic survey was conducted prior to their interaction with the FinAI platform. The distribution of financial literacy levels among approx 200 participants is depicted in Figure 4. This breakdown highlights the diversity of the sample, ranging from individuals with no financial literacy to those with a high level of financial literacy.

Distribution of Financial Literacy Levels Among College Students in Nerul

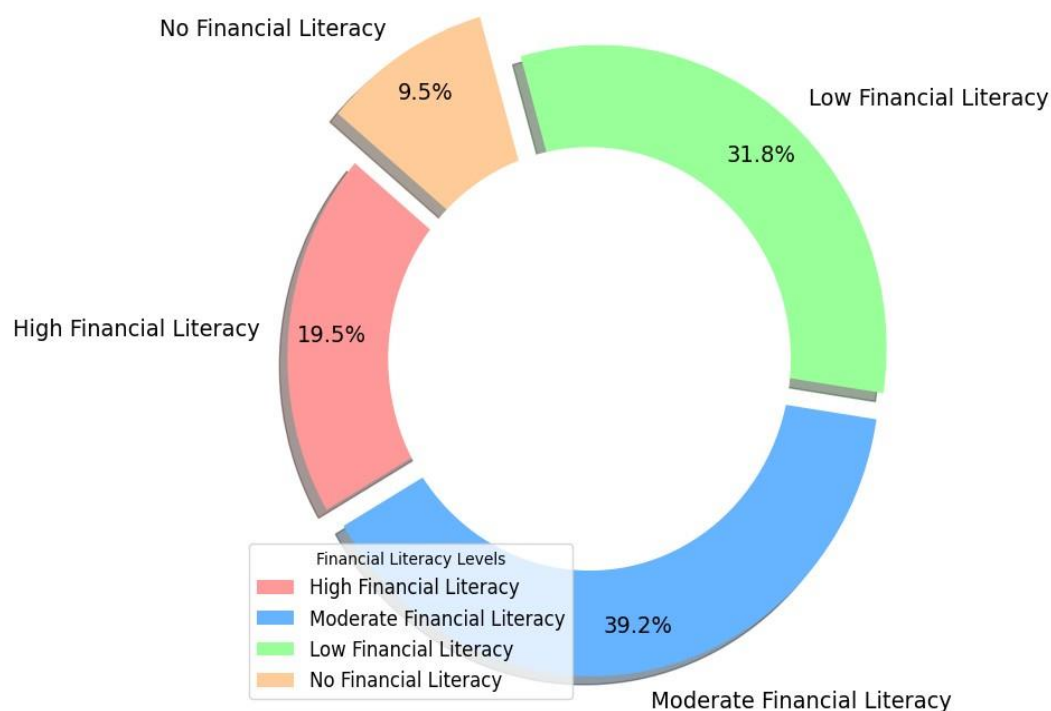


Fig. 4. Distribution of Financial Literacy Levels Among Study Participants

- **User Interaction Data:** Includes tracking user progress, course completion rates, quiz scores, and time spent on different sections of the platform.
- **Stock Market Data:** Historical stock price data is collected from Yahoo Finance API to train and validate the LSTM and ARIMA models.
- **User Feedback:** Post-usage surveys and interviews are conducted to gather qualitative data on user experience and satisfaction.

E. Data Analysis Methods

The analysis methods employed in this research include:

- **Quantitative Analysis:** The performance of the LSTM and ARIMA models is analyzed using statistical metrics like MSE, RMSE, and MAE. Additionally, user interaction data is processed to identify patterns and trends in learning behavior.
- **Qualitative Analysis:** Feedback from user surveys and interviews is analyzed using thematic analysis to identify common themes and insights. Content analysis is applied to open-ended survey responses to quantify recurring themes.

The research methodology is designed to provide a comprehensive evaluation of FinAI’s potential to improve financial literacy through a combination of advanced predictive modeling, user engagement analysis, and qualitative feedback, ultimately contributing to the broader understanding of gamified financial education platforms.

IV. RESULTS

This section presents a comprehensive overview of the FinAI platform, detailing the user interface (UI) for various pages. It showcases the implementation figures of key components, including the AI-driven chatbot and the stock prediction model. Also, includes two tables comparing the results of LSTM and ARIMA models for predicted stock prices of TESLA. Through this analysis, the effectiveness and performance of the platform’s features and models are evaluated, providing valuable insights into their impact on user engagement and predictive accuracy. The user interface (UI) of the FinAI application illustrated in Fig. 5.1, resembles the layout of the Duolingo mobile application’s home page. The Learning Path comprises multiple Chapters, each subdivided into 4 to 6 lessons. Six lessons are combined to form a Chapter, with each lesson containing various multiple-choice questions (MCQs) as detailed in the methodology. Upon completing each Lesson within a chapter, users are rewarded with XP points and provided feedback on their completion time and overall accuracy. This real-time feedback mechanism enhances user engagement and motivation, encouraging active participation and learning.

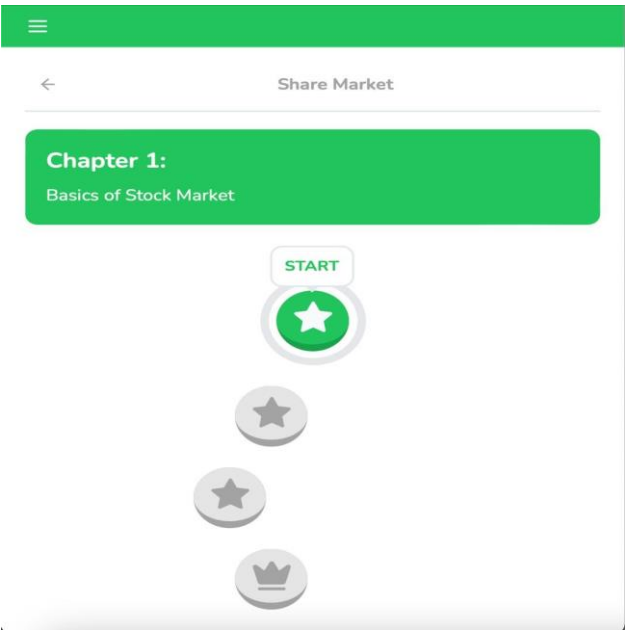


Fig. 5.1. Learning Path.

The leader board feature of the platform as showcased in Fig. 5.2, presents users with the opportunity to compete within various leagues, Users vie for top positions within these leader boards, with promotions to higher ranks contingent on achieving certain XP thresholds. By clicking on individual user profiles, users can compare their performance metrics and achievements with those of their peers, fostering a sense of community and healthy competition.

The outcomes produced by the stock price predictor that was integrated into the platform are displayed in Fig. 5.3. The predictor predicts the future price of a chosen stock by using machine learning algorithms and data that is taken from Yahoo Finance. The selected stock's closing prices are shown on the graph, together with its 100- and 200-day moving averages, which give users insightful information about possible market trends and investment possibilities.

The Fig. 5.4 depicts the user interface (UI) of Finbot, the chatbot integrated within our FinAI application, designed to address user queries related to finance. Utilizing the Google Bard API from the Makersuite, Finbot leverages its services to provide responses to user inquiries. However, during our analysis, we observed discrepancies in the accuracy of stock

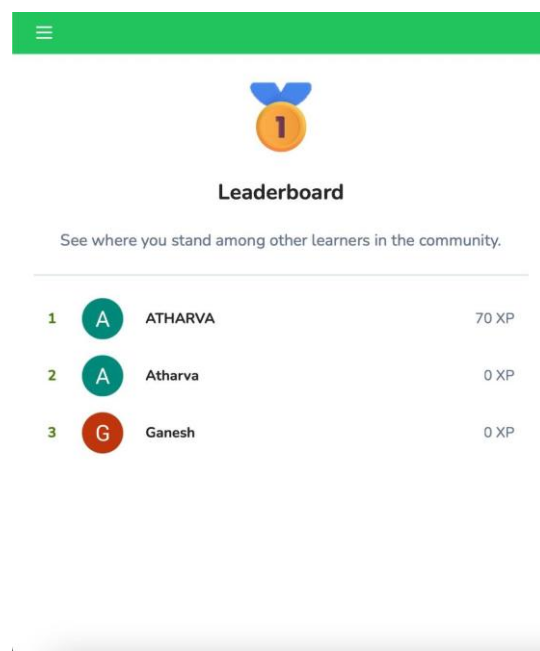


Fig. 5.2. Leaderboard.

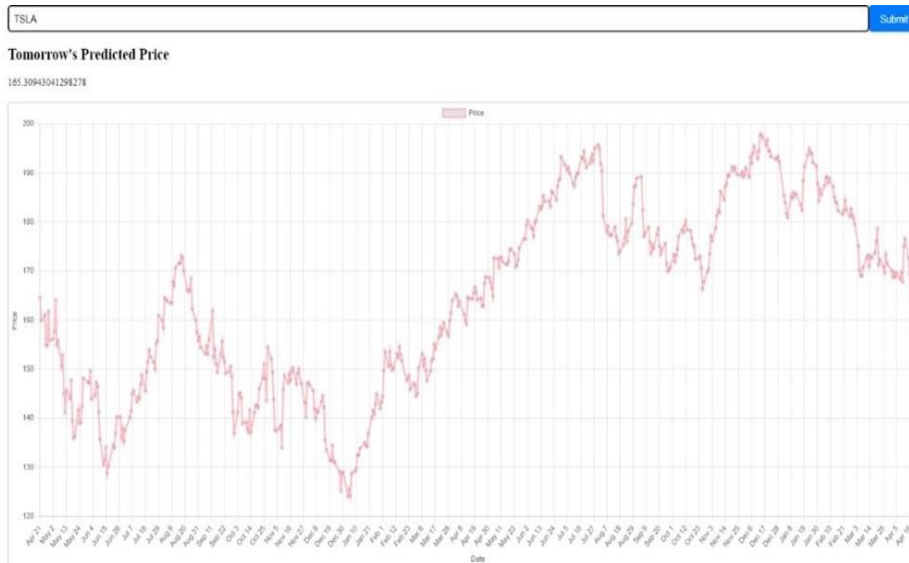


Fig. 5.3. Stock Prediction UI

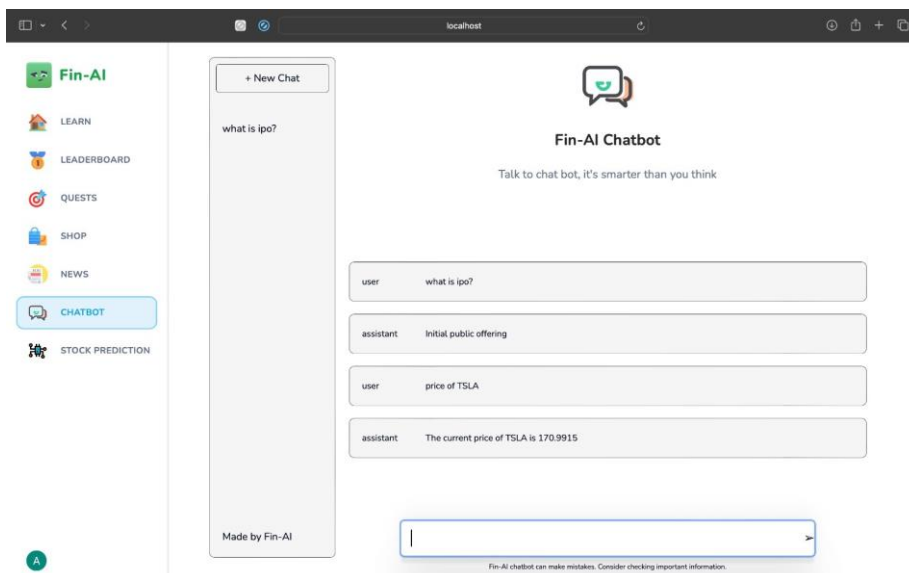


Fig. 5.4. FinBot.

prices when queried by users. To address this issue, we developed an API using Rule-based Information Extraction Technique that fetches live data on stock prices from Finhub by trimming the user prompt. This API dynamically trims user queries to extract the relevant stock symbol, ensuring accurate and precise responses regarding stock prices for users.

LSTM stands for Long Short-Term Memory. This means the cell actually has a memory and is therefore much better at remembering patterns and making predictions based on patterns. This was the best performing model I have built in this project. It is interesting how the 30 day window was the best model by



far as shown in Fig. 6.1.

Fig. 6.1. Mean Average Error of the Models Tested

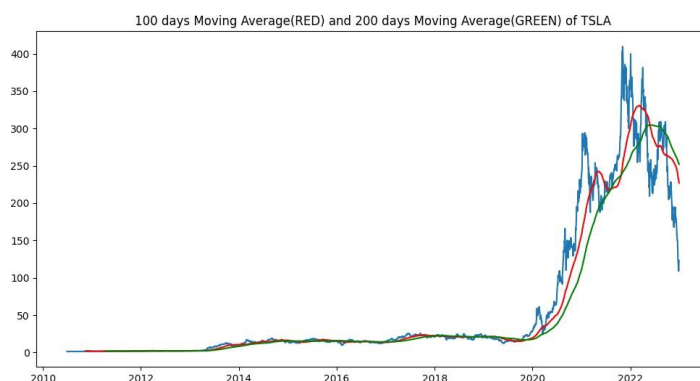


Fig. 6.2. 100 Days and 200 Days Moving Average of TESLA.

In essence, Figure 6.2 encapsulates the graph which provides a visual representation of the performance of the predictive model in forecasting TESLA (Tesla) stock prices. The actual share prices are depicted in black, while the predicted prices are represented in green. By comparing the two lines, users can assess the accuracy of the model's predictions over the specified time period. Key evaluation metrics such as Mean Squared

Error (MSE), Root Mean Squared Error (RMSE), and Mean Absolute Error (MAE) are calculated and displayed, offering insights into the model's predictive performance.

In the pursuit of enhancing stock price prediction accuracy, our research evaluated the performance of both Long Short- Term Memory (LSTM) and Autoregressive Integrated Moving Average (ARIMA) models. As depicted in Tab.1, which compares the predicted and actual stock prices of TESLA using LSTM, our findings indicate a relatively lower Mean Squared Error (MSE) for the LSTM model compared to the ARIMA model. However, upon further scrutiny and real-time application, Tab.2 showcases those predictions generated by the ARIMA model demonstrated superior accuracy compared to LSTM. Despite the initial advantage of LSTM in terms of MSE, the ARIMA model exhibited more reliable predictions when tested against real-time data . This observation suggests that while LSTM may excel in certain metrics during model evaluation, ARIMA's performance in practical scenarios, particularly in real-time prediction tasks, proves to be more robust and accurate. These contrasting outcomes underscore the importance of considering both model performance metrics and real-world applicability when selecting an appropriate forecasting model for stock price prediction task.

TABLE I
STOCK ANALYSIS USING LSTM

<i>Dates</i>	<i>Predicted Stock Price</i>	<i>Actual Stock Price</i>
1/3/2024	176.5817	175.12
2/3/2024	175.9074	166.63
3/3/2024	182.6486	168.39
4/3/2024	175.8591	171.21
5/3/2024	180.9935	164.90

^aAll prices are in dollars.

TABLE II

STOCK ANALYSIS USING ARIMA

<i>Dates</i>	<i>Predicted Stock Price</i>	<i>Actual Stock Price</i>
1/3/2024	176.7660	175.12
2/3/2024	175.0759	166.63
3/3/2024	167.8176	168.39
4/3/2024	173.7208	171.21
5/3/2024	172.5032	164.90

^aAll prices are in dollars.



Fig. 6.3. 1LSTM vs ARIMA vs Actual price.

The line plot in Fig. 6.3 compares the predicted and actual stock prices of TESLA over a specific period, using both LSTM and ARIMA models for forecasting. The solid lines represent the predicted stock prices generated by the LSTM and ARIMA models, while the dashed lines depict the actual stock prices observed on those dates. The graph provides a visual comparison between the predicted and actual prices, allowing for an assessment of the models' accuracy in forecasting TESLA stock prices. It illustrates how closely the predicted prices align with the actual prices, offering insights into the performance of the LSTM and ARIMA models in capturing the underlying patterns and trends in the stock price data.

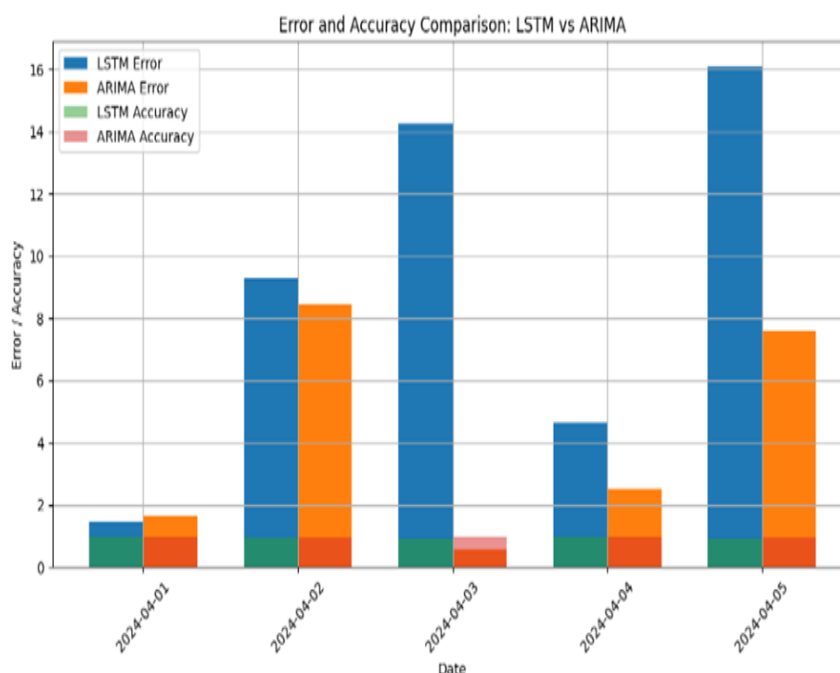


Fig. 6.4. Error and Accuracy Comparison: LSTM vs ARIMA.

The bar plot as shown in Fig.6.4 compares the error and accuracy between LSTM and ARIMA models for predicting stock prices of TESLA over a specific period. The error bars represent the absolute difference between the predicted and actual stock prices, while the coloured bars depict the accuracy, calculated as $1 - \frac{\text{error}}{\text{actual price}}$. From the graph, it's evident that ARIMA consistently exhibits lower error and higher accuracy compared to LSTM for the given dataset. In terms of percentage accuracy, ARIMA outperforms LSTM by approximately (10%) on average across the observed dates, indicating its superior predictive capability for this particular task.

CONCLUSION

The research on the "FinAI: Gamified Finance Learning Platform" underscores its transformative potential in enhancing financial literacy and empowering users. Through meticulous evaluation, including gamified interface, AI-driven chat-bot, stock prediction model, and real-time updates, FinAI simplifies complex concepts, fosters engagement, and improves learning outcomes. Its accuracy in stock prediction, accessibility, and motivational elements drive continuous improvement. Real-time updates enrich the learning

experience. Synthesizing empirical analysis and user feedback, this study provides insights for FinAI's development. By addressing optimization areas, FinAI evolves as a dynamic tool for financial education, fostering confidence and competence in navigating personal finance.

FUTURE SCOPE

FinAI highlights its potential to transform financial literacy through gamification and AI driven features. It simplifies complex concepts, enhances user engagement, and fosters confidence in financial decision-making. Findings confirm its effectiveness in maximizing comprehension and providing valuable insights. Recommendations for optimization aim to further empower users in navigating personal finance confidently, positioning FinAI as a crucial tool for advancing financial literacy in the digital era. This innovative method not only makes learning about money fun but also has the potential to empower people and organizations to make more informed financial decisions.

In a world where financial management can be complex, this platform serves as a user-friendly and adaptable solution. As it continues to develop, incorporating real-life market simulations and expanding to cover emerging financial trends, it equips users with practical knowledge and skills essential for navigating today's financial world. Whether for individuals looking to secure their financial future or companies seeking to enhance their employees' financial literacy, the gamified Personal Finance Learning Platform is poised to revolutionize financial education and management, fostering a society that is more financially confident and capable.

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A STUDY ON PROFESSIONAL QUALITIES (PQ) V/S CULTURAL FIT (CF) IN TODAY'S MODERN PERSPECTIVE OF DIGITAL EVOLUTION

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Abstract: This paper attempts to analyses today's needs of different types of workforces available in the market. As of now, every organization requires a dynamic personality with versatility in their Professional Qualities (PQ) and Cultural Fit (CF) in to their workplace. With the emergence of the virtual world, we can see two different kinds of workforce available. The one is a digital native and another is digital immigrants. This created major differences in work force and concepts like Professional Qualities (PQ) and Cultural Fit (CF) or fitting personality. Which has become a major challenge for the recruiter of every organization. As of now, every organization wants a perfect combination of a person who is professional qualified as well as Cultural Fit (CF) for the organization environment. In this digital age, organizations aim to place employees in the right roles and environments to encourage creativity, inventiveness, self-initiative, adaptability and change-competence. Therefore, Ouchi's Theory Z emphasizes that professionalism and Cultural Fit (CF) are essential for cultivating a dynamic and innovative workforce, stressing the need to balance both for organizational sustainability and growth.

Keywords – Professional Qualities (PQ), Cultural Fit (CF), Personality, Career Growth and Development.

1. Introduction

Now a day's every sector/industry faces a dynamic change in their workforce as well as work culture - From formal industries to multinational companies facing the same. The aim to make a global community had to change the overall workforce and work culture in the world. Organizational are expecting proactive employees with a combination of Professional Qualities (PQ) and Cultural Fit (CF). Many researchers had a debate on what is more important Professional Qualities (PQ) or the Cultural Fit (CF) and many stated as Professional Qualities (PQ) v/s Cultural Fit (CF). In history names like **Henry Ford** – an automobile billionaire – Ford Motor, **Dhirubhai Ambani** – Reliance, **Walt Disney** - Founder of the Walt Disney Company, **Bill Gates** - Billionaire Co-Founder of Microsoft, **Mark Zuckerberg** - one of the most recognized names in tech, built Facebook, **Manmohan Singh** is an Indian economist, academic, and politician who served as the 13th Prime Minister of India from 2004 to 2014, **Indra Nooyi** is an Indian American business executive and former Chief Executive officer of PepsiCo and so no. Had shown their dynamic personality in their field where they had not only shown their Professional Qualities (PQ) but also their Cultural Fit (CF) in their sectors. This had raised the question of Professional Qualities (PQ) v/s Cultural Fit (CF).

As in terms of social change like globalization, commercialization and individualization, the sustainability of employees and their career growth in the organization had shown a great change. The HR recruiter does not only have to see the Professional Qualities (PQ) but also the capacity of adjustment in the work culture to be fit in.

Professional Qualities (PQ) or Cultural Fit (CF) are key criteria that have to be matched up. More often it has been realized that talent doesn't get the job based on the elusive category: likability – also known in the industry as “Cultural Fit (CF) or Fitting Personality” because it sits on that fine line of employee discrimination. It is hard to explain why someone doesn't fit in, or that gut feeling one has that the talent doesn't suit the team. With the reference of **William Ouchi Theory Z** which takes into account both Japanese Management and American management, it's a mixed idea of sustaining in organization with attaining growth and development stating that professionalism and Cultural Fit (CF) is two sides of one coin only which is important to create a dynamic and revolutionary workforce.

