KLE Society'sScience & Commerce College

Plot No. 29, Sector - 01, Kalamboli, Navi Mumbai-410218
Website: http://klesccmumbai.edu.in

(Affiliated to University of Mumbai)

ONE DAY INTERNATIONAL E-CONFERENCE 2023

ON

"THE PARADIGM SHIFT: GROWTH, TRANSFORMATION & COMPETITIVENESS IN BUSINESS MANAGEMENT & SOCIETY"

BOOK OF PROCEEDINGS

ISBN NO: 978-81-962963-4-6

ORGANISED BY

DEPARTMENT OF MANAGEMENT STUDIES

IN COLLABORATION WITH

INTERNAL QUALITY ASSURANCE CELL

20TH MARCH 2023

EDITOR
ASST. PROF. PALLAVI MIRGAL
I/C HOD DEPT. OF MGMT. STUDIES

EDITOR
ASST. PROF. SHAFAQ KHAN
DEPT. OF MGMT. STUDIES

ISBN NO: 978-81-962963-4-6

THE PARADIGM SHIFT: GROWTH, TRANSFORMATION & COMPETITIVENESS IN BUSINESS MANAGEMENT & SOCIETY

ORGANIZED BY DEPARTMENT OF MANAGEMENT STUDIES

IN COLLABORATION WITH

INTERNAL QUALITY ASSURANCE

ON

20th March, 2023

KLE SOCIETY's SCIENCE AND COMMERCE COLLEGE, KALAMBOLI

PATRONS

Dr. Prabhakar Kore
MP Chairman
KLE Institutions, Belagavi

Shri. Mahantesh M.Kavatgimath
MLC Director,
Board of Management, KLE Society, Belagavi

 ISBN NO: 978-81-962963-4-6

KEY NOTE SPEAKER

Dr. Shanthi Menon
Director- Institution Development, University of Stirling,
Director- SQA, RAS AL KHAIMAH, UAE

ADVISORY BOARD

SESSION CHAIRPERSON

Dr. Navsin Mistry
M.V. Mandali's College of Commerce & Science
Mumbai

Dr. Hiresh S. Luhar
Director, VIVA Inst. of Mgmt. & Research, Virar, Mumbai

Dr. S. Sandhya
NITTE School of Mgmt, Bangalore

Dr. Jyotindra Jani
Shri Sadgurudev Shri Ranchhodasji Bapu Mahila Home Science College Mahila Home Science College, Gujarat

Dr. Eknath Zharekar
I/C Principal , Mahatma Night Degree College Of Arts & Commerce, Mumbai

ISBN NO: 978-81-962963-4-6

ORGANIZING COMMITTEE

Committee Chairperson

Dr. G. D. Giri
Principal

Asst. Prof. Pallavi Mirgal
Head
Department of Management Studies

Asst. Prof. Shafaq H. Khan
Conference Convenor
Department of Management Studies

Editorial Board Members

Asst. Prof. Pallavi Mirgal
Department of Management Studies

Asst. Prof. Shafaq H. Khan
Department of Management Studies

Committee Members

Dr. Prakash Bhadane
IQAC Co-ordinator

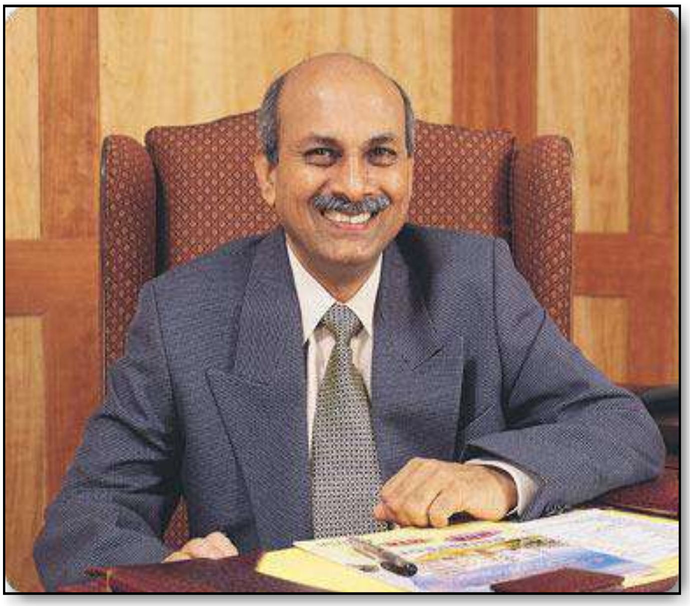
Asst. Prof. Sayma Natekar
Department of Information Technology

Asst. Prof. Anuj Tiwari
Department of Management Studies

Asst. Prof. Kuldeep Prabhu
Department of Information Technology

 ISBN NO: 978-81-962963-4-6

CHAIRMAN'S MESSAGE



DR. PRABHAKAR KORE
Member of Parliament

We become more aware that we know less as we gain information. The world we live in now is very different from it was five or ten years ago, and the rate of change is only accelerating. As intelligent beings, humans, we have a perpetual drive to discover the unknown. Digitization-driven technology has revealed new paradigms across a range of industries, including publishing, research, and education.

The world is evolving. People are starting to understand the value of ideas as well as the effectiveness of learning and thinking. We require imagination, not only data that has been collected mechanically. To present the unexplored to the scientific community, who will advance ideas that will benefit humanity, we need enthusiasm and courage. KLE is a fantastic environment for developing focused, research-oriented young brains. Meetings are being held to turn curiosity into a tangible reality. Department of Management Studies ONE DAY International E-Conference on the theme, **"The Paradigm Shift: Growth, Transformation & Competitiveness in Business Management & Society"** to offer a suitable forum for discussing the challenges brought on by the rapid advancement of technology and the pressing need for a faster pace of innovation in business and social spheres.

I applaud the efforts of Organizing Committee of the Department of Management Studies International E-Conference and wholeheartedly welcome all distinguished speakers, scholars presenting papers and the participants to this conference

 ISBN NO: 978-81-962963-4-6

GOVERNING BODY CHAIRMAN'S MESSAGE

SHRI. MAHANTESH KAVATAGIMATH

(Governing Body Chairman)

In the present-day world, we need to explore and study the various aspects of technical innovations and scientific discoveries for the development of human as well as machine kind. KLE, Kalamboli Department of Management Studies has organized ONE DAY International E-Conference on the theme, **"The Paradigm Shift: Growth, Transformation & Competitiveness in Business Management & Society"** focuses on the present era and intent to bring together different fields of vision of Research Scholars, Students, Academicians, Industrial Experts and Ph.D. holders from various institutions to express their views and findings on recent trends in Business Management & Society.

As human beings with intellect we need to constantly find things unknown to us. I am sure that this Conference will provide delegates from various parts of India, a great opportunity for fruitful deliberations and enhance the knowledge of young minds in various fields therebyproviding an opportunity to interact with one another and experts to enhance their research skills and knowledge. Best wishes to the Organizing Committee and researchers for successful outcomes of Conference.

 ISBN NO: 978-81-962963-4-6

PRINCIPAL'S MESSAGE

Dr. G. D. Giri
Principal

On behalf of KLE Institutions, I extend my very warm welcome to all delegates and participants who are present for the ONE DAY International E-Conference on the theme, **"The Paradigm Shift: Growth, Transformation & Competitiveness in Business Management & Society**. KLE Society was laid on November 13, 1916, by seven young visionary teachers known as Saptarishis'. For the last 105 years, society has been committed to ensuring students have the space to learn, grow, and broaden their horizons of knowledge by indulging in diverse spheres of learning. Under the guidance of our management, KLE continues to lead the way to success with zeal and confidence.
The conference aims to foster enduring relationships between researchers and institutions while also fostering the exchange of various ideas and ideologies. The conference's main theme and subthemes are representative of the relevant research fields in order to provide prospective participants with creative prepositions about the range of the discussion.
Eminent dignitaries from various fields have been invited in order to have a better understanding of the subject matter.

We'd like to welcome you all to the KLE campus in Kalamboli, Navi Mumbai and hope that this conference will give everyone in attendance a chance to think about the subject at hand and inspire us

INDEX

"A Study of Challenges faced by educational leaders in unaided institutions and impact thereon" how to overcome!"

Dr Diwakar Dhondu Kadam
Assistant Professor
Head Faculty of Commerce
D. G. Tatkare Arts and
Commerce College
Tala, Raigad, Maharashtra
ddkadam@gmail.com
9869401965

Abstract

The objective of this study was to identify and analyze the challenges faced by educational leaders in unaided institutions and their impact. A literature review was conducted to identify the key challenges faced by educational leaders, including limited resources, recruitment and retention of faculty, balancing academic and administrative responsibilities, meeting student expectations, marketing and branding, adapting to changing educational landscape, student diversity, maintaining quality standards, student engagement and support, financial sustainability, regulatory compliance, and building partnerships and collaborations. To address these challenges, educational leaders can develop effective strategies, invest in infrastructure and resources, and build partnerships and collaborations with other institutions, industry, and government agencies. The study recommends a methodology that includes a literature review, with findings and recommendations to identify and analyze the challenges faced by educational leaders in unaided institutions and their impact, and provide recommendations to improve the quality of education in these institutions. In conclusion, this study highlights the need for further research to identify and analyze the specific challenges faced by educational leaders in different types of unaided institutions and the effectiveness of different strategies and approaches to overcome these challenges. This research could have significant implications for policy and practice, helping to improve the quality of education and enhance the overall functioning of unaided institutions.

Keywords: Educational leaders, Unaided institutions, Challenges, Quality of education.

Introduction:

Educational leaders in unaided institutions face numerous challenges in ensuring quality education and the overall success of their institutions. Some of these challenges include:

Financial management: Unaided institutions typically do not receive government funding, and therefore have to generate their own resources to sustain their operations. Educational leaders must manage finances effectively to ensure that the institution remains financially stable.

Attracting and retaining quality faculty: Unaided institutions often struggle to attract and retain quality faculty due to lower salaries and limited resources. This can have an impact on the quality of education offered to students.

 ISBN NO: 978-81-962963-4-6

Meeting regulatory requirements: Unaided institutions are required to comply with various regulatory requirements related to academic standards, student safety, and financial reporting. Educational leaders must ensure that the institution meets these requirements to avoid penalties and maintain its reputation.

Marketing and branding: Unaided institutions may face competition from larger, better-known institutions. Educational leaders must develop effective marketing and branding strategies to attract students and establish the institution as a quality provider of education.

Limited infrastructure: Unaided institutions may lack the necessary infrastructure and resources required for providing quality education, such as modern classrooms, laboratories, and libraries.

Limited access to technology: Unaided institutions may not have access to the latest technology and tools, which can impact the quality of education and hinder the institution's competitiveness.

Limited student diversity: Unaided institutions may struggle to attract a diverse student population, which can impact the institution's culture and reputation.

To overcome these challenges, educational leaders can consider the following strategies:

Developing a comprehensive infrastructure plan that prioritizes investments in critical areas such as technology, laboratories, and libraries.

Providing faculty and students with access to the latest technology and tools, such as online learning platforms, e-books, and educational software.

Developing outreach programs to attract a diverse student population, such as scholarships, mentorship programs, and community engagement initiatives.

Encouraging partnerships and collaborations with other institutions, businesses, and organizations to share resources and expertise.

Emphasizing the institution's unique strengths, such as specialized programs or areas of research, to differentiate the institution from competitors.

In conclusion, educational leaders in unaided institutions face several challenges that can impact the institution's success and ability to provide quality education. However, by adopting a proactive and strategic approach to infrastructure development, technology adoption, student diversity, partnerships, and branding, educational leaders can overcome these challenges and create a thriving institution that benefits its students, faculty, and stakeholders.

Objective of the study:

The objective of the study on challenges faced by educational leaders in unaided institutions and their impact is to identify the key challenges faced by leaders in these institutions and their impact on the quality of education and overall success of the institutions. The study aims to provide insights into the strategies that educational leaders can adopt to overcome these challenges and create a thriving institution that delivers quality education and benefits its students and stakeholders. By analyzing the challenges and their impact, the study aims to contribute to the existing body of knowledge on educational leadership and provide actionable recommendations to educational leaders in unaided institutions.

Methodology:

Literature Review: The study begin with a thorough review of existing literature on the challenges faced by educational leaders in unaided institutions. This review could include academic journals, books, reports, and other relevant sources.

Data Analysis: On the basis of review of literature, this review analysis helps identify patterns, trends, and themes related to the challenges faced by educational leaders and their impact on unaided institutions.

Findings and Recommendations: Based on the analysis, the study presents its findings on the challenges faced by educational leaders and their impact on unaided institutions. The study could also provide recommendations and strategies for educational leaders to overcome these challenges and improve the quality of education in unaided institutions.

Review of literature:

Here is a detailed review of literature on challenges faced by educational leaders in unaided institutions and their impact:

Financial Management Challenges: Unaided institutions are usually self-financed, and they do not receive any financial aid from the government. Therefore, educational leaders in these institutions face financial management challenges such as fundraising, budgeting, and managing resources. According to the study conducted by Kureshi et al. (2017), the financial constraints faced by unaided institutions can lead to a decline in the quality of education offered. Educational leaders must implement financial management strategies

 ISBN NO: 978-81-962963-4-6

such as reducing unnecessary expenditures, increasing revenue streams, and developing a financial sustainability plan to overcome these challenges.

Faculty Retention Challenges: Unaided institutions often face challenges in attracting and retaining high-quality faculty members due to lower salaries and limited resources. Faculty members are the backbone of any institution, and their departure can significantly impact the quality of education offered. According to the study conducted by Vijay and Sreenath (2020), educational leaders can address faculty retention challenges by offering competitive salaries, providing professional development opportunities, and creating a positive work culture that encourages collaboration and innovation.

Meeting Regulatory Requirements: Unaided institutions are required to comply with various regulatory requirements related to academic standards, student safety, and financial reporting. Failure to comply with these regulations can lead to penalties and damage the institution's reputation. According to the study conducted by Bhatia and Dixit (2018), educational leaders must develop a culture of compliance and accountability that emphasizes the importance of meeting regulatory requirements. They must also implement systems and processes to ensure compliance and regular reporting.

Marketing and Branding Challenges: Unaided institutions may face competition from larger, better-known institutions. Therefore, educational leaders in unaided institutions must develop effective marketing and branding strategies to attract students and establish the institution as a quality provider of education. According to the study conducted by Patel et al. (2021), educational leaders can overcome marketing and branding challenges by developing a unique value proposition, creating a positive brand image, and leveraging digital marketing channels to reach a broader audience.

Infrastructure and Technology Challenges: Unaided institutions may face challenges related to infrastructure and technology, such as outdated facilities and limited access to technology. According to the study conducted by Sarma and Dutta (2018), educational leaders can address these challenges by developing a comprehensive infrastructure plan, investing in technology, and partnering with businesses and organizations to share resources.

Adapting to Changing Educational Landscape: Educational leaders in unaided institutions must stay current with the changing educational landscape and adopt new technologies, teaching methods, and pedagogies to remain relevant and competitive. According to the study conducted by Srinivasan and Thirumaran (2020), educational leaders must develop a culture of continuous learning and professional development for faculty and staff. They must also invest in training programs, technology, and infrastructure to adapt to the changing educational landscape.

Student Diversity: Unaided institutions may attract students from diverse backgrounds, cultures, and ethnicities. Educational leaders must recognize and accommodate these differences to provide an inclusive and equitable learning environment. According to the study conducted by Gupta and Ananthakrishnan (2019), educational leaders must develop policies and programs that promote diversity, equity, and inclusion. They must also provide cultural sensitivity training to faculty and staff to ensure that they can effectively communicate and engage with students from diverse backgrounds.

Maintaining Quality Standards: Unaided institutions may face challenges in maintaining quality standards due to limited resources and lack of oversight. Educational leaders must develop a culture of quality assurance and implement systems and processes to ensure that the institution meets academic and administrative standards. According to the study conducted by Gopalakrishnan et al. (2019), educational leaders must establish a quality assurance framework that includes regular audits, monitoring, and evaluation.

Student Engagement and Support: Educational leaders in unaided institutions must provide students with academic and non-academic support to ensure their success. According to the study conducted by Thakkar and Shaikh (2019), educational leaders must develop programs and initiatives that promote student engagement and support, such as mentorship programs, career counseling, and extracurricular activities. They must also invest in student support services such as counseling, health services, and disability services.

Financial Sustainability: Educational leaders in unaided institutions must ensure financial sustainability to maintain their operations and provide quality education. According to the study conducted by Pinto and Monteiro (2019), educational leaders must develop a sustainable financial model that includes diversifying revenue streams, reducing costs, and optimizing resources. They must also implement financial management systems and processes to ensure accountability and transparency.

Regulatory Compliance: Unaided institutions may face challenges in complying with regulatory requirements, such as accreditation, licensing, and taxation. Educational leaders must ensure that the institution meets all regulatory requirements and maintain appropriate documentation and records. According to the study conducted by Devaraj and Prasanna (2019), educational leaders must establish a regulatory compliance framework that includes regular audits, training, and monitoring.

Building Partnerships and Collaborations: Educational leaders in unaided institutions must build partnerships and collaborations with other institutions, industry, and government agencies to enhance their programs and services. According to the study conducted by Khandelwal and Singh (2020), educational leaders must identify and pursue opportunities for collaboration and partnership. They must also establish effective communication channels and build relationships with stakeholders.

Findings of the study:

Based on the literature reviewed, the following are the key findings on the challenges faced by educational leaders in unaided institutions:

Limited Resources: Educational leaders in unaided institutions face challenges in managing limited resources, such as funding, infrastructure, and faculty. This can impact the quality of education and student outcomes.

Recruitment and Retention of Faculty: Unaided institutions may face challenges in recruiting and retaining faculty due to competition from aided institutions and industry. Educational leaders must develop strategies to attract and retain talented faculty.

Balancing Academic and Administrative Responsibilities: Educational leaders in unaided institutions may face challenges in balancing academic and administrative responsibilities. They must ensure that academic priorities are not compromised while managing administrative tasks.

Meeting Student Expectations: Students in unaided institutions may have high expectations regarding the quality of education and support services. Educational leaders must ensure that the institution meets these expectations to maintain student satisfaction and retention.

Marketing and Branding: Unaided institutions may face challenges in marketing and branding themselves to attract students and compete with other institutions. Educational leaders must develop effective marketing and branding strategies to increase visibility and attract students.

Adapting to Changing Educational Landscape: Educational leaders in unaided institutions must stay current with the changing educational landscape and adopt new technologies, teaching methods, and pedagogies to remain relevant and competitive.

Student Diversity: Unaided institutions may attract students from diverse backgrounds, cultures, and ethnicities. Educational leaders must recognize and accommodate these differences to provide an inclusive and equitable learning environment.

Maintaining Quality Standards: Unaided institutions may face challenges in maintaining quality standards due to limited resources and lack of oversight. Educational leaders must implement systems and processes to ensure that the institution meets academic and administrative standards.

Student Engagement and Support: Educational leaders in unaided institutions must provide students with academic and non-academic support to ensure their success.

Financial Sustainability: Educational leaders in unaided institutions must ensure financial sustainability to maintain their operations and provide quality education.

Regulatory Compliance: Unaided institutions may face challenges in complying with regulatory requirements, such as accreditation, licensing, and taxation.

Building Partnerships and Collaborations: Educational leaders in unaided institutions must build partnerships and collaborations with other institutions, industry, and government agencies to enhance their programs and services.

Overall, the findings suggest that educational leaders in unaided institutions face a range of challenges, but they can overcome these challenges by developing effective strategies, investing in infrastructure and resources, and building partnerships and collaborations.

Summary:

Based on the literature review, the key findings suggest that educational leaders in unaided institutions face a range of challenges, including limited resources, recruitment and retention of faculty, balancing academic and administrative responsibilities, meeting student expectations, marketing and branding, adapting to changing educational landscape, student diversity, maintaining quality standards, student engagement and support, financial sustainability, regulatory compliance, and building partnerships and collaborations.

To address these challenges, educational leaders can develop effective strategies, invest in infrastructure and resources, and build partnerships and collaborations with other institutions, industry, and government agencies. Additionally, the study could employ a methodology that includes a literature review, data collection, data analysis, and findings and recommendations to identify and analyze the challenges faced by educational leaders in unaided institutions and their impact, and provide recommendations to improve the quality of education in these institutions.

Conclusion:

In conclusion, the challenges faced by educational leaders in unaided institutions are numerous and multifaceted. These challenges can have a significant impact on the quality of education in these institutions, affecting the overall academic and administrative functioning. The study highlights the need for educational leaders to develop effective strategies, invest in infrastructure and resources, and build partnerships and collaborations with other institutions, industry, and government agencies to address these challenges. The study also suggests the need for further research to identify and analyze the specific challenges faced by educational leaders in different types of unaided institutions and the effectiveness of different strategies and approaches to overcome these challenges. This research could have significant implications for policy and practice, helping to improve the quality of education and enhance the overall functioning of unaided institutions.

References:

Bhatia, N., & Dixit, V. (2018). Challenges and opportunities for private unaided higher education institutions in India. International Journal of Social Sciences and Humanities Research, 6(4), 137-145.

Devaraj, S., & Prasanna, K. (2019). Regulatory compliance in higher education institutions: Issues and challenges. Journal of Education and Practice, 10(4), 37-45.

Gopalakrishnan, S., Padmini, P., & Chakrabarti, S. (2019). Quality assurance in unaided colleges in India: An overview. Quality Assurance in Education, 27(3), 265-279.

Gupta, M., & Ananthakrishnan, N. (2019). Enhancing diversity in Indian higher education: Challenges and opportunities for leadership. Journal of Studies in International Education, 23(2), 181-196.

Khandelwal, M., & Singh, A. (2020). Building partnerships and collaborations in higher education: Challenges and strategies for educational leaders in India. International Journal of Higher Education, 9(3), 161-171.

Kureshi, S., Jani, I., & Baqai, S. (2017). Financial sustainability of higher education institutions in Pakistan: Challenges and prospects. Pakistan Journal of Commerce and Social Sciences, 11(2), 739-755.

Patel, J., Shukla, M., & Patel, R. (2021). Marketing strategy for higher education institutions in India. International Journal of Emerging Trends & Research, 8(2), 116-120.

Pinto, R., & Monteiro, S. (2019). Financial sustainability in private higher education institutions: Challenges and strategies for educational leaders. Journal of Education and Learning, 8(3), 208-216.

 ISBN NO: 978-81-962963-4-6

Sarma, B., & Dutta, S. (2018). Challenges and opportunities of private unaided higher education institutions in India: A study with special reference to North East region. International Journal of Business and Administration Research Review, 1(3), 105-111.

Srinivasan, S., & Thirumaran, M. (2020). Adoption of new technologies in higher education: Challenges and opportunities for private unaided institutions in India. International Journal of Emerging Trends & Research, 7(2), 178-182.

Thakkar, D., & Shaikh, R. (2019). Role of student support services in promoting student engagement and success in higher education. International Journal of Social Sciences and Humanities Research, 7(1), 94-103.

Vijay, A., & Sreenath, R. (2020). Human resource challenges faced by private unaided institutions of higher education in India. International Journal of Research in Management and Social Science, 8(2), 100-107.

"An Impact of Merger and Acquisition on Financial Soundness of Indian Banking Sector in Special Reference to Bankometers Model".

Foramben L.Devariya[1], Dr. Jyotindra. M. Jani[2]

1. Research Scholar, Department of Commerce, Saurashtra University, Rajkot
2. Associate Professor at SDR Bapu Home Sci. & Lt. M. J. Kundaliya Commerce (Eng. Med) Mahila college Rajkot

Contact no. 9773053466

Email id: foramdevariya24@gmail.com

Abstract:

A large number of international and domestic banks all over the world are engaged in merger and acquisition activities. One of the principal objectives behind the merger and acquisitions in the banking sector is to reap the benefits of economies of scale. So, here the aim of this study is to know the impact of merger and acquisition on financial soundness of Indian banking sector in special reference to Bankometers model. This study is based on secondary data. In this study the researcher has take State Bank of India & Bhartiya Mahila Bank, which is merged in 2017, and 2019 to 2021period taken as a sample of the study. Data and information related to this sample are collected from the annual reports of the banks, and specifically to measure the performance of the banks one bankruptcy model is used, which is Bankometers model.