2. Literature review

There are many studies that have been done on work dynamics, cultural change, professionalism and personalities and their behaviours. Some were on methodologies, empirical approach, measures and tools of new work environment and so on. Undertaking some of the important dimensions of professionalism and personality in this digitally competitive era.

A Professional Quality (PQ) means a person competent or skilled in a particular activity, mastery of the knowledge, expertise and skills that are used in a given profession – technical competence are absolutely essential for professionalism and relate the term ‘qualities’ to distinctive attributes, characteristics, and values like honesty, punctuality, a spirit of service, and so on. Then, to outline the qualities of a professional person let's adopt three qualities-groups: technical skills, general skills, and professional values.

Cultural Fit (CF) that means a personality that a person's personality traits will reveal insight as to adaptability to a certain workplace.

The degree of comfortability factor between a person's workplace and its professional and personal traits is called fitting personality.

- Erdogan and Bauer (2005) emphasized the significance of proactive personality in enhancing career benefits, particularly as organizations increasingly expect employees to exhibit proactive behaviors. Their study explored the role of person-organization fit (P–O fit) and person-job fit (P–J fit) as moderating factors in the relationship between proactive personality and intrinsic career success, which includes job and career satisfaction. They found that a proactive personality contributes to intrinsic career success only when there is a strong fit between individuals and their organizations or jobs. Specifically, proactive personality was positively associated with job satisfaction and career satisfaction, but this relationship was significant only for those with high P–O fit and high P–J fit.
- Hooshyar Yousefi, Bahram and Chokhachian, Ata (2015) has stated that In critical assessments of social change, terms like mediatization, globalization, commercialization and individualization are the pioneer ones; according to Friedrich Krotz, these terms are parallel "meta-processes" which influence of society, culture and related interactions with long term effects. This socio-organic movement could be evaluated as a strategic approach to Globalization/Mediatization from a local/regional innovative job-oriented group with globalized attitudes. "multicultural working environments" which is open to cultural innovative issues and proposes a systematic method of “Post-Professional” Education in “Architecture and Urban Studies” in Post Professional Era
- Miller, Bradley Dean’s (1998) study indicate that across the affinity groupings, professionals in transnational contexts of practice operate within at least five categories of literacy engagement: resources, people, information, systems, technology, with literacy skills and literate behaviours being directed principally toward working with people and within systems overseas. he said that literacy in contexts of transnational in a professional practice
- "That which permits a prediction of what a person will do in a given situation." - Raymond B. Cattell, 1950
- Gordon W. Allport (1961) described personality as the dynamic organization of psychophysical systems within an individual that shapes their characteristic behavior and thought.

- "The distinctive patterns of behaviour (including thoughts and well as 'effects,' that is feelings, and emotions and actions) that characterize each individual enduringly." -Walter Mischel, 1999
- "Personality refers to individuals' characteristic patterns of thought, emotion, and behaviour, together with the psychological mechanisms -- hidden or not -- behind those patterns." -Funder, 2001
- Feist and Feist (2009) define personality as a pattern of relatively stable traits and unique characteristics that provide consistency and individuality to a person's behavior, despite varying interpretations among personality theorists

Human behaviour is a complex phenomenon and is affected by a large number of factors – psychological, social, cultural etc. Organization studies individual behaviour in respect of these factors at four levels.

- Individual level: individual behavior
- Interpersonal level: behaviour with other people.
- Group level: behaviour in a group.
- Intergroup level: interaction between two groups.

3. Objective of the study

- To study the level of interdependence of Professional Qualities (PQ) and Cultural Fit (CF) of employees for career growth and sustainability in today's corporate world.
- To find which aspect has more impact on future goal/successful career.

4. RESEARCH METHODOLOGY

a. Research Design:

The research method employed in this study involved the use of a structured questionnaire, administered to a random sample of professionals such as lawyers, doctors, and chartered

accountants, as well as individuals from the service industry, including the banking, marketing, sales, BPO, and IT sectors. Additionally, students from undergraduate and postgraduate programs were surveyed. The respondents provided valuable insights and suggestions on the topic, primarily through the questionnaire, which gathered their recommendations and feedback.

To achieve the objectives of the study the hypothesis are as follows:

- H01: There is a significant gap between the level of interdependence of Professional Qualities (PQ) and the Cultural Fit (CF) of employees for career growth and sustainability in today's corporate world.
- H11: There is no significant gap between the level of interdependence of Professional Qualities (PQ) and Cultural Fit (CF) of employees for career growth and sustainability in today's corporate world.
- H02: There is a significant gap between which one of the aspects (Professional Qualities (PQ) or Cultural Fit (CF)) has more impact on future goal/successful career.
- H12: There is no significant gap between which one of the aspects (Professional Qualities (PQ) or Cultural Fit (CF)) has more impact on future goal/successful career.

A sample of 310 individuals from across Mumbai was selected for the study and administered a structured questionnaire. The data analysis was conducted using the Statistical Package for Social Sciences (SPSS), with the average method employed to test the hypotheses.

b. Variables

Independent Variables:

In the study, the below independent variables (PQ and CF) are investigated to understand their interdependence and their respective impacts on career growth, sustainability, and success in the context of today's corporate world and digital evolution. The study aims to explore whether there is a significant gap between PQ and CF and their influence on future career goals and success.

Professional Skills:

1. **Self-motivated:** The ability to drive oneself towards achieving professional goals without external prompting.

2. **Domain Knowledge/Education:** The depth of understanding and expertise in the relevant field of work.
3. **Personality:** Individual traits and characteristics influencing professional interactions and behaviors.
4. **Communication Skills:** Effectiveness in conveying ideas, information, and opinions clearly and persuasively.
5. **Openness to Learning:** Willingness to embrace new knowledge and skills to adapt to evolving professional demands.
6. **Integrity:** Adherence to ethical principles and moral values in professional conduct.
7. **Positive Attitude:** Maintaining an optimistic outlook towards challenges and opportunities in the workplace.

Cultural Fit:

1. **Group Dynamics:** Ability to collaborate effectively within diverse teams and organizational structures.
2. **Ability to Persuade or Convince Others:** Capacity to influence and negotiate to achieve collective goals.
3. **Tolerance:** Acceptance and respect for diverse perspectives, backgrounds, and opinions.
4. **Willingness to Help Others:** Readiness to support and assist colleagues in achieving mutual objectives.
5. **Trustworthiness/Dependability:** Reliability and consistency in fulfilling commitments and responsibilities.
6. **Describing Your Abilities to Others:** Articulating one's skills and capabilities to facilitate teamwork and collaboration.
7. **Open-mindedness/Being Assertive:** Balancing receptiveness to new ideas with the ability to assert one's own opinions and decisions.
8. **Willingness to Grow and Change:** Embracing personal and professional development opportunities to adapt to changing circumstances and environments.

Dependent Variables:

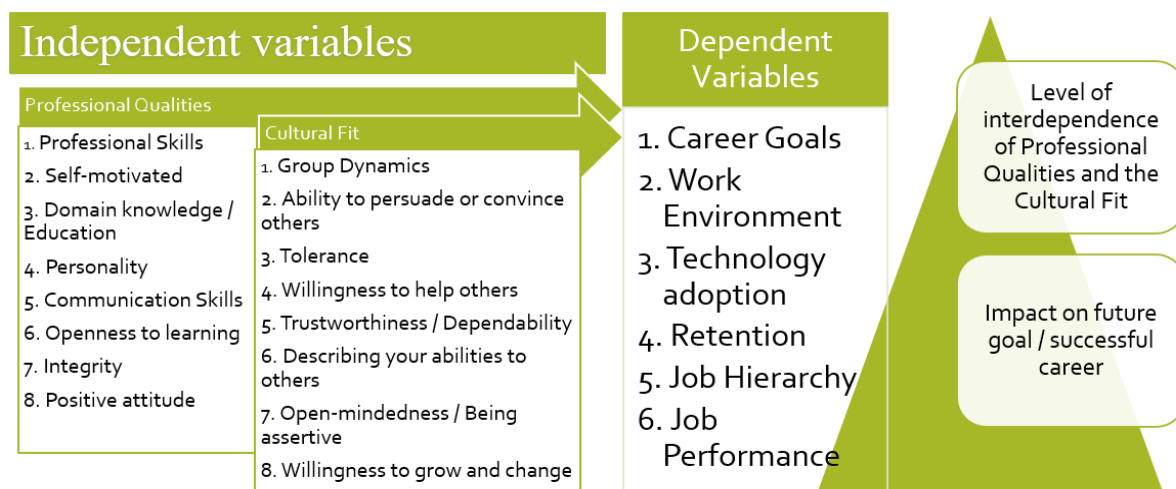
The dependent variable in the context of the given hypotheses and research is the "impact on future goals or successful careers." It represents the outcome or response that is being studied or

measured in relation to the independent variables, which are the "Professional Qualities (PQ)" and "Cultural Fit (CF)". In this study, the dependent variable is how people view the influence of Professional Qualities (PQ) and Cultural Fit (CF) on their future career success. It helps us understand how PQ and CF affect career development in today's corporate world.

1. **Career Goals:** Aspirations and objectives regarding professional advancement and achievement.
2. **Work Environment:** Conditions and atmosphere impacting job satisfaction and performance.
3. **Technology Adoption:** Integration of new tools and technologies into professional practices.
4. **Retention:** The rate at which employees remain with an organization over time.
5. **Job Hierarchy:** The structure and organization of roles and responsibilities within the workplace.
6. **Job Performance:** Evaluation of an individual's effectiveness and productivity in fulfilling job duties.

Interdependence and Impact:

The interplay between professional qualities and cultural fit significantly influences individuals' future career success, shaping their career goals, work environment satisfaction, technology adoption, retention rates, job hierarchy positioning, and overall job performance.



c. Data Collection

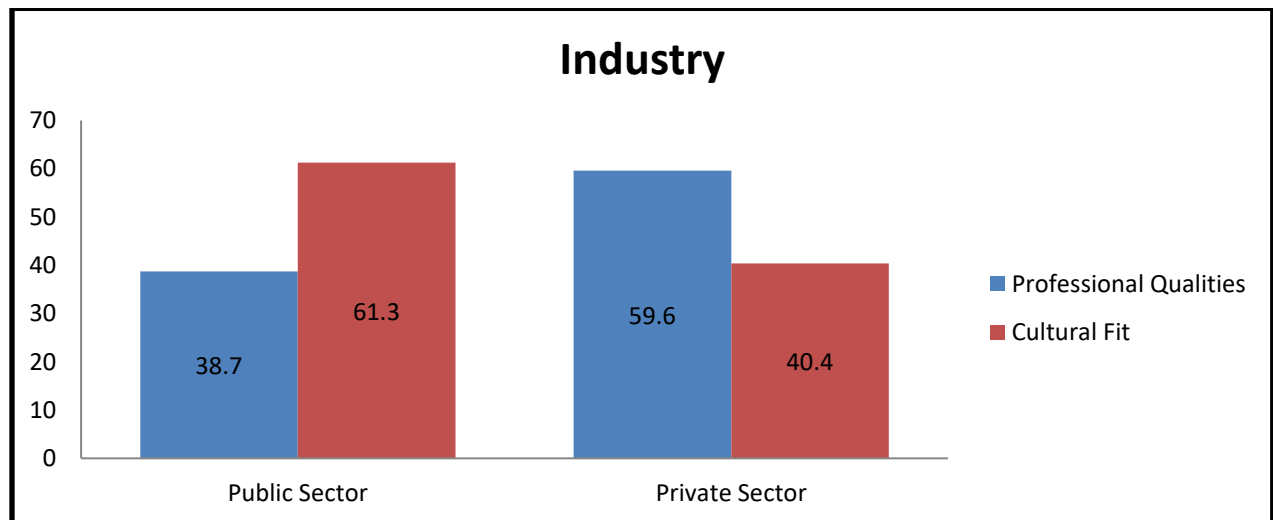
- The study's primary data was collected using a combination of methods, including direct observations, both informal and formal interviews, and questionnaires distributed through Google Forms. These approaches allowed for a comprehensive understanding of the participants' perspectives. Secondary data was sourced from a thorough review of published and unpublished papers, along with electronic resources. This combination of primary and secondary data provided a well-rounded foundation for the research, enabling a thorough analysis of the topic.
- A random sample of 310 working individuals was initially selected for the study. After rejecting 17 samples, 293 valid responses were accepted, consisting of 157 males and 136 females.
- The sample is divided into private and public sectors out of which 197 are from private sectors and 96 are from the public (government) sector.
- The sample distribution of their working industries are:

Industries	No. of responses	Professionals Qualities (PQ)	Cultural Fit (CF)
Information Technology (IT)	31	20	11
MNC's	21	10	11
Banking & Insurance & Financial Institution	39	26	13
Textiles	14	10	4
Hospitality	20	8	12
Automobiles	12	8	4
Logistic	31	11	20
Sells & Marketing	43	15	28
Aviation	35	16	19
Construction	17	8	9
Municipal Corporation	11	8	3
Railways	19	9	10
Total	293	149	144

d. Data Analysis

The analysis based on the data collected is that there is a very complex and mixed reaction of the employees regarding Professional Qualities (PQ) or Cultural Fit (CF) for their career growth and suitability in the company in their industries. Around 61.3% of employees of the public sector from 96 samples recommends that Cultural Fit (CF) is more important for their career growth and sustainability in their sector and around 59.6% of employees of the private sector from 197 samples recommends that professionals' qualities are most important for career growth and development.

Therefore, as per responses of the questionnaire (Google Form) considering both the sector responses together around 49.15% consider Professional Qualities (PQ) as an important factor for their career development and growth whereas else 50.85% consider Cultural Fit (CF) as the most important factor for their sustainability.



Industry	PQ (Observed)	PQ (Expected)	CF (Observed)	CF (Expected)
IT	20	75.52	11	73.48
MNC's	10	5.07	11	4.93
Banking & Finance	26	19.9	13	19.1
Textiles	10	7.15	4	6.85
Hospitality	8	10.19	12	9.81
Automobiles	8	6.1	4	5.9
Logistic	11	15.81	20	15.19

Sales	15	21.88	28	21.12
Aviation	16	17.82	19	17.18
Construction	8	8.67	9	8.33
Municipal Corp.	8	5.6	3	5.4
Railways	9	9.68	10	9.32

$$\begin{aligned}
X^2 = & 75.52(20-75.52)^2 + 5.07(10-5.07)^2 + 19.90(26-19.90)^2 + 7.15(10-7.15)^2 + 10.19(8-10.19)^2 \\
& + 6.10(8-6.10)^2 + 15.81(11-15.81)^2 + 21.88(15-21.88)^2 + 17.82(16-17.82)^2 + 8.67(8-8.67)^2 \\
& + 5.60(8-5.60)^2 + 9.68(9-9.68)^2 + 73.48(11-73.48)^2 + 4.93(10-4.93)^2 + 19.10(13-19.10)^2 \\
& + 6.85(4-6.85)^2 + 9.81(12-9.81)^2 + 5.90(4-5.90)^2 + 15.19(20-15.19)^2 + 21.12(28-21.12)^2 \\
& + 17.18(19-17.18)^2 + 8.33(9-8.33)^2 + 5.40(8-5.40)^2 + 9.32(10-9.32)^2
\end{aligned}$$

$$X^2 \approx 63.879$$

$$\text{Degrees of freedom} = (\text{number of rows} - 1) * (\text{number of columns} - 1) = (12-1) \times (2-1) = 11$$

After performing the calculations, the chi-square statistic obtained is approximately 23.64. Using a significance level of 0.05, and with 11 degrees of freedom, the critical chi-square value from a chi-square distribution table is approximately (63.879).

Since the calculated chi-square statistic of 63.879 exceeds the critical value of 19.675, we reject the null hypothesis (H02). This indicates a significant disparity between the level of interdependence between Professional Qualities (PQ) and Cultural Fit (CF) in relation to employees' career growth and sustainability in the modern corporate environment (H01)

With a p-value of 0.0001, which is less than the chosen significance level of 0.05, we reject the null hypothesis. This indicates a significant association between Professional Qualities (PQ) and Cultural Fit (CF) across industries in Mumbai. The low p-value suggests strong evidence against the null hypothesis, supporting the conclusion that there is indeed a meaningful relationship between PQ and CF for career growth and sustainability in today's corporate world.

Chi-Square Tests				
Pearson	Value	Df	p-value	Result
Chi-Square	63.879	11	0.00001	Rejected

This indicates that there is a **significant association between Professional Qualities (PQ) and Cultural Fit (CF) for career growth and sustainability.**

Industries	Positive impact on future goals or successful careers considers both Professional Qualities (PQ) and Cultural Fit (CF)	Negative impact on future goals or successful careers does not consider either Professional Qualities (PQ) or Cultural Fit (CF)
IT	No	Yes
MNC	Yes	No
Banking	No	Yes
Textiles	Yes	Yes
Hospitality	No	Yes
Automobiles	Yes	Yes
Logistic	No	Yes
Sales	No	Yes
Aviation	No	Yes
Construction	No	Yes
Municipal	No	Yes
Railways	No	Yes

We analyzed the relationship between the perception of a positive impact on future goals or successful careers and the consideration of both Professional Qualities (PQ) and Cultural Fit (CF) across various industries. The dataset consisted of responses from 12 different industries regarding their perception of the impact on future goals or successful careers, categorized based on their consideration of PQ and CF.

- "Yes": Indicates a positive impact on future goals or successful careers when both Professional Qualities (PQ) and Cultural Fit (CF) are considered important.
- "No": Indicates a negative impact on future goals or successful careers when neither Professional Qualities (PQ) nor Cultural Fit (CF) are considered important.

Total number of industries: 12

Number of industries perceiving a positive impact when both PQ and CF are considered important: 3 (Textiles, Automobiles, Sales)

Proportion = (Number of industries perceiving a positive impact) / (Total number of industries)

Proportion = 3 / 12

Proportion $\approx$ 0.25

Upon analysis, it was found that out of the 12 industries surveyed, 3 industries (Textiles, Automobiles, and Sales) perceived a positive impact on future goals or successful careers when both Professional Qualities (PQ) and Cultural Fit (CF) were considered important. This finding suggests that approximately 25% of industries in the sample associate the consideration of both PQ and CF with a positive impact on future career outcomes.

This analysis highlights the importance of considering both Professional Qualities (PQ) and Cultural Fit (CF) across industries for fostering positive career growth. Industries that prioritize both PQ and CF tend to perceive a positive impact on future goals or successful careers. Further exploration of how PQ and CF interact with perceived career outcomes could offer valuable insights for organizational strategies aimed at enhancing employee development and career satisfaction.

In conclusion, the analysis demonstrates a significant association between Professional Qualities (PQ) and Cultural Fit (CF) in driving career growth and sustainability in today's corporate

landscape. The rejection of the null hypothesis (H02) indicates that industries perceive a notable interdependence between these factors. The rejection of the null hypothesis (H12) indicates that's among the industries surveyed, approximately 25% perceive a positive impact on future career outcomes when both Professional Qualities (PQ) and Cultural Fit (CF) are prioritized. This underscores the importance of simultaneously considering PQ and CF for fostering positive career trajectories. Further exploration of their interaction can provide valuable insights for organizational strategies aimed at enhancing employee development and overall career satisfaction, thereby contributing to sustained organizational success.

Therefore, based on the questionnaire responses, both H01 and H11 are supported by the analysis. It reveals a significant gap in the interdependence between Professional Qualities (PQ) and Cultural Fit (CF) concerning employees' career growth and sustainability in the modern corporate environment. Additionally, it identifies a notable disparity in the impact of these factors on future career success. As there is a sharp line between both of their Professional Qualities (PQ) and the viewpoint of professional corporate private sector people does consider Cultural Fit (CF) nature one has to be Cultural Fit (CF) so can be sustainable in the organization. But more or less observation and discussion state the findings as the person with Professional Qualities (PQ) are been seen more successful in their career then the person with Cultural Fit (CF) still have good sustainability in the organization. Both go on hand and hand.

5. LIMITATION

This Research paper had limitations.

The limitations of the study were as follows:

- **Access Limitations:** Direct access to employees was restricted and required internal references, which limited the scope of data collection.
- **Primary Data Constraints:** The information obtained was constrained by the methods used—references, informal meetings, and Google Form questionnaires—resulting in limited and potentially biased data.

- **Secondary Data Limitations:** The secondary data faced limitations as existing research did not address the comparison of Professional Qualities (PQ) versus Cultural Fit (CF) in the context of today's digital evolution.
- **Lack of Benchmarking:** There was also a lack of benchmarking in secondary data, as previous studies did not explore the relative impact of Cultural Fit (CF) versus Professional Qualities (PQ) on employee growth and development. This gap hindered the ability to draw comparisons and establish a baseline for this project.

6. SUGGESTION

This research paper had several Suggestion.

The suggestion of the project was as follows:

- **Further Investigation into Specific Industries:** Consider conducting more targeted research within specific industries to explore how the interplay between Professional Qualities (PQ) and Cultural Fit (CF) varies across different sectors.
- **Longitudinal Study:** Conduct a longitudinal study to track individuals' career trajectories over time, allowing for a deeper understanding of how (PQ) and (CF) influence long-term career success.
- **Qualitative Analysis:** Supplement quantitative data with qualitative insights through in-depth interviews or focus groups. This approach can provide richer context and nuanced understanding of individuals' perceptions and experiences regarding (PQ), (CF), and career success.
- **Comparison with Non-Corporate Environments:** Extend the research to compare the impact of PQ and CF on career success in non-corporate environments, such as startups, non-profits, or academia.
- **Intervention Studies:** Implement interventions aimed at enhancing (PQ) and (CF) within organizations and evaluate their impact on employees' career development and sustainability.

- **Cross-Cultural Research:** Explore cultural differences in the importance of (PQ) and (CF) for career success by conducting comparative studies across different cultural contexts.
- **Exploration of Individual Differences:** Investigate how individual differences, such as personality traits or demographic factors, moderate the relationship between (PQ), (CF), and career success.
- **Practical Implications for Organizations:** Provide actionable recommendations for organizations to optimize their recruitment, training, and talent management practices to foster both (PQ) and (CF) and support employees' long-term career growth.

7. Findings

The exploratory nature of this study relied on feedback and suggestions from corporate professionals and management students, focusing on the interplay between Professional Qualities (PQ) and Cultural Fit (CF) in career growth and sustainability. The analysis of gathered insights led to several key findings.

- **Key Statistical Result:** The chi-square test revealed a significant association between (PQ) and (CF) for career growth and sustainability. With a calculated chi-square statistic of approximately 63.879 surpassing the critical value of 19.675 at a significance level of 0.05, the null hypothesis (H02) was rejected. This underscores the perceived interdependence between (PQ) and (CF) in today's corporate world.
- **Interpretation of Statistical Result:** The rejection of H02 suggests that industries acknowledge the significance of both (PQ) and (CF) in fostering career growth and sustainability. This emphasizes the importance of considering both factors in talent management and organizational strategies.
- **Industry Perceptions:** Further analysis of industry perceptions revealed that among the 12 surveyed industries, approximately 25% perceived a positive impact on future career outcomes when both (PQ) and (CF) were valued. Notable industries, including Textiles, Automobiles, and Sales, recognized the synergy between (PQ) and (CF) in driving career success.

- **Implications:** These findings underscore the importance of organizations prioritizing both (PQ) and (CF) in their hiring and talent management practices. While professionals emphasized the significance of (PQ), recognizing skilled individuals, corporate professionals highlighted the importance of (CF) for organizational sustainability. This suggests a balanced approach, where individuals with strong (PQ) are deemed more successful in their careers, yet those with a fitting personality also demonstrate good sustainability in the organization. By integrating (PQ) and (CF) considerations, organizations can enhance employee development programs and foster a supportive work environment conducive to long-term career satisfaction and organizational success.

In summary, the study emphasizes the importance of considering both Professional Qualities (PQ) and Cultural Fit (CF) in talent management. It underscores the need for a holistic approach that values both skill proficiency and cultural alignment for long-term career growth and organizational success.

From the student's point of view of the topic is a person should be skilful which have sharp Professional Qualities (PQ) and the viewpoint of professional corporate people does consider persons fitting nature one has to be fitting personality so can be sustainable in the organization. But more or less observation and discussion state the findings as the person with Professional Qualities (PQ) are seen more successful in their career then the person with fitting personality still fitting personality have good sustainability in the organization.

8. Conclusion

The study highlights that Professional Qualities (PQ) and Cultural Fit (CF) should align rather than conflict to foster career growth and development. This research concludes that Professional Qualities (PQ) and Cultural Fit (CF) is interdependent to each other both have to go hand in hand for better results in developing countries like India.

Individuals with strong Professional Qualities (PQ) are proactive opportunity seekers who continuously enhance their skills. They excel in their work, are performance-driven, goal-

oriented, and highly focused on their growth and development. As the study is on secondary data the suggestion as per the discussion is with the reference of **William Ouchi Theory Z** which takes into account both Japanese Management and American management it's a mixed idea of sustaining in organization with attaining growth and development.

For better results one should have both Professional Qualities (PQ) and Cultural Fit (CF), a professional, no matter how talented is will find it difficult to work with others, this in the end may waste his skills. Therefore, qualities are qualities of the *person* who help themselves in all aspects of the person's activities. To be a successive professional, then, a person needs to acquire *both* the technical expertise that is Professional Qualities (PQ) *as well as* a Cultural Fit (CF).

In today's corporate world there are some sectors which promote Professional Qualities (PQ) as IT sector where their skills are more into acceptance and fitting personality does not exist as there do not need to be more into interaction because of their work type, even sectors like automobile, textile, banking, logistic etc are a sector/industry ever fitting personality hardly matter due to their work type whereas BPO's, MNC's etc are the places where both qualities, as well as fitting nature, has to be there for future sustainability and growth.

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CSR AS A BRANDING TOOL IN THE 21ST CENTURY BUSINESS ERA TO SHAPE BEHAVIOUR AND PERCEPTION AMONG CONSUMERS AND EMPLOYEES

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Abstract: In the contemporary world which is increasingly creating a socially conscious marketplace, CSR has come out as a pivotal business strategy for companies seeking to create positive relationships with stake holders and induce a feeling of differentiation in the business domain. When it comes to CSR, the core idea is the perception of its impact on brand image, with increasing data suggesting that consumers increasingly value and reward firms that show commitment to social and environmental activities. The paper studies multiple hypothesis, including the idea that CSR positively impacts brand image. The research has been undertaken by examining theoretical ideas, statistical evidence, and practical implications of the presumed relationship within the current scope of marketing strategies. Through an in-depth statistical analysis, the study aims to throw some light on the ability of CSR in shaping the perceptions of consumers, and assisting brand managers and respective marketing teams to eventually drive brand success. To test the assumptions, a mixed approach was chosen. A review of existing literature was conducted right at the beginning to identify relevant variables for analysis. Later, quantitative data collection was carried out through a survey released to a diverse sample of respondents chosen at random. The questionnaire was designed to measure participants' perceptions of CSR activities and their effects on brand images of a select few companies. Additionally, qualitative insights were gathered through interviews with SMEs (subject matter experts), to gain insights and contextualize quantitative findings. The data obtained from both research methodologies, i.e. quantitative surveys and qualitative interviews, was subsequently analysed using multiple statistical techniques and thematic analyses to generate meaningful insights and test the hypotheses that were developed. The outcome of our analyses showed that although CSR is a fairly new concept in India, there seems to be a correlation between CSR and stake holders' perception of brand image. It can be said that CSR has a long way to go to in establishing itself as a branding tool, but it has a great potential to cause significant impact in the future, as seen in developed countries.

Keywords: *CSR, branding, behavior, perception, marketing*

Introduction

CSR is a mandated practice where in a company is required to take additional initiatives than just making money. Companies try to do good and impactful activities for the community, the environment, or the society. This involves supporting charities, being environmentally friendly, or promoting fair labour practices. Companies work with and support local communities through social initiatives such as education programs, health care projects or community development activities. Businesses undertake practices to minimize the impact their actions have on the environment, this include but are not limited to, reducing carbon emissions, using

eco-friendly materials or adopting sustainable business practices in general. A lot of firms are also seen contributing to charitable causes and donate to non-profit organisations, this involves supporting educational institutions, healthcare organizations or other social causes. Apart from this, transparent reporting of business practices, including social and environmental impacts, helps build trust with both internal and external stakeholders. Companies are required to publish their CSR reports detailing their initiatives and performance over the year, each year. Some companies specifically care about their suppliers and business partners adhering to ethical and sustainable practices; this involves monitoring the entire value chain to maintaining responsible business standards. They also engage in initiatives to educate their consumers about environmental and social issues, promoting responsible consumption and making ethical choices; they also encourage employees to participate in volunteer programs and community service. Not only does this benefit the communities, but also fosters a sense of social responsibility among employees. CSR is considered a medium for businesses to go a step ahead of their economic roles and actively contribute to societal well-being, it enhances a company's reputation, builds customer loyalty and attracts socially conscious investors and employees. CSR is also increasingly being considered a crucial element of responsible, as well as sustainable business practices in the current business landscape. Studying a few anecdotes tells us that companies have tried to leverage CSR as a tool to market their products and gain reputation among consumers. Companies use CSR as a marketing tool because it makes them look good in the eyes of their own customers. When people see that a company is doing something positive for the world, they may feel more positive about that company.

When a company engages in CSR, it aims to build trust with customers. People like to support businesses that care about things that are beyond just making money. It can create a feeling of loyalty with the customers who understand and appreciate the company's efforts to make an impact. CSR is a way for a company to show its values and commitment to social and environmental issues. This helps differentiate the brand from competition, and create a positive reputation in the minds of consumers. Consumers today are socially conscious and prefer supporting companies that support values that are in sync with the customers' own. By incorporating CSR in marketing strategy, companies can attract and engage with customers who are looking for socially responsible choices, and build better relationships with them successfully.

If we look at history, we can see that in India, CSR gained importance with the introduction of the newly introduced Companies Act, 2013. The Act mandates that companies meeting a

specific criterion must spend a designated percentage of their income on activities related to Corporate Social Responsibility. As per the law, companies falling under the criteria are required to spend at least 2% of the average of the profits that they have generated over three preceding financial years on CSR initiatives.

Some of the key features of CSR areas listed below:

1. **Mandatory CSR spending:** Companies meeting the criteria as per the Companies Act 2013, are required to spend a defined percentage of their profits on CSR activities; this spending is monitored and reported in the company's annual CSR report which needs to be published annually as a mandate.
2. **Eligible CSR activities:** The Act has defined specific areas that companies can focus their CSR initiatives in. These include eradicating hunger, promoting education, ensuring environmental sustainability, gender equality, and more.
3. **CSR Reporting:** Companies have to disclose details of the initiatives that they have taken and the amount they have spent on them. In the annual reports, they have to provide details about the projects undertaken, the amount spent, and the outcome of their CSR activities.
4. **CSR Committees:** Companies that meet a predefined criteria are required to constitute a CSR committee which comprises of board members. This committee is responsible for the formulation and recommendation of the CSR policy, ensuring the effective execution of CSR activities, and reporting on the same.
5. **Collaboration and Partnerships:** Companies tie-up with non-profits, NGOs, and government agencies to execute CSR activities; these partnerships help them to benefit from the expertise and resources for a significant impact.

Purpose of the study

The hypothesis under consideration is that companies that actively take up CSR, can gain a competitive advantage. If a consumer has to choose between two similar products or services, they might prefer choosing the one associated with a company that makes a positive impact in the society. CSR can also contribute to the long-term sustainability of a business. By addressing

social and environmental issues, companies can help create a better world, which, in turn, can help achieve success and ensure longevity of the business.

The purpose of this study is to establish correlation between CSR and stakeholders' perception of brand image-customers and prospective employees.

Objectives of the study

1. Understanding the correlation between CSR spending and consumers' perception of the brand
2. Understanding the correlation between CSR activities and employer perception as per potential employees

Literature review

McWilliams, D. Siegel, and P. Wright (2006) state that engaging in social responsibility activities when it is expected to benefit the firm is a behaviour that can be examined through the RBP lens. They argue that companies generate competitive advantages by effectively controlling their resources and capabilities that are valuable and rare, and when no perfect substitute is available. Engaging in CSR can help firms to create some of these resources and capabilities (Branco & Rodrigues, 2006). Some researchers have raised concern that the opportunistic managers may exploit or misrepresent information regarding CSR (Banerjee, 2008; Orlitzky, 2013).

Also, the managers may adopt CSR activities to cover up corporate misbehaviour (Hemingway & MacLagan, 2004), and this behaviour makes investors panicky about CSR expenditure. Abhishek Mukherjee (2017) states that improvement in positive image and increased marketing & public relations form the top drivers for CSR expenditure as reported by well-established companies (Mukherjee, 2017).

Perez, Andrea, and Rodriguez-del-Bosque, Ignacio (2015) have explored the relationship between customer loyalty and CSR, and studied the role of identification, satisfaction, and behavioural responses in the BFSI sector. Authors have tested whether the nature of a company affects the dimensions of CSR. The study was aimed at assisting scholars to create more informative loyalty models based on CSR which consider new variables like the type of company and satisfaction.

Kerschen, Daniel, and Bhattacharya, C.B., and Swain, Scott D. (2014) have thrown some light on CSR, customer orientation, and job performance of frontline workers. The study examined frontline workers' responses to CSR with a global 500 company in the financial services space. Authors state that employees identify with their customers and as a function of how much the employees perceive the customers and the company's management to support CSR activities. They claim that organizational identification and employee-customer identification are both related to job performance rated by the supervisors, but only employee-customer identification is found to be mediated by customer orientation. The research hence shows that CSR can yield visible and apparent changes in the behaviour of employees and can alert researchers to a target of identifying best-fit employees.

Adnan Kabir, M., and Chowdhury, Sultana Sabina (2023) write about the social setup in Bangladesh where social trust is low and companies rarely engage in CSR. The research is conducted around the banking sector where there has been an upward trend spotted in the aspects mentioned before. The authors have tried to find if the expenditure in CSR has seen an upward spike due to financial motivations or it is a genuine phenomenon. Thirty listed banks in Bangladesh have been studied from 2006 till 2018 to check the correlation between CSR and CFP (Corporate Financial Performance). The outcome of the research is that better financial performance leads to more expenditure on CSR, but the opposite is not always necessarily true. Also, total deposits, RoA, and past years' CSR have a positive relationship with CSR, whereas the age of the firm has a negative relationship.

Research Methodology

The main intent of the paper is to determine the perception of CSR and its effect on the buying behaviour, willingness to pay premium price, and consideration of the commitment of a company to social responsibilities when looking for employment.

The research includes literature review and analysis focused on the perception of CSR and its impact on employee and consumer behaviour. In order to understand the perception of CSR and the impact it has; a questionnaire survey was conducted. On the basis of the analysis of the data thus collated from the questionnaire survey results, measures for corporate social responsibility are suggested, and relevant benefits are highlighted, such as strengthening the company's image, improving relationships with the customers, gaining their loyalty and subsequently achieving competitive advantage. The survey was designed as a questionnaire and circulated through e-mail and messaging apps. For the processing of the survey data,

quantitative assessment methods were utilized. The research questionnaire comprised five parts. The first part focused on the general socio-demographic profile. The second section was devoted to understanding the perception of consumers towards five companies, shortlisted based on market capitalization, B2C businesses, and belonging to different industries. The respondents were required to select the factors which impact their perception of the brand/company. The third section emphasized understanding respondents' knowledge of CSR programs by the five companies selected. The fourth section provides information on the CSR initiatives by the select companies and asks the respondents to provide their view based on the new information of the CSR expenditure done by them to check if there is any change in their view. And finally, the last section asks the respondents to comment on their buying behaviour, willingness to pay premium price, and consideration of the commitment of a company towards social responsibilities when looking for employment.

General scientific methods were utilized for data processing along with statistical methods, to evaluate data captured from the results of the questionnaire survey.

To achieve the objective of the research, based on the theoretical background and survey results, research hypotheses as mentioned below are formulated:

1. Hypothesis 1: CSR activities done by select brands impact the brand perception of the consumer (before informing the respondent of the brands' CSR expenditure).
2. Hypothesis 2: More than half of the consumers are likely to purchase a company's products over competitors and are willing to pay a premium for a company's products, if the company spends on social initiatives that they are passionate about.
3. Hypothesis 3: Respondents whose brand perception is impacted by CSR consider it as a factor while looking for employment opportunities.
4. Hypothesis 4: Pre and post-test of the respondents' response of the average brand perception score significantly changes when there is information given about the CSR programs run by the companies.

The marginal rate of 50% has been selected as it shows the majority, thus assisting in extrapolating the study to showcase the Indian population's behaviour and perceptions.

Analysis and Result

1. Results of questionnaire survey focused on the perception of CSR

Of the 51 respondents that formed the sample set, 22 (43%) were female and 29 (57%) were male. The survey questionnaire was directed to individuals belonging to the age group of 24-40 years through e-mails and messenger applications. The sample has a combination of people with master's degrees (71%) and bachelor's degrees (29%). The sample has a combination of employed (90%) and self-employed (10%) individuals residing in Metro and Tier 1 (88%) and Tier 2 cities (12%). The outcome of the questionnaire survey shows that 61% of respondents will purchase a company's products over competitors if the company spends on social activities that they are passionate about, and 39% are willing to pay a higher value for purchasing. Only 35% of the respondents consider a company's commitment to social initiatives when looking for employment. About 47% of the research set believes that expenditure on social activities is nothing but a gimmick to improve brand image.

2. Statistical hypotheses' verification

To verify the hypotheses, we performed different statistical analyses—Correlation and paired t-test.

Hypothesis 1:

H0: CSR activities done by select brands do not impact the brand perception of the consumer (before informing the respondent of the brands' CSR expenditure). H1: CSR activities done by select brands impact the brand perception of the consumer (before informing the respondent of the brands' CSR expenditure).

Respondents whose perception of brands is impacted by CSR is checked against the average brand perception score.

	<i>Perception of the Select brands</i>	<i>Impact of CSR initiatives of select Companies on your brand perception</i>
<i>Perception of the select brands</i>	1	
<i>Impact of CSR initiatives of select Companies on your brand perception</i>	0.18661380	1

With correlation coefficient being 0.186, there is negligible correlation between CSR activities done by select brands and the respondent's perception of the brand. Thus, H0 is accepted.

Hypothesis2:

H0: Less than, equal to 50% consumers are likely to purchase a company's products over competitors are willing to pay a higher price for a company's products, if the company spends on social initiatives that they are passionate about

H2: More than 50% of consumers are likely to purchase a company's products over competitors and are willing to pay more for a company's products, if the company spends on social initiatives that they are passionate about. Respondents who like lines to purchase a product from a socially responsible company are checked against their willingness to pay a higher price for their purchase.

	Like lines to purchase a company's products over competitors if the company spends on social causes	Willingness to pay more for a company's products, if the Company spends on social causes
Like lines to purchase a company's products over competitors if the company spends on social causes	1	
Willingness to pay an additional amount for a company's products, if the firm spends on social causes	0.482767559	1

With the correlation coefficient being 0.482, there is a correlation between consumers wanting to purchase from brands which invest in corporate social responsibility activities and their likeliness to pay a premium for the same. Thus, H0 is rejected and the relationship is moderately strong and positive in nature.

Hypothesis 3:

H0: Respondents whose brand perception is impacted by CSR do not consider it as a factor while looking for employment opportunities.

H1: Respondents whose brand perception is impacted by CSR consider it as a factor while looking for employment opportunities.

Respondents whose perception of brands is impacted by CSR is checked against the respondents' consideration of CSR as a factor while choosing employment opportunities.

	CSR impacts brand perception	Consider a company's commitment to social Responsibilities when looking for employment
CSR impacts brand perception	1	
Consider a company's commitment To social responsibilities when looking for employment	0.514220845	1

With the correlation coefficient being 0.514, there is a correlation between consumers' perception of brands engaging in CSR and the likelihood of them choosing brands engaging in CSR while looking for employment opportunities. Thus, H0 is rejected and the relationship is moderately strong and positive in nature.

Hypothesis 4:

H0: Pre and post-test of the respondents' response of the average brand perception score does not significantly change when there is information given about the CSR programs run by the companies.

H1: Pre and post-test of the respondents' response of the average brand perception score significantly changes when there is information given about the CSR programs run by the companies.

Responses before informing about the selected brand's CSR expenditure are checked against the respondents' average score post-sharing the information on the expense.

	<i>Average score of before</i>	<i>Average score of after</i>
Mean	3.788235294	3.623529412
Variance	0.283858824	0.333835294
Observations	51	51
Pearson Correlation	0.466102214	
Hypothesized Mean Difference	0	
df	50	
tStat	2.045303628	
P(T<=t)one-tail	0.023052507	
tCriticalone-tail	1.675905025	
P(T<=t)two-tail	0.046105013	
tCriticaltwo-tail	2.008559112	

We used the P value and the comparison of the t-statistic with the critical T value. Based on the p-value, the p-value is less than 0.05. In addition, based on the value of the comparison of the t-statistic with t-critical two-tailed, it also showed that the t-statistic was greater than the t-critical. Thus, this suggests that there is a significant impact of the news on the perception of the consumers. Pearson's correlation also shows moderately strong and positive correlation between the two events.

Conclusion

The growing significance of CSR presents a significant challenge for the management of the entire organization, its marketers, and those in charge of formulating the long-term plans. However, this circumstance also presents an opportunity. Extra efforts to improve sustainability and social responsibility can provide a business a distinct competitive edge. Activities related to social responsibility can also be covered in marketing communications. These initiatives may demonstrate a product's additional value, which is important to customers who care about social responsibility and influence their decision-making process. A company can develop a reputation for being a more consumer-focused, responsible business if it can successfully incorporate social responsibility into every aspect of its strategy. But it's crucial to keep the trust of the customer while reaping the significant benefits from using CSR initiatives for marketing.

Our research and analysis showed that although CSR is a fairly new concept in India, there seems to be a correlation between CSR and stakeholders' perception of brand image. Although

CSR has a long way to go to establishing itself as a tool for branding, there are some signs of there being significant impact in the future as seen in developed countries.

Managerial Implications

The research has been effective in showing how CSR impacts different cohorts when it comes to brand perception. It was pertinent to note to what extent customers get influenced while choosing products of one brand over the other, based on what the image of the company is in their minds, based on the spending done on social causes. It was seen how individuals are impacted by the company's brand perception when it comes to being employed, based on expenditure on social responsibility. Since CSR is still in the initial stages in India, we find ourselves in a paradoxical situation, where although some customers want to purchase from responsible companies, only a few are willing to pay a higher price or consider the same while choosing their employers.

Managers can undertake the following steps to enhance brand equity and help increase revenues for their respective companies:

1. **Expand and enhance CSR efforts:** Marketing managers can increase investment in social initiatives that resonate with customers and align with the values and goals of the company. Executives can consider expanding the scope or scale of existing CSR programs or even introduce new initiatives to address additional social or environmental issues.
2. **Communicate effectively:** Companies need to communicate their CSR efforts transparently and effectively to customers through all the channels that are available; these can be social media, company website, newsletters, and product packaging. The marketing team should highlight the impact of these initiatives on communities, the environment, and other stakeholders to reinforce positive perceptions among them.
3. **Engage customers:** Companies should actively engage customers in CSR initiatives by seeking their feedback, involvement, and support. Marketing managers should also consider launching campaigns or events that encourage customer participation in volunteering and fundraising efforts related to social causes supported by the company.
4. **Integrate CSR into marketing strategy:** Agencies that are empaneled for branding and advertising should integrate CSR messaging and storytelling into marketing campaigns, advertisements, and brand communications to showcase the company's commitment to social

responsibility. This way, highlighting CSR initiatives can differentiate the brand from the competition and attract socially conscious consumers.

5. **Collaborate with customers:** Companies should collaborate with customers to co-create or co-fund CSR projects or initiatives that address shared concerns or priorities. Engaging customers as partners in CSR will deepen their emotional connection with the brand and foster a sense of ownership and loyalty.

6. **Engage with influencers:** Firms should bring celebrities and micro-influencers together on micro-blogging platforms to accelerate brand campaigns and reach a larger audience.

7. **Ensure higher effectiveness of retargeting and digital marketing:** Targeting and retargeting online customers based on their gender, geography, and other demographic variables based on the outcomes of responses from respective cohorts, thus ensuring higher effectiveness of marketing through relevant content design.

8. **Offer product/service tie-ups:** Companies should create products or services that directly support or contribute to CSR initiatives. For example, a portion of sales proceeds could be donated to charity, or products could be made from sustainable materials or produced using ethical labor practices.

9. **Reward customer loyalty:** Loyal customers who support CSR initiatives through discounts, special offers, or exclusive access to CSR-related events or experiences must be rewarded. Recognizing and appreciating customer contributions to social causes can strengthen their affinity for the brand.

10. **Measure and share impact:** Continuously measuring and evaluating the social impact of CSR initiatives and sharing results with customers will prove to be very effective. Providing tangible evidence of how their support is making a difference, whether through metrics like number of beneficiaries, environmental impact assessments, or stories of positive change, can be some other steps that can be taken.

11. **Adapt and innovate:** Companies must stay agile and responsive to evolving customer preferences and societal needs. Continuously seeking feedback from customers and monitoring the trends in CSR and consumer behaviour will help in adapting and innovating CSR strategies.

12. **Lead industry efforts:** Firms should aim to demonstrate leadership within the industry by advocating for responsible business practices and collaborating with competitors, suppliers, and stakeholders to drive positive social change. By setting high standards and inspiring others to follow suit, the companies can further enhance their reputations and influence in the marketplace.

Research Gap

The current research has been done with respondents with a strong educational background, with around 71% of the respondents having at least one master's degree and 29% with one bachelor's degree. A similar split of (88%:12%) is also seen with respect to cohorts staying in Metro + tier 1 cities, who can be considered relatively more affluent, and Tier 2 towns, whereas, tier 3 and tier 4 are not a part of the research. Hence, the research does not involve consumers and individuals in the workforce who are relatively less affluent. This research, thus, is limited in its scope in terms of understanding the mindset and perspective of such individuals when it comes to making purchase decisions or trying to find employment.