Key words: Merger & Acquisition, Financial soundness, Bankometers model

Introduction

The international banking scenario has shown major changes in the past few years in terms of the merger and acquisitions. Due to the financial system deregulation, entry of new players and products with advanced technology, globalization of the financial markets, changing customer behaviour , wider services at cheaper rates, shareholders wealth demand etc., have been on rise.

Merger and Acquisition is a useful tool for the growth and expansion in any industry and the Indian banking sector is no exception. It is helpful for the survival of the weak banks by merging into the larger bank.

Bankometers model:

There are many models available for analyzing banks soundness; among them Bankometers is recently developed and simple approach that uses financial ratios which are derived from both CAMELS framework and CLSA stress test parameters with slight modifications in percentages to synthesize banks soundness. In this model, soundness of bank is measures by score which is called solvency score(S-score). The expression of "Bankometers" is as under.

$$S=1.5X1+1.2X2+3.5X3+0.3X4$$

Where,

"S" stands for solvency which is dependent variable.

Independent variables under this model are:

- **X1= Capital to Assets Ratio (CA) : ≥04%**
- **X2=Equity to Assets Ratio (EA) : ≥02%**
- **X3=Capital Adequacy Ratio (CAR) : 40% ≤ CAR ≥ 08%)**
- **X4= Cost to Income Ratio (CI) : ≤ 40%**

S Criteria	Result
S ≥ 70	Solvent & super sound banks
S ≤ 50	Insolvent
50 < S > 70	Moderate & Gray Zone

Review of Literature

Mohanraj V.(2012), in this study on "Impact of Merger and Acquisition on the Financial Performance of select Public Sector Banks in India." The present paper examines the impact of mergers and acquisitions on the financial efficiency of the selected public sector banks in India. In this study measuring the financial performance and simple statistical tool mean and t-test is carried out to assess the significance of the difference in the performance between pre-merger and post-merger. In this study covers a period of ten years, five years before and five years after the merger.

Anita Erari, Ubud Salim, & M.Syafie Idrus (2013), The study is on "Financial performance Analysis of PT.Bank Papua: Application of CAEL, Z-Score and Bankometers". This study aim to analyze the precision and accuracy of financial ratio analysis by using CAEL, Z-score and Bankometers in assessing the financial performance development of bank Papua within the period from 2003-2011. In addition, this study also aims to compare the prediction models of financial distress that has been widely used. Which model is the most appropriate to be used in assessing financial performance of a bank, and what factors that affect the model is accurate or not.

Santhiyavalli G. &Abirami K. (2014), in their study "Impact of Merger on Shareholder Value-A Study on Select Banks". In this research researcher covers five scheduled commercial banks which were involved in acquisition of other banks during 2006-07 to 2010-11. And the required data were collected from the capitalise plus database. It was found that the post merger, there is increase in the economic value added of the banks under the study.

Research Methodology

- **Objective of the study:**
  - To know the brief concept of Bankometers model.
  - To analyze the ability of financial ratios Bankometers model to assess the financial condition of Indian banks.
- **Hypotheses of the study:**
  - H0: There will be no significant difference in financial ratios of the Bankometers model.
  - H1: There will be significant difference in financial ratios of the Bankometers model.
- **Data Collection:**

  In this study the researcher has used secondary sources of the data, which is available on annual reports of the sample.
- **Sample of the study:**

  In the last 10 years various banks are merged and acquired in Indian banking sector, but the researcher has selected State Bank of India and Bhartiya Mahila Bank, which is merged in 2017, on the basis of convenience sampling method.

 ISBN NO: 978-81-962963-4-6

- **Tools & Technique:**

  Ratio Analysis

  Bankometers Model

- **Data Analysis & Interpretation:**
- **State Bank of India:**

  Table no.1:

Ratios		Year			Weight	Multiplication			Total
		2019	**2020**	**2021**		**2019**	**2020**	**2021**	
X1	Total Capital	892.46	892.46	892.46					
	Total Assets	3,680,914.25	3,951,393.92	4,534,429.63					
		0.024	**0.022**	**0.019**	**1.5**	0.036	0.033	0.028	0.097
X2	Equity Capital	892.46	892.46	892.46					
	Total Assets	3,680,914.25	3,951,393.92	4,534,429.63					
		0.024	**0.022**	**0.019**	**1.2**	0.028	0.026	0.0228	0.0768
X3	Capital Adequacy Ratio	13	13	13.74	**3.5**	45.5	45.5	48.09	
X4	Total Cost	278,781.31	288,056.96	288,236.54					
	Total Income	278,082.99	302,545.07	308,647.01					
		1.00	**0.95**	**0.93**	**0.3**	0.3	0.285	0.279	0.864

ISBN NO: 978-81-962963-4-6

						45.864	**45.844**	**48.420**	**1.0378**

Bhartiya Mahila Bank:

Table no.2:

Ratio		**Year**			**Weight**	**Multiplication**			**Total**
		2019	**2020**	**2021**		**2019**	**2020**	**2021**	
X1	Total Capital	12.19	12.20	12.20					
	Total Assets	719.59	769.61	756.14					
		1.69	**1.59**	**1.61**	**1.5**	2.53	2.38	2.41	7.32
X2	Equity Capital	12.19	12.20	12.20					
	Total Assets	719.59	769.61	756.14					
		1.69	**1.59**	**1.61**	**1.2**	2.03	1.9	1.93	5.86
X3	Long term loan	1.31	1.21	0.83					
	Total Capital	12.19	12.20	12.20					
		10.74	**9.92**	**6.80**	**3.5**	37.59	67.45	23.8	128.84
X4	Total Cost	588.51	552.76	398.67					
	Total Income	613.42	577.76	401.05					
		0.96	**0.95**	**0.99**	**0.3**	0.28	0.28	0.29	0.85
						42.43	**72.01**	**28.43**	**142.87**

ISBN NO: 978-81-962963-4-6

Interpretation

The above table no.1&2 shows X1, X2, X3 and X4 ratio of State Bank of India and Bhartiya Mahila Bank for the study period of 2019 to 2021. After that result of ratios multiply with weights. Then after all the figures after multiplications are added and final figure compare with solvency criteria. Final value of state bank of India in the year of 2019 45.864 which is indicated that to compare with S criteria, it is under the value of 50, which is shows insolvent condition of the bank in 2019 and same conditions indicated in the last two years of 2020 & 2021. The overall conclusion, we can say that, according to Bankometers criteria, the condition of State Bank of India after the merged untilled 2017 to till 2021 is week.

And the shows the condition of Bhartiya Mahila Bank which is shows the results under

Bank Name	Score	Condition
State Bank of India	**1.0378**	Super sound Bank
Bhartiya Mahila Bank	**142.87**	Super sound Bank

the criteria of solvency score. That means it is also indicated in insolvent condition.

The above the criteria of the both bank are indicated that s-score of both the bank are comes over the 70, which is shows that the condition of both the bank are super in future according to the criteria decided by the Bankometers Model.

Conclusion:

The results reveal that post merger most of the financial parameters have shown significant improvement in both the cases while some parameters have not shown any significant improvement but it may be possible that there is improvement in these ratios in later years as only three years financial ratios are compared. Therefore, it can be concluded that need the improvement in the efficiency and performance of both the banks, according to the results of applying Bankometers model.

References:

- Mohan raj V. (2012). Impact of Merger and Acquisition on the Financial Performance of Select Public Sector Banks in India. *International journal of Research in Computer Application & Management Issn 2231-1009 Volume No 2 (2012) Issue No 11*.

- Anita Erari,Ubud Salim,m.syafie Idrus(2013).Financial performance analysis of PT.Bank Papua : Application of CAEL,Z –Score Bankometers. *IOSR Journal of business and management, e-Issn: 2278-487x. volume 7, issue 5, pp08-16 (jan-feb 2013).*

- Santhiyavalli G. & Abirami K.(2014). Impact of Merger on Shareholder Value A Study on Select Banks. *Issn 2249-8826 ZIJBEMR, Vol 4 (12) December (2014). PP 72-81*.

- www.moneycontrol.com
- **Annual report:** State bank of India (2019-20 to 2021-22)

- **Annual report:** Bhartiya Mahila Bank (2019-20 to 2021-22)

ISBN NO: 978-81-962963-4-6

Community Engagement in Higher Education Institutions is used as a tool for the development of student employability skills, and understanding the role of management and faculties.

Submitted By

Nisha Telang

Assistant Professor, Department of Management Studies

SIES (Nerul) College of Arts, Science, and Commerce

nishat@sies.edu.in

Abstract

A single-site case study method is used to understand how community engagement is used as a tool in Higher Education Institutions in India for student employability skill development and the role of individual stakeholders like management, teachers, and students in the same. It uses a social engagement model and a faculty engagement model to understand the role played by the stakeholders. The research methodology adopts the qualitative technique of research. Twenty semi-structured interviews were conducted with the Head of the institute and teachers engaged in Community Engagement and focus group discussions were used for data collection.

Keywords: Higher Education Institutes, Community Engagement, Employability skills

Introduction

In the post-pandemic market context, the industry is functioning in a severe VUCA environment. Recovering from the shocks of Covid and entering the hard demands of the future the skill needs and demand for talent in the sector will go through a transition. In the India Skills Report by Wheebox in collaboration with CII 2021, it is suggested that problem-solving communication, active learning, resilience, adaptability, digital dexterity, and analytical and critical thinking are some of the top soft skills that employers are seeking.

 ISBN NO: 978-81-962963-4-6

The analysis of the research literature for the current study, which is available in several books, journals, research papers, surveys, and electronic sources, indicates that including service to communities in the educational process is not a novel concept. In the early 1900s, John Dewey and others championed "learning by doing" and connected service to social and personal advancement (Duckenfield & Wright, 1995). The relationship between social engagement and HEIs was given by Eyler and Giles (1999), who also agreed on a core set of best practices to create these outcomes for students. Scholars are generally in agreement that participation in service-learning activities enhances educational outcomes for students (Onyx, 2008: 98). As universities around the world have increased their focus on community participation, a substantial corpus of literature has emerged in this area. CUE was specifically outlined as a prominent component of their long-term strategic goal. However, there is currently less research available on how colleges with established CUE objectives are seeking to gauge the effects of community engagement on their campus (see Hart et al. 2009; Hart 2010 for similar findings). But we also need to comprehend how it affects the growth of skills. Community involvement is described by Anne Marie Gruber (2017) as an "operation between higher education institutions and their larger communities for the sharing of information and resources in a setting of partnership and reciprocity."

Understanding this connection in the Indian context and the need for such instructional endeavors from the sector faces a research gap. More sincere engagement from all stakeholders will be attracted by a defined framework connecting the skill obtained through this program and its significance in industry and career success. The government's newly designed education policy also emphasizes the important role that HEIs play in creating creative solutions and instructing strategies that will focus on closing the corporate skill gap on college campuses.

Understanding the role Higher Education Institutions (HEIs) in India will play to close the corporate skill gap on campuses through their different pedagogical innovations—particularly experiential learning through community engagement programs of HEIs—would be an intriguing subject of research. This would assist academic institutions in creating extracurricular projects that could aid in the development of the crucial skills needed by business.

 ISBN NO: 978-81-962963-4-6

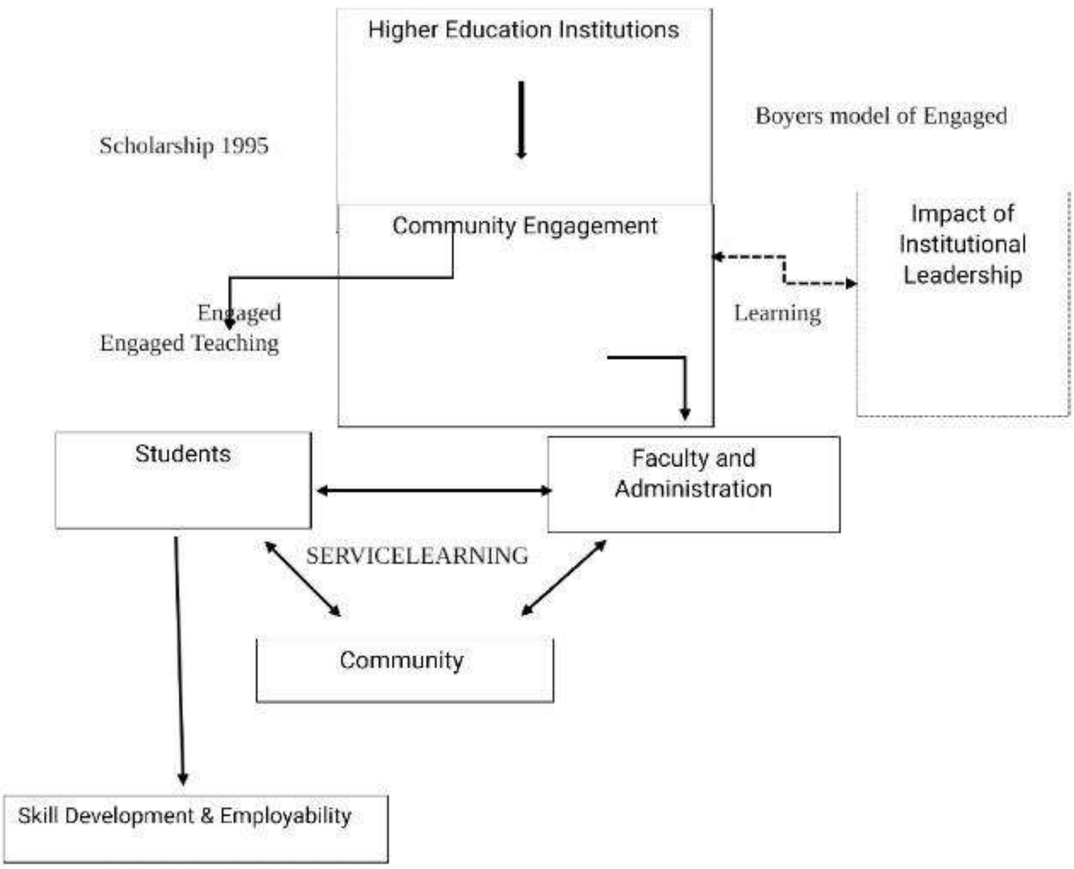
Research Questions

How do community engagement activities in higher education institutions improve practice-based learning and community-engaged learning, which in turn helps students acquire employable skills?

How do HEI leadership and management affect the accomplishment of community involvement programs in HEIs?

What part does the faculty in higher education institutions play in the creation of creative pedagogy for the conduct of community involvement activities?

Theoretical Framework



Literature Review

The former Planning Commission stated that community interaction should not be considered as a "addition" to learning and teaching, but rather as a vital component of it. This is crucial if education is to serve as a tool for achieving social change and transformation. Higher education institutions must do this by locating their learning and teaching in the areas where they are located and by utilising the vitality and idealistic nature of young people. 2011 Planning Commission. Community Engagement, according to (the Carnegie Foundation for the Advancement of Teaching, 2015), is a partnership and reciprocal exchange of knowledge and resources between a HEI and the greater community (local, regional, and national).
According to studies, academia connects with communities outside of its walls through service learning, outreach, civic participation, research, and community learning (Checkoway, 2013; Sandmann, 2007, 2008; Winter, Wiseman, & Muirhead, 2006). (Checkoway, 2013; Sandmann, 2007, 2008; Winter, Wiseman, & Muirhead, 2006). Community service as a component of education is not a brand-new idea. John Dewey and others promoted "learning by doing" and linked volunteer work to social and personal progress in the early 1900s (Duckenfield & Wright, 1995). The majority of academics agree that service-learning activities help students' educational results, and they also agree on a basic set of best practises to help students attain these outcomes (Eyler & Giles, 1999). All partners involved in the service learning process benefit from the process. According to academics, incorporating service learning into the curriculum can enhance in-person instruction, increase student satisfaction, and breathe new life into the classroom (Bringle and Hatcher, 1996). According to Gwen and Mabry's (1998) study on the advantages of the service learning pedagogy, students gain advantages in both their civic and academic life.

The connection between HEIs and social participation was described by (Onyx, 2008: 98). As a conceptual model, the Faculty Engagement Model illustrates how institutional dimensions like institution policies, leadership vision, etc., the professional, and the personal component are interconnected (Wade & Demb, 2009). According to (Eckel et al., 1998), initiatives in higher education aimed at "linking institutions to their communities"

 ISBN NO: 978-81-962963-4-6

have the potential to bring about transformative change. According to research, institutional leaders (presidents, vice presidents, deans, directors, and heads of institutions/departments) set the direction for engagement by establishing or vehemently endorsing the institutional engagement strategy. Leadership must demonstrate that this is a serious conversation with implications for specific staff members, the institution, and the larger community (Ward et al., 2011; God-dard, 2009).

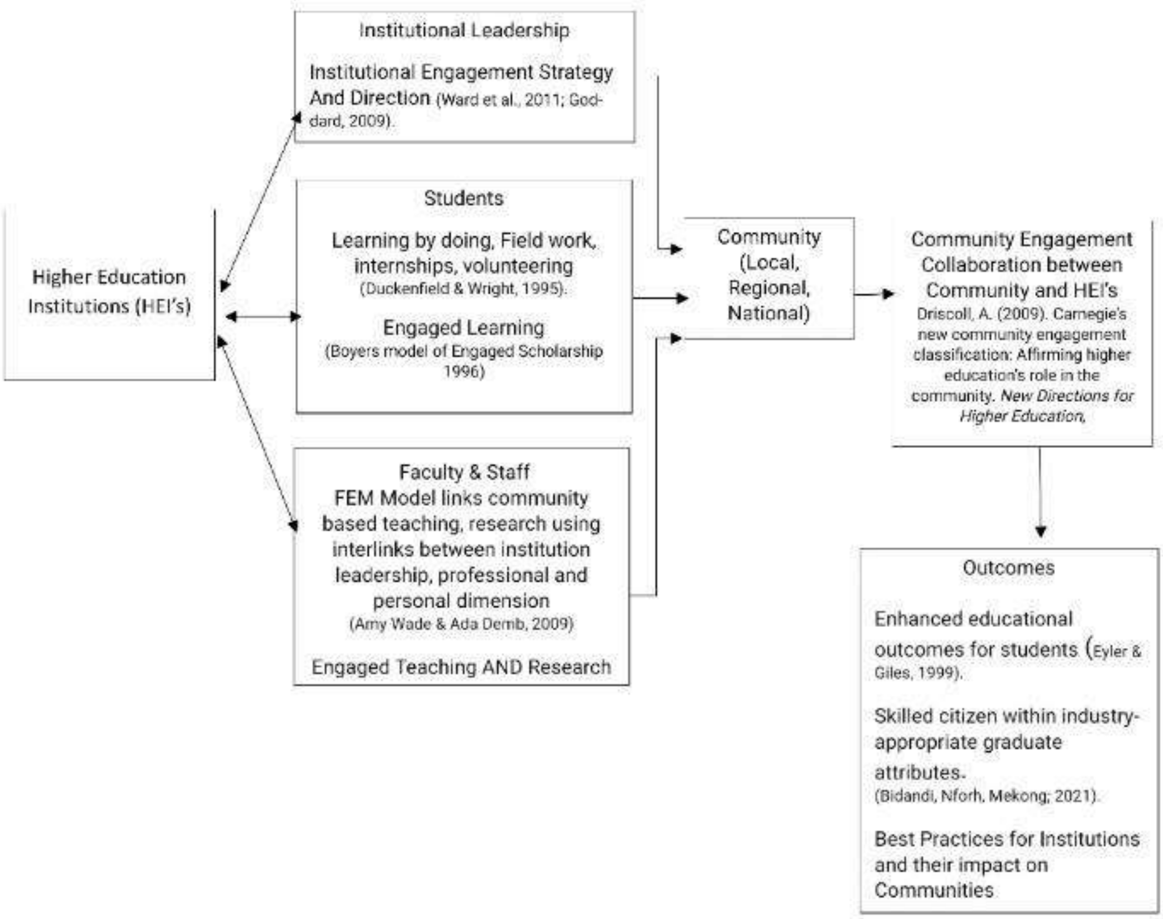
As a result of Boyer's (1990) work as well as recent calls to action and reports from organizations such as the National Association of State Universities and Land-Grant Colleges (NASULGC), the Kellogg Commission, the American Association for the Study of Higher Education (ASHE), the American Association of Colleges and Universities (AACU), Campus Compact and others, significant attention is directed toward the nature of faculty work in relation to the public good. According to the service mission of higher education. The language of the Campus Compact Web site states that service-learning creates activities dedicated to meeting community needs. (Wade & Demb, 2009)

Boyer (1996) discussed the formation of an "old" stream in academia known as engaged scholarship (e.g., engaged teaching, engaged research, engaged service), which is still seen as a potential route for bridging the knowledge-to-action divide and strengthening the university's reputation (Beaulieu, Breton, & Brousselle; 2018). The Boyers model provides strong validation for the faculty involvement approach (1996).

This study illustrates the relationship between engaged teaching and learning generating an engaged and skilled citizen with industry-appropriate graduate traits using the Boyers model of Engaged Scholarship from 1996. It assists students in becoming informed and involved citizens of their nation, region, community, and the entire world. Engaged teaching and learning address the needs of the community, the students, and the local job market. (Bidandi;; Nforh; Mekong, 2021).

Although the above-described concept of community engagement is not new, it has only recently begun to take on significant importance in the Indian context. To document HEI initiatives at the national level, the National Assessment and Accreditation Council (NAAC) has started the exercise of citing the best practices adopted by the institution for community engagement and is used for evaluating institutional quality.

Concept Map


Institutional Leadership
Institutional Engagement Strategy And Direction (Ward et al., 2011; Goddard, 2009).
Students
Learning by doing, Field work, internships, volunteering
(Duckenfield & Wright, 1995).
Engaged Learning
(Boyers model of Engaged Scholarship 1996)
Faculty & Staff
FEM Model links community based teaching, research using interlinks between institution leadership, professional and personal dimension
(Amy Wade & Ada Demb, 2009)
Engaged Teaching AND Research
Higher Education Institutions (HEI's)
Community (Local, Regional, National)
Community Engagement Collaboration between Community and HEI's
Driscoll, A. (2009). Carnegie's new community engagement classification: Affirming higher education's role in the community. New Directions for Higher Education,
Outcomes
Enhanced educational outcomes for students (Eyler & Giles, 1999).
Skilled citizen within industry-appropriate graduate attributes.
(Bidandi, Nforh, Mekong; 2021).
Best Practices for Institutions and their impact on Communities

 ISBN NO: 978-81-962963-4-6

Data Collection Methodology

The study uses the case study technique to understand how institutions engage faculties and students through community engagement and the key role played by institutional leadership in connecting the stakeholders under community engagement for institutional brand building, experiential teaching-learning, and skill development.

The selected institution ABC has institutionalized the concept of community engagement through the Institutional Social Responsibility (ISR) Committee. The Society and the management of the Institution have Institutional Social Responsibility as a part of their mission statement and aim to make ISR the face of all its member institutions under its umbrella. The institute has formally constituted institutional social responsibility apart from statutory Mumbai university initiatives like the National Social Service Scheme (NSS), Department of Life Long Learning (DLLE), Women Development Cell (WDC), and more such community engagement initiatives. I chose my participants on the basis that they are part of the institute which has a structured process for community engagement and they are directly involved in the activities conducted in the area of community engagement. This will help us in understanding the role of leadership and the relationship between engaged teaching and engaged learning using community engagement as a means for experiential learning and skill development.

I have used purposive sampling which can represent all the participants required to understand the model of engaged scholarship by Boyers in 1995 which speaks of engaged teaching, engaged research, and engaged service.

The leadership perspective is understood through the head of the institution i.e. principal and faculty engagement, and student engagement through faculty and student representative it was made sure while sampling that the faculty and student representatives are members of the community engagement initiatives of the institute for a minimum of 2 years.