Scope for further research

The scope of future research in brand perception and Corporate Social Responsibility (CSR) outside of this research is vast and can encompass several avenues of inquiry. This is especially because of the audience considered in the research construct which is predominantly based in metros and tier 1 towns. Hence, it becomes imperative to look at consumers' brand perception in rural areas separately. Some areas for potential research are below:

1. Understanding rural consumer behaviour
2. Effectiveness of CSR initiatives in rural contexts
3. Role of local culture and context in using CSR as a tool for branding
4. Barriers and enablers of CSR engagement
5. Stakeholder collaboration and partnership - Impact on CSR
6. Communication strategies for CSR in rural areas

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CULTIVATING ORGANIZATIONAL SUCCESS IN THE NEW WORLD ORDER OF NON-LINEAR COMPLEXITIES

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Abstract: Business Organizations of the day operate in a geopolitically fractured world of accentuated volatility, uncertainty, complexity, and ambiguity where mere linear trends and mathematical models do not provide insights for managerial decision-making. This Fractured VUCA World manifests itself through unpredictability, chaos, turbulence, and disruption, calling for a well-calibrated strategy for Cultivating Organizational Success in the New World Order of Non-Linear Complexities. These extraordinarily significant high-probability or low-probability high-impact events impair Strategic and Operational Resilience. Organizations are thus operating in a complex ecosystem of intertwined challenges that go beyond the linear approach to decision-making that is statistically predictable. Organizational Resilience is, therefore, emerging as a critical competitive differentiator for High-Reliability Organizations that ensures heightened stakeholder trust and the achievement of business objectives. The purpose of this research study is to establish new knowledge for success in the New World Order by planning, absorbing, recovering, and growing after each disruptive shock or an outlier event. This research paper establishes Seven Resilience Dimensions, which are an outcome of a mixed research methodology. Exploratory Studies, Focus Group Discussions, and Resilience Model Prototyping through Design Thinking Experiments were held in various MNEs. Subsequently, Quantitative Research and Analysis were undertaken with high-potential leaders and managers through a global survey to validate our Qualitative Analysis. This study of Resilience Dimensions will provide research insights for board members and C-suite leaders to build Organizational Resilience for Cultivating High-Reliability Organizations. This research also carries immense academic value for researchers and students pursuing the cause of business resilience, which is identified as a critical curriculum need in universities that teach Management Sciences Worldwide.

Keywords: *New World Order, VUCA, Organizational Resilience, Strategic Resilience, Operational Resilience.*

1. Introduction

Kenichi Ohmae, in his book, argues that "national borders are less relevant than ever before as we live in an Interconnected Borderless World" (Ohmae, 1999). With the expansiveness and penetration of internet-driven Information and Communication Technology (ICT), emergent international trade blocs, and the complexities of the consensus-driven rule-based system of the World Trade Organization, the World is getting increasingly divided. "Today, we can see that the balance of power between nation-states and the international framework that managed them in the last century is frayed as protectionism,

nationalism, and xenophobia, which erode global solidarity. If complexity is at the root of a fractured world, then what can leaders do to change this? The first leadership requirement is to be able to differentiate between a complicated and complex system" (Howell, 2018). Today's World is increasingly turbulent because of risks arising from political ideologies, macroeconomic behaviour, social dynamics, technological disruptions, environmental concerns, and evolving stringent governance compliances.

"Complicated systems, according to Probst and Bassi, are composed of many different interacting parts whose behaviour follows a precise logic and repeats itself in a patterned way. In contrast, complex systems are dominated by dynamics that are often beyond our control. What is common to both is that every system has a rationale and a purpose. We think of the transportation system with interacting parts to move people and goods – and depending on where you live, you expect it to function in a predictable manner. But in a complex system, the variables involved never work in exactly the same way each and every time. Complex systems, particularly of the socio-economic variety, exhibit unpredictable or uncontrollable behaviour" (Howell, 2018). Our research shows that the intertwined challenges in the business value chain do not follow a statistical trend; thus, there is no linearity in predictions. One frequent and prominent example noticed was the continual mismatch between the demand forecast and the supply responses in an otherwise mature and stable Supply Chain.

The concept of a fractured world thus links to the phenomenon of the VUCA world, which is unpredictable, chaotic, turbulent, and disruptive for businesses and nations alike. A Volatile, Uncertain, Complex, and Ambiguous World causes significant complex challenges. Perfect Storms, Black Swan Events, and the Gray Rhinos signify the manifestation part of the VUCA Phenomena in the macroenvironment and the microenvironment.

2. The Purpose of the Study

The Fractured World of VUCA represents the New World Order of chaos, unpredictability, and turbulence. It has rendered many business models and strategies inadequate, even to brand extinction in some cases. This study aims to establish critical dimensions for business success in this New World Order of accentuated Volatility, Uncertainty, Complexity, and Ambiguity (Bennett N. a., 2014). Also, this scientific study in management was essential for developing new knowledge in Organizational and Business Resilience to empower academicians and business leaders.

3. Literature Review: The Organizational Resilience literature is still at a nascent stage and much research needs to be done in the management sciences areas of the Fractured World, New World Order, and Organizational Strategic& Operational Resilience. These are evolving topics in academic literature, thus emphasizing the need for additional research. Many authors have evidenced in their literature review that much of the effort is directed toward establishing definitions and constructing theoretical frameworks. It is also critical to note that consensus on the definition of Resilience is found to be wanting. As a case in point,(Linkov, 2014), (NAS, 2012)defines" Resilience as the ability to anticipate, prepare for and adapt to changing conditions and withstand, respond to, and recover rapidly from disruption"(Jovanović, 2020). We find this definition a suitable starting point in our journey of study of Organizational Resilience.

In our study to derive the Dimensions of Resilience for Cultivating Organizational Success in Non-Linear Complexities, 50 research articles on VUCA World, 56 research articles on Resilience, and 9 blogs on the Complexities of VUCA World Resilience were reviewed. It was identified that gaps that need the attention of Resilience Researchers and Analysts identified by various Authors are as follows:

- i. "Based on the synthesis of the literature review, there is a strong focus on building theories and definitions of organizational Resilience. However, the literature lacks evidence of proving the theory empirically and exploring the dynamics underlying Resilience. Further Research needs to be carried out, primarily focusing on applying empirical methods." (Aldianto, 2021)
- ii. "Future research could focus on developing more detailed approaches for assessing Resilience. Practical insights are needed regarding how organizations can activate Resilience." (Linnenluecke, 2017)
- iii. "Many Organizations will find themselves unprepared for the impact of adverse events unless they build suitable capacities and appropriate decision-making. Knowledge of how Resilience is defined by which variable it is determined and how it can be assessed, maintained, and improved over time." (Linnenluecke, 2017)
- iv. World Economic Forum is taking an aggressive lead through its body of work and literature in the domain of the Fractured World.

The above gaps thus set this Research Study's relevance and critical importance.

4. The Objective of the Study

To facilitate business success for organizations of all natures and sizes across the geographies, the objective is to determine critical Resilience Dimensions for empowering leaders to practice and succeed in the New World Order of the Fractured VUCA World. The significance of these Seven Dimensions would be to act as fundamental pillars in guiding business leaders through the foggy and uncertain future that this New World Order would continually create. These Critical Seven Resilience Dimensions will enable the planning, absorption, recovery, and growth after every disruption.

5. Theoretical Background

The study "Cultivating Organizational Success in the New World Order of Non-Linear Complexities" moves through three areas: The Complexities of the Fractured World, Exploration of the VUCA World dynamics, and finally, the factor of Organizational Resilience.

Organizations are complex systems with intertwined interdependence. The stressors in this system can be external or internal. In our field research of Organizational Resilience Building, we observe that the stressors can be complicated or complex, thus impacting the value chain outcomes. A Fractured VUCA-World is creating unique challenges in the World today, such as geopolitical dynamics, wars, supply chain reconfiguration, complications of concentration in global trade partnerships, logistics challenges, economic & technological disruptions, hyper-competition, and pandemic risks, to name a few. Thus, cultivating organizational success in the New World Order of non-linear complexity becomes imperative.

"The concept of a VUCA world — one that is volatile, uncertain, complex, and ambiguous — was introduced by the U.S. military as the Cold War ended and as the United States looked out over the emergence of a multilateral, rather than a bilateral, global landscape. This meant being prepared to take on increasing challenges from asymmetrical opponents." (Paul Kinsinger, 2012)

Authors Bennett Nathan & Lemoine James bring forth the fundamentals of VUCA World. In their article titled "What a Difference a Word Makes: Understanding threats to performance in a VUCA World," (Bennett & Lemoine, 2014) have systematically discussed each facet of the acronym and provided suggestive actions:

"Volatility: Relatively unstable change; information is available, and the situation is understandable, but change is frequent and sometimes unpredictable. Agility is key to coping

with volatility. Resources should be aggressively directed toward building slack and creating the potential for future flexibility" (Bennett & Lemoine, 2014).

"Uncertainty: A lack of knowledge as to whether an event will have meaningful ramifications; cause and effect are understood, but it is unknown if an event will create significant change. Information is critical to reducing uncertainty. Firms should move beyond existing information sources to both gather new data and consider it from new perspectives" (Bennett & Lemoine, 2014).

"Complexity: Many interconnected parts forming an elaborate network of information and procedures, often multiform and convoluted but not necessarily involving change. Restructuring internal company operations to match the external complexity is the most effective and efficient way to address it. Firms should attempt to 'match' their own operations and processes to mirror environmental complexities" (Bennett & Lemoine, 2014).

"Ambiguity: A lack of knowledge as to the basic rules of the game; cause and effect are not understood, and there is no precedent for making predictions as to what to expect. Experimentation is necessary for reducing ambiguity. Only through intelligent experimentation can firm leaders determine what strategies are and are not beneficial in situations where the former rules of business no longer apply" (Bennett & Lemoine, 2014).

Further, the authors also state that "VUCA conditions render any efforts to understand the future and plan responses useless. When leaders are left with little to do other than wring their hands, organizational performance quickly falls at risk" (Bennett & Lemoine, 2014). It is also imperative to appreciate that the authors emphasize that leaders and managers must diagnose which particular facet impacts the Organization and strategize accordingly. In our literature review, we recognize that the authors Bennett Nathan & Lemoine James have made exceptional fundamental contributions toward building the theory of VUCA.

NYCE Professor Edward Altman states that a "stressed credit cycle with a deep recession is a Perfect Storm"(Altman, 2019). For many economic entities, a Perfect Storm has the potential to capitulate into long winters of recessionary pressures; however, there is an enormous growth potential that this disruption can offer. "Black Swan Events are outliers as it is outside the realm of regular expectations, and nothing of the past can convincingly point to its possibility. It carries an extreme impact. Though it is an outlier, human nature makes us concoct an explanation for its occurrence after the fact, making it explainable and predictable. The combination of low predictability and large impact makes Black Swan a great puzzle. A highly expected and not happening is also a Black Swan." (Taleb, 2010)(R. G. Koduri, 2024). Gray Rhinos signify high-probability and high-impact events and are the ignored elephant in

the room(Wucker, 2016). In our study, we find that most organizations have become vulnerable to these events described above in this New World Order. These are obvious dangers that are often ignored by leaders, which severely hamper business success.

Therefore, the Fractured World of VUCA demands that organizations enable Strategic and Operations Resilience to manage disruptions, turbulence, and chaos manifesting in Perfect Storms(Altman, 2019), Black Swan(Taleb, 2010), & Gray Rhino(Wucker, 2016)scenarios. *Merriam-Webster Dictionary mentions, "Resile is a resilient word: it has been in use in English since the early 1500s and is a cousin of resilient. Both resile and resilientare words derived from the Latin verb resiliere. This wordessentially means to jump back or recoil"* (Merriam-Webster, n.d.)

In order to cultivate Resilient Organizations, a well-calibrated and concentrated effort in planning, absorption, recovery, and adaptation is required. This observation is supported by our empirical evidence of Resilience-building projects detailed in this paper. While most leaders focus on recovery and adaptation for growth, it is imperative to recognize the significance of the four fundamental pillars of building Organizational Resilience, namely,"planning, absorption, recovery, and growth" (Igor Linkov, 2019). The edifice on which we base our findings in this paper is the OECD's publication "Resilience Strategies and Approaches to Contain Systemic Threats.The crucial insight of the cited publication states that high-impact and low-probability events, which are hard to predict, make it arduous to addresssystemic risks"(Igor Linkov, 2019).

Our Research on VUCA World and Organizational Resilience evidences that business leaders perennially face the challenge of coping, adjusting, and adapting to their macroeconomic business environment in this world of unpredictable and disruptive events. Business Organizations must, therefore, adjust& adapt to these changes and concurrently pay attention to the internal stressors that can result from these adjustments. When these value stream stressors are left unaddressed, they can reach an inflection point, causing severe disruptions within the Organizational Interdependent Ecosystems. It is noteworthy that these exogenous and endogenous disruptions can co-occur and severely impair the organizational system and its performance. Our study and findings, detailed in this paper, emphasize that organizations must control their internal and external stressors continually for systematically cultivating Dynamic Resilience Capabilities. We argue that when leaders scientifically manage the said stressors, organizations continually build Dynamic Strategic and Operational Resilience and gain a not-easy-to-replicate competitive advantage.

6. Methodology

To comprehend 'Cultivating Organizational Success in the New World Order of Non-Linear Complexities,' we explored the incongruities and their underlying organizational dynamics through mixed research methodology. We qualitatively evaluated impact factors through in-depth inquiry and business modelling design experiments. This extended Qualitative and Quantitative Mixed Methodology of the Study of Resilience was administered when organizations were experiencing the COVID-19 Pandemic Shock and its post-effects in the following five steps:

- i. An Exploratory Qualitative Study to gather empirical data on organizations adjusting to environmental shocks and internal stressors.
- ii. A backup Exploratory Qualitative Study to determine the internal stressors that inhibit the responses to external shocks.
- iii. In-depth Qualitative Research through Appreciative Inquiry to determine the elements essential to building Resilience.
- iv. Validate the Qualitative Research findings through real-time Design Thinking Resilience Prototypes.
- v. Determination of independent Resilience Dimensions that would ensure Organizational Resilience through Design Thinking Resilience prototypes.
- vi. Validation of the identified independent Resilience Dimensions through qualitative methodology by administering a quantitative survey.

The sampling frame comprises the population of select corporate professionals demonstrating high levels of motivation and competence. In addition, the frame also includes professional organizations and industries where these motivation and competence behavioural traits for Resilience modelling are commonly found.

We confirm that a purposive sampling method was thus adopted in this Organizational Resilience Research to ensure a cohort of highly motivated and competent professionals. In this context, we state that purposive sampling allows Resilience researchers to handpick individuals willing to create solutions for complex problems and have the behavioural and functional capabilities to build solution prototypes specific to the business domain.

The criterion used in our purposive sampling was identifying high-potential talent and leadership at critical levels within the Organization. The participating organizations either made this identification through their formal yearly appraisal process grades or psychometric evaluation with the Saville Assessment Instrument ((2022 Saville Assessment, n.d.)). This evaluation methodology ensured adherence to the Organization's competency framework or

the universal framework of the Saville Instrument. In addition, specific weightage was given to Innovation capabilities and diversity of experience in organizational settings. The essential focus was on selecting participants with a high level of motivation and competence specific to Innovation for value creation across academic qualifications and functions.

Regarding limitations and delimitations of the sampling design, it is essential to acknowledge that no specific instrument or methodology was created to exclusively identify participants of the Resilience Modelling through the Qualitative Method. An existing credible psychometric instrument or an internal performance competency-based appraisal system of the participating Organizations was used to identify a large sample of participants. A high overall sten score above seven on the psychometric instrument was considered a suitable measure. A top 15% talent within the organizational performance reference was also considered ideal for the Resilience design experiment. The quantitative survey was administered to known C-suite and senior leaders globally with high credibility and willingness to provide authentic inputs. We, therefore, acknowledge that the generalizability of the traits of willingness and competence may impact the validity of the research study and its findings. In order to overcome this subjectivity, a large sample of participants in the design experiments were trained and certified in the scientific process of Design Thinking to effectively utilize cognitive and experience diversity.

7. Analysis

Our First Exploratory Study comprised a thorough analysis of 93 value chain roles and positions in a Manufacturing Organization. We found that the Organization's ability to respond to VUCA situations needed considerable improvement. A qualitative survey tool was developed using the Balanced Scorecard Construct to assess the criticality of positions/roles and people capabilities within the Organization. The survey results confirmed a significant mismatch between people's capabilities and the criticality ranking of their roles/positions. We also discovered that well-calibrated work designs were critical to meeting the requirements of the roles/positions. This lack of defined work designs resulted in challenges in responding to disruptive VUCA situations. Our study also confirmed that the organizational structures had become overly complex and hierarchical with undefined, grey, or overlapping accountabilities. These systemic complexities lead to impaired decision-making and execution challenges. We recognized that these exploratory findings of systemic limitations required immediate remedies to ensure the Organizational ability to manage VUCA situations.

The proven Appreciative Inquiry Process was applied as a change management process in our Second Exploratory Study within an MNE Manufacturing Organization. Four focus group discussions were held with 64 participants to identify stressors that hinder Resilience. We found that Appreciative Inquiry is a reliable process for managing change and involves four stages: discovery, dream, design, and destiny. Each stage identifies strengths, areas for improvement, actions, and collaborative projects, respectively. We analyzed and classified keywords from each step and conducted a frequency analysis. The outcome of the analysis is provided below:

- a. Supply Chain Innovation for responsiveness beyond efficiency alone is a must.
- b. Augmenting Technology Enablement across the Supply Chain is a strong need.
- c. Implementing Lean Structures for Agility is essential.
- d. Set up Ownership and Accountability mechanisms for effective decision-making.
- e. Re-establish Work Designs for critical roles and positions.
- f. Introduce effective Cross-Functional Teams for Problem-Solving.

In the Third Exploratory Study, upon confirming the effectiveness of Appreciative Inquiry, a thorough third study was conducted via focus group discussions and individual meetings with 24 senior-level management members, delving into the topic of Resilience in a manufacturing organization. 37 leaders from other Industries also participated in a separate study. The outcomes of the Focus Group Discussions are presented as follows:

- a. Financial Muscle has assisted organizations in managing turbulent situations.
- b. There is a need to break down the Silos within systems.
- c. Establish Collaboration for customer-centricity.
- d. Need to Develop Emotionally Intelligent Leaders.
- e. Develop Transformational Leadership.
- f. Make Supply Chains Agile.
- g. Develop Leadership Behaviours to Manage Disruptions.

The three exploratory studies mentioned above identified the primary stressors that hindered Resilience in the Organization. The Research found that financial stability was a common factor among organizations that invested in Resilience. The study also confirmed that access to Capital was a crucial driver in the resilience-building process and was therefore considered a moderating variable. According to this study, high-quality human capital, quality leadership, and effective organizational capability design emerged as critical factors in building Resilience. The above-cited exploratory studies were conducted to ascertain whether the Appreciative Inquiry Process could effectively identify the variables that contributed to

Organizational Resilience. In this research methodology, we concluded that the Appreciative Inquiry study does lay a firm foundation for a comprehensive Resilience Assessment and Organizational strategy to cope with VUCA forces. The qualitative data derived from exploratory studies were thus adapted for analysis in subsequent studies.

Phase One of the exploratory studies confirmed that Appreciative Inquiry is highly effective in identifying the variables which contribute to Organizational Resilience. Subsequent studies revealed that Human Capital and Leadership, augmented by Design Capabilities as mediating variables, play a significant role in building Dynamic Resilience. These findings of the exploratory studies were then presented to the Senior Leadership of participating organizations for validation. We confirm that this validation process further supported the conclusions drawn from the exploratory studies.

The emphasis of Phase Two Studies was on ascertaining facets that would enable Resilience in an organization. Appreciative Inquiry-based Focus Group Discussions with an average batch size of 12-15 participants were conducted across manufacturing, information technology, and not-for-profit organizations. 430 participants contributed across ten organizations in these twenty-four focus group discussions. Keywords thus captured were clustered in similarities, which when classified, resulted in the following Seven Dimensions:

- i. Stakeholder Value Creation
- ii. Business Sustainability and Continuity
- iii. Quality of Human Capital
- iv. Quality Leadership
- v. Technology Enablement
- vi. Capital Structure Design
- vii. Knowledge Stock

The results were confirmed by getting approval from the top management of every Organization involved.

Phase Three was comprised of Design Thinking Experiments for Resilience Prototyping. We conducted experiments with ten organizations in this final step in Resilience Design Thinking. These experiments resulted in 106 prototypes and involved 430 participants trained and certified in Design Thinking before participating.

Design Thinking is a problem-solving process that prioritizes empathy and human-centeredness. It involves creating prototypes and testing solutions early on to ensure their effectiveness. This process is fuelled by the diversity of experience and is divided into five

stages. We have utilized these stages to develop Resilience solutions for real-time business scenarios affected by VUCA events.

The Design Thinking process commences with a human-centric approach called Empathize to gather insights and data to comprehend the VUCA situation through "Sense-Making" an essential cognitive process for solving complex problems. With data and insights on hand, the Design Thinking Process moves to the next stage, termed as Define. In the Define Stage, a clear problem statement is formulated based on the data and insights gathered during the Empathize stage. After the Definition of the Problem and Opportunity statement is formulated, the process moves to the Ideation Stage. In the Ideation stage, the participants connect to stakeholder networks to collect ideas through structured interviews. These ideas are then consolidated to design a resultant Resilience Prototype and then subsequently Tested statistically for its efficacy before final deployment. We thus confirm that Design Thinking is a scientific, human-centric process for complex problem-solving that is non-linear in implementation and was found to suit Resilience building through the cognitive and experience diversity of the participants.

Keywords derived from Appreciative Inquiry and Design Thinking Experiments were then established as qualitative variables of Resilience for Frequency Analysis, and the findings are depicted in Table 1.

In the final Phase Four, a structured online quantitative survey was administered based on the Seven Dimensions cited above as a final step in this study. The survey was administered to C-suite leadership and senior managers globally. Each Dimension was evaluated for its applicability in building Resilience in the New World Order of Disruption. The survey included questions for each Dimension, answered with a simple yes or no. The perceived impact of each Dimension in building Resilience was ascertained through the survey. Respondents were then asked to indicate the stage at which each Dimension would be most effective in the journey of Resilience, i.e., absorption, recovery, or growth. The questions and their agreement percentages are listed as follows:

- i. Can Stakeholder Value Creation through Innovation affect an organization's Resilience in your Industry?
- ii. Can the Quality of Human Capital affect your Industry's Organizational Resilience level?
- iii. Do Business Sustainability and Continuity Measures Influence Organizational Resilience in Your Industry?

- iv. Can Enlightened Transformational Leadership have an impact on Organizational Resilience in your Industry? (Enlightened Leaders are Rational, Modern, and Well Informed in running operations and strategy)
- v. Does having a future-ready Knowledge Base impact the Resilience of Organizations in your Industry?
- vi. Does the use of Advanced Technologies throughout the Value Chain impact Organizational Resilience in your Industry?
- vii. Does the company's Capital Structure Design impact its Organizational Resilience?