Participant Background

Head of the Institution

The participants selected include the Head of the Institution who is associated with the institution for 20 years and has been with the institute since its inception the participant brings rich knowledge and understanding of the practices and culture of the institution and has also been witness to the change growth curve that institute has gone through over the years.

 ISBN NO: 978-81-962963-4-6

Faculty Members

The faculty participants for the study are part of the committees that are involved in community engagement activities. All the 20 faculties selected have been associated with committees like the National Service Scheme, Institutional Social Responsibility, and Department of Lifelong Learning for a minimum period of 3 years.

Student Representatives

All the student participants are enrolled in the 3-year undergraduate course at Mumbai University and are currently pursuing their final year at the institute Students were selected on the criteria of being a member of one of the community engagement and a minimum association with the committee for at least 2 years.

Data Sources

I used Semi-structured interviews and focus group discussions as a source of data collection. Multiple sources of data were used to triangulate the data and increase the validity and credibility of the study. Semi-structured interviews allow for flexibility and at the same time maintain a structure (Ritchie and Lewis, 2003). The questionnaire was derived from the research objectives mentioned in the previous section. Each objective was converted into a question worded as “what” “how” or both. Questions were kept open-ended to map the themes, and content-mining questions were asked for clarification and probing (Ritchie and Lewis, 2003).

Semi-Structured Formal Interviews: I conducted 20 formal semi-structured face-to-face interviews with the Head of the Institution and faculty members. The interviews focused on the role of leadership and how it impacts community engagement initiatives in an institute.

The faculty interviews gave an insight into how faculties can use community engagement as a tool for experiential learning, the learning curve was observed for students actively participating in community engagement initiatives which gave insights into the factors motivating faculties to participate in community engagement initiatives.

Focus Group Discussion: 2 Focus groups were conducted with 6 respondents. Participants were recruited for the study from undergraduate college students who were part of the community engagement initiatives for a minimum period of 2 years and were final-year students in a three-year degree course provided by the institution. The discussion focused on the themes emerging from the research questions. The recruited participants comprised 3 males and 3 females. The participant profile is provided in

Participant No	Gender	Committee	No of years participating In CE
1	Female	NSS/ISR	3
2	Female	NSS/DLLE	3
3	Female	NSS	2
4	Male	NSS/ISR	3
5	Male	NSS/ISR	3
6	Male	NSS	2

Prior to the focus group discussion, all the participants were informed of the purpose of the focus group. The discussion was prompted by pre-established questions and in-prompt follow-up questions were asked to continue the discussion. The discussion lasted for approximately 65 min and detailed notes were handwritten and also audio recorded

The semi-structured interview and focus were both converted to transcripts which will be used to develop codes for analysis.

Secondary Data

The secondary data were analyzed through committee records, college magazines, and also alumni records for the past 3 years which gave insights into the nature of activities, to understand the institutionalization of community engagement initiatives and its impact on student skill development.

Data Analysis & Interpretation

The study follows a qualitative analytical approach. I have taken a single-site case study approach taking the institute which is a Higher Education Institution as a unit of analysis. A combined coding method using A-priori and in-vivo coding was used to build the primary codes and then develop themes. Coding was done by deriving from previously existing theories of the Boyers Model of Engaged Scholarship & Faculty Engagement Model to understand the research question by understanding the process of community engagement.

The a-priori codes used included demographic details of the Institute and participant profile as it impacts their experiences and involvement in community engagement and the outcomes experienced by each participant. The deductive codes were also developed on existing theories

 ISBN NO: 978-81-962963-4-6

A-priori codes generated are

Demographic Details	**Existing Theories**
Year of Inception of Institute & Location	
Designation of participant	Experiential Learning
Years of Experience in Institution	Innovative Pedagogy
Role of participants in the Institute	Service Learning
Years of Experience in Extension Committees	Skill development

Table 1

The higher level inductive codes were developed after collapsing 1st level code from the data collected from semi-structured interviews and focused group interviews and are tabulated as follows.

Participant 1 (HOI)	Participant 2 (Faculty In-charge)	Focus Group Interview
Student Commitment	Leadership and Institution Support	Skill Development
Role of Institution and leadership	Providing opportunities	Opportunities for networking
Structured Organization of Community Engagement	Motivators for Student	Developing positive attitude
Pedagogical Development	Methods of implementing CE	Tool for candidate profiling
Role of faculty	Role of Faculty	Method of experiential learning
Student Skill Development	Student Development	Further Studies and Relevance to industry
Outcomes	Outcomes	

 ISBN NO: 978-81-962963-4-6

Table 2

Revisiting the data and analyzing it gave rise to themes that could support the proposed relationship in the research question. I have shared excerpts from the semi-structured interview and FGI to support the themes. The a-priori codes based on demographics and inductive coding helps in understanding a theme from the multi-level perspective in the institution and outcomes

Excerpts from interview

Theme Role of HEI:

The perspective of a leader who has shared the journey of the institution since its inception and has been associated for around 20 years *"When we look at the, you know, students' development. During the initial stages, it was all about the growth of the institution. But I feel once an institution reaches a certain level of maturity, we need to start looking out for what we are contributing to society, OK? And that is where I think the concept of community engagement starts. It's not just about us anymore, but it is also that we. We become known in the community for not only academics, but for the kind of work, we are doing there. I think our inspiration comes from our own management and our society which has been at the forefront of Community engagement."*

The management vision and support mentioned by the participant *"I think our* ***inspiration comes from our own management and our society*** *which has been at the forefront of Community engagement. You know, they have. I have looked at the transformation of villages they have, you know, they are committed to transforming schools for tribal people and all, and that inspiration and their encouragement is what probably motivated us to start community work"*

The perspective of the faculty is more from the idea of the institution as a place that provides opportunities to conduct community engagement along with tangible and intangible benefits "*Like in our institute. Management gives preference to community engagement like it has various Community committees which are working for community engagement in different ways like we have some donation drives and some visits to any. NGO or old age home. So I find that every department and every committee has some element of community engagement in their activity."*

The perspective of students on the Role of HEI is more towards creating a culture where students can contribute to community engagement and develop skills through experiential learning the as one of FGI participants mentioned *"Institutionalisation creates a culture for community engagement"*

Theme: Pedagogical Development & Role of Faculty

The perspective of the Head of Institution faculty is the bridge between Management and students and implementers of management vision "They are the ***facilitators*** *and the* ***motivators*** *because. There is a* ***3 levels****. That is, I will say the principal may have a vision. OK. And then there are the students.* ***But there is a gap between the principal and the student. The students don't come to the principal every day, and the principal cannot go to the students every day, right?*** *This is where the teachers coming.* ***The translation of the vision of the principal can only be done if the teachers are motivated*****."**

"I see it as a ***credit course****. In fact, I would firmly endorse it. In fact, when I think we become autonomous, I am definitely looking, I'm going to look at a lot of these kinds of courses where maybe the information course itself or by* ***introducing particular subjects related to institutional responsibility****. This needs to become an integral part of your teaching. How can you have a responsible citizen when they don't know how to empathize or learn, you know, move away from their daily life and understand what's happening in the lives of others? It should be made an* ***integral part of any curriculum"***

The faculty perspective talks about engaged teaching from the Boyers model by creating courses catering to the need for structured community engagement curricula *"faculty, our role is to mentor students. Our role is to guide students or give them a vision or motivate them. Such activities have a lot of scope. Like we can sensitize students on various social issues. We can train them too. Identify social needs and the ways an individual can fulfill these social needs. We can promote social entrepreneurship if students are interested in that, so there are a lot of forces that we can introduce"*

Theme: Student Development

The head of the institute explains the skill development of students linking it to the institution's brand and future scope for placements *"they look at our college, they are not just talking about the academics part of it. They are also looking at what else we are giving to that child. So there I think, you know, helping them to develop this kind of skills becomes important".*

 ISBN NO: 978-81-962963-4-6

"Maybe I think one year down the line, maybe at the end of this year placement or maybe by next year or so, I think there can be a way we link up, you know?"

The faculty explains the change observed in the student over a span of time while actively working on the community engagement projects *"You find at the end of the camp, there is a tremendous change in their behavior. Like their mindset is totally changed. They say that we have never thought that we will live in such a condition where there is no electricity, there is no room, and nothing is available. But still, we are managing with that and still, we are happy in that situation, so. There is a behavioural change. There is a change in outlook. The perspective, the way they look at society, the people working at. In the lower strata of society, the outlook is totally changed."*

Theme: Outcomes

The leadership perspective talks about outcomes in terms of Institutional Brand and Societal Contribution along with Student Development and the scope for its integration into the Industry for placements. The faculty and students focus on specific and relevance in developing candidate profiles for higher education and corporate role.

The thematic analysis gives rise to multiple perspectives in the institution impacting the success of community engagement and creating a service learning culture within the institute based on the current case study methodology used. The structured approach to community engagement has created positive indicators for the institution like the Institution's Brand and sense of contributing to society. The faculty motivation is through self-commitment and focuses to develop innovative pedagogies. The outcome indicators in a student are in the form of skill development, Industry network, and improved profile. The linkage of the developed skills as a value proposition for employability is future scope as and the institutes need to develop and close that loop with the institutes.

Conclusion

Through this study, we find a link between the role of management and leadership in providing an organized vision and structure and institutionalization of service learning or community engagement initiatives. We see that organized activities from the institute motivate students to be part of the engaged learning process supporting Boyers model of engaged learning and how the commitment and motivation of faculties are more self-driven and supported by organizational policies.

The development of experiential pedagogy based on service learning is driven by faculty.

 ISBN NO: 978-81-962963-4-6

The management, faculty, and students positively relate to the critical skill development that is core to their employability skills like teamwork, communication, critical thinking, analytical thinking, empathy, resilience, etc. The use of these skills specifically for placement activities is an idea that needs to be explored further.

Our contribution here is in understanding the impact that service learning has on HEI, Faculty, and students in terms of outcomes specifically skill development but linking these skills to promote as an advantage for employability for placements is the future scope of action for the institute

Appendix

Interview Guide

Head of Institution

1. Your views on community engagement in your institution
2. Why do you think it's important to institutionalize community engagement
3. What is the role CE plays in developing institutional image
4. How you would want your students and faculties to participate with the communities
5. What change do you expect to see in your students after their participation in CE
6. Please explain your role as a leader in the success of CE in your institution
7. What role do you see your faculties playing in the success of CE

Faculty In-charge

1. What explains your views on community engagement in your institution
2. How do you motivate students to volunteer for CE initiatives
3. What change do you expect to see in your students after their participation in CE
4. How CE has given you an opportunity to develop innovative pedagogy
5. What change do you see in students' performance after volunteering for CE
6. Has membership in CE changed you as a person? In what way

 ISBN NO: 978-81-962963-4-6

Ist level Codes						
Student Driven	Institutional Maturity	Institutionalization	Experiential Learning	Facilitators	Student Development	Impact on Parents
Student Commitme	Societal Contribution	Committed to a cause	Education Beyond syllabus	Motivators	Develop Empathy, Communication, Teamwork,	Institution Image
	Management Support	Continuous work	Project Based	3 levels of Institutions	Personality development	Tangible results
	Management inspiration and commitment		Design Curriculum	Teachers: Bridge between Management and Students		ISR is developing Future linkage with placement
			Social Initiative with the outcome	Implementers		
			Credit Course	Motivated Teachers		
			Course on Institutional Social Responsible Citizen	Responsibility		
			An integral part of any curriculum	Convinced Teacher		
			Non-classroom activity	Commitment		
			Interact with community Understand problem			
			Develop solution			
Higher level codes						
Student Commitment	**Institution and leadership**	**Structured Organization of Community Engagement**	**Pedagogical Development**	**faculty**	**Student Skill Development**	**Outcomes**
Themes						
Institution and leadership	**Structured Organization of Community Engagement**	**Pedagogical Development**	**faculty**	**Student Skill Development**	**Student Commitment**	**Outcomes**
Role of HEI		Role of Faculty		Impact on Students		Outcomes

ISBN NO: 978-81-962963-4-6

References

Driscoll, A. (2009). Carnegie's new community engagement classification: Affirming higher education's role in the community. *New Directions for Higher Education*, *2009*(147), 5–12.

Driscoll, A., & Sandmann, L. R. (2016). From maverick to mainstream: The scholarship of engagement. *Journal of Higher Education Outreach and Engagement*, *20*(1), 83–94.

Hoy, A., & Johnson, M. (Eds.). (2013). *Deepening community engagement in higher education: Forging new pathways*.Springer.

Jordaan, G. B. (2007). Student perceptions and attitudes about Community Service-Learning in the teacher training curriculum. *South African Journal of Education, Vol 27*, 631–654.

Kraft RJ 1996. Service-Learning — an introduction to its theory, practice, and effects. *Education and Urban Society*, 28:131-159.

Kolb DA 1984. *Experiential learning*. Upper Saddle River: Prentice-Hall, Inc. Lazarus J 2005. Synopsis of progress and future direction. JET Education Services / CHESP. Paper presented at *Community Service-Learning Conference*, University of Johannesburg

Marzano RJ 1992. Chapter 2. *Dimension 1. Positive attitudes and perceptions about learning. A different kind of classroom: teaching with dimensions of learning. Association for Supervision and Curriculum Development*. Available athttp://pdonline.ascd.org/pd online/dol02/1992marzano chapter2.html.

Myers-Lipton SJ 1996. Effect of Service-Learning on college students' attitudes toward international understanding. *College Student Development*, 37:659-667. Parker WC 1996. Advanced ideas about democracy: toward a pluralist conception of citizen education. *Teachers College Record*, 98:104-126.

Myers C & Bellner M 2000. *Embedding Service-learning into teacher education (ESTE) issue*
briefs. A project of the Indiana State Department of Education. Indiana: Campus Compact.

Rachel Parker-Gwin and J. Beth Mabry 1998. Service Learning as Pedagogy and Civic Education: Comparing Outcomes for Three Models. Teaching Sociology, Oct., 1998, Vol. 26, No. 4 (Oct. 1998), pp. 276-291

 ISBN NO: 978-81-962963-4-6

Rhoads RA1998. In the service of citizenship: a study of student involvement in community service. *Journal of Higher Education*, 69:277-298.

Service-learning experiences. *Michigan Journal of Community Service-Learning,* 18-26.Mitchell C, Trotter K, Gelmon S 2005. A case study of a higher education institutional assessment on Service-Learning. *Acta Academica. Supplementum,* 3:151-177

COMPREHENSION ON MACHINE LEARNINGALGORITHMS FOR PREDICTING STUDENT EFFICACY IN ONLINE TEACHING AND LEARNING

Nita Shinde[1], Dr. P. R. Gundalwar[2]

1. Research Scholar, School of Computer Science and Engineering, Sandip University, Nashik, shindenita29@gmail.com
2. Professor, School of Computer Science and Engineering, Sandip University, Nashik, pravin.gundalwar@sandipuniversity.edu.in

ABSTRACT

Machine learning is emerging as the most researched and developed technology and the popularity of machine learning will continue to rise in the coming years. Online teaching and learning is a need of society all around the world. Online teaching and learning makes knowledge accessible to all age groups around and from any locations from the globe. Students offering in online teaching and learning have no specific time slot bound to view the videos and submit assignments, except for the deadline dates of submission. This makes teaching and learning possible also for working professionals. Machine learning algorithms are used to predict outcomes in online teaching and learning. Machine learning algorithms can be effectively used and design model to predict student efficacy in online learning. Classification, Clustering, Support Vector Machine, Random Forest and Decision trees algorithms can be used to train the model. The various algorithms can be trained to become accurate in their predictions. This paper brings out the literature review of 15 papers to comprehend student efficacy in online teaching and learning using machine leaning algorithms.

Keywords: Online teaching and learning, Student Efficacy, Machine Learning, Predictive Model

1. INTRODUCTION

Education has always played important role in human life since ancient times. Ashrams, Gurukul Vidyalaya created healthy environment for learning. Human beings travelled thousands of kilometres in search of knowledge. Right to education is basic right of all. Every country around the world today invests in education sector.

The global corona virus pandemic had a great impact on education sector all over the world. Shifting from face-to-face classroom to online learning was the only alternative to take education with social distancing measures.

Due to huge increase in patients during pandemic, schools, universities, research centres were closed and forced to only online teaching, virtual meetings. This lead to increase in e-learning across the world. Necessity to improve the quality of learning has led to various innovative practices.

Online platform like, Moodle has been used throughout the world. Large amount of data generated in virtual learning can be processed and patterns can be identified to study. There is abundant of data about students in online courses. Educational Data Mining has been useful in analysing this data.

Today it is the world of smart cities and smart technologies. Innovative educational atmosphere supports innovative features. Smart Learning Environment needs to focus on adapting smart environment for better performance of both learner and instructor.

1. LITERATURE REVIEW

In order to carry out this literature review, search was carried out to find different techniques used in predicting students performance in online teaching and learning. The keywords used for this search were Online teaching and learning, student efficacy, machine learning, predictive model. Based on the search results, 15 papers were selected for review and conclusions from the papers/authors view has been summarized.

Nick Z Zacharis et al. 2018; in this paper "Classification and Regression Trees (CART) for Predictive Modelling in Blended Learning", author has discussed about the predictive model to predict performance of students in Moodle based learning course. CART decision tree algorithm was used to classify and predict risky students. Course files opening, group wiki, Message exchanging, content creation and online quiz taking where the four online activities were used for this purpose[1].

Mushtaq Hussain et al. 2018; in this paper "Student Engagement Predictions in an e-Learning System and their Impact on Student Course Assessment Scores", author studied the relationship between student engagement and the course assessment score.

To predict low-engagement students, Machine Learning algorithms were used on the dataset. The results showed that the decision tree, J48, JRIP, and gradient-boosted classifiers exhibited better performance in terms of the accuracy, kappa value and recall compared to the other tested models. The input variables here included final results, highest education level, number of clicks, score on the assessment on Virtual Learning Environment (VLE) activities, which included data plus, forming, collaborate, glossary, content, resources, homepage, sub page and URL [2].

Ning Yan et al. 2019; in this paper "Online learning behaviour analysis based on machine learning" author brought out the following facts:

Days of access, with course grade, have the highest correlation which is followed by hits count, and connection time is much less relevant to students' learning performance, i.e. course grade. In course grades, student age and gender have the lowest correlation. Hits count reflects the students' concentration on the course and days of access reflect the student's learning persistence. The correlation between online time and student achievement is relatively low as connection time is difficult to reflect the persistence and concentration of students learning. There is almost negligible or very low correlation between age or gender and course grade. The students in the experimental data set are all full-time students, the variance of student age is small, so the inference is still open to question. The result may be different if the age variance is large enough.

Further based on inferences, some way for teachers has been brought out to roughly predict students performance by examining online learning data and providing intervention from time to time and also providing guidance for students with learning difficulties. If the teacher observes that some students have a much less number of days of access and hits count than the average number on the learning platform, then teacher can pay appropriate attention to them and give them effective learning support so as to prevent them from failing in the exam.

Data normalization can improve the prediction accuracy of the machine learning model. Also data pre-processing is necessary to improve the prediction accuracy of the machine learning model. The experimental data set used is small, but we can still get acceptable predictive models for binary classification problems [3].

Raghad Al-Shabandar et al. 2019; in this paper "Detecting At-Risk Students with Early Interventions Using Machine Learning Techniques", the author is able to identify early students those who are at risk of withdrawal and failure. Two models have been constructed

which are at-risk student model and the learning achievement model. The models have the capacity to detect the students who have the possibility to fail and withdrawing at the early stage of the online course. The result shows that all classifiers gain good accuracy across both models, and the proposed frameworks can be help instructors assist in delivering intensive intervention support to at-risk students.

The drop out prediction model can assist educators in delivering early intervention support for at-risk students. The learning shows that student motivation trajectories are the main reason for student withdrawal in online courses. Feature selection enhances the predictive capacity of machine learning models while reducing the associated computational costs. Also the filter method for feature selection is a promising solution for tackling the over fitting problem, and changes in student motivational status, thus allowing them to identify those students who require additional support [4].

Zuhoor AI-Khanjari et al. 2020; in this paper "Proposing the EBP Smart Predictive Model towards Smart Learning Environment" the author proposed an EBP (i.e Engagement, Behaviour, and Personality) smart predictive model. The results showed that the students who were effectively engaged in the course received high performance and the students with low engagement received low performance. The author also demonstrates that by providing good guides to instructors the learner's performance will be enhanced [5].

S. Kotsiantis et al. 2020; in this paper "Predicting Students Performance In distance learning using Machine Learning Techniques" the author explained the gap between the empirical prediction of student performance and the existing ML techniques. Six ML algorithms have been trained and found to be useful tools. They predicted poor performers in an open and distance learning environment. Machine-learning methods help the tutors to know which of their students will complete a module or a course with sufficiently accurate precision. This precision reaches 62% in the initial forecasts, which are based on demographic data of the students, and exceeds 82% before the final examinations. The data set is from the module Introduction in informatics and the conclusions are wide-ranging. It would be interesting to compare results with those from other open and distance learning programs offered by other open universities [6].

Akmal et al. 2020; in this paper "Predicting Dropout on E-learning Using Machine Learning", the author proposed a method to predict early and accurate student dropout of e-learning courses by three machine learning techniques: Support Vector Machine, Feed Forward Neural Network and Probabilistic Ensemble Simplified Fuzzy. This proposed method aims to help educators and teachers easily identify at-risk students and further look on their needs, thus increasing their engagement in e-learning. The issue that still needs to be explored is the ability to get better results when using different student characteristics [7].

Marcelo A. Santana et al. 2015; in this paper "A predictive model for identifying students with dropout profiles in online courses", the author gave four machine learning algorithms to predict student dropouts. Different classification methods were used: Bayes theorem, decision tree, support vectors machine, and multilayer neural network [8].

Chen Tan et al. 2021: in this paper "A new QOE- based prediction model for evaluating virtual education systems with COVID-19 side effects using data mining" the authors proposed a new predictive model using Weka 3.9 tool. During Covid-19 the author analyzed the quality of experience in the virtual education. Classification algorithms and Association rules mining have been applied to predict behavioural aspects of students based on QoE factors in the virtual education system [9].

Jenny T.Y.Tsang et al. 2021; in this paper "Higher Education during the Pandemic: The Predictive Factors of Learning Effectiveness in Covid-19 Online Learning", the author has stated that student-student dialogue and course design were predictive factors of perceived learning outcomes and instructor-student dialogue was a determinant of student initiative. In case of learning effectiveness, both perceived learning outcomes and student initiative determined student satisfaction. The outcome showed that student-student dialogue, course design, and instructor-student dialogue were the key predictive factors of pandemic Covid 19 online learning effectiveness [10].

Saida Ulfa et al. 2021; in this paper "Predicting Factors That Influence Student's Learning Outcomes Using Learning Analytics in Online Learning Environment", the author highlighted that all students' activities in online learning were stored in LMS (Learning Management System) and the data generated as learning analytics. The author used linear regression to analyze the data. Also the authors conclude that working on exercises by concept mapping yields significant results in improving the learning outcomes of students.

The author studied Learning Analytics for specific online activities in number of logins, login duration ie time spent learning online, submitting assignments, reading content, working on exercises using CM (Concept Mapping).. The result disclosed that a number of logins activity will affect the learning outcome to greater extent [11].

Suresh Kumar et al. 2021; in this paper "Technique to Predict Student Performance Through Ensemble Learning Algorithm in E-learning Environment", the author bought out the model that uses the dataset of different sessions of the mouse (such as click stream, mouse movement, mouse right-click, and mouse left click, scrolling of the mouse, etc) and keyboard (such as clicking on the buttons) to predict the performance of the model. Modified cross –validation method and XGBoost (XGB) algorithm were used to predict the performance of the student as a binary and multi-class classification problem [12].

Yu Chun Kuo et at. 2022; in this paper "A predictive study of student satisfaction in online education programs", the author has studied the degree to which interaction and other predictors contribute to students' satisfaction with online learning. The results showed that learner-content interaction, learner-instructor interaction, and Internet self-efficacy were good predictors for student satisfaction. Further it also showed that, interaction among students and self-regulated learning did not contribute to student satisfaction. Learner-content interaction is the major unique variance in student satisfaction. In addition, time spent online per week, gender, and class level, have an influence on learner-learner interaction, self-regulation,Internet self-efficacy [13].

S.Keerthika et al.2022; the author of this paper "Predicting At-Risk Students in Virtual Learning Environment using Support Vector Machine" proposed a predictive model using Support Vector Machine algorithm for predicting students performance based on click stream variables , demographics variables, and assessment variables. Also, the author concluded that SVM (Support Vector Machine) model has the highest performance scores as compared to Random Forest. The SVM model predicts students performance more accurately and classifies them into four classes- Fail, Pass, Distinction and Withdrawn [14].

Hani Brdesee et al. 2022: the study in this paper “Predictive Model using a Machine Learning approach for enhancing the retention rate of students at risk” predicts the students at risk of those graduating late than the tentative time line and low performance of

 ISBN NO: 978-81-962963-4-6

students during an ongoing course. Logistic Regression, Decision Tree, and Random Forest Machine Learning models are used on the datasets [15].

FINDINGS

Sr. No	Author/Year	Topic/Focus	AI Model / Parameters	Findings
1	Nick Z Zacharis et al. 2018	Classification and Regression Trees(CART) for Predictive Modelling in Blended Learning	▪ CART decision tree algorithm ▪ Parameters ▪ Number of content creation contributions in group wiki ▪ Number of messages viewed or posted ▪ Number of quiz efforts taken by student ▪ Number of files viewed	▪ CART technique used in analysing and predicting success in web based blended learning environment
2	Mushtaq Hussain et al. 2018	Student Engagement Predictions in an e-Learning System and their Impact on Student Course Assessment Scores	▪ J48, decision tree, JRIP (JRip RIPPER) and gradient-boosted classifiers ▪ Parameters ▪ Final results ▪ Highest education level ▪ Number of clicks on VLE ▪ Score on the assessment	▪ J48,JRIP,GBT, DT(Decision Trees) are appropriate algorithms in identifying low engagement students ▪ The study found that the recall, kappa, and accuracy values of GBT, J48, DT and JRIP models were better than NBC classifier and CART

Sr. No	Author/Year	Topic/Focus	AI Model / Parameters	Findings
3	Ning Yan et al. 2019	Online learning behaviour analysis based on machine learning	▪ Classical three-layer feed forward neural networks ▪ Scaled conjugate gradient algorithm Pearson correlation analysis method ▪ Parameters ▪ Student Gender ▪ Hits Count ▪ Course grade ▪ Connection time ▪ Student age	▪ Binary classification models have much higher prediction accuracy than multi-classification models ▪ Data normalization and data discretization can effectively improve the prediction accuracy of machine learning models
4	Raghad Al-Shabandar et al. 2019	Detecting At-Risk Students with Early Interventions Using Machine Learning Techniques	▪ Risk student model ▪ Learning achievement model ▪ Parameters ▪ Educational level ▪ Submitted assessments ▪ Gender ▪ Total Number of attempts undertaken ▪ Geographical location	▪ All classifiers gain good accuracy across both models and the proposed frameworks can be used to assist instructors in delivering intensive intervention support to at-risk students.

 ISBN NO: 978-81-962963-4-6

Sr. No	Author/Year	Topic/Focus	AI Model / Parameters	Findings
5	Zuhoor AI-Khanjari et al. 2020	Proposing the EBP Smart Predictive Model Towards Smart Learning Environment	▪ EBP ▪ Smart predictive model ▪ Parameters ▪ Chat ▪ System ▪ Exams ▪ Assignment ▪ Forum	▪ The results showed that the students who were effectively engaged in the course received high performance and the students with low engagement received low performance
6	Kotsiantis, Pierrakeas et al. 2020	Predicting Students Performance In distance learning using Machine Learning Techniques	▪ Naive Bayes ▪ C4.5 ▪ BP ▪ 3-NN ▪ Logistic regression ▪ SMO ▪ Parameters ▪ Age ▪ Sex ▪ Marital status ▪ Tutor class ▪ Computer literacy	▪ Six ML algorithms have been trained and found useful to Tutors in predicting poor performers in an open and distance learning environment. ▪ The comparison of all six algorithms shows, Naive Bayes algorithm is easiest to implement.
7	Akmal et al. 2020	Predicting Dropout on E-learning Using Machine Learning	▪ Feed Forward Neural Network ▪ Support Vector Machine Probabilistic Ensemble Simplified Fuzzy ▪ Parameters ▪ Student education log	▪ The model derived aims to help educators and teachers easily identify at-risk students and focus on their needs, thereby increasing their engagement in e-learning

ISBN NO: 978-81-962963-4-6

Sr. No	Author/Year	Topic/Focus	AI Model / Parameters	Findings
8	Marcelo A. Santana et al. 2015	A predictive model for identifying students with dropout profiles in online courses	▪ Bayes theorem Decision tree Support vectors machine ▪ Multilayer neural network ▪ Parameters ▪ Grade ▪ City ▪ Participation ▪ Frequency	▪ Influencer of Dropout in E-learning education is the academic element related with their performance at the initial disciplines of the course
9	Chen Tan et al. 2021	A new QOE-based prediction model for evaluating virtual education systems with COVID-19 side effects using data mining	▪ Association rules mining ▪ Classification algorithms ▪ Parameters ▪ Age ▪ Gender ▪ Academic degree ▪ Employment status	▪ The positive relationship established between important QoE factors and satisfactory status of students that valuable for the improving virtual education system architecture
10	Jenny T.Y.Tsang et al. 2021	Higher Education during the Pandemic: The Predictive Factors of Learning Effectiveness in Covid-19 Online Learning	▪ Virtual Learning Environment (VLE) effectiveness model ▪ Technology-Mediated Learning (TML) ▪ Parameters ▪ Instructor–student dialogue ▪ Student dialogue Course design ▪ University Support	▪ Student dialogue and course design were predictive factors of perceived learning outcomes whereas instructor student dialogue was a determinant of student initiative ▪ University support had no significant relationship with either perceived learning outcomes or student initiative

ISBN NO: 978-81-962963-4-6

Sr. No	Author/Year	Topic/Focus	AI Model / Parameters	Findings
11	Saida Ulfa et al.2021	Predicting Factors that influence student's learning outcomes using learning analytics in online learning environment	▪ Linear regression ▪ Concept Mapping ▪ Parameters ▪ Submit Assignment ▪ Login ▪ Read Content ▪ Time Spend ▪ Work Assignment	▪ Following four factors influence student academic performance ▪ Characteristics of the class ▪ Use of technology ▪ Interaction process Characteristics of the student
12	Suresh Kumar et al.2021	Technique to Predict Student Performance through ensemble learning algorithm in E-learning environment	▪ XGBoost(XGB) ▪ Modified cross-validation method ▪ Parameters ▪ Mouse movement ▪ Mouse left click ▪ Mouse right click ▪ Scrolling of the mouse ▪ Click stream ▪ keyboard clicks	▪ To predict the performance, it is not simple as there are different parameters that have to be explored

 ISBN NO: 978-81-962963-4-6

Sr. No	Author/Year	Topic/Focus	AI Model / Parameters	Findings
13	Yu Chun Kuo et al.2022	A predictive study of student satisfaction in online education programs	▪ Regression analysis ▪ Parameters ▪ Student Background ▪ learner-learner ▪ learner-content interaction ▪ learner-instructor interaction ▪ Internet self-efficacy ▪ Self-regulated learning	▪ Learner-instructor interaction, learner-content interaction, and Internet self-efficacy are good predictors for student satisfaction
14	S.Keerthika et al.2022	Predicting Risk Students in Virtual Learning Environment using Support Vector Machine	▪ Support Vector Machine ▪ Parameters ▪ Demographics data ▪ Virtual learning Environment interaction ▪ Assessment ▪ scores ▪ Click stream data ▪ Course name	▪ The SVM model predicts students' performance in a more accurate way and classifies them into four classes- Pass, Fail, Withdrawn and Distinction

Sr. No	Author/Year	Topic/Focus	AI Model / Parameters	Findings
15.	Hani Brdesee et al. 2022	Predictive Model using a Machine Learning Approach for enhancing the retention rate of students at risk	▪ Decision Tree ▪ Random Forest ▪ Logistic Regression ▪ Parameters ▪ Credit hours earned, credit hours taken campus code ▪ major code	▪ Logistic Regression, Decision Trees, Random Forest are used for identifying the students at risk of low performance and those graduating late ▪ The Sequential Long Short-Term Memory (LSTM) was deployed on predicting the academic performances of students and their graduation time

CONCLUSION

The main findings from the reviewed papers is that machine learning algorithms have been proven to be beneficial for predicting students efficacy in online teaching and learning process. Instructors play a major role in online teaching and learning.

Different parameters such as behavioural aspects of students, teaching methods and course design, and course concepts can be analysed in detail in diverse learning settings and more populous environments to have the best achievements. To conclude machine learning algorithms can be seen as an optimistic opportunity in predicting student efficacy in online teaching and learning.

REFERENCES

[1] Nick Z. Zacharis, "Classification and Regression Trees (CART) for Predictive Modeling in Blended Learning,"*International Journal of Intelligent Systems and Applications(IJISA)*, vol. 10, no. 02, pp. 1-9, 2018.

[2] Mushtaq Hussain, Wenhao Zhu, Wu Zhang and Syed Muhammad Raza Abidi, "Student Engagement Predictions in an e-Learning System and their Impact on Student Course Assessment Scores,"*Hindawi Computational Intelligence and Neuroscience*, 2018.

[3] Ning Yan, "Online learning behaviour analysis based on machine learning,"*Asian Association of Open Universities Journal*, vol. 14, no. 02, pp. 97-105,September 2019.

[4] Raghad Al-Shabandar,Abir Jaafar Hussain, Panos Liatsis and Robert Keight, "Detecting At-Risk Students with Early Interventions Using Machine Learning Techniques," vol. IEEE Access, Digital Object Identifier 10.1109/ACCESS.2019.2943351, 25,October 2019.

[5] Zuhoor Al-Khanjari,Iman Al-Kindi,"Proposing the EBP Smart Predictive Model Towards Smart Learning Environment,"*Talent Development & Excellence , ISSN 1869-0459 (print)/ ISSN 1869-2885 (online)*, vol. 12, no. 2, pp. 2422-2438, 2020.

[6] S.Kotsiantis,C.Pierrakeas and P.Pintelas, "Predicting Students Performance In Distance Learning Using Machine Learning Techniques,"*Applied Artifical Intelligence, ISSN:0883-9514 (Print) 1087-6545,2004*.

[7] Akmal, "Predicting Dropout on E-learning Using Machine Learning,"*Journal of Applied Data Sciences, ISSN 2723-6471*, vol. 1, no. 1, pp. 29-34, September 2020.

[8] Marcelo A. Santana,Evandro B. Costa, Baldoino F.S.Neto, Italo C.L.Silva, Joilson B.A.Rego, "A predictive model for identifying students with dropout profiles in online courses,"*CFUR workshop proceedings, ISSN 1613-0073*, no. https://ceur-ws.org/Vol-1446/, 2015.

[9] Chen Tan, Jianzhong Lin, "A new QoE-based prediction model for evaluating virtual education,"*Soft Computing 27*, pp. 1699–1713, February 2023.

[10] Jenny T.Y.Tsang, Mike K.P.So,Andy C.Y.Chong, Benson S.Y.Lam and Amanda M.Y.Chu , "Higher Education during the Pandemic: The Predictive Factors of Learning Effectiveness in COVID-19 Online Learning,"*Education Sciences*, vol. Educ. Sci , 446 https://doi.org/10.3390/edusci11080446, August 2021.

[11] Saida Ulfa, Izzul Fatawi,"Predicting Factors That Influence Students Learning Outcomes Using Learning Analytics in Online Learning Environment,"*International Journal of Emerging Technologies*, vol. 16, no. 01, https://doi.org/10.3991/ijet.v16i01.16325, 2021.

[12] Mr.S.Suresh Kumar, Dr.Mallikarjuna Shastry PM,"Technique to Predict Student Performance Through Ensemble Learning Algorithm in E-Learning Environment," no. https://ssm.com/abstract=4054489, March 2022.

[13] Yu-Chun Kuo, Andrew E. Walker, Brian R. Belland and Kerstin E.E.Schroder,"A Predictive Study of Student Satisfaction in Online Education,"*International Review of Research in Open and Distributed Learning, ISSN 1492-3831(digital)*, vol. 14, no. 1, https://doi.org/10.19173/irrodl.v14i1.1338, pp. 16-39, March 2013.

[14] S.Keerthika, V P Janani, T Karthika, "Predicting At-Risk Students In Virtual Learning Environment Using Support Vector Machine,"*International Research Journal of Modernization in Engineering Technology and Science,e-ISSN: 2582-5208*, vol. 04, no. 04, April 2022.

[15] Hani Brdesee, Waffa Alsaggaf, Naif Aljohani, Saeed-Ul Hassan , "Predictive Model Using a Machine Learning Approach for Enhancing the Retention Rate of Students At-Risk,"*International Journal on Semantic Web and Information Systems*, vol. 18, no. 1,2022.

 ISBN NO: 978-81-962963-4-6

Bioinformatics for Society

Ms. Sunanda Pandita, **Sandip University, Nasik**

Under Supervision of

Dr. Pravin Gundalwar, **Sandip University, Nasik**

Abstract

The sequence similarity search software BLAST is a great place to start when applying bioinformatics to draw biological significance since it can help better understand biological, biochemical, and biogeochemical ideas. Using examples from the NCBI BLAST, this work illustrates the fundamental ideas of the BLAST algorithm as well as the alignment scores and statistics. The report also underlines the importance of the fundamental ideas and software of bioinformatics, which is now essential in biological sciences due to recent developments in high-throughput methods for data production and analysis.

Keywords: BLAST, algorithm, introductory tool, bioinformatics teaching, bioinformatics applications

1. BLAST: The Simulation Tool

A user's query is compared to a database of sequences using the programme BLAST, which can be used standalone or through a web interface (Altschul et al., 1997; Altschul et al., 1990). To compare all possible combinations of nucleotide or protein queries with nucleotide or protein databases, there are various types of BLAST (McGinnis & Madden, 2004). In order to find local similarities between sequences, BLAST compares pairs of sequences (Pertsemlidis & Fondon III, 2001).

The use of local similarity searches is justified by the fact that functional areas, such as the catalytic sites of enzymes, are concentrated in very small regions and are preserved despite deletions or mutations in nearby sequence segments. Thus, a search for local similarity could result in more biologically significant and compared to a search that aims to maximise alignment across all sequence lengths, sensitive results (Attwood et al., 2007).

The most popular and effective method for describing newly discovered sequences is looking for sequence similarity, generally with BLAST. By finding excessive similarity between the recently discovered sequence (the query sequence) and any similar sequence in the database, which in turn implies common ancestry, sequence similarity searches can find "homologous" proteins or genes.

According to homology, sequences may be connected through their derivation from a common ancestor or by having similar functional characteristics. Orthologs are homologous genes found in various species that descended from the same gene in a common ancestor, whereas paralogs are homologous genes present in the same organism that resulted from the duplication of a single gene in the past. Orthologous and paralogous homologous genes frequently have the same or comparable activities. sequence similarity the high score alignments produced by searches, a crucial computational tool in molecular biology, are utilised in a variety of applications, including calculating evolutionary histories, predicting gene and protein functions, and discovering potential therapeutic targets (Pearson, 2013; Bayat, 2002; Bailey & Gribskov, 1998).

Altschul et al. first described the BLAST algorithm in 1990. It gained popularity largely as a result of efficient implementations that were developed early on to support parallel UNIX architectures (Attwood et al., 2007). Because the BLAST algorithm is a heuristic programme, it relies on certain clever short cuts to complete the search more quickly (Madden, 2002). Yet, in this compromise for faster performance, the algorithm's accuracy has somewhat declined (Zhimin & Zhongwen, 2013).

1.1 The Algorithm

The algorithm itself is simple, with the segment pair concept serving as its key idea. A segment pair is a set of identically sized sub-sequences that construct an ungapped alignment given two sequences. All segment pairings between the query and database sequences that score higher than a certain threshold are calculated by BLAST. The algorithm looks for hits with a specified length, which are subsequently expanded until a set of threshold values are fulfilled. The high-scoring pairs (HSPs) that are produced serve as the foundation for the ungapped alignments that define BLAST output. The technique had since undergone refinement to produce gapped alignments (Altschul et al., 1997).

 ISBN NO: 978-81-962963-4-6

The new technique speeds up the initial database search by looking for just one ungapped alignment rather than all of them. The final gapped alignment is produced by extending a centre pair of aligned residues in both directions using dynamic programming. The new approach is three times faster than the old one because it no longer requires finding all ungapped alignments separately (Attwood et al., 2007).

The Steps

The BLAST algorithm consists of three main phases, each of which is discussed in further depth below:

Phase 1:

Low complexity areas are filtered out by BLAST and eliminated from the query sequence, such as CA repeats (Pertsemlidis & Fondon III, 2001). The rationale for this is that low-complexity areas and interspersed repeats frequently match a large number of sequences, and as a result, these matches are typically not of biological interest, which may lead to erroneous results and confuse the statistics utilised by BLAST.

To prevent these matches, BLAST provides two query masking modes. One method, called "hard-masking," performs all steps of the search by substituting Xs or Ns for the masked element of the query. Nevertheless, "soft-masking" prevents the masked component of the query from being used to find the initial word hits, but it is still usable for the gap-free and gapped extension after the initial word hit is located (Camacho et al., 2009). Just the query sequence (or its translation products) are subject to filtering; the database sequences are not. The SEG software and the Nucleotide Dust Masker programme (Morgulis et al., 2006) are used as default filters (Wootton & Federhen, 1996). Now that these regions can be represented by lower-case characters in the BLAST formatter, dissimilar from the unfiltered (upper-case) regions. In order to change the focus on these areas, the user may also choose from three hues (black, grey, and red). This fresh display choice is now the default, displaying the lower-case masked parts in grey (Ye et al., 2006).

The query sequence, which is a lengthy string of nucleotides or amino acids, is then divided into units called "words" for analysis. The default option divides amino acids into 3 letters and the DNA sequences into 11 consecutive letters (word length). However users can alter the "word length" as they choose (Pertsemlidis & Fondon III, 2001). The words ATCGTCG (first word), TCGTCGA (second word), and CGTCGAT are all

 ISBN NO: 978-81-962963-4-6

produced by the nucleotide sequence ATCGTCGAT with a word length of 7. (third word).

The maximum number of such words is L-w+1, where L is the length of the query sequence and w is the word length; for amino acid sequences, w is 3 and for nucleotide sequences, w is 11. Then, for each word in the query sequence, BLAST utilises a scoring matrix, either BLOSUM (block substitution matrix) or PAM (percent acceptable mutation), to identify all high-scoring matching terms from the database (BLOSUM 62 is used as a default setting for amino acids). Gaps are not permitted. Only those matches that will score higher than a specific threshold—known as the neighbourhood word-scoring threshold—are kept on the list of matches (T). Following this, for each of the words returned by the first query, about 50 of these matches are typically saved.

Phase 2:

In order to find exact matches to the generated word list, BLAST searches across the target sequence database. If a match is made, the database sequences and the query are potentially aligned using the match as a seed (hit).

Phase 3:

These early neighbourhood word hits serve as seeds to start searches to discover longer high-scoring pairs (HSPs) that contain them.

Once the cumulative alignment score may be raised, the word hits are then stretched along each sequence in both the left and right directions. X is the name of the crucial parameter controlling the extension. While high values of X permit alignments to proceed into diverse regions, low values of X force alignments to end after only a few mismatches have been discovered. When the cumulative alignment score deviates by an amount X from its maximum attainable value or when one or more residues with negative scores accumulate, the extension of the word hits in each direction is stopped. Gapped BLAST (Altschul et al., 1997) employs a lower threshold to produce a list of high-scoring matching words; the algorithm uses brief matched sections as the beginning points for longer matches with no insertions or deletions between them and within a specific distance of one another. alignments without gaps. The same technique as in the initial BLAST is then used to extend these linked regions.

The maximal scoring segment pairs (MSPs) from the full database are then found by BLAST and listed (Pertsemlidis & Fondon III, 2001). The highest scoring pair of identical length segments from two sequences is known as a maximal scoring segment pair, or MSP. The majority of the BLAST algorithms use a substitution matrix called

 ISBN NO: 978-81-962963-4-6

the BLOSUM 62 and the parameters W (word length), T (the neighbourhood word score threshold), X (the maximum permitted drop down of the cumulative segment score), to determine an MSP's score if it exceeds a cutoff value S. (Deusdado & Carvalho, 2008; Rivera et al., 1998).

Lastly, results are displayed that show the score and statistics of the determined alignment on the output window.

1.2 BLAST Scores and Statistics

In order to interpret its results, BLAST gives three linked pieces of data in the form of raw scores, bit scores, and E-values.

The sum of the scores for the maximal-scoring segment pairs (MSPs) that make up an alignment is the raw score for a local sequence alignment. Raw scores aren't usually directly comparable due to variations in scoring matrices. As opposed to bit scores, which are raw scores that have been transformed to log base 2 from the scoring matrix's log base, bit scores are used to produce alignments. Even when various scoring matrices have been utilised, this rescaling enables comparison of bit scores between alignments (Madden, 2002; Gibas & Jambeck, 2001).

Hence, BLAST use statistical theory to generate a bit score and expect value (E-value) for each alignment pair (query to hit).

The alignment quality is indicated by the bit score; the higher the score, the better the alignment. In general, this score is determined by a formula that considers the alignment of residues that are the same or comparable, as well as any gaps created to align the sequences. The "substitution matrix," which assigns a score for aligning every potential pair of residues, is a crucial component in this process. The majority of BLAST applications utilise the BLOSUM62 matrix by default; blastn and MegaBLAST are the exceptions (programs that perform nucleotide-nucleotide comparisons and hence do not use protein-specific matrices).

The E-value, on the other hand, reflects the size of the database and the scoring system used, and it indicates the statistical significance of a given pair-wise alignment. The greater the significance of the hit, the lower the E-value. A sequence alignment with an E-value of 0.05 indicates a 5 in 100 chance of similarity (1 in 20) possibility of happening by pure chance. The alignment of the query sequence to a sequence in the database to which it is unrelated is thus likely to have happened by accident and is indicated by an E-value larger than 1. According to Madden (2002) and Pertsemlidis

& Fondon III (2001), biological significance is commonly assumed to exist when an E-value is smaller than 0.1 or 0.05. with the default E-value being 10, that is, 10 hits are expected to occur by chance with scores equal to or greater than the alignment score

1.3 The BLAST Family of Programs

Since 1990, numerous BLAST variations have been created, each with a unique set of specialised capabilities. Early on, the original BLAST was divided into two variations: Washington University BLAST and NCBI BLAST (WU BLAST). There are different programmes for both BLASTs. Examples of the programmes are BLASTX, which can take a nucleotide sequence, translate it, and query it against a protein database all in one go, BLASTP, which can be used to compare a protein sequence with a database of protein sequences, and BLASTN, which can be used to compare a nucleotide sequence with a nucleotide database (Gish & States, 1993). A translated nucleotide database's six potential

reading frames can be compared to a protein query sequence using TBLASTN, which is frequently used todetermine the proteins in novel, unreported genomes. The sixth reading frame of a translated nucleotide database is compared to the sixth reading frame of a translated nucleotide query sequence by TBLASTX.

Moreover, NCBI has some of its own customised BLAST variants. For instance, the programme MEGABLAST can swiftly finish searches for sequences with only slight differences and more effectively handle queries with longer sequences (Altschul et al., 1994). Powerful BLAST methods like PSI and PHI enable the alignment of more complicated and evolutionary diverse proteins (Altschul et al., 1997). On the NCBI BLAST website, you may find all of these programmes as well as additional ones and genomic BLAST databases (Lobo, 2008).