The Table 2 provides insights into agreement scores determined in the Quantitative Survey in which 105 respondents participated.

It is interesting to note that there is a significant agreement on Leadership and Business Sustainability & Continuity Measures. This needs further statistical treatment.

Finally, in order to Cultivate Organizational Success in the New World Order of Non-Linear Complexities, inputs were taken from the respondents as to which Resilience Dimension would load in each of the stages of Resilience, namely absorb, recover, and grow. The percentages indicated the number of respondents choosing to load the determined Dimensions at each stage. The Results are tabulated in Table 3 which provides for the following insights:

- i. 91% of Respondents suggest that Absorption of a shock of disruption can be managed through Enlightened Transformative Leadership
- ii. 91% of Respondents suggest that Smart Technology Investments and Maturity determine recovery from disruption. 90% of respondents also suggest that this Dimension works well with the overall body of knowledge the Organization holds to emerge victorious from any disruption.
- iii. 91% and above respondents confirm that all Seven Dimensions play a critical role in Cultivating the Growth of the Organization in disruptive times.
- iv. The Quantitative findings confirm the Seven Dimensions but shift the moderating and mediating dimensions based on the stages of the Resilience Journey as was realized in the Qualitative Study.

The above analysis thus forms the base for determining the conclusion of this study.

8. Results and Discussion

The exploratory studies conclude that organizations are complex systems that need to be scientifically managed in the era of disruptions. "Modern society proceeds on the assumption that a number of complex systems will work reliably, both individually and in their interactions with other human and natural systems. This bold assumption generally holds true. Yet this assumption is being challenged by the scientific community and, increasingly by policymakers too, on the basis and improved understanding of how systems work, and by drawing on the lessons of disruptive historical events." (Igor Linkov, 2019). Our study in this paper has also shown that complex organizational systems may not work as reliably as assumed, even if, in the past, they have been efficient and effective. This issue in reliability is because organizational structures and systems evolve, but they may need to be designed or adjusted continually to manage disruptions effectively.

Phase two showed us the importance of holding Focus Group Discussions with participants from diverse backgrounds to prevent groupthink. Appreciative Inquiry expertly guided the discussions, allowing for a controlled approach to understanding the situation and managing change. Through this process, the group was able to engage in productive conversations that addressed the challenges faced by each Organization during times of turbulence, both internal and external. Furthermore, the groups carefully considered external and internal stress factors during the Inquiry because they were highly motivated and capable.

Phase Three was based on the finding of cognitive diversity that Design Thinking uses, and this was chosen as a methodology based on its non-linear process characteristics that it uses. "Bricolage is the ability to make do with whatever is at hand. Organizations can enhance Resilience if there is clarity of the variables that determine Resilience to assess and continually improve over time." (Hillmann & Günther, 2020). Experimentation is the key to building Design Thinking Prototypes. Resilience Build is an outcome of these experiments. "A consequence of experimentation and its unpredictability is that it can produce novelty in Business Models, Products, and types of Ventures in the ecosystem diversity" (Philip T. Roundy, 2017). We realize in this study that the solutions for specific stressors need rational and creative aspects; thus, Design Thinking as a scientific process becomes a continual process in the journey of Resilience building.

9. Conclusion

Based on the Qualitative and Quantitative Research, we conclude that the Seven Critical Dimensions that Empower Organizations to Cultivate Success in the New World Order are as follows:

- i. Stakeholder Value Creation
- ii. Business Sustainability and Continuity
- iii. Quality of Human Capital
- iv. Quality Leadership
- v. Technology Enablement
- vi. Capital Structure Design
- vii. Knowledge Stock

This Research also argues that when a disruption occurs in a complex system of Organizations, Enlightened Quality of Transformational Leadership is the moderating element in the absorption stage. They are rational and creative professionals who can thus apply their abilities to facilitate recovery from disruption. Recovery is primarily driven by the body of knowledge that the Organization has combined with technology, enabling a proactive response and engagement. Thus, investments in technology and learning and development are the key to recovery from disruptions. We also confirm in this study that all the Seven Critical Dimensions mentioned above, when deployed in an informed way, will Cultivate Success in the New World Order. We confirm that the above-stated Seven Dimensions will also enable Strategic and Operations Resilience.

10. Managerial Implications

This study of Cultivating Success in the New World Order of Non-Linear Complexities will provide fundamental pillars to manage the Fractured VUCA World scenarios in an empowered way. During the qualitative and quantitative research many participants felt motivated by the techniques used and the findings thus derived for proactively dealing with unpredictability, chaos, turbulence, and disruption. These Seven Resilience Dimensions will help managers and leaders to move in an empowered way through the foggy future that the New World Order characterizes. We also envisage that academia will benefit immensely by incorporating the ongoing findings of Resilience Research in Business Excellence Studies.

11. Limitations

This study does not explore all the Organizations' stressors in the face of disruption. This study also needs to present a statistical model that provides insights for decision-making. It only proposes a broad approach. A deeper analysis is also required to determine what shapes the impact of each Dimension. It will also have to be ascertained through a mathematical

model for each stage of the Resilience Journey, as to which are the mediating and moderating Dimensions.

12. Scope for Further Research

The scope for further research is immense as this study is interdisciplinary in nature. Testing the relationship between the Seven Dimensions determined for Organizational Resilience is recommended. Additionally, exploring the impact of each facet of determined Resilience Dimension through a mathematical model would add value to the study. Ascertaining definitions for each Resilience Dimension and their respective collective facets will also enable clarity for subsequent Research and Design Experiment Prototyping. Finally, discovering the correlation of facets that define each Dimension is also critical for subsequent studies. These aspects are a part of our ongoing study.

13. Conflict of Interest

It is important to state that this study was undertaken with various business organizations as professional consulting projects. However, due care has been taken to ensure that meta-analysis is free from biases and influences that can prejudice the research findings. The authors declare that all research ethics have been adhered to.

14. Source of Data and Third-Party Contracting

The primary meta-data discussed in this research is the sole property of the authors, and no third party was involved as a partner in this study. All projects undertaken for Resilience discussed in this research paper are covered under a Non-Disclosure Agreement with clients. Thus, no meta-data belongs to any specific business entity. It is a summarization of the study in its entirety.

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Tables

Table 1 Dimension Frequencies

Dimensions	Frequency
Stakeholder Value Creation	1718
Sustainability & Continuity	674
Human Capital	888
Leadership	406
Technology	126
Capital Design	117
Knowledge Stock	83
TOTAL	4012

Table 2 Respondent Agreement Scores

Dimension Question	Agreement Score (Yes)
Can Stakeholder Value Creation through Innovation affect an organization's Resilience in your Industry?	95%
Can the Quality of Human Capital affect your Industry's Organizational Resilience level?	94%
Do Business Sustainability and Continuity Measures Influence Organizational Resilience in Your Industry?	98%
Can Enlightened Transformational Leadership have an impact on Organizational Resilience in your Industry? (Enlightened Leaders are Rational, Modern, and Well Informed in running operations and strategy)	98%
Does having a future-ready Knowledge Base impact the Resilience of Organizations in your Industry?	89%
Does the use of Advanced Technologies throughout the Value Chain impact Organizational Resilience in your Industry?	95%
Does the company's Capital Structure Design impact its Organizational Resilience?	87%

Table 3 Dimension Deployment Responses

Resilience Dimension	Absorb Stage	Recovery Stage	Growth Stage
Stakeholder Value Creation	72%	74%	95%
Quality Human Capital	85%	89%	93%
Sustainability and Continuity Measures	82%	83%	96%
Leadership Quality	91%	87%	92%
Knowledge Stock	85%	90%	91%
Technology Enablement	79%	91%	94%
Capital Structure Design	81%	85%	93%

A STUDY ON THE AWARENESS OF CRYPTOCURRENCY AND ITS GOVERNANCE

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Abstract: The paper undertakes an in-depth analysis of the changing scene of awareness and governance of cryptocurrency in India. While the interest evinced from the public is at a high, resting on the bed of knowledge gap coupled with apprehensions resting on its regulation, volatility, and security, this study about the current state of public awareness is secondary research, going forward with a critical review of the prospects and problems cryptocurrency adoption holds for India. The key findings suggest readiness to embrace this transformative technology as such: a population that is very comfortable in adopting digital, potential for financial inclusion, especially in the unbanked regions, a strong IT sector ready to contribute towards block-chain and cryptocurrency, recent government actions indicative of openness to further exploration. The paper brings out the need to have collaborative efforts from stakeholders: the government, industry leaders, regulators, and academic institutions. Putting in clear, accessible rules that are conducive to responsible innovation; Promotion of public education and awareness activities.

Keywords: *Cryptocurrency, Governance*

INTRODUCTION: Cryptocurrencies are decentralized, and it is this that has given rise to the financial revolution across the world, disrupting traditional systems through promises of transparency, security, and the potential for financial inclusions. This innovation poses a unique set of challenges for regulators and policymakers worldwide, more so in developing countries like India. If India is striding to be a front-runner in the digital sphere, the ignorance of people about these newfangled assets and the dynamic changing regulatory landscape that envelopes them has to be understood primarily. The white paper ventures into a detailed research study, which offers insight into the present state of cryptocurrency literacy, governance structures, and tax regulations in the Indian context. It shall convey nuanced understanding of these critical aspects and therefore valuable insight for policymakers, industry leaders, and individuals alike on how to navigate this dynamic landscape of cryptocurrencies in India.

PURPOSE: While interest in cryptocurrencies is raging all across India, the general public at large remains largely unaware of these digital assets and their governance and the changing

dynamics of the policy landscape. This white paper thus attempts to fill this void by going in-depth into the following broad areas:

- Firstly, public awareness and basic knowledge about the availability of the many existing cryptocurrencies and their functionalities and underlying technologies. Secondly, the public perception of the potential benefits and inherent risks associated with adopting and utilizing cryptocurrencies in the Indian context.
- The role of the government and its policies on the regulation and taxation of cryptocurrencies in India: the existing and future developments.

OBJECTIVES: This white paper attempts to delve deeper into a multi-dimensional analysis that hopes to contribute to the overall understanding of the level of public sentiment and knowledge with respect to cryptocurrencies in India. Our objectives are as follows:

- Key parameters that influence individual attitudes towards investing in cryptocurrencies and the possible role they could play within the Indian economy; The study will analyze the motivations, problems, and perceived risks and benefits related to the adoption of cryptocurrencies. This will add a very important dimension to public perception at this juncture.
- The extent to which the public is aware and has an understanding of the current and proposed regulatory frameworks governing cryptocurrencies. In this study, an attempt shall be made to find the present level of understanding. It shall further pinpoint areas of possible knowledge gaps to shed light on developing clear, accessible regulations which clearly communicate with the general public and promote a well-informed financial ecosystem.

METHODOLOGY: It is in this context that, given the sensitivity of personal financial information and rapidly changing regulation in India relating to cryptocurrency, the research methodology adopted was secondary in nature. It involved an in-depth analysis of available data and reports from credible third-party sources, which included, but was not limited to, academic journals, government publications, industry surveys, and respected media sources.

This was partly because of concerns about the apprehension that participants might have when divulging information with regard to their income and possible tax liabilities associated with government interaction. One feared this by illegal activity to own or trade cryptocurrency. This study thus tried to ensure anonymity among its respondents while still being able to garner data and valuable insights on public awareness, perceptions, and understanding of cryptocurrencies within the Indian context by virtue of information readily available in the public domain

WORKINGS: Decades we have been trading, sometimes in cash, sometimes in kind. There was a time when gold was the denominator of value, but later the government too took control of our financial transactions by introducing fiat money. We are linked with the banks and all other financial institutions cradle to grave. The government does not want to lose the control as to how we meet and deal with finances, and this forms the sole reason why cryptocurrency came into the picture and the reason why it is not promoted by the government. The banks do have their ledgers with them, but these ledgers are not disclosed to the public.

We never get to know if the bank is double spending our money. Bitcoin was launched to prevent this. These are encrypted by hash and are safe for transactions, but all participants of this network have access to the ledger. In contrast to fiat money—where our government can print as much money as they want, for as long as they want—the decentralized network has a fixed and predefined limit of Bitcoin float. The control over the money and its value lied with the government. The concept of DeFi came in to prevent these controls. Where the blockchains are by the people, to the people, for the people. These coins are mined by miners(the computers) by ways of solving computational mathematical puzzles. Government did not declare these as illegal but penalized people who invested by levying high taxation. These currencies were clubbed under one term- Virtual Digital Assets (VDAs). VDAs include cryptocurrencies, NFTs, and other digital assets of this nature that are specifically categorized under the Finance Act 2022. Tax Rates:

- **Income Tax:** Gains from VDA sales are subjected to a flat 30% taxation, with no deductions allowed except for the cost of acquisition. Losses incurred from trading VDAs cannot be set off against any gains arising from any other source.

- TDS: A 1% TDS is charged on all VDA transfers above the threshold value (presently INR 10,000 per transaction).

Important Points to Note:

Gift of VDAs: Gifting VDAs is regarded as a taxable event in the hands of the recipient.

Reporting: Income from VDA transactions has to be declared in your annual Income Tax Return.

India has not been able to harness the cryptocurrency for many reasons. These could be due to government regulations, taxations, or even knowledge. Let's jot down some of the reasons.

Reasons to Fear:

- Regulatory Uncertainty: The regulatory landscape in India is yet to mature. The Government of India and the Reserve Bank of India have both been going back and forth on whether or not cryptocurrencies are illegal, or if they would ever be adequately regulated. This kind of uncertainty creates the aura of risk and instability that potential investors would want to steer clear of.
- Volatility: Cryptocurrencies are notoriously very volatile, moving significantly in prices. This risk of high losses and the fear of losing a huge or significant portion of their investment deters many people.
- Lack of Understanding: Cryptocurrencies appear to be an enigma to a vast number of people. Their knowledge about how they work, how they can be used, and what type of technology lies behind them is not good enough for making them decide on investment.
- Concerns Related to Security: News related to cryptocurrency exchange hacks, scams, and stealing creates the belief of vulnerability. People are scared of losing their assets through fraudulent activities and cyber-attacks.
- Bad Media Portrayal: The media has been considerably focussed on the risks and downsides of cryptocurrencies, thereby tending to accentuate stories related to scams and losses and instilling fear in people's minds.

Non-Disclosure Reasons:

- **Tax Implications:** The exorbitant tax rates prevailing on VDA transactions, coupled with ambiguity in defining certain tax laws, may deter many from coming forward to declare their cryptocurrency holdings, fearing that this might invite undesirable scrutiny and consequent taxation.
- **Social Stigma:** Cryptocurrency might still be associated with negative activities like illegal undertakings or highly speculative risky ventures. This could result in a reluctance to disclose ownership.
- **Privacy Concerns:** Individuals who are privacy-conscious about their financial status prefer not to open their investments and other assets to public knowledge.

But the question is, can India really adapt to cryptocurrency?

Yes, India has the potential to adapt to cryptocurrency due to several factors like the large and young demographic, which is very comfortable with technology adoption, a financial inclusion opportunity since cryptocurrencies have the potential to reach unbanked areas, and a strong IT sector that can contribute towards blockchain and cryptocurrency developments.

- **Remittance efficiency achievability:** Cryptocurrency can provide a much faster and cost-effective solution for cross-border transactions.
- **Evolving stance of the government:** The current tax measures suggest openness for further research in cryptocurrencies. However, there are some challenges that have to be met:
- **Unclear regulatory environment:** It needs a clear and stable regulatory framework.
- **Public awareness/ education:** The majority of its population may not have adequate knowledge about crypto.
- **Infrastructure Development:** Robust and easy access to the internet across the country.

- Security: Stringent security measures will have to be put in place for cyber risks and protection of the users' interests.

Should India Adopt Cryptocurrency?

Even here, there is no yes or no answer to this question. There are some pros and cons to be taken into account:

Advantages:

- Financial inclusion: access to financial services increased, mostly in rural areas.
- Economic growth: new businesses, jobs, and innovation in the sector of blockchain and cryptocurrency.
- Efficiency of remittances: cross-border transactions are quicker and cheaper, to the benefit of the economy.

Drawbacks:

- Risks to financial stability: potential for volatility and speculative activities attacking the financial system.
- Money laundering and illegal activities: Concerns that crypto could facilitate money laundering or other illegal activities.
- Environment: Its mining method called Proof of Work is a computationally energy-intensive process with a significant environmental impact.

CONCLUSION: In other words, India has reached a threshold in its cryptocurrency transactions. Barring certain rule-related complications and safety concerns, recent steps by the government indicate interest in treading the path of cryptocurrencies. India has a wide base of technology literates and a very active startup scene, so it stands to benefit greatly from using cryptocurrencies for several things: opening up access to finance, sparking new ideas, and

growing the economy. If India raises awareness of them, establishes some rules to operate within, and encourages safe investment, then it can lead the way in their use. Everybody needs to talk and put their minds together to seize this opportunity. Using the right approach, India can leverage the power of cryptocurrencies for making its financial system more inclusive and building a better future for all citizens.

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A STUDY ON TRENDS IN MERGER AND ACQUISITION OF HOSPITALS AND ITS PERCEPTION AMONG HOSPITAL MANAGERS

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Abstract: This study offers a comprehensive analysis of mergers and acquisitions (M&A) within the Indian hospital sector, examining trends, typologies, and managerial perceptions. Through primary data from 158 hospital administrators and secondary sources like annual reports, it explores various forms of M&A, including horizontal, vertical, and conglomerate mergers, as well as stock purchases and asset acquisitions. The research highlights the surge in M&A activity driven by factors like geographical expansion and access to capital funds, alongside challenges like cultural integration and IT alignment post-merger. It also notes increased M&A demand post-COVID-19, supported by private equity investments, particularly in tier-2 cities and the Eastern region. Ultimately, the study aims to provide insights for successful integration and resilience in the healthcare industry.

Keywords: *Merger & Acquisition, Work culture integration, Market Positioning*

Introduction: In an era marked by rapid globalization and dynamic market forces, mergers and acquisitions (M&A) have emerged as pivotal strategies for organizations across various sectors to achieve growth, enhance competitiveness, and adapt to changing industry landscapes. The healthcare sector, particularly in India, stands at the forefront of this transformative wave, witnessing a significant surge in M&A activity driven by diverse imperatives such as market consolidation, strategic expansion, and capital optimization. M&A serves as a potent growth strategy for hospitals, enabling them to capitalize on synergies, expand their service offerings, and strengthen their market positioning.

This project endeavors to delve into the multifaceted realm of M&A within the Indian hospital sector, aiming to unravel its underlying trends, typologies, and managerial perspectives. By conducting a meticulous examination of primary data sourced from hospital administrators and comprehensive analysis of secondary resources, this study seeks to provide a nuanced understanding of the intricacies surrounding M&A transactions in the healthcare domain.

PURPOSE OF STUDY: This research aims to comprehensively explore mergers and acquisitions (M&A) within the healthcare sector, focusing specifically on hospitals. The objectives include understanding M&A trends through historical data analysis, examining regulatory frameworks, gathering stakeholder perspectives, assessing the impact on healthcare delivery, and informing strategic decision-making. By analyzing industry reports and regulatory landscapes, interviewing key stakeholders, and evaluating the effects on organizational culture, patient care quality, and financial performance, the study seeks to provide valuable insights for healthcare organizations, policymakers, and industry stakeholders. Ultimately, the research endeavors to enhance understanding of M&A complexities, facilitate knowledge exchange, and optimize outcomes for all involved parties in the healthcare sector.

OBJECTIVES

1. To study different types of mergers and various methods of acquisition.
2. To study trends of mergers and acquisitions of hospitals in India.
3. To understand perception about merger and acquisition among hospital managers.

RESEARCH METHODOLOGY

Design of the Study:

The research framework for this study is structured to comprehensively explore the landscape of mergers and acquisitions (M&A) within the healthcare sector, focusing on hospitals, using both quantitative and qualitative methods.

- **Descriptive Component:**
Analyzing historical data and reports to understand M&A trends in healthcare.
- **Exploratory Component:**
Gathering insights from stakeholders through interviews and surveys to understand their experiences and perceptions of M&A activities.

Unit of Analysis:

Hospitals involved in M&A activities.

Unit of Observation:

Stakeholders including administrators, employees, regulatory authorities, and industry experts.

Type of Study:

Mixed-methods approach combining quantitative analysis of trends and qualitative insights from stakeholders.

Sources of Data:

- **Primary:** Interviews, surveys, and focus group discussions.
- **Secondary:** Literature, industry reports, and regulatory documents.

Sampling Method:

Purposive and convenience sampling to select relevant participants and organizations.

Data Collection:

- Questionnaire administration to 158 respondents and 18 key informant interviews were taken.
- Analysis of quantitative data using Excel and Power BI; thematic analysis for qualitative data.

Secondary Data Sources:

Hospital annual reports, SEBI filings, and industry reports.

Inclusion Criteria:

Assistant managers and above executives of private tertiary hospitals in India.

Study Setting:

Across multiple private tertiary hospitals in India that have undergone recent M&A activities.

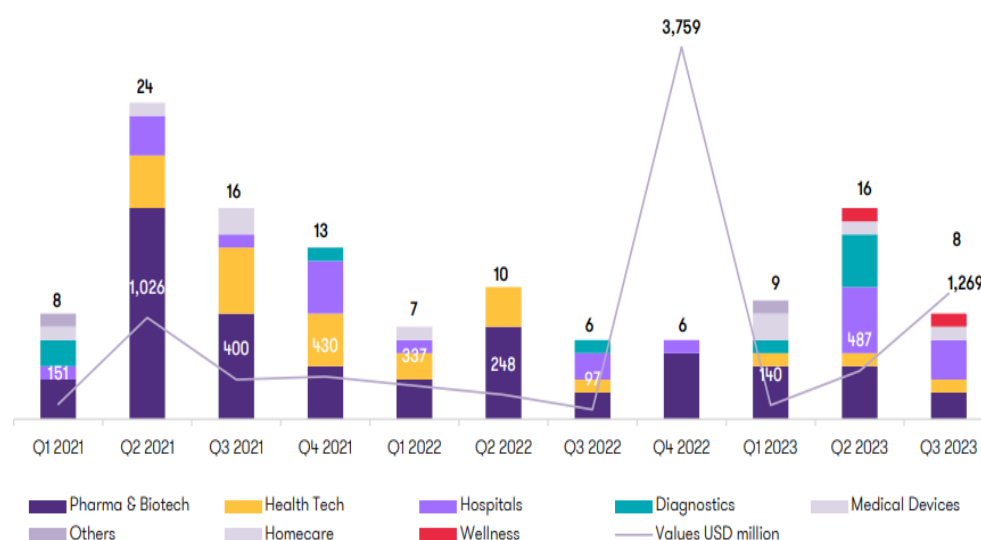
Ethical Considerations:

Obtaining informed consent, protecting privacy, and respecting participants.