The additional BLAST interfaces with user-friendly user interfaces and novel algorithms are BLAST+, CS-BLAST, and DELTA-BLAST (Neumann et al., 2013).

2. Experimental setup

1. Simulation Tool used: BLAST
2. Protein Sample: Human Hair, Nail and Skin
3. Database: Standard database (Genbank and Swissprot)

 ISBN NO: 978-81-962963-4-6

4. Program Selection Algorithm:

   i. Quick BLASTP (Accelerated protein-protein BLAST)

   ii. blastp (protein-protein BLAST)

   iii. PSI-BLAST (Position-Specific Iterated BLAST)

5. Algorithm Parameters:

   a. General parameters:

      i. Max target sequences

      ii. Expect Threshold

      iii. Max matches in a query range

   b. Scoring parameters:

      i. Matrix

      ii. Gap Costs

      iii. Compositional adjustments:

6. Output scientific sequences methods:

   i. Homo Sapiens

   ii. Pongo Abelii

   And so on …

7. Performance parameters:

   i. Maximum score

   ii. Total Score

   iii. Query cover

   iv. E-Value

   v. Percentage identity

Following are the sequence of steps required for preparation of experiment setup:

ISBN NO: 978-81-962963-4-6

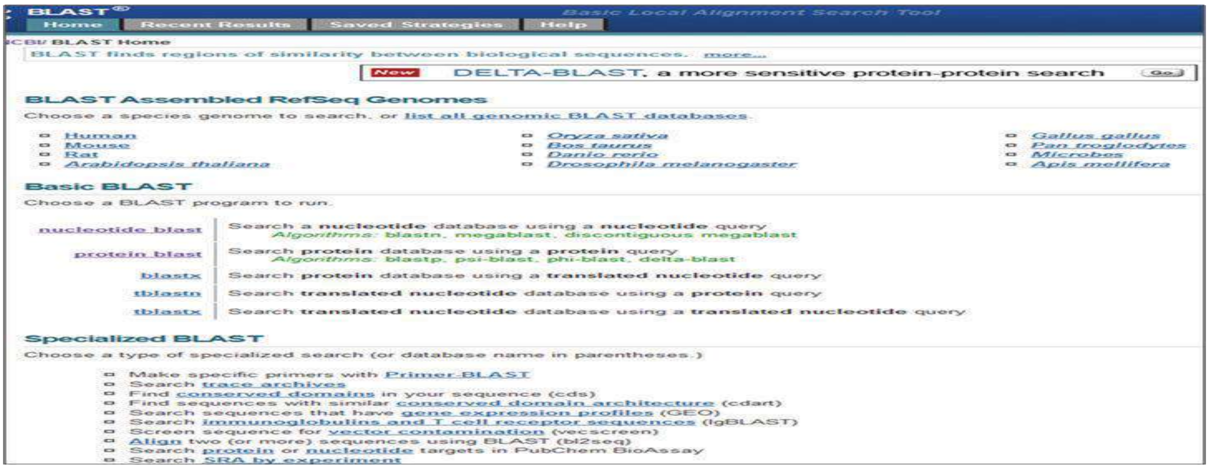


Fig 1. BLAST home page

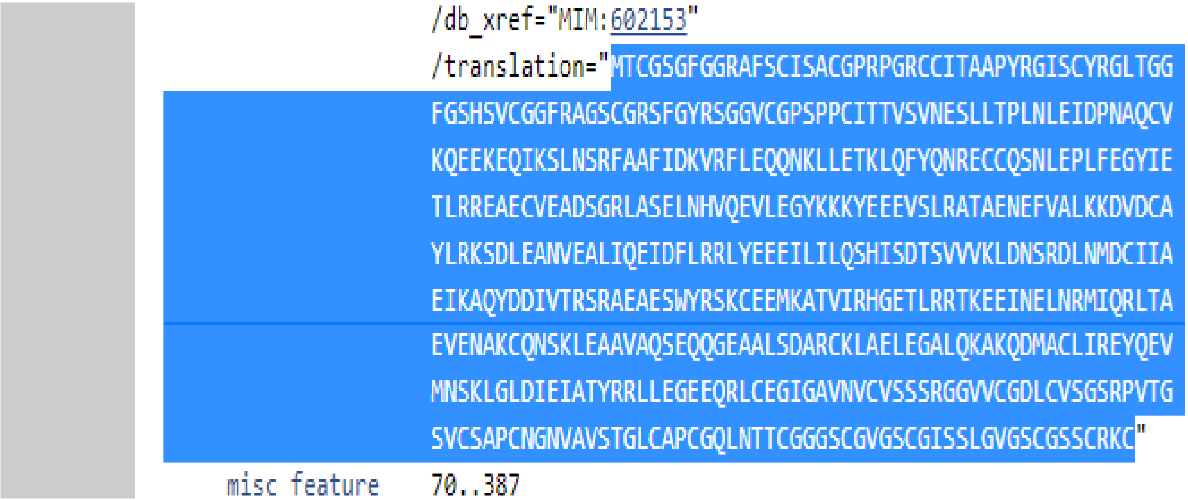


Fig 2. Amino Acid Sequence of Human Hair

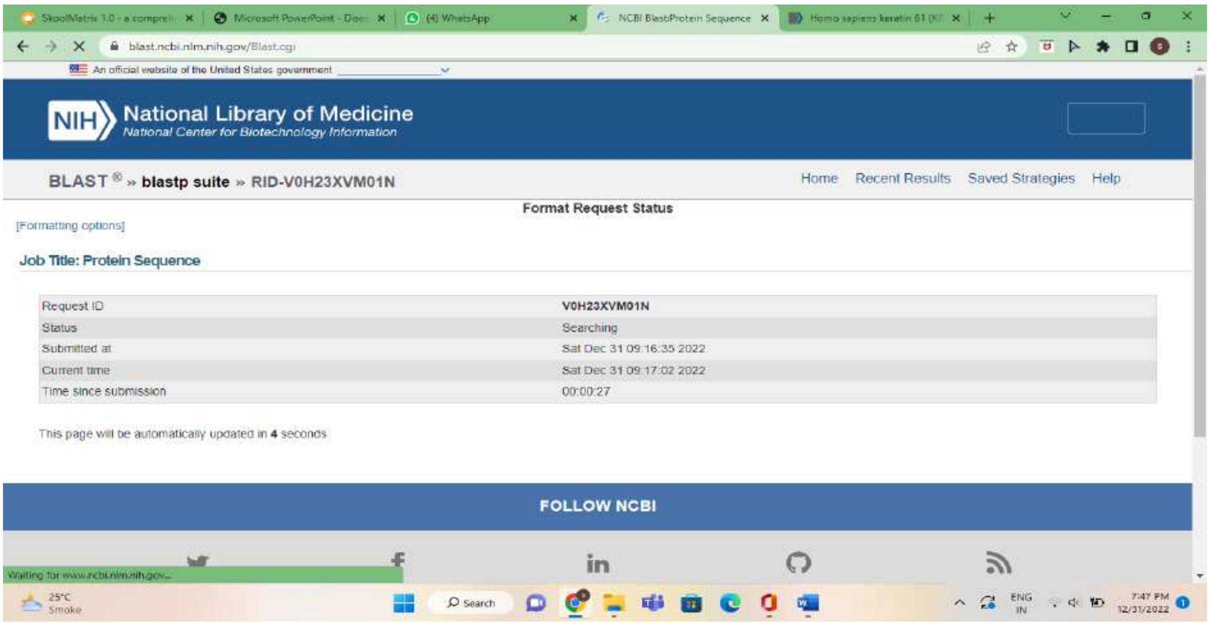


Fig 3. BLAST window showing Query status 1 Request Sent

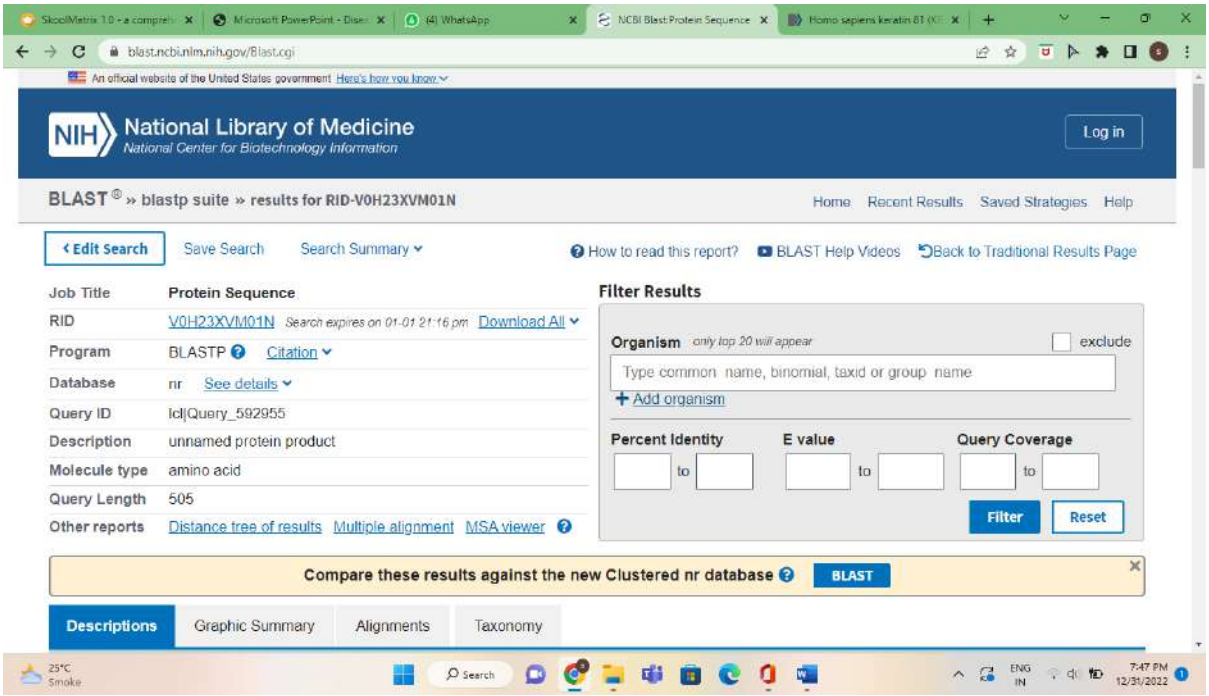
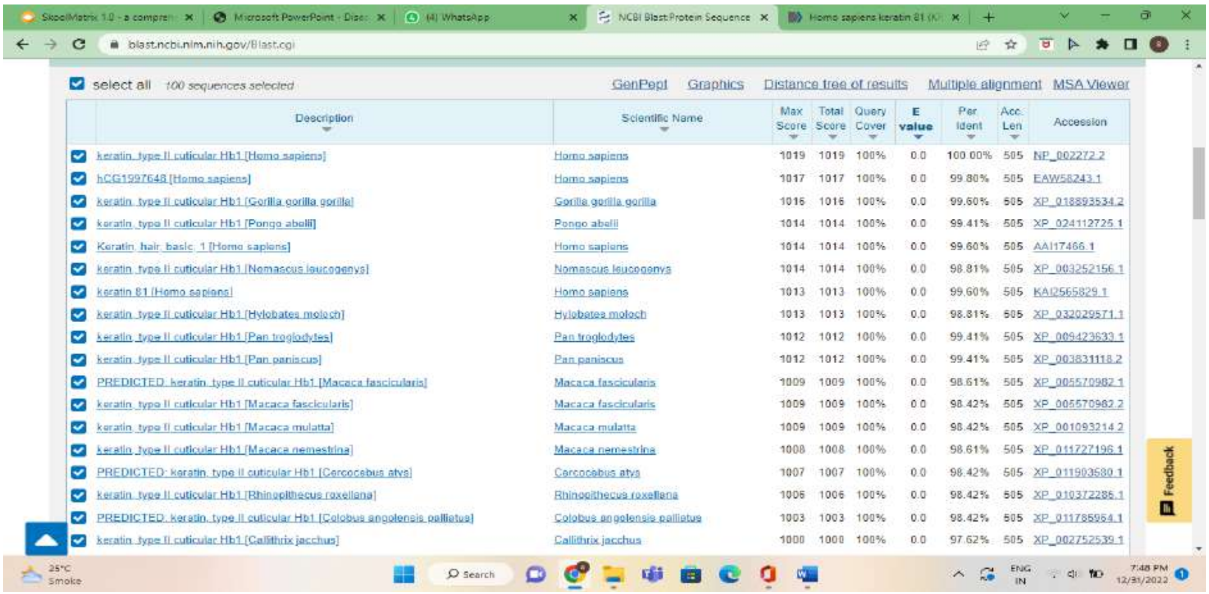


Fig 4. BLAST window with the query sequence 1 and Result 1



Description	Scientific Name	Max Score	Total Score	Query Cover	E value	Per. Ident	Acc. Len	Accession
keratin, type II cuticular Hb1 [Homo sapiens]	Homo sapiens	1019	1019	100%	0.0	100.00%	505	NP_002272.2
hCG1997648 [Homo sapiens]	Homo sapiens	1017	1017	100%	0.0	99.80%	505	EAW58243.1
keratin, type II cuticular Hb1 [Gorilla gorilla gorilla]	Gorilla gorilla gorilla	1016	1016	100%	0.0	99.60%	505	XP_018893534.2
keratin, type II cuticular Hb1 [Pongo abelii]	Pongo abelii	1014	1014	100%	0.0	99.41%	505	XP_024112725.1
Keratin, hair, basic, 1 [Homo sapiens]	Homo sapiens	1014	1014	100%	0.0	99.60%	505	AAI17466.1
keratin, type II cuticular Hb1 [Nomascus leucogenys]	Nomascus leucogenys	1014	1014	100%	0.0	98.81%	505	XP_003252156.1
keratin 81 [Homo sapiens]	Homo sapiens	1013	1013	100%	0.0	99.60%	505	KAI2565829.1
keratin, type II cuticular Hb1 [Hylobates moloch]	Hylobates moloch	1013	1013	100%	0.0	98.81%	505	XP_032029571.1
keratin, type II cuticular Hb1 [Pan troglodytes]	Pan troglodytes	1012	1012	100%	0.0	99.41%	505	XP_009423633.1
keratin, type II cuticular Hb1 [Pan paniscus]	Pan paniscus	1012	1012	100%	0.0	99.41%	505	XP_003831118.2
PREDICTED: keratin, type II cuticular Hb1 [Macaca fascicularis]	Macaca fascicularis	1009	1009	100%	0.0	98.61%	505	XP_005570982.1
keratin, type II cuticular Hb1 [Macaca fascicularis]	Macaca fascicularis	1009	1009	100%	0.0	98.42%	505	XP_005570982.2
keratin, type II cuticular Hb1 [Macaca mulatta]	Macaca mulatta	1009	1009	100%	0.0	98.42%	505	XP_001093214.2
keratin, type II cuticular Hb1 [Macaca nemestrina]	Macaca nemestrina	1008	1008	100%	0.0	98.61%	505	XP_011727196.1
PREDICTED: keratin, type II cuticular Hb1 [Cercocebus atys]	Cercocebus atys	1007	1007	100%	0.0	98.42%	505	XP_011903580.1
keratin, type II cuticular Hb1 [Rhinopithecus roxellana]	Rhinopithecus roxellana	1006	1006	100%	0.0	98.42%	505	XP_010372286.1
PREDICTED: keratin, type II cuticular Hb1 [Colobus angolensis palliatus]	Colobus angolensis palliatus	1003	1003	100%	0.0	98.42%	505	XP_011785964.1
keratin, type II cuticular Hb1 [Callithrix jacchus]	Callithrix jacchus	1000	1000	100%	0.0	97.62%	505	XP_002752539.1

Fig 5. BLAST window Query 1 Result 2 Description section in the BLAST report showing one-line summaries of sequences producing significant alignments.

INDUCED MUTATIONS IN HUMAN HAIR AMINO ACID SEQUENCE

Mutation at position 10 R replaced with G

MTCGSGFGGGAFSCISACGPRPGRCCITAAPYRGISCYRGLTGG
FGSHSVCGGFRAGSCGRSFGYRSGGVCGPSPPCITTVSVNESLLTPLNLEIDPNAQC
V
KQEEKEQIKSLNSRFAAFIDKVRFLEQQNKLLETKLQFYQNRECCQSNLEPLFEGYI
E
TLRREAECVEADSGRLASELNHVQEVLEGYKKKYEEEVSLRATAENEFVALKKD
VDCA
YLRKSDLEANVEALIQEIDFLRRLYEEEILILQSHISDTSVVVKLDNSRDLNMDCIIA
EIKAQYDDIVTRSRAEAESWYRSKCEEMKATVIRHGETLRRTKEEINELNRMIQRL
TA
EVENAKCQNSKLEAAVAQSEQQGEAALSDARCKLAELEGALQKAKQDMACLIRE
YQEV
MNSKLGLDIEIATYRRLLEGEEQRLCEGIGAVNVCVSSSRGGVVCGDLCVSGSRPV
TG
SVCSAPCNGNVAVSTGLCAPCGQLNTTCGGGSCGVGSCGISSLGVGSCGSSCRKC

Mutation at position 18 C replaced with R, at 24 R with S, at 25 26 CC with TT

MTCGSGFGGRAFSCISARGPRPGSTTITAAPYRGISCYRGLTGG

FGSHSVCGGFRAGSCGRSFGYRSGGVCGPSPPCITTVSVNESLLTPLNLEIDPNAQ

CV

KQEEKEQIKSLNSRFAAFIDKVRFLEQQNKLLETKLQFYQNRECCQSNLEPLFEG

YIE

TLRREAECVEADSGRLASELNHVQEVLEGYKKKYEEEVSLRATAENEFVALKK

DVDCA

YLRKSDLEANVEALIQEIDFLRRLYEEEILILQSHISDTSVVVKLDNSRDLNMDCII

A

EIKAQYDDIVTRSRAEAESWYRSKCEEMKATVIRHGETLRRTKEEINELNRMIQR

LTA

EVENAKCQNSKLEAAVAQSEQQGEAALSDARCKLAELEGALQKAKQDMACLI

REYQEV

MNSKLGLDIEIATYRRLLEGEEQRLCEGIGAVNVCVSSSRGGVVCGDLCVSGSRP

VTG

SVCSAPCNGNVAVSTGLCAPCGQLNTTCGGGSCGVGSCGISSLGVGSCGSSCRK

C

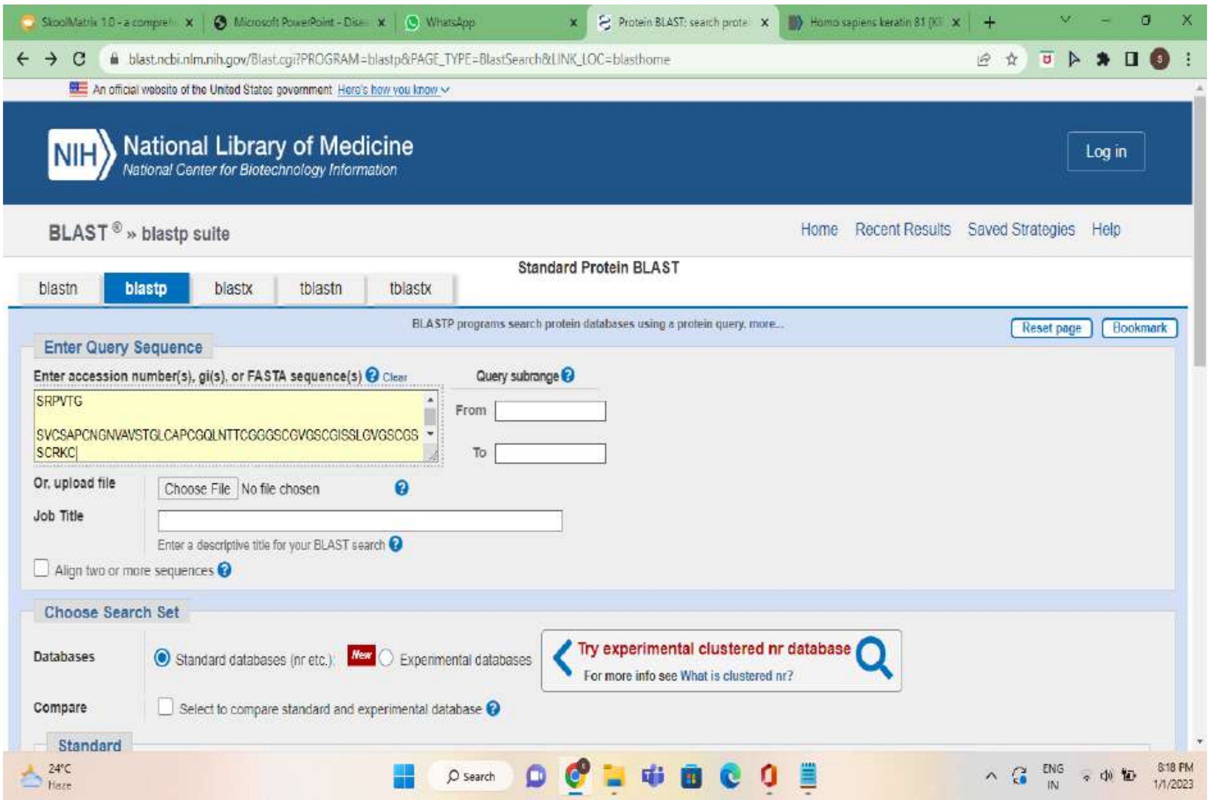


Fig 6. BLAST window with the query sequence pasted in it and the selected databases.