ANALYSIS: Mergers in the corporate landscape entail the consolidation of companies, driven by strategic objectives such as market expansion, operational efficiency, and diversification. This process involves various types, including horizontal mergers that consolidate companies within the same industry, vertical mergers that integrate firms at different production stages, and conglomerate mergers that join unrelated businesses for diversification purposes. The merger process typically includes planning, negotiation, regulatory approval, integration, and post-merger evaluation, with key considerations including synergies, cultural alignment, and legal compliance. Successful mergers can lead to improved financial performance and innovation, yet challenges such as integration issues and regulatory hurdles may arise. On the other hand, acquisitions involve one company purchasing another, with options including stock purchases, where the buyer gains control but inherits liabilities, and asset purchases, offering flexibility but requiring complex negotiations. Other forms of corporate restructuring such as takeovers, amalgamations, and tender offers each have their specific contexts, advantages, and challenges, shaping the strategic decisions of firms in the dynamic business landscape.

Analysis of trends in M&A in Healthcare:

Fig 1: Quarterly trend in number and volume of M&A activities in different healthcare sectors



Source: Secondary data triangulated

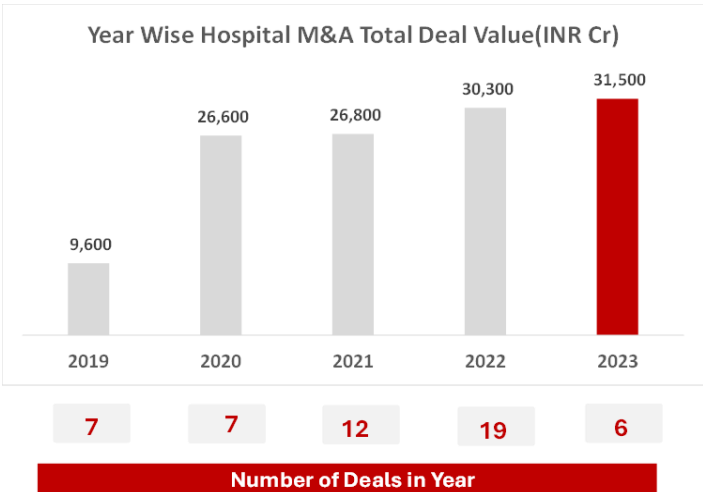
The data on mergers and acquisitions (M&A) in India's healthcare sector from Q1 2021 to Q3 2023 reveals significant activity across various sub-sectors. Specifically, notable trends include a surge in M&A activities in hospitals, with a peak observed in Q3 2023, indicating consolidation efforts. Health Tech experienced a notable surge in Q1 2023, reflecting rapid integration of technology in healthcare, while Diagnostics saw steady activity, peaking in Q3 2021. Minimal yet increasing M&A activity was observed in Homecare, suggesting growing demand for home-based care services. Overall, these trends highlight the dynamic landscape of healthcare M&A, with a total of 123 transactions recorded during the period, impacting companies and broader healthcare delivery and innovation.

Analysis of trends in M&A in Hospitals:

Table 1: M&A activity in the hospitals over 5 years

Year	No. of Deals	Deal Value (INR)
2019	7	9,558 Mn
2020	7	26,625Mn
2021	12	26,762Mn
2022	19	30,272Mn
2023	6	31,546Mn

Fig 2: Trends in M&A of hospitals in India



Source: Secondary data collected

The analysis of mergers and acquisitions (M&A) activity in the hospitals sub-sector over the past five years reveals a notable upward trend, with fluctuations in the number of deals and a consistent increase in deal value. From 2019 to 2023, the number of deals increased from 7 to a peak of 19 in 2022 before declining to 6 in 2023. Concurrently, the total deal value surged from 9,558 million INR in 2019 to 31,546 million INR in 2023. Although there was a slight decrease in the number of deals in 2023, the financial magnitude of individual deals remained substantial. This trend underscores the dynamic nature of the hospitals sub-sector, with players actively engaging in strategic transactions to drive growth, enhance market competitiveness, or achieve operational synergies. The surge in M&A activity in 2022 and 2023 suggests heightened strategic activity within the industry, potentially driven by factors such as changing healthcare policies, technological advancements, or market dynamics accelerated by the COVID-19 pandemic.

Perceptions of Hospital Managers about M&A:

Table 2: List of all M&A activities in hospitals and their enterprise value multiple

Date	Target	Buyer/Investor	Stake (%)	Amount (INR in MN)	Enterprise Value (INR in MN)	EV/ Revenue Multiple	EV/ EBITDA Multiple
May-23	Grecian Hospital	Park Hospital	100%	2,870	3,245	3.8	17.7
Mar-23	AMRI Hospital	Manipal Health Enterprises	100%	24,000	24,000	2.7	14.8
Feb-23	Dr. Ramesh Cardiac and Multispeciality Hospital P Ltd.	Aster DM Healthcare Limited	6.48%	217	3,339	1.6	NA
Oct-22	AyurVAID Hospitals	Apollo Hospitals	60%	264	344	4.4	NA
Sep-22	SPARSH Hospital	Narayana Health	100%	2,000	2,000	4.1	NA
Aug-22	CHL Hospitals	Care Hospitals	100%	4,190	4,021	2.8	12.8
Jul-22	United Cigna Hospital	Care Hospitals	70%	4,000	6,227	33.1	96.6
Mar-22	Apple Hospitals and Research Institute	Aurelius Healthcare	100%	2,000	290	1.4	1.9
Mar-22	Thumbay Hospital New Life	Care Hospitals	100%	400	547	1.2	366.8
Feb-22	Kohinoor Hospital	CritiCare Asia Hospital	100%	1,250	1,250	2.3	8.5
Jan-22	Medica Synergie	Sheares Healthcare	NA	7,440	6,606	1.3	11.8
Nov-21	Sanghamitra Hospitals Pvt Ltd.	Dr. Ramesh Cardiac and Multispeciality Hospital P Ltd.	49%	594	1,213	2.0	NA
Nov-21	Excelcare Hospital	Apollo Hospitals	64.42%	1,000	2,100	2.5	25.4
Nov-21	Suchirayu hospital	HCG	60.90%	330	1,645	1.0	NA
Oct-21	Sarvejana Healthcare Private Limited	Krishna Institute of Medical Sciences Limited	51.07%	3,628	7,103	1.7	NA
Oct-21	Sunshine Hospitals	KIMS Hospital	51.07%	3,628	7,300	1.8	9.7
Oct-21	CIMS Hospital	Marengo Asia Healthcare	75.69%	5,256	6,794	2.5	12.4
Aug-21	SuVitas Holistic Healthcare	HCAH India	100%	276	259	1.7	NA
Jun-21	Vikram Hospital & Heart Care	Manipal Health Enterprises	100%	3,737	3,203	2.0	9.4
Mar-21	Saket City Hospitals	Max Healthcare	42.80%	4,663	13,677	29.6	41.8

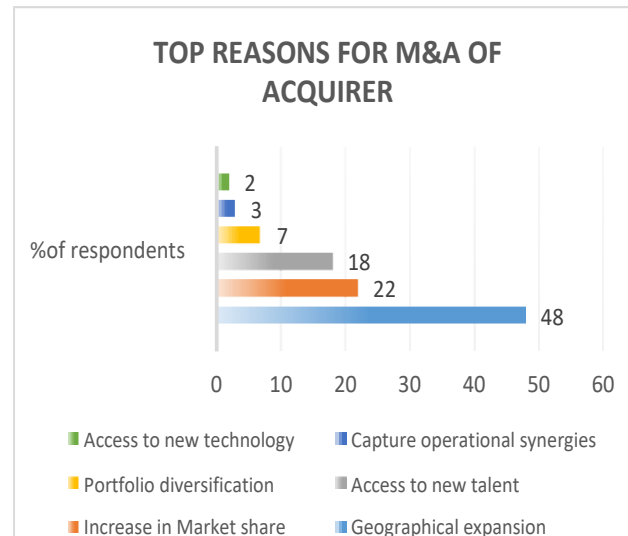
Date	Target	Buyer/Investor	Stake (%)	Amount (INR in MN)	Enterprise Value (INR in MN)	EV/ Revenue Multiple	EV/ EBITDA Multiple
Nov-20	Apollo Gleneagles Hospital	Apollo Hospitals	50%	4,100	8,076	1.1	15.3
Nov-20	Columbia Asia Group	Manipal Health Enterprises	100%	17,920	23,357	2.5	13.9
Nov-20	Medics Super Speciality Hospital	Apollo Hospitals	1%	40	3,976	3.4	NA
Sep-20	Crosslay Remedies Limited	Max Healthcare Institute Limited	22.05%	987	4,476	1.2	NA
Jun-20	HealthCare Global Enterprises Limited	Aceso Company Pte Ltd	20.79%	3,386	28,612	2.8	19.4
Nov-19	Cygnus Medicare	Amar Ujala	72.97%	1,300	2,100	1.7	89.7
Oct-19	Sri SaiNatha Multi Speciality Hospitals Pvt. Ltd.	Aster DM Healthcare Limited	4.89%	31	643	1.1	NA
Sep-19	Sri SaiNatha Multi Speciality Hospitals Pvt. Ltd.	Aster DM Healthcare Limited	9.49%	61	644	1.2	NA
Jul-19	Fortis JK Hospital	Paras Hospitals	NA	2,520	3,041	11.5	NA
Median						2.2	14.8

M&A Need Analysis for Acquirer/Absorber

Table 3 - Responses in % of Respondents on Need for M&A by Acquirer Organization

Topmost reason for M&A	% of respondents
Geographical expansion	48
Increase in Market share	22
Access to new talent	18
Portfolio diversification	7
Capture operational synergies	3
Access to new technology	2
Total percentage	100

Fig-3: Top Reasons for M&A of Acquirer



The analysis of the top reasons for mergers and acquisitions (M&A) reveals key insights into the strategic motivations driving companies' engagement in such activities. Based on the percentage of respondents, here's a breakdown of the findings:

- **Geographical Expansion (48%):** Nearly half of the respondents cited geographical expansion as the primary reason for M&A. This indicates a strategic priority to enter new markets or expand existing ones, leading to increased market penetration and revenue opportunities.
- **Increase in Market Share (22%):** The second most cited reason, capturing a higher market share, reflects a competitive strategy aimed at consolidating the company's position within the industry and reducing competition.
- **Access to New Talent (18%):** Acquiring new talent through M&A is seen as a strategic move to enhance human capital and drive growth and innovation within the organization.
- **Portfolio Diversification (7%):** Diversification through M&A is a forward-looking approach to spread risk and explore new revenue streams by adding different products, services, or sectors to the company's portfolio.
- **Capture Operational Synergies (3%):** Although less frequently cited, capturing operational synergies remains a significant motivation, involving streamlining operations, reducing costs, and enhancing efficiency.
- **Access to New Technology (2%):** Acquiring innovative technologies, platforms, or intellectual properties is considered strategically important for gaining a competitive edge and improving product offerings.

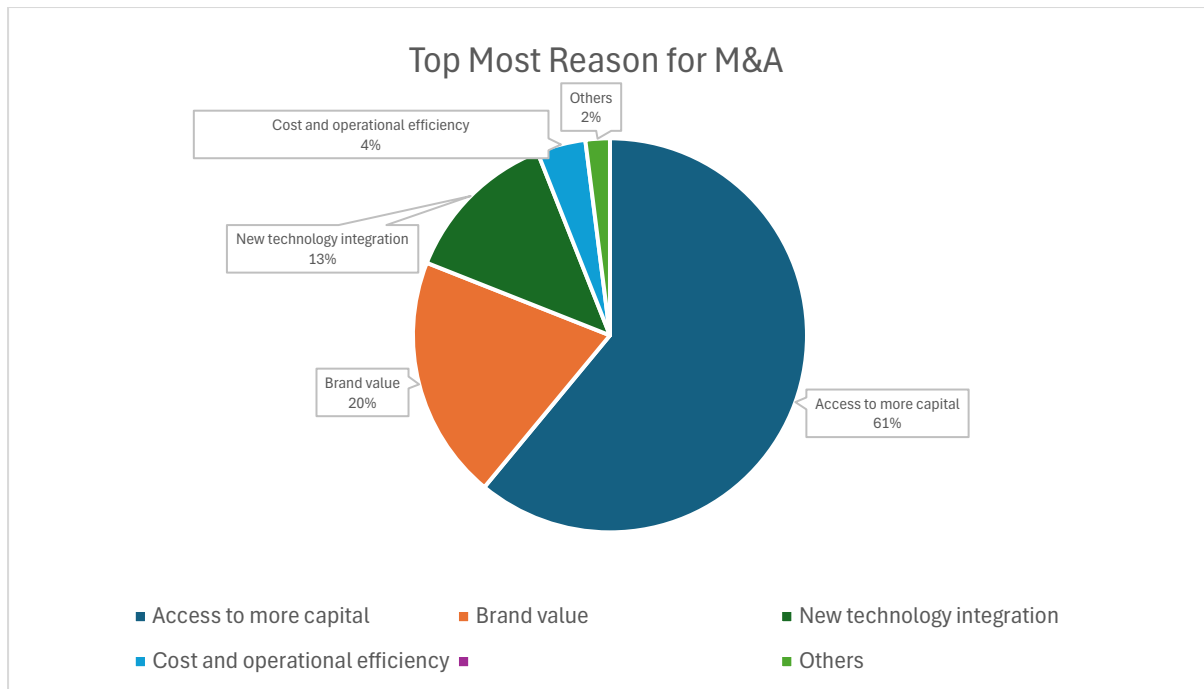
Overall Insights:

- The data highlights strategic expansion and market competitiveness as the primary drivers for M&A activities, followed by the acquisition of human and technological resources.
 - Companies pursue M&A as a multifaceted strategy to grow, compete, innovate, and improve operational efficiencies. Understanding these motivations is crucial for structuring M&A deals that align with strategic objectives and deliver anticipated synergies.
 - The emphasis on geographical expansion and access to new talent underscores the forward-looking nature of M&A strategies, focusing on long-term growth and innovation capabilities.
-
- **M&A Need Analysis for Acquired/Absorbent**

Table 4 - Responses in % of Respondents on Need for M&A by Acquired/Absorbed Organization

<u>Top most reason for M&A</u>	<u>% of respondents</u>
<u>Access to more capital</u>	<u>61</u>
<u>Brand value</u>	<u>20</u>
<u>New technology integration</u>	<u>13</u>
<u>Cost and operational efficiency</u>	<u>4</u>
<u>Others</u>	<u>2</u>
<u>Total percentage</u>	<u>100</u>

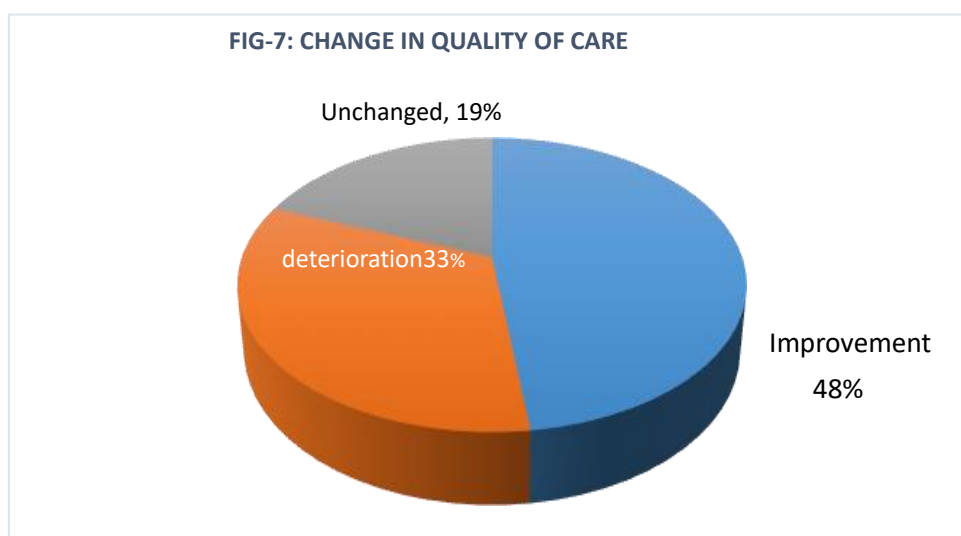
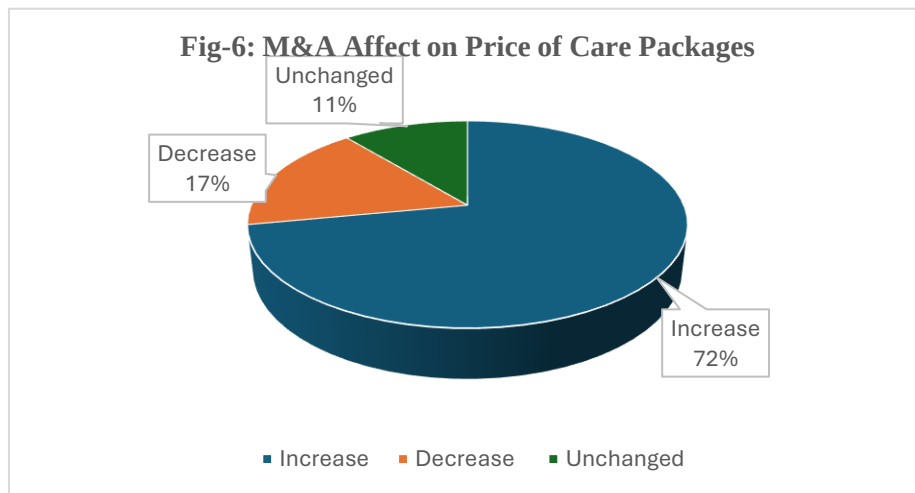
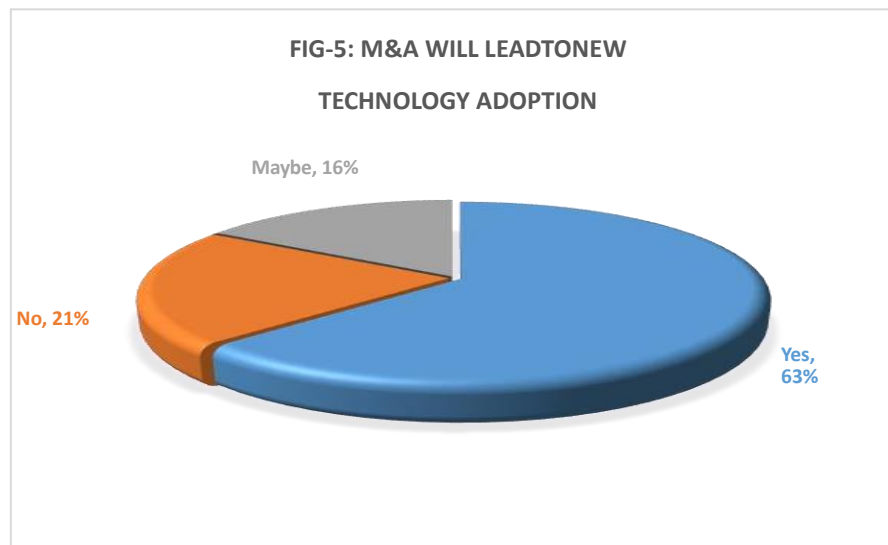
Fig-4: Top Reasons for M&A of Acquired/Absorbent

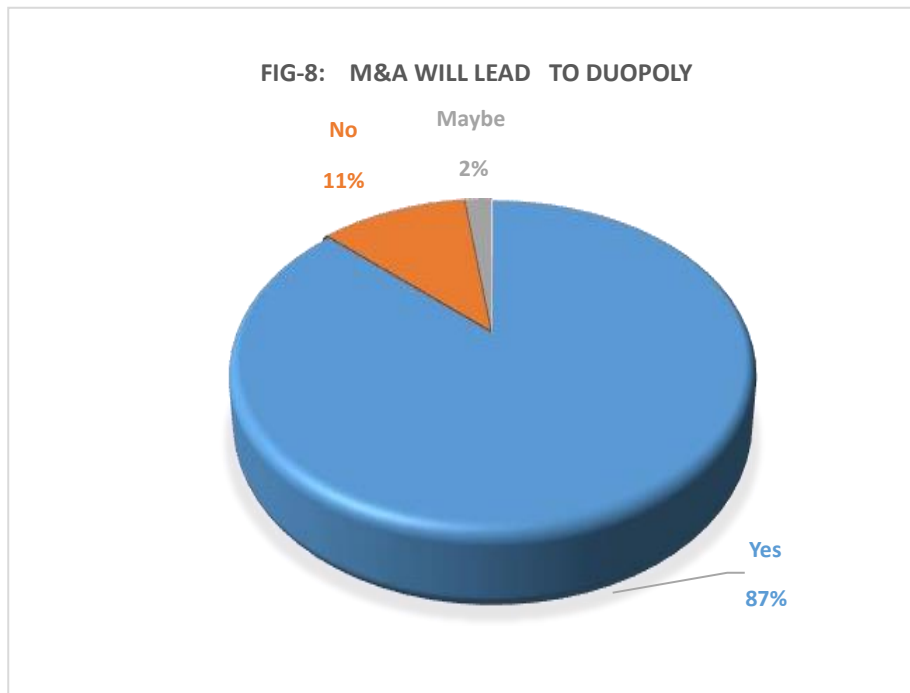


The analysis of the top reasons for mergers and acquisitions (M&A) reveals key insights into the strategic motivations driving companies' engagement in such activities. Here's a breakdown of the insights:

1. **Access to More Capital (61%):** Approximately 61% of respondents cite the need for additional capital as the primary reason for M&A, highlighting the importance of financial resources for driving growth and strategic initiatives.
2. **Brand Value (20%):** About 20% of respondents emphasize enhancing brand value, indicating a strategic focus on bolstering brand recognition, reputation, and market positioning.
3. **New Technology Integration (13%):** Roughly 13% of companies are motivated to integrate new technologies to drive innovation and digital transformation, staying competitive in the market.
4. **Cost and Operational Efficiency (4%):** Around 4% of respondents aim to achieve cost and operational efficiency through M&A, focusing on streamlining operations and improving profitability.
5. **Others (2%):** A small percentage of respondents mention additional reasons not explicitly listed, reflecting unique considerations in M&A transactions.