Query 2 Sent

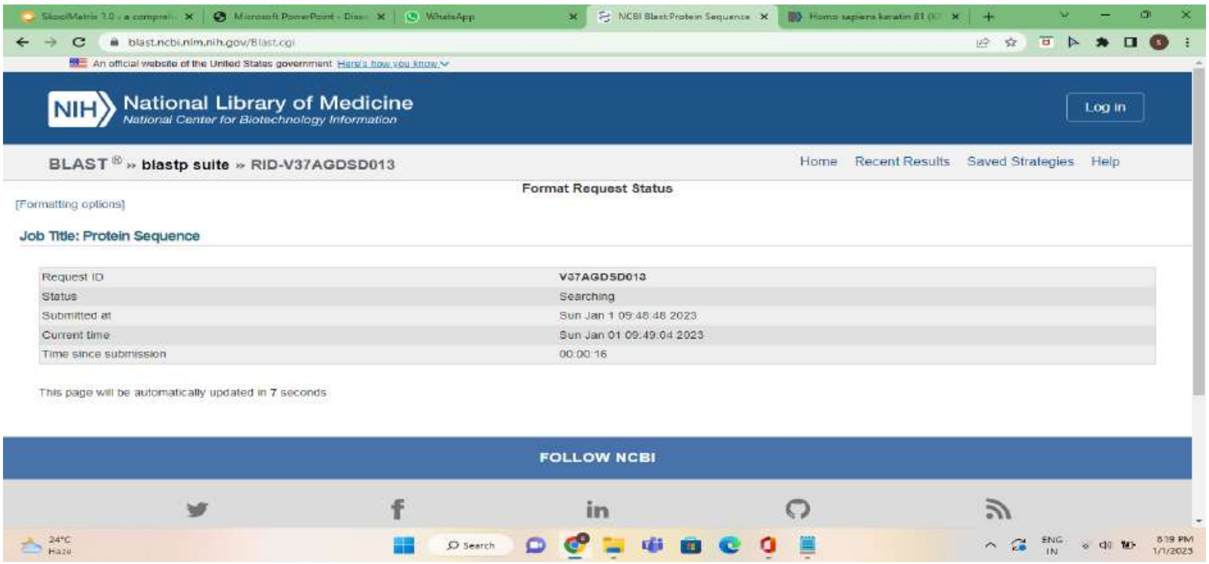


Fig 7. BLAST Window showing Query 2 Response Awaited

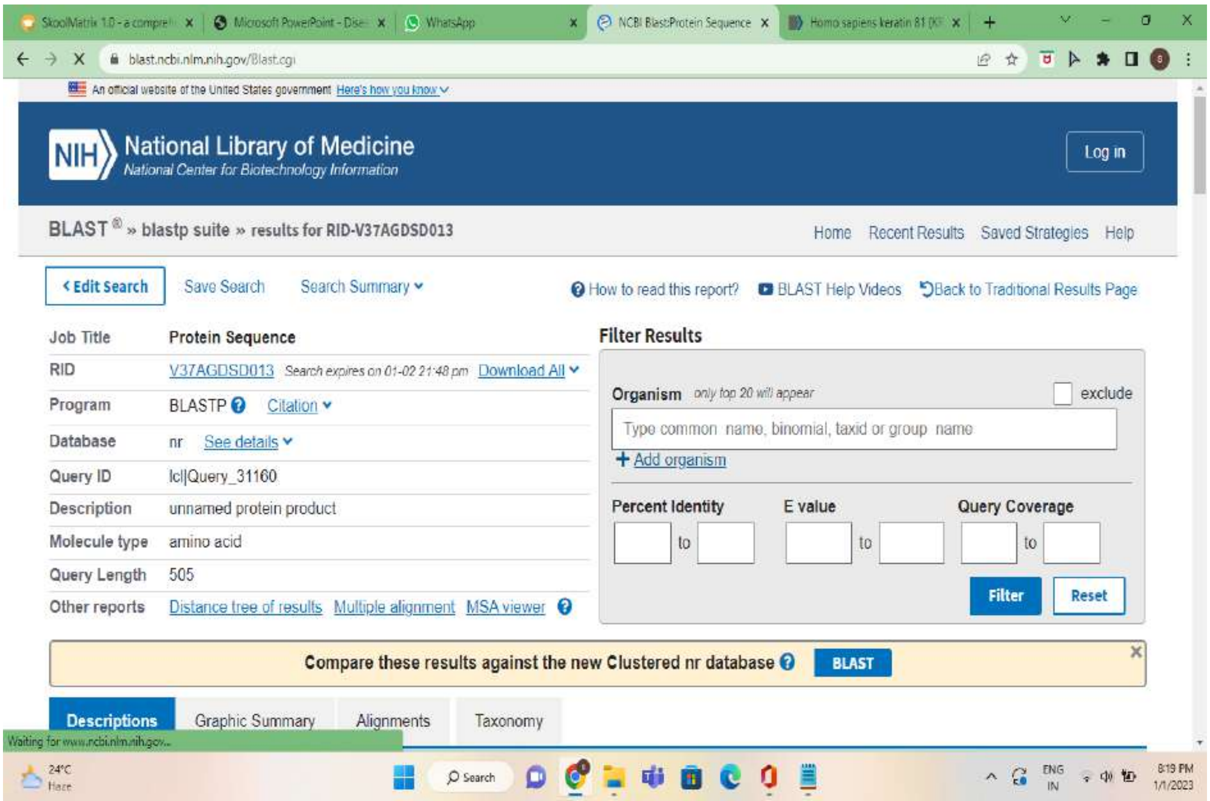


Fig 8. BLAST Window showing Query 2 Result 1

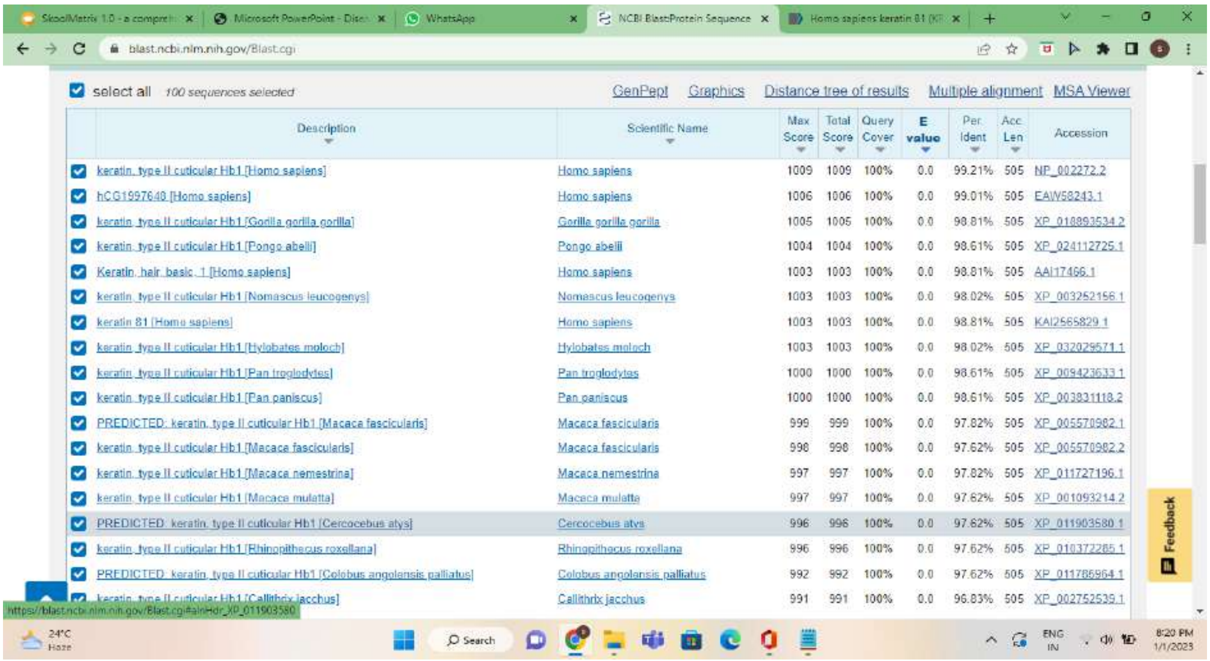


Fig 9. Query 2 Result 2 Description section in the BLAST report showing change in summaries of sequences producing significant alignments

Further, for performing a BLAST search, the query sequence should be in FASTA format as shown in (Figure 2). In addition to substitutions, mutational events can also involve insertions and deletions. As a result, gaps must be added to one or both sequences in order to generate a suitable alignment when comparing and aligning sequences. Gaps should only be introduced when absolutely necessary, and the penalty for prolonging a gap should take into consideration the chance that insertions and deletions would affect multiple residues at once. For instance, several structural proteins though they often change together, elements can shift independently of one another. Both problems are addressed by affine gap penalties, which impose an "opening" penalty for a gap and an "extension" penalty that reduces the relative penalty for each subsequent position in an already opened gap.

Performance Parameters are interpreted as follows:

- **Maximum Score** is the utmost alignment score (bit-score) between the query sequence and the database segments. It has inverse proportionality with the e-value.

 ISBN NO: 978-81-962963-4-6

- **Total Score** means total of the alignment scores of entire sequences from the common database.
- **Percent Query Coverage** represents the percentage of the length of the query which is found in the aligned segments.
- **E-value** gives the degree of likelihood that sequence similarity is not a matter of chance.
- **Percent Identity** explains to what extent is the query similar to the aligned sequences.

ISBN NO: 978-81-962963-4-6

3. Sample Data

Database: Standard (GenBank and SwissProt)

Sample: Human Hair

Type: Original

```
/translation="MTCGSGFGGRAFSCISACGPRPGRCCITAAPYRGISCYRGLTGG
FGSHSVCGGFRAGSCGRSFGYRSGGVCGPSPPCITTVSVNESLLTPLNLEIDPNAQCV
KQEEKEQIKSLNSRFAAFIDKVRFLEQQNKLLETKLQFYQNRECCQSNLEPLFEGYIE
TLRREAECVEADSGRLASELNHVQEVLEGYKKKYEEEVSLRATAENEFVALKKDVDCA
YLRKSDLEANVEALIQEIDFLRRLYEEEILILQSHISDTSVVVKLDNSRDLNMDCIIA
EIKAQYDDIVTRSRAEAESWYRSKCEEMKATVIRHGETLRRTKEEINELNRMIQRLTA
EVENAKCQNSKLEAAVAQSEQQGEAALSDARCKLAELEGALQKAKQDMACLIREYQEV
MNSKLGLDIEIATYRRLLEGEEQRLCEGIGAVNVCVSSSRGGVVCGDLCVSGSRPVTG
SVCSAPCNGNVAVSTGLCAPCGQLNTTCGGGSCGVGSCGISSLGVGSCGSSCRKC"
```

Algorithm used: Quick BLASTP (Accelerated protein-protein BLAST)

Algorithm Parameters:

General parameters:

Max target sequences: xxxx

Expect Threshold: xxxxx

Max matches in a query range: xxxxx

Scoring parameters:

Matrix: xxxxxx

Gap Costs: xxxxxx

Compositional adjustments:xxxxxx

Output scientific sequences methods and Performance parameters given in table below:

 ISBN NO: 978-81-962963-4-6

Type: Mutation 1

Mutation at position 10 R replaced with G

MTCGSGFGGGAFSCISACGPRPGRCCITAAPYRGISCYRGLTGG

FGSHSVCGGFRAGSCGRSFGYRSGGVCGPSPPCITTVSVNESLLTPLNLEIDPNAQ

CV

KQEEKEQIKSLNSRFAAFIDKVRFLEQQNKLLETKLQFYQNRECCQSNLEPLFEG

YIE

TLRREAECVEADSGRLASELNHVQEVLEGYKKKYEEEVSLRATAENEFVALKK

DVDCA

YLRKSDLEANVEALIQEIDFLRRLYEEEILILQSHISDTSVVVKLDNSRDLNMDCII

A

EIKAQYDDIVTRSRAEAESWYRSKCEEMKATVIRHGETLRRTKEEINELNRMIQR

LTA

EVENAKCQNSKLEAAVAQSEQQGEAALSDARCKLAELEGALQKAKQDMACLI

REYQEV

MNSKLGLDIEIATYRRLLEGEEQRLCEGIGAVNVCVSSSRGGVVCGDLCVSGSRP

VTG

SVCSAPCNGNVAVSTGLCAPCGQLNTTCGGGSCGVGSCGISSLGVGSCGSSCRK

C

Algorithm used: Quick BLASTP (Accelerated protein-protein BLAST)

Algorithm Parameters:

General parameters:

- Max target sequences
- Expect Threshold
- Max matches in a query range

Scoring parameters:

- Matrix
- Gap Costs
- Compositional adjustments:

Output scientific sequences methods:

- Homo Sapiens
- Gorilla

 ISBN NO: 978-81-962963-4-6

Pongo Abelii

And so on …

Performance parameters: Max score, Total score, Query cover,

E-Value and Percentage identification

Type: Mutation 2

Mutation at position 18 C replaced with R, at 24 R with S, at 25 26 CC with TT

MTCGSGFGGRAFSCISARGPRPGSTTITAAPYRGISCYRGLTGG

FGSHSVCGGFRAGSCGRSFGYRSGGVCGPSPPCITTVSVNESLLTPLNLEIDPNAQ

CV

KQEEKEQIKSLNSRFAAFIDKVRFLEQQNKLLETKLQFYQNRECCQSNLEPLFEG

YIE

TLRREAECVEADSGRLASELNHVQEVLEGYKKKYEEEVSLRATAENEFVALKK

DVDCA

YLRKSDLEANVEALIQEIDFLRRLYEEEILILQSHISDTSVVVKLDNSRDLNMDCII

A

EIKAQYDDIVTRSRAEAESWYRSKCEEMKATVIRHGETLRRTKEEINELNRMIQR

LTA

EVENAKCQNSKLEAAVAQSEQQGEAALSDARCKLAELEGALQKAKQDMACLI

REYQEV

MNSKLGLDIEIATYRRLLEGEEQRLCEGIGAVNVCVSSSRGGVVCGDLCVSGSRP

VTG

SVCSAPCNGNVAVSTGLCAPCGQLNTTCGGGSCGVGSCGISSLGVGSCGSSCRK

C

Type: Mutation 3

Mutation at position 20 P replaced with S, at 36 S with R, at 51 52 CG with SL

MTCGSGFGGRAFSCISARGSRPGSTTITAAPYRGIRCYRGLTGG

FGSHSVSLGFRAGSCGRSFGYRSGGVCGPSPPCITTVSVNESLLTPLNLEIDPNAQ

CV

KQEEKEQIKSLNSRFAAFIDKVRFLEQQNKLLETKLQFYQNRECCQSNLEPLFEG

YIE

TLRREAECVEADSGRLASELNHVQEVLEGYKKKYEEEVSLRATAENEFVALKK

DVDCA

 ISBN NO: 978-81-962963-4-6

YLRKSDLEANVEALIQEIDFLRRLYEEEILILQSHISDTSVVVKLDNSRDLNMDCII
A
EIKAQYDDIVTRSRAEAESWYRSKCEEMKATVIRHGETLRRTKEEINELNRMIQR
LTA
EVENAKCQNSKLEAAVAQSEQQGEAALSDARCKLAELEGALQKAKQDMACLI
REYQEV
MNSKLGLDIEIATYRRLLEGEEQRLCEGIGAVNVCVSSSRGGVVCGDLCVSGSRP
VTG
SVCSAPCNGNVAVSTGLCAPCGQLNTTCGGGSCGVGSCGISSLGVGSCGSSCRK
C

 ISBN NO: 978-81-962963-4-6

4. Findings and Results

Table 1. Protein human hair original sample for Quick BLASTP (Accelerated protein-protein BLAST)

Source: Compiled by researcher

Sr. No.	Output: Scientific name	Max Score	Total Score	Query Cover	E-Value	Percentage Identity
1	Homo Sapiens	1019	1019	100%	0.0	100.00%
2	Gorilla	1016	1016	100%	0.0	99.60%
3	Pongo abelii	1014	1014	100%	0.0	99.41%
4	Nomascus Leucogenya	1014	1014	100%	0.0	98.81%
5	Hylobates moloch	1013	1013	100%	0.0	98.81%
6	Pan troglotytes	1012	1012	100%	0.0	99.41%
7	Pan paniscus	1012	1012	100%	0.0	99.41%
8	Macaca fascicularis	1009	1009	100%	0.0	98.61%
9	Macaca mulatta	1009	1009	100%	0.0	98.42%
10	Macaca nemestrina	1009	1009	100%	0.0	98.42%

Table 2. Protein human hair Mutation1 sample for Quick BLASTP (Accelerated protein-protein BLAST)

Source: Compiled by researcher

Sr. No.	Scientific name	Max Score	Total Score	Query Cover	E-Value	Percentage Identity
1	Homo Sapiens	1018	1018	100%	0.0	100.00%
2	Gorilla	1015	1015	100%	0.0	99.90%
3	Pongo abelii	1013	1013	100%	0.0	99.91%
4	Nomascus Leucogenya	1013	1013	100%	0.0	98.910%
5	Hylobates moloch	1012	1012	100%	0.0	98.91%
6	Pan troglotytes	1011	1011	100%	0.0	99.81%
7	Pan paniscus	1011	1011	100%	0.0	99.78%
8	Macaca fascicularis	1008	1008	100%	0.0	98.71%
9	Macaca mulatta	1008	1008	100%	0.0	98.70%
10	Macaca nemestrina	1008	1008	100%	0.0	98.62%

Table 3. Protein human hair Mutation2 sample for Quick BLASTP (Accelerated protein-protein BLAST)

Source: Compiled by researcher

Sr. No.	Scientific name	Max Score	Total Score	Query Cover	E-Value	Percentage Identity
1	Homo Sapiens	1009	1009	100%	0.0	99.21%
2	Gorilla	1005	1005	100%	0.0	98.81%
3	Pongo abelii	1004	1004	100%	0.0	98.61%
4	Nomascus Leucogenys	1003	1003	100%	0.0	98.02%
5	Hylobates moloch	1003	1003	100%	0.0	98.02%
6	Pan troglodytes	1000	1000	100%	0.0	98.61%
7	Pan paniscus	1000	1000	100%	0.0	98.61%

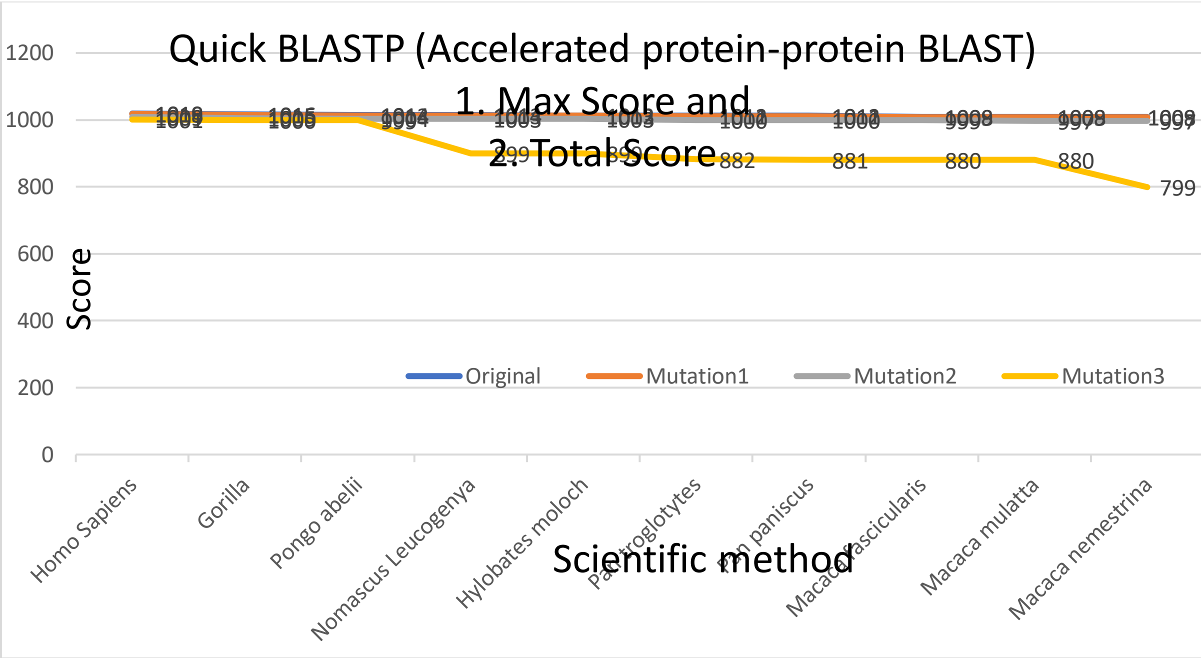
ISBN NO: 978-81-962963-4-6

8	Macaca fascicularis	999	999	100%	0.0	97.82%
9	Macaca mulatta	997	997	100%	0.0	97.62%
10	Macaca nemestrina	997	997	100%	0.0	97.82%

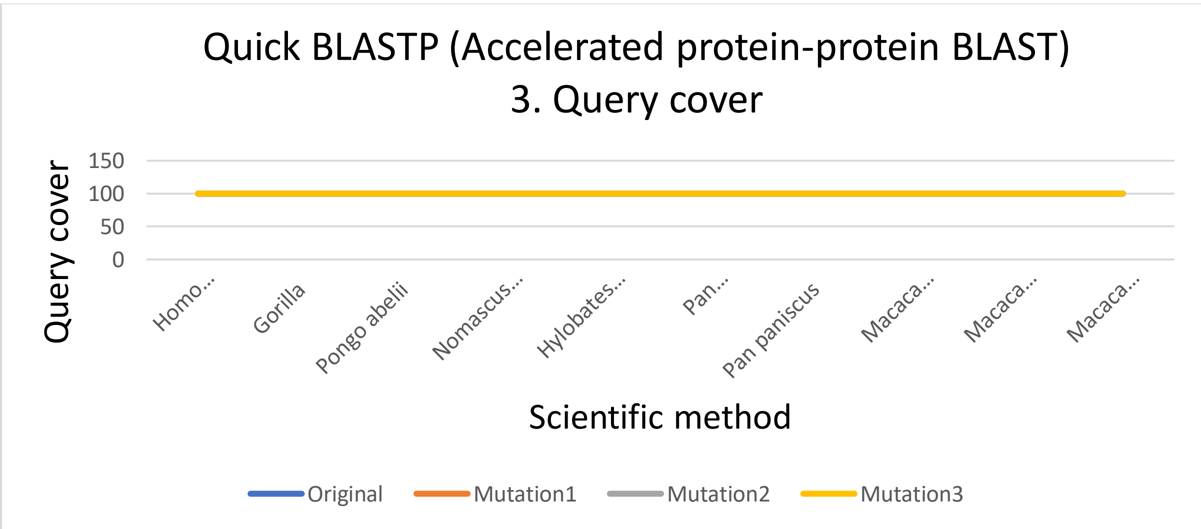
Table 4. Protein human hair Mutation3 sample for Quick BLASTP (Accelerated protein-protein BLAST)

Source: Compiled by researcher

Sr. No.	Scientific name	Max Score	Total Score	Query Cover	E-Value	Percentage Identity
1	Homo Sapiens	1001	1001	100%	0.0	98.21%
2	Gorilla	1000	1000	100%	0.0	96.81%
3	Pongo abelii	999	999	100%	0.0	96.61%
4	Nomascus Leucogenya	899	899	100%	0.0	96.02%
5	Hylobates moloch	889	889	100%	0.0	95.92%
6	Pan troglotytes	882	882	100%	0.0	95.61%
7	Pan paniscus	881	881	100%	0.0	95.61%
8	Macaca fascicularis	880	880	100%	0.0	95.52%
9	Macaca mulatta	880	880	100%	0.0	95.51%
10	Macaca nemestrina	799	799	100%	0.0	95.48%

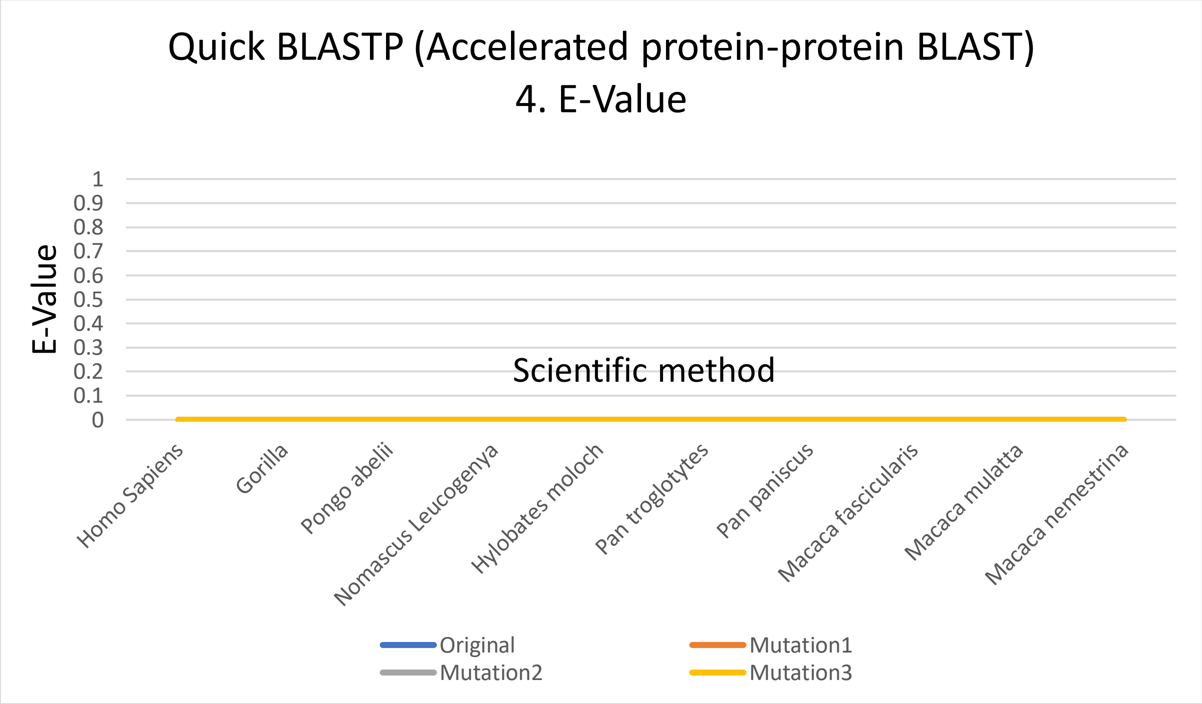


Graph 1. Max score and Total score for varying scientific method observed for different human hair sample

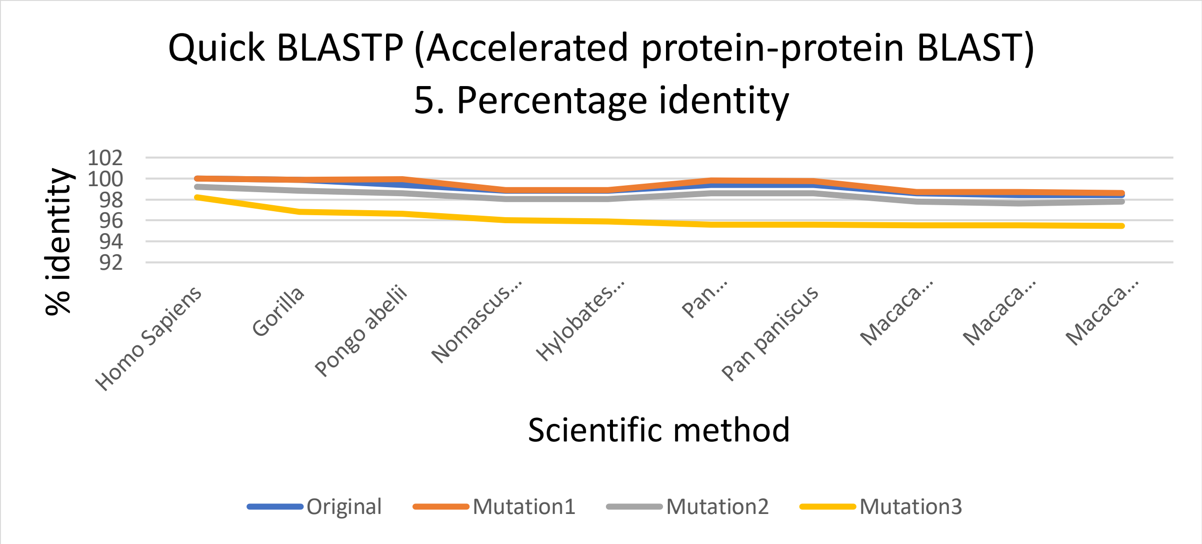


Graph 2. Query cover for varying scientific method observed for different human hair sample

ISBN NO: 978-81-962963-4-6



Graph 3. E-Value for varying scientific method observed for different human hair sample



Graph 4. Percentage identity for varying scientific method observed for different human hair sample.

ISBN NO: 978-81-962963-4-6

5. Future Scope

One can analyse evolutionary evidence and extract valuable patterns in gene expression, classify protein structure, gene prediction, gene identification, diagnosing different types of disease on which genes are expressed etc.

Data mining offers capability to analyse bioinformatics data and is useful for pattern identification, classification, prediction and genetic network induction.

6. Conclusion

Large-scale sequencing initiatives and bioinformatics tools like BLAST have been developed concurrently, allowing researchers to analyse the genetic code of many different species and bridging the gap between biology and computer science in the developing discipline of bioinformatics.

So, the use of bioinformatics tools to analyse genome sequence data has become essential to current biological research. BLAST is one of the most popular bioinformatics approaches that is available to any researcher over the internet, and it is routinely used to assign sequences into functional and taxonomic categories. Its application ranges from the analysis of raw sequence data and genome comparisons, often extending into sequence-based data.

References

1. Altschul, S.F., Madden, T.L., Schaffer, A.A., Zhang, J., Zhang, Z., Miller, W., Lipman, D.J. 1997. Gapped BLAST and PSI-BLAST: a new generation of protein database search programs. Nucleic Acids Research **25**: 3389–3402.
2. Altschul, S.F., Boguski, M.S., Gish, W., Wootton, J.C. 1994. Issues in searching molecular sequence databases. Nature Genetics **6**: 119–129.
3. Altschul, S.F. 1991. Journal of Molecular Biology
4. **219**: 555–565.
5. Attwood, T. K., Parry-Smith, D, J., Phukan, S. (Eds.) 2007. Pairwise Alignment Techniques. In: Introduction to Bioinformatics, Dorling Kindersley (India) Pvt. Ltd., New Delhi pp. 114-138.
6. Bailey, T.L. & Gribskov, M. 1998. Combining evidence using p-values: application to sequence homology searches. Bioinformatics **14**(1): 48–54.
7. Bayat, A. 2002. Science, medicine, and the future: Bioinformatics. In Clinical review. British Medical Journal **324**: 1018–22.
8. Camacho, C., Coulouris, G., Avagyan, V., Ma, N., Papadopoulos, J., Bealer, K., Madden, T.L. 2009. BLAST+: architecture and aplications. BioMed Central Bioinformatics **10**: 421.
9. Dereeper, A., Audic, S., Claverie, J-M., Blanc, G. 2010. BLAST-EXPLORER helps you building datasets for phylogenetic analysis. BioMed Central Evolutionary Biology, **10**(8) pp. 1 – 6.
10. Deusdado, S.A.D., & Carvalho, P.M.M. 2008. SimSearch: A New Variant of Dynamic Programming Based on Distance Series for Optimal and Near-Optimal Similarity Discovery in Biological Sequences. In: J.M. Corchado *et al.* (Eds.) IWPACBB2008, Advances in Soft Computing **49:** 206-216.
11. Ditty, J.L., Kvaal, C.A., Goodner, B., Freyermuth, S.K., Bailey, C., *et al.* 2010. Incorporating genomics and bioinformatics across the life sciences curriculum. PLoS Biology **8**(8): e1000448.
12. Dong-Wook Kim, Ryong Nam Kim, Dae-Soo Kim, Sang-Haeng Choi, Sung-Hwa Chae, Hong-Seog Park. 2012. easySEARCH: A user-friendly bioinformatics program that enables BLAST searching with massive number of query sequences. Bioinformation **8**(16): 792–

794.

13. Gibas, C., & Jambeck, P. 2001. Sequence Analysis, Pairwise Alignment, and Database Searching. In: Developing Bioinformatics Computer Skills; O'Reilly Media Inc., Seventh Indian Reprint (2008) pp. 159-190.
14. Gish, W., & States, D.J. 1993. Identification of protein coding regions by database similarity search. Nature Genetics **3**(3): 266-272.
15. Holton, W. C. 2004. The Path to Species Comparison. In: Environmental Health Perspectives **112**(12): A 672.
16. Kelly, S., Maini, P.K. 2013. DendroBLAST: Approximate Phylogenetic Trees in the absence of Multiple Sequence Alignments. PLOS ONE **8**(3): e58537 pp. 1-11
17. Kerfeld, C.A., Scott, K.M. 2011. Using BLAST to teach "E-value-tionary" Concepts. PLoS Biology **9**(2): e1001014.
18. Klein, J.R., & Gulsvig, T. 2012. Using bioinformatics to develop and test hypotheses: *E. coli*-specific virulence determinants. Journal of Microbiology & Biology Education **13**(2): 161-169.
19. Korf, I. 2003. Serial BLAST searching. Bioinformatics **19**(12): 1492-1496.
20. Lobo, I. 2008. Basic Local Alignment Search Tool (BLAST). Nature Education **1**(1): 215.
21. Lu, G., Jiang, L., Helikar, R. M. K., Rowley, T. W., Zhang, L., Chen, X., Moriyama, E.N. 2006. GenomeBlast: a web tool for small genome comparison. BioMed Central Bioinformatics, **7**(Suppl 4):S18: 1- 9.
22. Madden, T. 2002. The BLAST sequence analysis tool. In: NCBI Handbook (Eds. Mc Entyre, J., Ostell, J.), National Library of Medicine, Bethesda, MD.
23. Maloney, M., Parker, J., LeBlanc, M., Woodard, C.T., Glackin, M., Hanrahan, M. 2010. Bioinformatics and the Undergraduate Curriculum Essay. CBE-Life Sciences Education **9**: 172-174.
24. McGinnis, S., Madden, T.L. 2004. BLAST: at the core of a powerful and diverse set of sequence analysis tools. Nucleic Acids Research **32**: W20–W25.
25. Morgulis, A., Gertz, E.M., Schaffer, A.A., Agarwala, R. 2006. A fast and symmetric DUST implementation to mask low-complexity DNA sequences. Journal of Computational Biology **13**: 1028–1040.

26. Moriya, Y., Itoh, M., Okuda, S., Yoshizawa, A.C., Kanehisa,
27. M. 2007. KAAS: an automatic genome annotation and pathway reconstruction server. Nucleic Acids Research, **35**: W182–W185.
28. Neumann, R.S., Kumar, S., Shalchian-Tabrizi, K. 2013. BLAST output visualization in the new sequencing era. Briefings in Bioinformatics.
29. Newell, P.D., Fricker, A.D., Roco, C.A., Chandrangsu, P., Merkel, S.M. 2013. A Small-Group Activity Introducing the Use and Interpretation of BLAST. Journal of Microbiology & Biology Education **14**(2): 238-243.
30. Parra, G., Agarwal, P., Abril, J.F., Wiehe, T., Fickett, J.W., & Guigo, R. 2003. Comparative Gene Prediction in Human and Mouse. Genome Research **13**:108–117.
31. Pertsemlidis, A., Fondon III, J.W. 2001. Having a BLAST with bioinformatics (and avoiding BLASTphemy). Genome Biology Reviews **2**(10): 2002.1-2002.10.
32. Pierce, B. A. 2002. Genomics. In: Genetics: a conceptualapproach; W.H. Freeman and Co. pp. 548-582.
33. Ranganathan, S. 2005. Bioinformatics education- Perspectives and challenges. PLoS Computational Biology **1**(6): e52.
34. Rivera, M.C., Jain, R., Moore, J.E., Lake, J.A. 1998. Genomic evidence for two functionally distinct gene classes. Proceedings of the National Academy of Sciences of the United States of America **95**: 6239-6244.
35. van Hijum, S. A. F. T., Zomer, A.L., Kuipers, O.P., Kok, J.2005. Projector 2: contig mapping for efficient gap- closure of prokaryotic genome sequence assemblies. Nucleic Acids Research **33**: W560–W566.
36. Wootton, J.C., & Federhen, S. 1996. Analysis of compositionally biased regions in sequence databases. Methods in Enzymology **266**: 554–571.
37. Ye, J., Coulouris, G., Zaretskaya, I., Cutcutache, I., Rozen, S., Madden, T. L. 2012. Primer-BLAST: A tool to design target-specific primers for polymerase chain reaction. BioMed Central Bioinformatics **13**(134): 1-11.
38. Ye, J., McGinnis, S., Madden, T.L. 2006. BLAST: improvements for better sequence analysis. Nucleic Acids Research **34**: W6–W9.
39. Zhang, Z., Carriero, N., Zheng, D., Karro, J., Harrison, P.M., Gerstein, M. 2006. PseudoPipe: an automated pseudogene identification pipeline. Bioinformatics

ISBN NO: 978-81-962963-4-6

A Study of Effect of Pre-Training Phase on the Effectiveness of Training Structure of ICSI

Principal Author:

Dr. Sussmita G. Daxini (9322505265)

I/c. Principal and Research Supervisor,

D.T.S.S. College of Commerce,

Kurar Village, Malad (E),

Mumbai – 400 097

Co-Author:

CS Swapnil Shenvi (9987094858)

Research Scholar,

D.T.S.S. College of Commerce,

Kurar Village, Malad (E),

Mumbai – 400 097

Email: cs.swapnilshenvi@gmail.com

ABSTRACT

The Institute of Company Secretaries of India (ICSI) is a premier and Statutory Body under the aegis of the Government of India. It provides training to its members as per rules prevalent from time to time. However, the entire training structure of ICSI focusses only on the training part to its members. Pre-training phase is not given due importance. The current research paper studies the implications of pre-training phase on the determination of effective training structure. This research paper uses statistical tests like Cronbach's Alpha and Spearman Rank Correlation to determine whether there is a significant relationship between pre-training phase and the effectiveness of training structure. It gives possible solutions to ICSI to improve the pre-training phase.

Keywords: Pre-Training, Effectiveness of Training Structure, ICSI.

INTRODUCTION

The Institute of Company Secretaries of India (ICSI) is a Statutory Body formed under a Special Act of the Parliament. The ICSI provides training to its members as a part of its training structure which is modified from time to time. The members undergo training through structured and unstructured form of training which is mandatory as per requirements of the Institute. These requirements have to be completed every financial year. The training programmes include attending of lectures through physical mode at ICSI venues across the country known as CPE programmes (Continued Professional Education Programmes). The training can also be undergone through completion of certificate and crash courses being run by ICSI at various times throughout the financial year.

This research paper specifically focusses on the CPE programmes. To limit the scope of the research on a specific element, this research paper focusses on pre-training phase of CPE programmes only.

REVIEW OF LITERATURE

Uma Pricilda Jaidev and Susan Chirayath in their study emphasized that any training programme can be categories into pre-training, during-training and post-training activities which have a significant impact on the transfer of training being done to the trainees. In the same research paper it was also highlighted that there are other organisational factors which are imperative and play a critical role in the trainee understanding the concepts of training and training structure. (Jaidev & Chirayath, 2012)

Pre-Training Evaluation is somewhat difficult to do, but it is necessary to attain the objectives of the training programme. (Jobitha, 2017)

Orientation to trustees can help in use of best practices by the trustees to impart proper training through various learning activities. If trustees and top managers get to know better about their organisations and the educational landscape as a whole, they can address the issues prevalent in their institutions. The theory was used to examine the talent development at community colleges which can be implemented in professional development as well. A State-based training must be sponsored for the training of the trustees to get optimum results. (Stine, 2012)

 ISBN NO: 978-81-962963-4-6

There should be an aptitude test for all trainees before the commencement of any training program so that the trainees can gauge whether they are actually interested in pursuing the training course or not. (Kore, 2017)

In another study, it was indicated that the trainee's belief system should be first unfreezed, then training programs should be conducted and then the training outcomes shall be refreezed. (Nelson & Cheney, 1987)

OBJECTIVES OF THE RESEARCH

1. To assess whether pre-training phase of ICSI is adequately conducted.
2. To analyse whether pre-training planning helps in improving the quality of training provided by ICSI.
3. To gauge the opinion of Company Secretaries about pre-training phase and whether it helps in capacity building of the Company Secretaries.

HYPOTHESIS

H_o There is no significant relationship between Pre-Training Planning and Effectiveness of Training Structure of ICSI

H_1 There is a significant relationship between Pre-Training Planning and Effectiveness of Training Structure of ICSI

RESEARCH METHODOLOGY

1. Exploratory and Quantitative Research

   This research is an exploratory and quantitative research.
2. Primary Data

   Primary data was collected with help of a structured questionnaire which was filled by 103 respondents. All the respondents were members of ICSI.
3. Type of Questions

   The questionnaire consisted of Likert Scale questions. In all, the questionnaire consisted of 17 questions apart from the questions on demographic profile. The questionnaire was administered through hybrid mode (both through online google forms and physical form of questionnaire).
4. Period of study

   The period of the study was June 2022 to November 2022 only. Research after November 2022 was excluded since ICSI had announced elections and the programmes were not allowed / conducted for members due to the implementation of Election Code of Conduct.

5. Data Analysis

   The responses were analysed and hypothesis was tested using Spearman Rank Correlation. The level of significance is 5% which is normal for any social science research. Data compilation and data analysis was done using SPSS software.

6. Secondary Data

   Secondary data has been referred to while preparing the research paper and due credits and references have been mentioned at appropriate places in the paper.

LIMITATIONS OF RESEARCH

1. Number of Respondents

   The present study is limited to only 103 respondents in Mumbai region only. All the respondents were Company Secretaries i.e members of The Institute of Company Secretaries of India as per rules framed from time to time. Certain respondents were Practising Company Secretaries while the remaining were Company Secretaries in Whole Time Employment.

2. Hesitancy amongst respondents

   A few respondents were hesitant to fill the questionnaire. The researcher had to persuade them to complete the questionnaire. This may have led to inaccurate responses from the respondents.

3. Lack of personal touch

   Lack of face-to-face interaction between the researcher and the respondents may have led to distorted responses. However, this limitation might have been visible only in cases where members of ICSI filled the questionnaire through google forms. This was not a limitation in cases where the questionnaire was administered personally and in physical mode.

4. Time Constraint

   Time constraint to complete the research may have led to incomplete or inaccurate findings and analysis. Limited time frame specially in the election year of ICSI may have led to restricted and filtered responses by members of ICSI. Further research is recommended in a non-election year for removing any sort of biases or impediments.

 ISBN NO: 978-81-962963-4-6

DATA ANALYSIS AND FINDINGS

Item description	Cronbach's Alpha (α)
Adequate importance is given to pre-training phase by ICSI	0.826
A well-defined training policy for ICSI members is in existence	0.824
There is timely intimation about training programmes and its structure to all members of ICSI	0.85
There is proper consultation of members before organizing training programmes	0.834
Atleast 10 training programmes are conducted for new members of ICSI	0.844
Customised training programmes are organized for members of ICSI based on the expectations of the members	0.819
An aptitude test is conducted for all members before enrollment in a particular batch of training	0.833
The members' present understanding about a topic is first analysed by ICSI and then the members are accepted as a trainee in a particular batch of training	0.824
Before the training commences, existing skill sets of a member are evaluated by ICSI	0.824
Most or all of the training provided is mapped with the real job requirements	0.838
ICSI critically evaluates functional outcomebefore organizing any training programme for its members through preliminary discussions with members	0.82
Enrolment process for a training programme organized by ICSI is simple and quick	0.853
The technical requirements (example: laptops, pre-reads, bare acts etc.) for the training programme are intimated before the commencement of the training	0.858
ICSI bears the cost of training programmes	0.856
I am willing to pay a nominal fee (Rs 100 toRs 1000) for training programmes organized by ICSI since I feel I will recover the	0.829

 ISBN NO: 978-81-962963-4-6

monetary part by implementation of the knowledge gained during training	
I am willing to pay a premium fee (Rs 1000 to Rs 5000) for training programmes organized by ICSI since I feel I will recover the monetary part by implementation of the knowledge gained during training	0.845
Members are given a choice to attend or not to attend any particular training programme based on the cost of the training programme	0.85
Overall Cronbach's Alpha (α)	**0.836**

Inference : It can be observed from the Table above, the value of Alpha (α) is 0.836. The value of Cronbach's Alpha (α) is more than 0.8 and hence we can conclude that the variables are having high internal consistency for Pre-Training Evaluation.

Weighted Average Mean was also calculated for all the questions stated above:

Item description	**Weighted Average Mean**
Adequate importance is given to pre-training phase by ICSI	3.40
A well-defined training policy for ICSI members is in existence	3.32
There is timely intimation about training programmes and its structure to all members of ICSI	3.84
There is proper consultation of members before organizing training programmes	3.06
Atleast 10 training programmes are conducted for new members of ICSI	3.45
Customised training programmes are organized for members of ICSI based on the expectations of the members	3.41
An aptitude test is conducted for all members before enrollment in a particular batch of training	3.36
The members' present understanding about a topic is first analysed by ICSI and then the members are accepted as a trainee in a	3.40

particular batch of training	
Before the training commences, existing skill sets of a member are evaluated by ICSI	3.46
Most or all of the training provided is mapped with the real job requirements	3.66
ICSI critically evaluates functional outcomebefore organizing any training programme for its members through preliminary discussions with members	3.49
Enrolment process for a training programme organized by ICSI is simple and quick	4.15
The technical requirements (example: laptops, pre-reads, bare acts etc.) for the training programme are intimated before the commencement of the training	3.87
ICSI bears the cost of training programmes	3.07
I am willing to pay a nominal fee (Rs 100 toRs 1000) for training programmes organized by ICSI since I feel I will recover the monetary part by implementation of the knowledge gained during training	3.69
I am willing to pay a premium fee (Rs 1000 to Rs 5000) for training programmes organized by ICSI since I feel I will recover the monetary part by implementation of the knowledge gained during training	3.58
Members are given a choice to attend or not to attend any particular training programme based on the cost of the training programme	4.11

Before the training commences, existing skill sets of a member are evaluated by ICSI	3.46
Most or all of the training provided is mapped with the real job requirements	3.66
ICSI critically evaluates functional outcomebefore organizing any training programme for its members through preliminary discussions with members	3.49

Enrolment process for a training programme organized by ICSI is simple and quick	4.15
The technical requirements (example: laptops, pre-reads, bare acts etc.) for the training programme are intimated before the commencement of the training	3.87
ICSI bears the cost of training programmes	3.07
I am willing to pay a nominal fee (Rs 100 toRs 1000) for training programmes organized by ICSI since I feel I will recover the monetary part by implementation of the knowledge gained during training	3.69
I am willing to pay a premium fee (Rs 1000 to Rs 5000) for training programmes organized by ICSI since I feel I will recover the monetary part by implementation of the knowledge gained during training	3.58
Members are given a choice to attend or not to attend any particular training programme based on the cost of the training programme	4.11

The highest weighted average mean has been observed for The process of enrolling for a training programme organised by ICSI is simple and quick as 4.15, Members are given a choice to attend or not to attend any particular training programme based on the cost of the training programme as 4.11 and The technical requirements (example: laptops, pre-reads, bare acts etc.) for the training programme are intimated before the commencement of the training as 3.87.

From the above weighted average mean it can be depicted that simple and quick enrolling process, cost of the training programme and technical requirements create effective organizing of ICSI.

CONCLUSION

The significance level less than 5% reveals that the null hypothesis can be rejected. By applying Spearman Rank Correlation, it is derived that there is a significant association between Pre-Training Planning and Effectiveness of Training. The value of r_s for Pre-

Training Planning and Effectiveness of Training found to be 0.525. It shows that there is a positive moderate association for Pre-Training Planning and Effectiveness of Training.

REFERENCES AND BIBLIOGRAPHY

Bibliography

Anonymous. (2020, Sept / Oct). COVID 19's Impact on Training. *Minneapolis Training, 57*(4), 7. Retrieved July 07, 2021, from https://ezproxy.svkm.ac.in:2101/trade-journals/covid-19s-impact-on-training/docview/2460133686/se-2?accountid=32277

Ceesay, E. K. (2021). Potential Impact of COVID-19 outbreak on education, staff development and training in Africa. *Research in Globalisation, 3*. doi:https://doi.org/10.1016/j.resglo.2021.100049

Chris, K., Susan, W., Jan, D., Elisabeth, C., Faye, A., Jill, R., . . . Christine, D. (2020). 'They come with their own ideas of what they want': Healthcare educator, advanced practice student and manager perspectives on learning outcomes. *Journal of Education and Work, 33*(4), 312-325.

ICSI. (2020). Retrieved July 13, 2021, from www.icsi.edu: https://www.icsi.edu/student/training/

Jaidev, U. P., & Chirayath, S. (2012). Pre-Training, During-Training and Post-Training Activities as Predictors of Transfer of Training.

Jobitha, S. E. (2017). A study on training effectiveness among employees in private banks with special reference to kanyakumari district. 284. Retrieved from http://hdl.handle.net/10603/230965

Kore, A. S. (2017, December). Professional skill development programmes for business graduates a critical assessment of business education curricula. Pune, Maharashtra, India. Retrieved July 16, 2021, from http://hdl.handle.net/10603/237550

Kumar, D. (2020). *Impact of COVID 19 on Training and Placements.* Business World. New Delhi: Athena Information Solutions Pvt. Ltd. Retrieved July 13, 2021, from https://ezproxy.svkm.ac.in:2101/magazines/impact-covid-19-on-training-placements/docview/2430656498/se-2?accountid=32277

Nelson, R. R., & Cheney, P. H. (1987, December). Training End Users: An Exploratory Study. *MIS Quarterly, 11*(4), 547-559.

Ruby, C. R. (2014, December). The Use of Distance Education for Continued Professional Education by Physical Therapists in the State of Pennsylvania.