Perception about Price, Duopoly, Technology Upgradation, and Quality of Care





Source – Questionnaire Administered

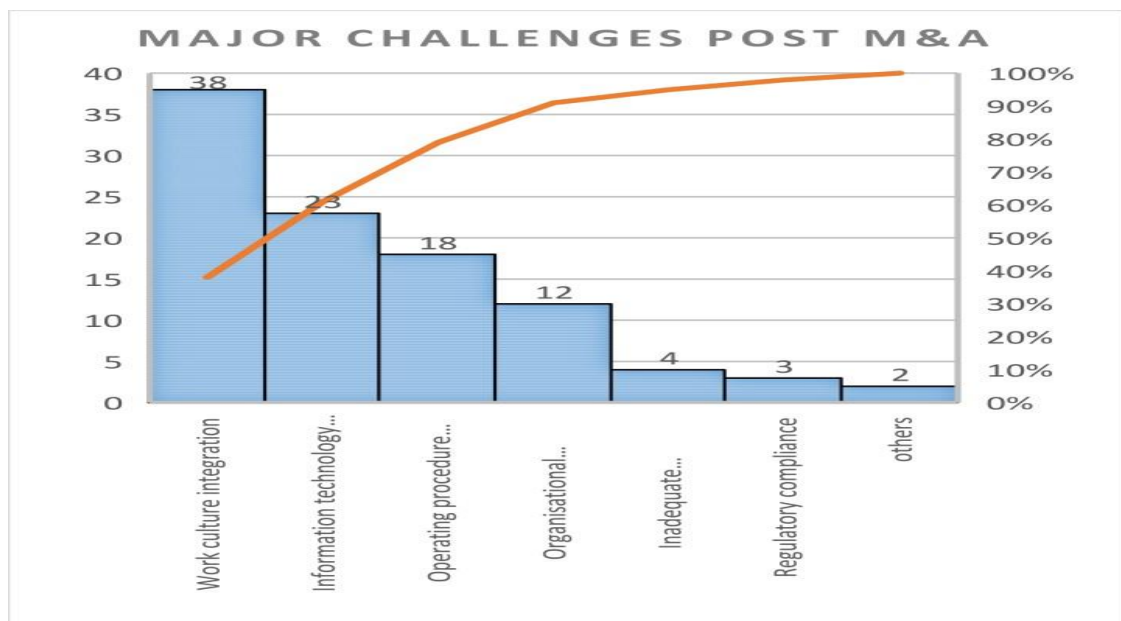
The analysis of hospital managers' perceptions regarding the adoption of new technology post-M&A reveals that 63% express optimism, 16% remain uncertain, and 21% express skepticism. Meanwhile, 72% anticipate an increase in the price of care packages post-M&A, 17% expect no significant change, and 11% foresee a decrease. Additionally, 87% anticipate M&A leading to a duopoly, while 2% are unsure and 11% disagree. Furthermore, 48% anticipate an improvement in the quality of healthcare services post-M&A, 33% expect a deterioration, and 19% anticipate no significant change. These numbers reflect a range of perspectives and concerns among stakeholders, highlighting the complexities and implications of healthcare consolidation. Addressing these perceptions is crucial for effectively navigating M&A activities while ensuring continued delivery of high-quality care to patients.

Table 4 - Responses in % of Respondents on Major Challenges Faced Post-M&A

Challenge faced Post M&A	%of respondents	Cumulative percentage%
Work culture integration	38	38
Information technology integration	23	61
Operating procedure and business process synergy	18	79

Organisational restructuring	12	91
Inadequate communication	4	95
Regulatory compliance	3	98
Others	2	100

Fig-9: Major Challenges Post-M&A



Source

Questionnaire Administered

The analysis of challenges post-merger and acquisition (M&A) activities reveals several key areas of concern among stakeholders. Work culture integration emerges as the most prominent challenge, with 38% of respondents highlighting its importance. This underscores the critical need to align organizational cultures to ensure smooth transitions and sustained operational effectiveness. Additionally, challenges in information technology integration (23%) and operating procedure and business process synergy (18%) are significant, emphasizing the complexities involved in aligning IT systems and operational workflows. Addressing these challenges requires strategic planning, effective communication, and stakeholder engagement to maximize the value of M&A activities and achieve long-term success in the post-merger landscape.

Thematic Analysis

Theme - Geographical Expansion:

- **Strategic Positioning:** "Merging with a local provider was a strategic move to enhance our presence in the new region. It allowed us to bypass years of market penetration efforts and immediately offer comprehensive services, leveraging the acquired hospital's existing reputation and patient base." – 58/M, Strategic Head, Multispecialty Chain Hospital
- **Rapid Scaling of Operations:** "The acquisition was a calculated decision to ensure we could offer a full continuum of care in regions where our specialty services were absent. By integrating with a hospital that already had a strong primary care network, we rapidly scaled our operations and made our specialty services available to a broader community." – 45/M, GM-Operations, Large Hospital Chain

Theme - Access to Capital Fund:

- **Expanding Financial Resources:** "The infusion of funds is pivotal for launching new service lines and expanding our reach into underserved areas, directly impacting our growth trajectory." – M/56, General Manager of Operations
- **Unlocking New Avenues for Funding:** "The acquisition unlocked new avenues for funding that are critical for our long-term strategy." – 42/M, Manager of Operations

Theme - Work Culture Integration:

- **Blending Work Cultures:** "The merger was a catalyst for us to blend the best aspects of both organizations' cultures. It's been transformative, creating a unified culture that prioritizes patient care and employee well-being above all." – 46/M, Chief Medical Officer
- **Streamlining Communication and Collaborative Practices:** "Post-acquisition, we focused on streamlining communication channels across departments. This effort has not only improved efficiency but also fostered a sense of community and belonging among staff from previously separate entities." – 46/M, GM of Operations
- **Enhancing Employee Satisfaction and Retention:** "The merger brought about significant changes in our work culture, leading to improved employee satisfaction. Our focus on creating a supportive and inclusive environment has resulted in higher retention rates and a more engaged workforce." – 42/F, Unit Head of HR

RESULTS AND DISCUSSION: The research explores the dynamics of post-merger integration (PMI) in the healthcare sector, focusing on geographical expansion, financial resources, organizational culture, and integration challenges. It reveals a significant increase in M&A activity over the past five years, particularly in hospitals. Geographical expansion emerges as a primary motivation for M&A, allowing organizations to penetrate new markets

efficiently. Access to financial resources through M&A facilitates investments in new technologies and service lines. Organizational culture plays a crucial role in PMI, influencing employee satisfaction and patient care quality. Challenges include work culture integration, IT integration, and regulatory compliance, which organizations address through proactive strategies.

CONCLUSION: The accelerated pace of M&A activities in the healthcare sector underscores the industry's resilience and adaptability. Despite challenges, M&A remains a strategic tool for achieving competitive advantage, operational efficiency, and geographic expansion. The surge in M&A activities reflects a bullish outlook on the sector's growth potential and the strategic importance of acquisitions. The insights derived from the research highlight the complexity of blending organizations post-M&A, emphasizing the need for strategic planning and execution to realize synergies and growth objectives.

MANAGERIAL IMPLICATIONS: Effective implementation of managerial strategies is crucial for maximizing the success of M&A in healthcare. Comprehensive due diligence and integration planning are essential for alignment with strategic goals. Investment in specialized integration teams facilitates smooth transitions and operational efficiency. Tailoring strategies to local market dynamics and maintaining transparent communication with stakeholders fosters unity and mitigates uncertainties. Proactive compliance strategies and robust risk management practices ensure regulatory compliance and patient care standards.

LIMITATIONS OF THE STUDY

Following are the limitations of the current study:

- **Access to Financial Information:** Due to the confidential nature of merger and acquisition processes, accessing comprehensive and accurate information about the mergers and their impact may be challenging. Some hospitals may be reluctant to share sensitive data or may have limitations on disclosing certain information.
- **Sample Size:** The study's sample size may be limited by the willingness of hospitals to participate and provide access to relevant data. As a result, the findings may not be representative of the entire population of hospitals that have undergone mergers and acquisitions.
- **Comparative Analysis:** The study may face challenges in conducting a comparative analysis between different hospitals or healthcare systems due to variations in organizational structures, data availability, and merger contexts. As such, generalizations and conclusions drawn from the study may be limited in scope.

FURTHER SCOPE: The research identifies several avenues for further exploration, including longitudinal studies on the long-term impact of M&A, comparative analysis across

organizations and regions, examination of evolving regulatory landscapes, assessment of technological innovation's role, exploration of global M&A trends, and investigation of sustainability and social impact. These areas offer opportunities for interdisciplinary collaboration and innovative methodologies to inform strategic decision-making, policy development, and industry practices in the healthcare sector.

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A STUDY ON CUSTOMER PREFERENCES FOR DIGITAL PAYMENT CHANNELS AND THEIR INFLUENCE ON SATISFACTION IN THE RETAIL SECTOR

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Abstract: The rise in the use of digital payments, which in turn implies the elimination of physical payments, is entirely altering shopping in the course of time. This study investigates the effect of various digital payment modes on customers' shopping satisfaction. With metrics like the number of customers doing online purchase and using cell phones. For making sure that important aspects that impact customers' satisfaction with their online payment experience, to help retailers deciding what should be improved to increase their customers' fulfilment and how to allocate their limited resources & effective ways to manage payments. Purpose/ Aim/ Need of the Study: This research investigates the highlights and Challenges of adopting digital payments for online purchases. When customers pay digitally, it tries to ascertain what makes them Satisfied or dissatisfied. The aim is to support stores with advanced digital payment systems to make consumers joyful. The study wants to give stores useful tips on how to make shopping in-store with electronic payments a better experience for customers. Objectives of the Study: The primary objective of the study is to influence of online payments which influence on customer gratification in shopping retail sector. To ascertain the highlights and challenges of electronic payments and offer suggestions for their improvement. To make customers' shopping experiences more enjoyable, the aim is to assist retailers in improving their digital payment options. Methodology: Questionnaire data will be collected through google forms, and digital payment preferences and the satisfaction levels of consumers at Chennai. The data shall be analyzed statistically to bring out the association among the digital payment channels and customer gratification in the retail sector. Result: The study anticipates that customers will favor digital payment channels that offer convenience and security, leading to higher satisfaction levels. More research could be done on the relationship between customer engagement and satisfaction levels in electronic payment channels geographically. The results of the study point to important factors that affect customers' preference for electronic payment & comply with consumers' most preferred digital payment methods.

Key words: *Buyer Preferences, Retail Sectors, Electronic Payment Methods.*

Introduction:

Due to the advanced technology, innovation & creativity by telecommunications industry, emergence of the FinTech industry and digital India campaign basically taken serious by government. Financial literacy and digital literacy program organized by government leads to increase in electronic payments by consumer in India. Consumers slowly shift towards online

shopping while less using the Brick-and-Mortar methods of shopping are also increasing electronic payment. Consumer prefers electronic ways for easy on paying alternatives as well as goods extensive variety supplied by broad area of service providers with low prices & best prices that made retail customer important to switch toward electronic way. Thus, the intention of this research paper is to see how buyer preferences in relation to electronic payment methods affect the level of customer satisfaction at retail industry. Now a days consumers have numerous payments methods for completing their transaction include peer – to – peer or smart phone payments along with tap to pay card and UIP payment methods. Our main objective is to understand buyer preference for specific electronic payment options & which will influence on the buyer decisions on their purchasing experience. Through this study, we will identify the variety of buyer perspectives and their ideas about the electronic payment's methods. A comprehensive examination of data collection techniques has facilitated an understanding of the patterns and fundamental factors that affect consumer preferences regarding electronic payment methods within the retail sector. The primary emphasis of this research is to concentrate on the relationship between electronic payments and customer satisfaction among retail consumers in the retail industry. Users of consumer and digital platforms offer essential insight to the entrepreneurs on consumer preferences and behaviors that will assist in attracting a larger customer base and focusing on dynamic customer demands. This information will enable competitive advantage within the realm of electronic payments.

Purpose of the Study:

The main objective of this study is to examine the influence of online payment technology on customer satisfaction levels with specialty retail stores. Due to innovations in the web space and development of the Fintech industry, it has enabled consumers to use online payments. And the government is committed to digital first, allowing consumers to use electronic payments in all aspects of their business. Current research focuses on consumer preferences and satisfaction levels with payment services. online money It will help merchants understand the challenges and conveniences of digital transactions in their business. It also supports the unique needs of electronic payment systems in terms of availability, security, ease of use, and more. Businesses use a variety of distribution techniques to set prices. Best for service and price This will enhance the customer's purchasing experience. And it will help support our customers' loyal retailers. The results will help users identify which payments consumers are most likely to make in retail in today's digital era.

Review of Literature:

Kumar. A (2024):“A study on consumer satisfaction towards online shopping”.The aim of this study is understanding the customer gratification with electronic shopping behaviour. Specific topics included include website usability, product quality, shipping efficiency, customer support, and return policy. Using statistical methods, data from a broad sample was examined. The findings suggest that while website usability and product quality have a significant influence on customer satisfaction, different consumer groups have slightly different needs. For companies looking to maximise e-commerce and build long-lasting partnerships, the report provides insightful information.

Siddaraju. S (2023): “A Study of Consumer Perceptions on Digital Payment System in India with Special Reference to Mysuru District”. The Study explored how people feel about using digital payment options (like mobile wallets) after the government encouraged everyone to go cashless. The researchers focused on things that influence people's perception, like security, convenience, trust, and what their friends and family think. They surveyed 110 people and found that older adults were generally less comfortable with digital payments compared to younger folks. Interestingly, there wasn't much difference based on gender or education. This suggests it's important to find ways to make digital payments easier and more trustworthy for older people so they can participate in the cashless movement too.

Susanto, S., Wahyudi, F., Bangun, S., Nurdiani, T. W., & Purnomo, H. (2023): “Analysis of theInfluence of Service Quality on Customer Satisfaction and Its Impact on Reuse Intention of Mobile Banking Payment in E-Commerce Transactions”. The aim is to determine how electronic banking services affect clients of Jabodetabek's interest in repurchasing. Utilising a non-probability sample of one hundred participants, information was gathered via SEM-PLS and questionnaires. The outcome of the study, indicated that while customer happiness indirectly affects repurchase interest through service quality, the convenience of electronic banking services directly affects repurchase interest. Customer satisfaction moderates the favourable indirect effect of electronic banking services.

Nambiar, B. K., & Bolar, K. (2023):“Factors influencing customer preference of cardless technology over the card for cash withdrawals: an extended technology acceptance model”. A survey conducted by 521 Indian bank customers shows that cardless cash is preferred over standard cards by them because of its utility, usability, customer confidence, and security. The report also suggests that, convenience, trust, and security are the primary reasons affecting

consumers' desire for cardless cash technology at ATMs. This study supports the banking industry's initiatives to encourage the practice of cardless cash and lessen customer interaction at ATMs.

Agarwal, S., Malik, P., & Gautam, S. (2023):“Analysis of customer satisfaction and the customer experience in digital payments: a meta-analysis review”.This meta-analysis of studies on banks' digital payment systems shows that functional quality, perceived value, trust, perceived risk, and service quality are significant antecedents of customer experience and satisfaction.Even though trust is necessary for a positive experience, service quality is the best measure of customer pleasure. The study adds to the body of literature by providing empirical generalisations that enhance user functioning and satisfaction.

ShinkiKatyayaniPandey (2022): “A Study on Digital Payments System & Consumer Perception: An Empirical Survey”. Innovations in technology and regulation have led to a notable surge in the practice of India's digital payment system. Payment cards, electronic wallets, and bank transfers are common methods. The report examines how digital payment methods have changed over time and how COVID-19 has affected India's digital payment infrastructure. The study shows that health laws and the apprehension around cash transactions contributed to the notable 26.2% increase in digital payment volume in India between 2020 and 21.

Chand, K., Tiwari, R., & Sapna. (2022): “Effect of Perception and Satisfaction on Preference for Mobile Wallet”. The aim of the study is to determine how consumers' perceptions and levels of happiness with mobile wallets affect their inclination towards them. The study, satisfaction serves as a partial mediator between perception and m-wallet preference, which is influenced both directly and indirectly. This is the initialpart of writing in India to examine this impact.

Świecka, B., Terefenko, P., &Paprotny, D. (2021): “Transaction factors’ influence on the choice of payment by Polish consumers”. A study was conducted in Poland among 1005 consumers by utilizing computer-assisted personal interviews in the first quarter of 2019. Consumer preferences, income, and their demographic details are collected for the study. Statistical tools are employed to understand which payment methods will be most preferred by consumers. The outcomes of the study reveal that consumers prefer only cash payments for retail consumption. Financial capability plays a key role in payment decisions in this

industry. The results will help policymakers improve their policies and strategic choices in Poland. It helps to give better suggestions for effective payment systems in Poland.

Ranjith, P. V., Kulkarni, S., & Varma, A. J. (2021): “A literature study of consumer perception towards digital payment mode in India”. In India, electronic transactions are growing in popularity as effective payment methods increase the liquidity in the commercial world. This study looks at how customers see digital and online payments, with a particular emphasis on ease and safety. It analyses digital transactions using studies of the literature, signifying their acceptance and growing use. The results can guide future study on this subject and assist marketers in understanding consumer views towards cashless techniques.

Objective of the Study:

- To ascertain the most preferred digital payment channels by the retail consumer.
- To study the elements that influencing the customer preferences for using the electronic payment methods among the retail business.
- To evaluate the impact of electronic payment channel preferences on overall customer satisfaction levels within the retail business.

Theoretical Back Ground

The rise of digital technology has caused tremendous shifts in the retail sector, as e-payment systems like contactless payments, online banking, and mobile phones have replaced old payment methods like cash and credit cards. In today's competitive environment, marketers have to know the consumer preference among different channels. There are many causes for the growing development of electronic payment options; these include government programs, convenience programs, security concerns, technology evolution and emerging brands. In regard to the consumer payment choice, the demographics of the consumers have a central role to play with other factors being the transaction cost and time convenience, promotion offers and rewards, knowledge and trust in a brand. This could be due to the fact that generation X and boomers are not that computer literate compared to the younger generation. Things which concern consumers for instance security and privacy of their financial information are significant since they are important to the consumers. As the contactless payment technology remains to grow and is adjusted to the Near Field Communication (NFC) technologies, integrated in to digital wallets, the frequency and speed of the communication proves crucial. Besides, the perceived impact is highly influenced by loyalty

program and promotional offers which are well associated with discount. It is also evident that familiarity and trust can be associated with more than one aspect of consumers' preferences. Customer preferences for electronic payments may be understood with the help of one of the following conceptual frameworks which are borrowed from the consumer behaviour theory. The part of customer demands for digital payment channels can be understood by businesses with the help of Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB) and Flow Theory. Those retailers who are aware of such trends are also able to capitalise on the opportunity to improve on aspects of customer service delivery and the overall shopping experience. The leading factors include decrease in the time spent at the check out counter, popularity of consumer convenience and time convenience and digital payment systems that brings about transparency and control. These platforms do not only offer real time transaction information, but are real time transactions themselves and improvements in customer shopping experiences.

Research Methodology

The retail customer responses were gathered by the researchers using a questionnaire method consist of 22 questions focusing on general customer who belong to category of Millennial & Generation Z Customer in Retail sector. Primary data was used in this study. Quantitative information on consumer preferences for electronic payment methods, their effects on satisfaction, will be gathered using a sequential explanatory design.(Random sampling via google form). Sample sizes will be 250 responds from Chennai district.

Data Analysis

Table 1 - Most Preferred Digital Payment Channels

Digital Payment Channels	No. of Respondents	Percentage of Respondents
Credit/Debit Cards	31	12.4%
Cryptocurrency	15	6%
Mobile Wallets	172	68.8%
Online Banking	16	6.4%
Others	16	6.4%
Total	250	100

Interpretation: It is shown that 68.8% of the common of respondents preferred mobile wallets for paying in the retail sector, followed moderately by credit/debit cards and online

banking at 12.4% and 6.4%, respectively. The adoption rate was lower for cryptocurrency and other payment modes by 6%. Overall, the above shows that people preferred mobile wallets for digital payments in the retail sector.

Elements that impact consumer preferences for using the electronic payment methods among the retail business

H₁ = There is an association between elements that impact customer preferences for using digital payment methods.

Table 2 - Correlation Analysis - Cramér's V

Cramer's V	Calculated Value	Chi Square value	Sample Size
	673.856		250
Cramer's V Value	0.8209		

It shows that the correlation analysis based on Cramer's V between "Factors Influencing Customer Preferences" and "Digital Payment Methods" is 0.8209, indicating a very strong association. This suggests that as factors influencing customer preferences increase, there tends to be a corresponding increase in the adoption or use of electronic payment methods, and vice versa. This indicates that retailers should more focus on these factors to improve their customer engagement and encourage the use of preferred electronic payment method.

Digital payment channel preferences on overall customer satisfaction levels within the retail business.

H₂ = There is an association between digital payment channel preferences on overall customer satisfaction levels within the retail business.

Table 3 – Chi – Square Test

Chi – Square Test	Calculated Value	Degree of Freedom	Table Value
	109.1913	8	15.51

Interpretation: From the table, calculated value of chi-square test (109.1913) is more than table value (15.51) and hence we accept alternative hypothesis. So, it is determined that there is significant association between the digital payment channel preferences with respect to overall customer satisfaction levels of the retail business.

Results

The study exposes a strong preference for mobile wallets as the primary digital payment method in the retail sector, followed by credit/debit cards and online banking. Cryptocurrencies have lower adoption rates at 6%. A moderate positive correlation exists between customer preferences and electronic payment methods adoption. The chi-square test results show a significant association between electronic payment channel preferences and customer satisfaction levels, emphasizing the need to consider customer preferences when developing digital payment solutions.

Suggestion

Considering the evident preference for mobile wallets and the meaningful correlation between customer preferences and the adoption of digital payment methods, retailers are encouraged to prioritize the advancement and marketing of mobile wallet solutions. Emphasizing improvements in user experience, security features, and overall convenience of mobile wallet platforms can effectively cater to customer needs and further elevate adoption rates. This strategic focus aligns with meeting evolving customer expectations and fostering increased utilization of digital payment methods within the retail sector.

Conclusion

The research highlights how important of electronic payments method that influence the customer preferences in retail. Retailers need to focus on refining mobile wallet platforms as mobile wallets gain popularity to follow changing customer preferences. Prioritizing mobile wallet development based on customer preferences can help retailers boost customer satisfaction and expand business within the electronic payment's context.

Managerial Implications

The priority for retailers is to enhance and promote the use of electronic wallet options based upon customer preference. Improving the user-friendliness, security and convenience of electronic wallets to capitalize on customers' clear preference may increase the adoption rate and attract a larger customer base. It increases the adoption rate of electronic payments among retail consumers because of their changing needs and wants.

Limitation

The researcher used convenience sampling for data collection, which may lead to bias in the survey data. Electronic payment is the major focus of this study with special attention paid to

the retail sector. Even though there have been prior studies that have established how the choice of electronic payment by the entrepreneur for the business can be explained, there is still a lack of focus on what exactly was the antecedent of this decision. This indeed means that the level of satisfaction and preference of the customers will change forecasting the demographic and the geographical changes that are looming in the retail business.

Scope for Further Research

It is also possible to carry out research and analysis concerning the consumer attitude and behaviour with regard to why customers switch their e-payment. Thus, much more accurate conclusions can be given for certain demographical segments and geographical areas, which will consequently affect the choice and satisfaction level of customers, which will ultimately dictate the rate of adoption of the e-payment system in a particular location. Segment wise knowledge about the usage of electronic payment mechanism and also the fact why consumers can use one particular payment system in a particular segment can also be established.

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HRM IMPLEMENTATION IN UNORGANIZED SECTOR: AN ETHNOGRAPHIC STUDY OF SADAR MARKET DELHI

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Abstract: Working sectors are primarily considered organized sector and unorganized sector. Despite modernization, digitization, generative artificial intelligence, and the use of modern human resource management (HRM) tools and techniques in the organized sector, the most important aspect of our workforce community, which is the unorganized sector has been ignored. India's unorganized sector, which has an informal nature of employment, accounts for about 91% of the nation's total workforce and contributes approximately 50% to the national income “gross domestic production” (GDP). However, despite their significant contribution, they are not getting proper compensation and attention. However, they are struggling to make ends meet, and there is no appropriate HRM mechanism for managing workers in unorganized sectors. This study aims to analyze and understand human resource management practices in the unorganized sector, including interpersonal relations between employers and employees, working conditions, problems faced by workers and employers, welfare measures and government schemes, etc. The research paper is primarily based on ethnographic research methodology and observational methodology. Further, data for this study was collected from secondary sources such as authentic websites, published research papers, and accessible government reports. Finally, the study discussed employer-employee relations, working conditions, management mechanisms, the prospects of human resource management implementation, and suggestions for improving conditions in the unorganized sector.

Keywords: *Unorganized Sector, Human Resource Management, Working Sector, Working Condition, Workforce Community*

1. INTRODUCTION

India's working sector is broadly divided into two categories, namely the organized and the unorganized sector. About 91% of the workforce in India is engaged in informal nature of work and is employed in the unorganised sector, which contributes 50% to the country's national income and gross domestic product (GDP) (Economic Survey 2021-22). However, it is very disappointing that majority of government schemes and welfare policies are only for the employees and workers of the organized sector, and only a few schemes are available for the unorganized sector. Unorganised sector has been defined as, "*all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten workers*"

by the National Commission for Enterprises in the Unorganised Sector of India (NCEUS, 2007). According to the definition under Unorganized Workers Social Security Act, 2008(UWSSA, 2008), "*Unorganized Sector*' means an enterprise owned by individuals or self-employed workers and engaged in the production or sale of goods or providing service of any kind whatsoever, and where the enterprise employs workers, the number of such workers is less than ten."

Human resource management (HRM) is the concept of managing people in any kind of organization, firm, industry, and sector. People refer to those, who are working in these particular places and when they contribute in any way to these organizations, industries, and sectors they are considered as human resources. Therefore, HRM is the overall management of workers, employees, and employers from employment till retirement. Management may include people's well-being, safety, health, benefits, needs, working conditions, remuneration, compensation management, conflict management, motivation, and guidelines to ensure the best use of people's capabilities. The primary focus of HRM is on the systems and policies related to the management of people within organizations(David et al., 2009).

Developing nations like India have a limitless number of unorganised sectors all throughout the nation and most of them are occupied by small businessmen and very traditional traders or manufacturers and these businessmen do not have proper knowledge or skills to deal with human resources. Because of this, workers and employers in these unorganized sectors face many difficulties in dealing with day-to-day organizational activities. With the rapid development of technologies, HRM is changing rapidly, the role of human resource (HR)personnel is changing and the HR department is facing many challenges(Charania, 2013). There is no appropriate HR structure in the case of the unorganised sector, so it becomes important to improve the management with progress in the unorganized sector as well. Generally, the employers as well as workers in these unorganized markets are not very educated. Despite these sectors, the progress of organizations or markets mainly depends on the quality of people, management and processes of those particular sectors. The quality of people is most important for the growth of any particular function of every system. Therefore, it is important to look at the solutions to the problems and difficulties associated with the human resources of each sector.

Very few authors of previous study discussed the management of workers or employees in the unorganised sector, instead this, majority of those focused on the working conditions,

welfare programs and policies, issues, and difficulties experienced by workers in this sector. Therefore, the current study provides insight on the management of workers and employees in this particular sector. The findings of this research will help the unorganized sectors to manage human resources and provide some ideas and suggestions that can be beneficial for human resource management in the unorganized sector. The next sections of this paper will include the aim of the study, literature review, objectives, research methodology, analysis, discussion, and conclusion.

2. PURPOSE OF THE STUDY

From the management perspective, we can easily find many management techniques, frameworks, and human resource development strategies for managing workers in the organized sector. Governments also provide many policies, laws, and schemes to improve the lives of organized sector workers. However, what about the people in the unorganized sector? Due to illiteracy, lack of awareness, and poverty, workers in the unorganized sector are out of reach of getting their rights prescribed by these schemes and laws. They are unable to take advantage of these policies and laws. Due to a lack of appropriate knowledge, employers in this industry also struggle to manage human resources and supply the resources that are required. Both parties communicate verbally without any written formality because neither party knows how to introduce formality in writing.

Hence, there is a requirement for human resource management strategies and policies that address the challenges of the unorganized sector. About this, the following research questions need to be addressed:

1. How to manage these unorganized sector workers.
2. What are the possible frameworks of HRM that can be formulated and which can be easily understood and implemented in the unorganized sector?
3. What kind of strategies can help in understanding the benefits and entitlements of government policies and schemes for the welfare of employees in unorganized sector?

3. LITERATURE REVIEW

3.1 Basic needs and rights of unorganized workers.

Concerning the contribution of the unorganized sector towards employment, value addition, and exports, these unorganized workers play a major role in India's industrial environment (Saikia, 2011). Despite this, during the COVID-19 pandemic, these workers faced several challenges including basic needs, migration issues, health safety and security, etc. Umare (2021) in his research paper on the crisis and management of unorganized workers stated that employers in this sector should emphasise the cleanliness of the work environment and the hygiene of the workers, additionally how unorganised workers' rights need to be respected, and how they require comprehensive policies that can give them with basic necessities, respect, and recognition (Vijay, 2015).

3.2 Labour laws, schemes, and policies.

Chatterjee (2016) in his research paper discussed some of the important Indian labour laws and their interventions towards the workers; in addition, he also talked about some government schemes and policies that were introduced for the benefit of workers. He concluded his paper by stating that despite the introduction of numerous schemes and policies by the central and state governments aimed at enhancing the condition of the unorganised sector, but both have failed. He also said that enacting acts and making schemes is not enough, the government should assign the work to NGOs, who will be responsible for conducting such programs and making them successful (Chatterjee, 2016).

3.3 Need for better HRM practices.

Mukherjee & Goyal (2012) stated that the organized sectors include a wide classification of employees such as managers, supervisors, store assistants, workers, and contract employees, but not all of these classifications appear in the unorganized sectors. Sharma (2015) in his article about human resource management in the unorganized sector concluded that there is the need for better HRM practices, and many employers of unorganized sector are beginning to accept the supremacy of structured human resource management practices. Sharma (2015) also stated that a suitable framework of human resource management strategies may reduce or eliminate the challenges faced by the unorganised sectors, which should be initiated by the Government of India by enacting some statutory act.

3.4 Unorganized Sectors Social Security Act (2008)

In a research paper, Kalyani (2015) addressed the issue of unorganised labourers within the Indian workforce, and talked about several schemes formulated by the governments at the state and central level but he mainly emphasized the Unorganized Sector Social Security Act (2008). He questioned all schemes and policies being run by the governments and criticized their shortcomings. At the end he concluded that these acts are only a shadow that does not address the underlying provision to provide solutions to the problems and requirements of unorganized sector(Kalyani, 2015).

3.5 The government initiatives have proved as a tiger without teeth.

Balaji & Girija (2018) in their research paper talked about the various problems of Indian unorganized labourers and the solutions required, these labourers may not experience any social security benefits and services that are easily accessible by the organized sector. Considering the “Social Security Act, 2008”, they point out shortcomings of the government act and stated that the surprising reality is that this act has proved itself to be a “tiger without teeth”(Balaji & Girija, 2018).

In India, the challenge of balanced regional economic development persists despite the implementation of several programs aimed at removing the anomalies in industrial development across regions(Saikia, 2011). The majority of researchers address the difficulties facing this sector as well as the different policies and programs available to ensure the welfare of employees in their papers, but they do not offer the solutions that are required. There is a need to provide solutions on how the benefits of these schemes reach the minds and hands of workers.

4. OBJECTIVES

1. To evaluate and understand the actual working conditions of the unorganized sector.
2. To examine the Human Resource Management capability of employers in the unorganized sector.
3. To study the relationship between workers and employers in unorganized sectors.
4. To analyze how effectively workers understand the laws and policies enacted by the government for their welfare in unorganized sectors.

5. RESEARCH METHODOLOGY

Current study is mainly based on ethnographic research methodology and observational methodology. The author has personally analyzed the unorganized sector through direct observation and ethnographic analysis of the work culture, environment, and challenges faced by both employers and workers of the unorganized market. The author has worked in the unorganized market of plastic granules located at Bahadurgarh Road, Sadar Bazar, Delhi for about three years and has studied the challenges, and conditions faced in implementing HRM in practice. In addition, the author has extensively reviewed various research papers, journals, and government open sources to collect information systematically.

6. ANALYSIS AND DISCUSSION

6.1 Observation

The unorganized market of India is far away from modern development, technological advancement in work culture, and smartness in daily jobs. The employees in this industry lack the literacy required to support the expansion of the industry, market, and overall businesses. During the research process, the author observed that people in the market are just concerned with meeting their daily needs, the workers like permanent load pullers and peons of the business just earn for their survival and they are forced to do all the work ordered by the owner or management of the business. The workers of Sadar Bazar are afraid of losing their jobs and daily earnings, as they earn on a daily basis. If they take a day off, it means they do not earn anything on that day. Whether they are sick or ill, they have to come to work to earn their bread. They lack specialized skills, which significantly reduces their chances of finding new employment if they lose their current job. The employers or businessmen of this sector are working only for their profit, they do not care whether a human being or an animal is working for their profit-earning process. The employers of these sectors do not care much about the personal development of the workers or permanent employees.

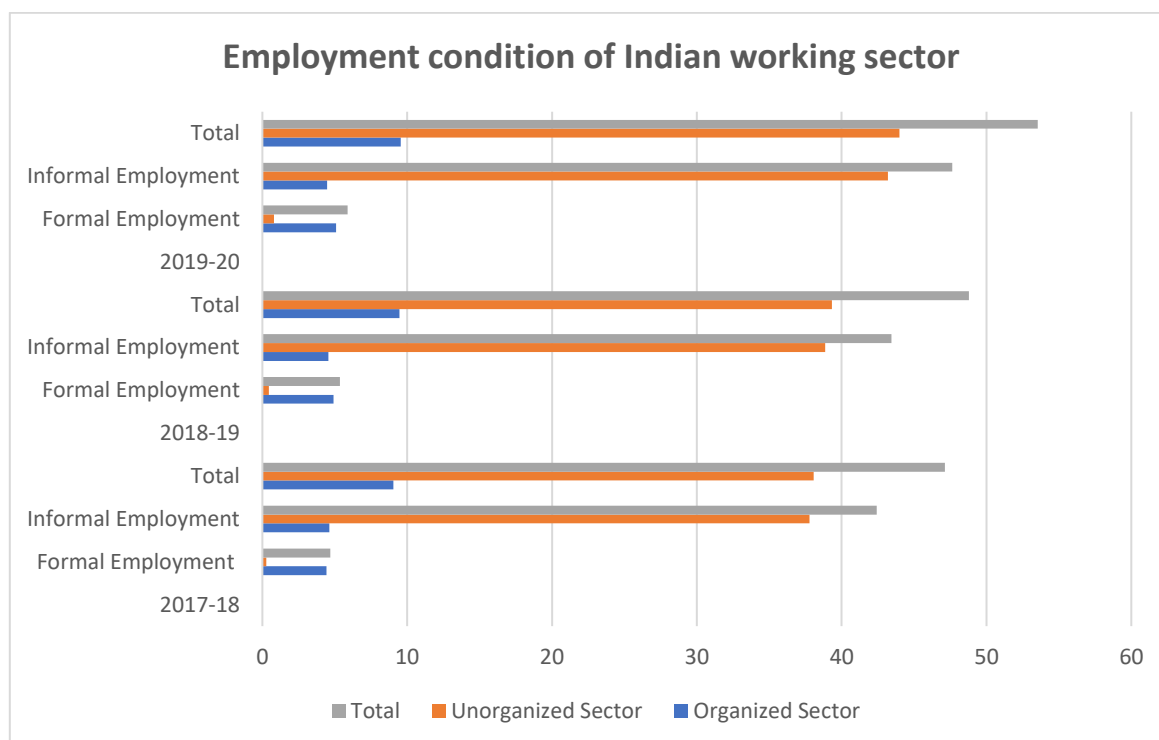
6.2 Present Scenario

According to the Economic Survey 2021-22 conducted by the Indian government, around 91% of total employment of the country were in the unorganized-informal sector and approximately 90% were from the informal nature of employment and around 98% were from the unorganized sector.

Employment Type	Organized Sector	Unorganized Sector	Total
2017-18			
Employment (Formal)	4.43	0.28	4.70
Employment (Informal)	4.62	37.79	42.43
Total	9.05	38.07	47.13
2018-19			
Employment (Formal)	4.91	0.45	5.35
Employment (Informal)	4.55	38.87	43.43
Total	9.46	39.32	48.78
2019-20			
Employment (Formal)	5.09	0.80	5.89
Employment (Informal)	4.46	43.19	47.64
Total	9.55	43.99	53.53

Table 1: Employment condition of Indian working sector

Source: Created by author, estimated data taken from PLFS 2017-18, 2018-19 and 2019-20 Surveys¹.



¹Economic Survey 2021-22, https://www.indiabudget.gov.in/economicsurvey/ebook_es2022/index.html#p=398

Figure 1: Employment condition of Indian working sector

Source: Created by author

The main reasons behind these scenarios are:

(a) Large number of youths looking for jobs, the total population of India is around 140 crores, out of which 60% is the young generation, the unemployment situation in the country is getting worse due to the low availability of jobs and a large number of youths looking for jobs at the same time.

(b) Low availability of formal and organized sector jobs, cities like Delhi, Mumbai, and Bangalore are in the developing stage. However, in reality, hardly a single state or city in India has reached full development with regard to the necessities of society. Consequently, there aren't many formal businesses or organized business sectors.

(c) Corruption in the recruitment process, despite facts showing that hiring practices in businesses are fair, a significant number of fraudsters are discrediting the hiring process by taking bribes for fixed and permanent jobs in government organizations as well as private organized sectors.

(d) Mountain of semi-skilled and unskilled workers(Panneer, 2019). Due to the low level of educational background of the previous generation, today's youth are not fully skilled and educated for skilled work and jobs. The need of every organized sector begins with skilled workers who can handle the respective work without any hesitation or training. Therefore, there is a large group of semi-skilled and unskilled workers.

(e) Unfortunate skilled workers due to unavailability of resources, knowledge, and corruption. Lack of resources, motivation, and proper training in the lives of skilled individuals is making skilled labour an obsolete asset for society.

6.3 Challenges in Human Resource Management Implementation

As we have already discussed, most of the employees in the unorganized sectors are illiterate or lack awareness. Same is the case with the employers in these sectors, they are also not well educated(Sharma, 2015) and they lack the resources and information to manage the human resources and other things of the business properly.

Generally, these difficulties are typically brought on by insufficient HRM systems in the unorganised sector:

1. poor employer-employee relationship,

2. low retention rate of employees/workers,
3. low job satisfaction and motivation among workers,
4. non-availability of proper skilled manpower,
5. poor working conditions,
6. lack of formal paperwork as per rules and regulations laid down by the governments,
7. non-availability of proper safety, security, and space for workers,
8. high attrition of trained workers by employers through the offering of high wages or salaries,
9. high rate of conflict between worker-worker or worker-employer, etc.

6.4 Unawareness of Schemes and Policies

Despite the facts, the state and central governments offer a variety of schemes and policies aimed at enhancing the condition of workers in the unorganised sector. However, the advantages offered by several schemes and policies are not accessible to this unorganised sector because of a lack of awareness, expertise, and resources. Some of the acts, schemes, and policies are listed here:

1. Minimum Wages Act, 1948,
2. Trade Unions Act, 1926,
3. Industrial Disputes Act (1947),
4. Employees State Insurance Act (1948),
5. Unorganized Sector Social Security Act (2008),
6. Pradhan Mantri Rojgar Protsahan Yojana (PMRPY)
7. Aam Aadmi Bima Yojana (AABY)
8. Pradhan Mantri Shram Yogi Maan-Dhan, etc.

Despite the government providing these laws, schemes, and policies for the benefit of unorganized as well as organized sectors, the unorganized sector is still deprived of benefits as compared to the organized sector.

6.5 Suggestions for Implementation of HRM

Managing workers and employees in the unorganized sector is vital to enhancing the productivity and growth of any business. Though it may be challenging to manage, but it is not impossible. Employers can benefit from proper management of human resources, and workers can also become aware of their rights and benefits through proper human resource management mechanisms. By doing so, it becomes much easier to implement HRM functions and mechanisms in unorganized sectors. Some employers and businessmen have already

started practicing proper HRM processes in their businesses after realizing the benefits of HRM practices.

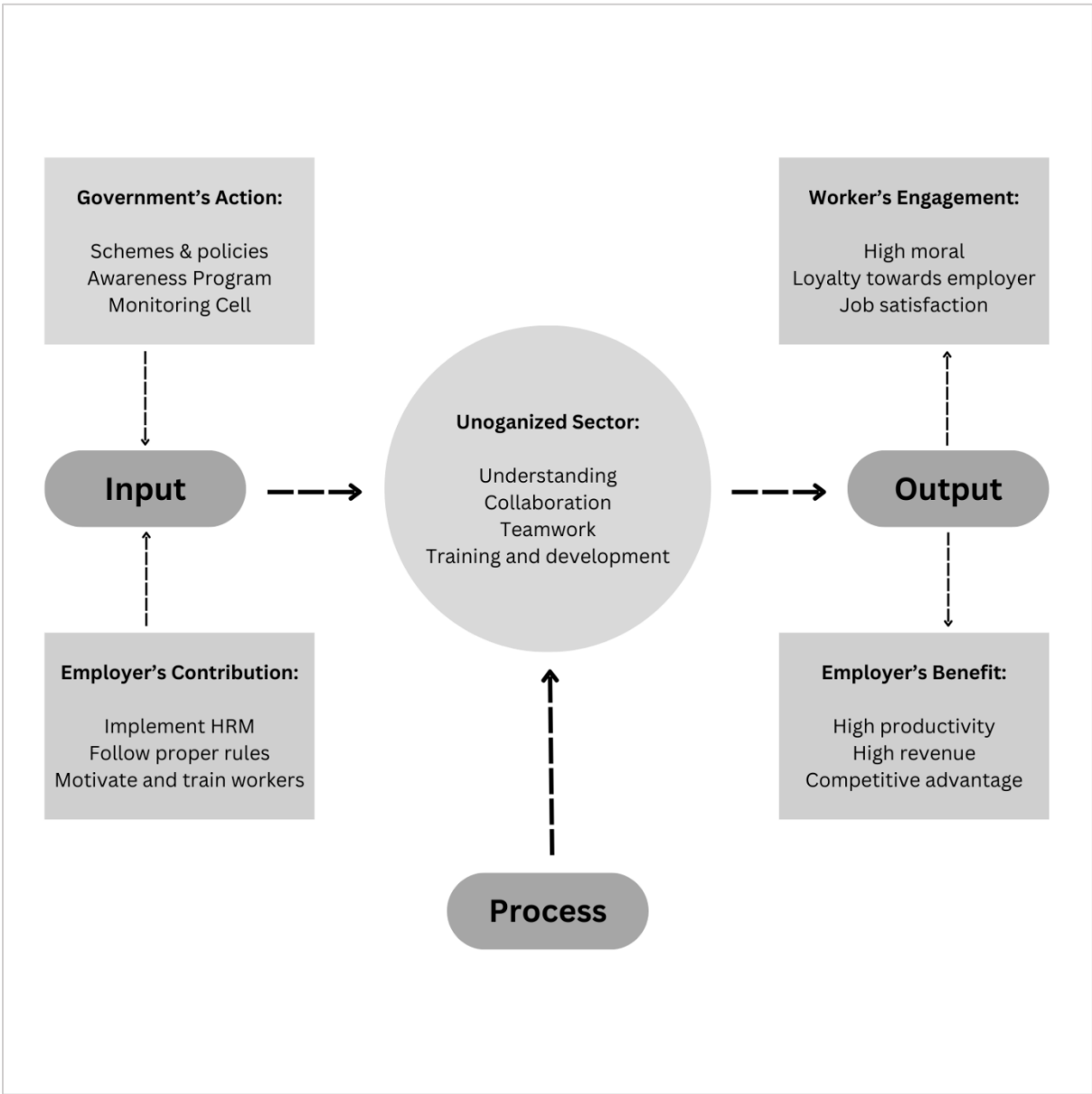


Figure 2: GWEE Model for HRM in Unorganized sector

Source: Created by author

According to the proposed GWEE model (figure 2), the government's contribution begins with providing several acts, schemes, and policies for the benefit of human resources. In addition, the government should intervene and enhance awareness programs through various communication channels, these awareness programs can be done through radio programs, television programs, poster sharing, weekly or monthly awareness camps, physical

conferences or meetings, street plays on the benefits of those schemes, etc. In addition, a monitoring cell should be set up to track the effectiveness of these awareness campaigns (Bordoloi, 2019). In order to adequately prepare the unorganised sector for the adoption of HRM, employers' contributions are equally crucial, by following proper rules and regulations set by the government and by following the concept of formal HRM and by providing the workers with the necessary motivation and training for their respective job the employers can make significant contribution as per the above model.

The challenges associated with HRM implementation in the organized sector can be eliminated by collective effort through understanding the requirements of each party, collaborative efforts and team work with proper training and development in the unorganized sector(Thakur & Sharma, 2019).

Finally, as an output of this proposed model, the unorganized sector can increase worker's involvement and well-being towards employment(Jaswal et al., 2024) in the form of high moral, loyalty towards the employer and adequate job satisfaction. On the other hand, the employers of the unorganized sector can also be benefited with higher production, profitable revenue and competitive advantage in the sector.

It may take some time, but the continued efforts of government programs will help increase awareness among people in the unorganized sectors. In the end, this will support the growth and improvement of the unorganised sector's workforce, employees, and employers, and it will also raise the bar for production and services and the country's overall capital.

9. CONCLUSION

Workers from every sector have equal importance to the nation as they contribute equally to maximising national wealth. Therefore, it is crucial to address the challenges facing the unorganised sector, particularly those related to human resources. In this study the author followed the ethnographic approach to observe the issues and challenges of human resource management in Sadar Bazar, Delhi, the author himself worked in the unorganized sector for three years and from there he got the knowledge about the working conditions and lack of HRM policies in this sector. Further study analyzed and discussed the findings in detail, then finally it provides some valuable insights such as implementing proper HRM mechanisms in the unorganized sector is not an easy task, but it is not impossible either. However, with time and persistent effort on behalf of the government, business, local market authorities, and significant players in the unorganised sectors, we can implement proper HRM mechanisms in the unorganized sector.

7. MANAGERIAL IMPLICATION

The present study can be used to understand the ground reality of the unorganized markets or sectors, available challenges, and problems in the implementation of HRM practices in this sector. It can help in the formulation of the management frameworks, and tactics for the HRM practice, for improvement in the previously used HRM practices. As in this study author has discussed some government efforts toward the unorganized sectors, future studies can take place to know how successful or futile those efforts have been. Therefore, this study can also be helpful in the formation of government policies for the betterment of this sector.

8. LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

The results and analysis of this study are based only on the unorganized market of plastic granules in Sadar Bazar, Delhi. Since ethnographic study involves only the researcher's observations which may be biased to some extent and due to time constraints, this study may not be sufficient to know the proper status of the unorganized sector of the whole country. Therefore, in the future, a study can be initiated on a wider scale using multiple research methodologies. There is also a need to study the effects of various government policies initiated for the betterment of the organized sector, Researchers can examine the extent to which such policies have influenced the thoughts and behaviours of persons working in the unorganised sector, both positively and negatively.

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