Smirnova, Z. V., Gruzdeva, M. L., Chaykina, Z. V., Terekhina, O. S., Tolsteneva, A. A., & Frolova, N. H. (2016, June). The Role of Students' Classroom Independent Work in Higher Educational Institutions. *Indian Journal of Science and Technology, 9*(22), 1-5. doi:10.17485/ijst/2016/v9i22/95568

ISBN NO: 978-81-962963-4-6

Sternberg, R. J. (1983, February). Criteria for Intellectual Skills Training. *Educational Researcher, 12*(2), 6-12.

Stine, C. M. (2012, December). Community College Trustee Orientation and Training Influence on Use of Best Practices.

Tashkeyeva, G., Abykanova, B., Sariyeva, A., Sadirbekova, D., & Marhabaeva, A. (2016). Application of Methods of Interactive Training in the Educational Environment of Higher Educational Institutions. *International Multidisciplinary Scientific GeoConference. 3*, pp. 747-753. Bulgaria: Surveying Geology & Mining Ecology Management. Retrieved May 18, 2021, from https://ezproxy.svkm.ac.in:2101/conference-papers-proceedings/application-methods-interactive-training/docview/2014451634/se-2?accountid=32277

Vaganova, O. I., Odarich, I. N., Popkova, A. A., Smirnova, Z. V., & Lebedeva, A. A. (2019, September-October). Independent Work of Students in Professional Educational Institutions. *Amazonia Investiga, 8*(22), 295-304. Retrieved May 18, 2021

Zaitseva, N. A., Kozlov, D. A., & Nikolskaya, E. Y. (2017). Evaluation of the Competencies of Graduates of Higher Educational Institutions, engaged in the training of Personnel for Tourism and Hospitality. *Eurasian Journal of Analytical Chemistry*, 685-695. doi:10.12973/ejac.2017. 00202a

 ISBN NO: 978-81-962963-4-6

A Research Paper Submitted

to

KLE Society's Science & Commerce College

(Affiliated to University of Mumbai)

Department of Management Studies

In Collaboration With

Internal Quality Assurance Cell

For

One Day International E-Conference 2023

on

"The Paradigm Shift: Growth, Transformation and Competitiveness in Business Management and Society"

on

"*Corporate Social Responsibility in India: Evolution, Issues & Challenges*"

Authors

Mr. Ravi Rakesh Singh **Visiting Faculty** Lilavati Lalji Dayal College of Commerce Sydenham College of Commerce & Economics **Contact: +91 – 70454 23501/ 79770 05423** **Email: rav9629@gmail.com**	**Ms. Afreen Mazgaonkar** **Assistant Professor** Jai Hind College **Contact: +91 – 97027 74624** **Email: afreenmazgaonkar9@gmail.com**

 ISBN NO: 978-81-962963-4-6

Corporate Social Responsibility in India: Evolution, Issues & Challenges

Abstract

CSR is a holistic and integrated management concept in which businesses combine their social and environmental objectives with their business objectives. It adheres to the Triple Bottom Line Approach, which means that the company focuses on the three P's: People, Planet, and Profit, while meeting the expectations of all stakeholders. The majority of policy initiatives in our country are motivated by the goals of equal opportunity, poverty reduction, human deprivation, emphasising fundamental rights, and so on, all of which result in strong human development. India is the first country in the world to make CSR mandatory. Incorporating a CSR mandate into the Companies Act of 2013 is an important step towards involving the corporate sector in the country's equitable development. Companies were previously required to spend 2% of their profits on CSR, and if they did not, they had to explain why. However, under the current amendment, businesses must spend 2% of their profits on CSR within a certain time frame or invest that amount in government-run funds.

In this paper, researchers attempted to investigate the Issues and Challenges associated with CSR in India, as well as the various factors driving CSR practices in Indian companies. The paper also highlights the growing need for focused, structured, and monitored CSR in India's large, diverse, and larger section of society, particularly among the underprivileged. The paper also attempts a systematic review of various journals, reports, and media articles on CSR in India. This paper examines and analyses CSR evolution, challenges, and issues in India.

(Keyword : CSR, Evolution of CSR, Triple bottom line, Challenges & Issue

Introduction

Corporate Social Responsibility (CSR) is a term that is frequently used in today's business world, and India is no exception. Although the concept of corporate social responsibility (CSR) is not new, it is without a doubt the most recent buzzword in the business world. Its popularity has grown over the last few decades. Corporate giving is nothing new in India. CSR, on the other hand, goes beyond simple altruism and giving. CSR is a business practice in which corporate entities add value and support social good. It can be defined as a sense of responsibility on the part of businesses towards the society and environment in which they operate. Because India is a developing country with numerous social commitments to larger society, this phenomenon and concept are more appropriate for the Indian context. Stakeholders concerned with social and environmental issues highly value the organization. CSR refers to business practices that seek both financial success and social and environmental responsibility. Stakeholders, particularly society, expect enterprises to act ethically, responsibly, compassionately, justly, and sustainably.

A few important definitions of CSR are given below:

"The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time" (Carroll, 1979).

The World Business Council for Sustainable Development defines CSR as "The continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large" (WBCSD,2000).

The concept of corporate social responsibility is multifaceted. It consists of four interconnected dimensions: economic, legal, ethical, and philanthropic. What is known as

 ISBN NO: 978-81-962963-4-6

"corporate social responsibility" encompasses society's current economic, legal, ethical, and philanthropic expectations of organizations.

Carroll Economic Dimension: This dimension relates to a company's duty to the company, such as ensuring reasonable returns to investors, proper pay for employees, offering goods to customers at reasonable prices, appropriately responding to business risks, and so on. The economic dimension is the first and most important factor. It serves as the foundation or starting point for all other dimensions.

Legal Dimension: In order to be considered socially responsible, a company must follow all applicable laws and game rules. Laws are directives and rules that outline what behavior is acceptable and unacceptable. To survive in the long run, every business must follow these codifications of dos and don'ts. The ethical dimension reflects what society expects of corporate entities. The general public expects businesses to go above and beyond the call of duty in order to better serve them. In addition to their fiscal and legal obligations, it is what the public expects from companies.

The philanthropic dimension represents the companies' selfless desire to assist their employees, neighbors, or society as a whole. This is something that the general public desires. The decision to support charitable organizations, educational institutions, the environment, or other causes is entirely up to the company. Only a few researchers mentioned the three dimensions of stakeholders, voluntarism, and environment specifically. The stakeholder dimension addresses the business's responsibility to its stakeholders, which include shareholders, employees, customers, clients, suppliers, and the government. Companies must be aware of their obligations to them and strive to align their goals with those of the company. The voluntariness dimension reflects the organization's voluntary desire to improve society as a whole and make it a better place to live. The primary focus of the environmental dimension is the company's obligation to the ecosystem. They must make an effort to balance environmental and financial goals. Green actions must be taken to protect our environment and promote sustainability.

The various reasons or factors driving CSR in India are as follows:

 ISBN NO: 978-81-962963-4-6

a) **Cost Management:** One of the driving forces behind CSR in India is cost management, which is critical for businesses to remain viable in this competitive business environment. Companies that operate on a limited budget are seen as responsible and sustainable. For example, the cost of carbon dioxide and other greenhouse gases to the nation is enormous. A company finds a way to reduce harmful gas emissions while also benefiting the environment. This driver is critical for assessing the company's performance and social responsiveness.

b) **Tax Relief:** The benefits of CSR, such as tax breaks, are another important factor influencing CSR. The government provides tax breaks to corporations that practice CSR in exchange for charitable work and ecosystem preservation. Tax relief is extremely beneficial to developing countries such as India. Businesses must maintain transparency in their CSR efforts in order to claim tax benefits.

c) **Customer Demand:** Customers support businesses that practice CSR. Consumer demands for companies to be socially and environmentally responsible motivate companies to contribute to society and sustainability efforts. Consumers support CSR initiatives by making the ethical decision to buy a product made by a company that participates in CSR.

d) **Value Shift:** The corporate entities' values have shifted. They believe that doing good for society is the right thing to do now that they have begun to work on ethics. They now believe that wealth creation objectives can be combined with social and environmental objectives. Because of their values, they strive to improve communities and the lives of their residents.

e) **Brand Building:** Companies believe that participating in CSR strengthens their market reputation and builds their brand. Customers and clients value businesses' efforts on behalf of society, and this encourages businesses to do their part for the greater good. As a result, they gain a better reputation in the international market.

f) **Staff Recruitment/Retention Issues:** In today's society, green hiring is becoming increasingly important. It entails locating workers at the lowest possible cost. This procedure helps to protect the environment by conserving paper and energy. E-recruitment is used by many large corporations as well as start-ups to find new employees. Companies that practice CSR have lower absenteeism and turnover rates. Employees have a high level of trust in their company when it participates in CSR. CSR initiatives increase employee participation and engagement, boosting morale and productivity (PWC-CII, 2013).

g) **There is a greater public understanding of CSR:** The government is involved in a number of initiatives that benefit society and the environment and invite corporate participation. People and businesses are becoming more aware of their industrial carbon footprint. Companies and business owners are devising new ways to conduct operations in a more environmentally and socially responsible manner in order to reduce carbon footprints. The government is now able to reach previously inaccessible areas thanks to the assistance of corporate houses and their resources. Businesses are becoming more concerned with issues such as their carbon footprint, animal adoption, children's education, assisting victims, and so on.

h) **Public Pressure**: CSR is propelled by the public's constant reminders and urging from a variety of organizations, including pressure groups, consumers, the media, other members of the public, and government agencies. They want businesses to be socially conscious and to give back to their communities and the environment. The environment, Labour laws, and human rights are the primary issues on which public pressure is focused.

i) **Investor Pressure:** Maintaining investor relations and investor pressure are two major factors influencing CSR. Maintaining positive investor relations is critical for developing countries like India. Investors put money into companies that are ethical and have a good social reputation. This increases the pressure on businesses to consider various modern issues and support CSR.

j) **Ecological Sustainability:** Small-scale actions taken by corporations can have a positive impact on the environment. Companies can help save the planet by using sustainable resources, energy-efficient technologies, hiring creative staff who can develop more environmentally friendly practices, recycling and reusing products, reducing carbon footprints, and so on.

k) **Social Media:** Social media is important in the development of CSR. People are becoming more aware of various issues. A large number of bloggers from an ever-expanding community of internet users are having a discussion about current events. As a result, corporate entities are constantly under pressure from social media and its users to demonstrate sensitivity to society and the environment. They want businesses to help build nations by upholding moral and social standards.

CSR is broadly defined as the process of conducting business in a way that benefits society. CSR strives for commercial success while upholding moral principles, the greater good, and environmental protection. CSR anticipates that businesses will conduct themselves ethically. In addition to increasing profits, company operations should focus on improving the lives of all stakeholders, including the workforce, their children, and the surrounding community, as well as the environment. CSR is now in the spotlight as a result of current global competition and technological innovation. Corporate executives are under pressure to meet the demands and expectations of stakeholders on time. Because society expects business to be conducted ethically, it is critical to priorities social ideals, as failure to do so would not be considered good business practices. According to an emerging trend, CSR is being used as a tactic to improve brand perception and gain market share. Many CSR investments aim to improve or restore the market's reputation. Corporate social responsibility (CSR) in India has progressed from a voluntary social good to a legal requirement. The release of Voluntary Guidelines on CSR by the Ministry of Corporate Affairs of the Government of India in 2009 signaled the start of a targeted strategy in this area. It served as the foundation for the addition of Section 135 to the 2013 Companies Act, which requires covered enterprises covered by this provision to incur CSR expenses and disclose the CSR undertaken.

Objectives of the Study

• To discuss about CSR provisions in India.
• To study the acceptance and implementation of CSR by Indian businesses.
• To examine various issues and challenges related to CSR.

- To investigate the staged development and application of the CSR concept in India.
- To recognize the issues that arise when carrying out corporate social responsibility
- To propose some measures to improve CSR practices in India.

Research Methodology

The research paper is an attempt of systematic review of various journals, newspaper articles, textbooks, eBooks, reports of companies, search engines, company websites, scholarly articles, research papers, and other academic publications on CSR in India. This paper primarily examines and analyses CSR evolution and challenges in India from ancient to present period. It should be noted that the secondary data serves as the sole foundation for this investigation. To make the necessary inferences, a thorough review of the literature was conducted systematically

Review of Literature

Du et al. (2010) investigated aspects of CSR communication such as message content, communication routes, and stakeholder-specific characteristics. They contend that, while CSR communication is delicate, it is critical for businesses. The main challenge is getting past stakeholders' skepticism and creating CSR attributions. Companies can employ a variety of strategies to disseminate information or promote their CSR initiatives. Corporate sustainability reports, press releases, website reporting, advertising media (billboards, TV commercials, magazines, etc.) and product packaging are some of the ways businesses publicize their CSR efforts. Businesses must strive for favorable media coverage and CSR ratings in order to improve their CSR associations.

Rahman et al. (2011) investigated a wide range of CSR issues. A variety of CSR definitions from the 1950s to the present were examined to determine CSR dimensions. CSR was viewed as a societal duty in the 1950s, and as a partnership between corporate entities and society in the 1960s. Stakeholders, ethics, voluntarism, philanthropy, environmental stewardship, and the triple bottom line were added to CSR definitions from the 1970s to the 1990s. In addition to the previously mentioned components, the CSR dimensions of the twenty-first century cover a significantly broader range of topics, such as improving citizen quality of life, human and Labour rights, environmental issues, corruption issues, and challenges with transparency and accountability.

Sharma and Mani et al. (2013) used secondary data to conduct research on 30 banks, including public, commercial, and foreign banks (annual reports of banks). The purpose of the study was to assess the various CSR initiatives undertaken by banks. They examined things like rural branch openings, lending to priority industries, environmental preservation, community welfare, women's welfare, farmer's welfare, financial literacy, and education. In addition to financial metrics, the company's performance is now evaluated based on its CSR initiatives. They concluded that, even if Indian banks continue to pursue CSR activities, greater emphasis must be placed on it immediately. In comparison to private sector banks, public sector banks contribute more to CSR.

Dubbink et al. (2014) discussed the advantages and disadvantages of openness in relation to CSR. Effectiveness, freedom, and virtue were the three main criteria used to evaluate transparency policy. Transparency improves allocation efficiency, dynamic efficiency, and inventive efficiency; however, maintaining complete transparency can be costly. Only openness will be effective if the information is of high quality and reasonably priced.

Prathima et al. (2015) attempted to depict the top ten global firms' best CSR practices. The researcher examined 115 businesses from various industries, including automotive, banking, FMCG, steel, and others. Corporate sustainability initiatives can improve innovation, retain employees, foster goodwill with the government and non-governmental organizations, and boost a company's reputation and brand. Tata Group, Infosys ITC, Indian Oil, Reliance Industries, and others are among the companies that consistently make CSR contributions. It is no longer an option to participate in CSR initiatives. Corporate entities are responsible for adhering to the specific act. As a result, it is critical to consider CSR from a strategic standpoint.

Prieto-Carrón et al. (2016) sought to update the CSR study with new perspectives in their study. They discussed the outcomes of CSR projects, the relationship between business and poverty, issues of power and participation in CSR, and governance aspects of CSR. According to them, only one aspect of CSR is currently being researched and

 ISBN NO: 978-81-962963-4-6

evaluated, while a number of sensitive issues surrounding it are being ignored. The importance of carefully weighing the benefits and drawbacks of CSR programmes in developing countries cannot be overstated. They suggested that scholars and practitioners conduct joint studies on CSR to improve effect evaluation approaches. All significant issues that have been ignored or ignored must be addressed.

Jothi et al. (2016) tried to investigate a number of factors that influence a small number of public and private businesses to contribute to CSR. Information was gathered from 318 respondents. The type of ownership, hierarchy level, gender, age, qualification, experience, and CSR motivating factors were among the factors considered. Following community demands, growing awareness, commercial pressures, reputation, and other CSR motivators, compliance with the Corporations Act of 2013 was named the most important factor. Businesses today cannot operate in a vacuum; they require a strong CSR policy and should align their corporate goals with long-term goals.

Saxena et al. (2016) investigated a variety of CSR-related issues and challenges. The author examined the history of CSR in India prior to 1900, as well as after 1900 and up to the present. Stakeholder models, statist models, liberal models, and ethical models were all investigated in conjunction with their historical contexts. For their CSR, Indian businesses are currently implementing the stakeholder model. The stakeholder model was developed in the early 1900s and continues to be used today. It operates on the basis of a triple bottom line, which includes profit, the environment, and people. Businesses, in accordance with this paradigm, make an effort to interact and communicate with all of their stakeholders, including the government, suppliers, consumers, and investors. Customers', investors', governments', and Labour market demands are viewed as the primary drivers of CSR. The key challenges for CSR are said to be transparency, a limited perspective, a lack of agreement, a lack of infrastructure, and visible factors. If CSR initiatives are to be implemented effectively by various corporate entities, the general public must be made aware of them.

Dhawan et al. (2019) investigated how Indian businesses perceive Green HR practices and how they benefit the environment. Many businesses are now implementing green HRM, or incorporating green practices into all aspects of HR practice within the organization. Green hiring, green screening, green training and development, green

 ISBN NO: 978-81-962963-4-6

performance evaluation, and other topics were discussed by the researcher. By incorporating green practices into every HR action, businesses attempt to combine environmental goals with profit maximization goals. Despite the fact that G-HRM is still in its infancy in India, the future looks bright. It will be extremely effective if implemented with careful planning and strategy. Reduced carbon and environmental footprints can help a company become more environmentally friendly.

CSR Provisions in India

CSR is addressed in Section 135 (Corporate Social Responsibility) Rules, 2014 and Schedule VII of the Companies Act, 2013. Every company, including its holding and subsidiary companies, with a net worth of Rs. 500 crores or more, a turnover of Rs. 1000 crores or more, and a net profit of Rs. 5 crores or more must adhere to all CSR provisions. Every company that is eligible to participate in CSR is required to form a CSR committee of the board. According to the company's CSR policy, the board of directors must ensure that the company spends at least 2% of its average net profits made in the three immediately preceding fiscal years in each fiscal year.

Companies were previously required to comply or provide reasons for noncompliance and then get away with it. However, according to the new amendment (2019) to Section 135 of the Companies Act, 2013, getting away will be difficult. The section has been amended to include a provision requiring a company to transfer funds to a fund specified in Schedule VII, such as the Prime Minister's National Relief Fund, if it is unable to spend the target amount set aside for CSR activities. The unspent amount of money must be transferred to the specific fund within 30 days of the end of the third fiscal year. If a company violates the provisions of Section 135, it must pay a fine ranging from Rs. 50,000 to Rs. 25,000,000. Officers may also face up to three years in prison under the provisions. The act's penal provision binds all corporate entities meeting SR criteria to perform Corporate Social Responsibility (CSR) and defines the penalties and imprisonment for violating CSR norms.

Companies can contribute to the following causes:

1. Wrapping up hunger, malnutrition, and poverty.

1. Wrapping up hunger, malnutrition, and poverty.

 ISBN NO: 978-81-962963-4-6

3. Providing educational and employment assistance that can improve vocational skills
4. Promoting gender equality
5. Ensuring long-term viability
6. Preservation of heritage, art, and culture
7. Contributing to the welfare of the country's armed forces
8. Sports activity promotion and training
9. Contributing to the rescue operation

CSR's Role in the Indian Context

CSR is extremely important in the Indian context. Though the Indian economy is growing at a reasonable rate, poverty, education, primary health care, sanitation, skill gap, drinking water, and other areas require significant attention and resource allocation. According to the Oxford Poverty and Human Development Initiative's study, approximately 51 percent of India's population is poor. It will now be a priority for CSR to assist the poor in obtaining gainful employment, basic health care, water, shelter, and primary education. CSR can lead to inclusive growth in the Indian context. It will combine governmental and corporate efforts to achieve sustainable development. Government welfare schemes do not always reach the last man, but CSR supplements to government schemes can compensate for this by reaching the underprivileged population.

 ISBN NO: 978-81-962963-4-6

CSR initiatives and green measures by Indian companies

Sr. No.	Company	Cases
1	Honeywell India	Honeywell has a presence in Fortune 100 software and industrial firms. This company offers industry-specific solutions (including aerospace and automotive), technology controls, and performance materials. The company is dedicated to making the world a better place by incorporating sustainable activities into its operations and contributing to CSR. Honeywell Hometown Solutions India Foundation (HHSIF) is a non-profit organisation that complements the Indian government's CSR schedule with its global CSR framework. Their CSR efforts are focused on the following areas: 1. science and math education 2. family safety and security 3. housing and shelter 4. sustainability 5. humanitarian relief HHSIF receives the "CSR Foundation of the Year Award" at the Dalmia Bharat CSRBOX 6th CSR Impact Awards. Honeywell's top CSR initiatives include: 1. Honeywell Science Experience 2. Safe Kids at Home (Education Program) 3. Initiative Honeywell-Safe Water Network 4. Honeywell Secure Schools 5. Honeywell Center for the Advancement of Girls in Science (Source: India Education Diary.com)
2	TATA Group	Tata Consultancy Services (TCS), a technology and consulting leader, has contributed Rs. 434 crores to various sustainable development programmes, helping society and the environment. CSR efforts include health, the environment, education, and skill development. N Chandrasekaran, Chairman of the Committee, O P Bhatt, Rajesh Gopinathan, and Aarthi Subramanian are members of the Company's CSR committee of directors. The committee's meetings are held on a regular basis, resulting in a significant social impact. (Source: India CSR Network)

3	ITC Group	According to their 15th sustainability report for the fiscal year 2017-18, the multi-business conglomerate spent Rs. 291 crores on CSR. Their areas of expertise include: 1. Health and sanitation 2. Water supply 3. Poverty eradication 4. Education 5. Vocational Training 6. Livestock Development 7. Income Generation 8. Empowerment of Women 9. Environment Protection 10. Conservation of Soil and Moisture 11. Social Forestry 12. National heritage, art, and culture protection 13. Agriculture Development The company has a comprehensive CSR policy and has formed a CSR committee. (Source: India CSR Network)
4	Reliance Industries	According to their annual report, the company spent Rs. 904 crores on CSR initiatives and programmes in fiscal year 2018-19. Their work includes the following areas: 1. Rural Transformation 2. Health 3. Education 4. Sports for Development 5. Disaster Response 6. Arts, Culture and Heritage 7. Urban Renewal. Reliance industries contribute to society and the environment. They are attempting to meet the Sustainable Development Goals (SDGs) outlined in the United Nations' 2030 Agenda for Sustainable Development as well as national goals for sustainable development. (*Source:* India CSR Network)

 ISBN NO: 978-81-962963-4-6

5	IBM	It is India's largest multi-national software exporter. In 2010, the company received the Golden Peacock Award for CSR for its emphasis on values and ethics in business operations. IBM applications: 1. IBM Reinventing Education Program: To date, it has assisted up to 50 government schools in both rural and urban underdeveloped areas. It assists schools in integrating ICT and pedagogy tools, resulting in more effective and intelligent learning. 2. Smart Rural Aggregation Platform: This ICT-enabled programme offers smart solutions to Lucknow's rural entrepreneurs. (*Source:* India CSR Network)
6	Mahindra Group	It is a multinational conglomerate based in India. In the fiscal year 2019, the Mahindra Group, along with Tech Mahindra and its other subsidiaries, contributed Rs. 240 crores to CSR activities. Health, education, and the environment are examples of domains. The company believes in driving positive change and contributing to societal improvement. Since 2005, they have been contributing to society and the environment. Several programmes: 1. Celebrate Differently—Rise in opposition to climate change. Plant a tree, Hariyali. 3. Nanhi Kali- For the education of girls. 4. Employee Social Options Plans (ESOPs)- A programme in which employees give back to society by participating in various initiatives. (*Source:* Economic Times)
7	Maruti Suzuki	It is a pioneer in the Indian automobile industry. Maruti Suzuki has made significant contributions to Corporate Social Responsibility initiatives. Road safety, employee engagement programmes, skill development, and community development are all areas of focus. (*Source:* India CSR Network)

8	Coca Cola India	Coca Cola India Private Limited (CCIPL) has created a wholly owned subsidiary, Coca Cola India Foundation, which is a non-profit organisation. The foundation has been working on a number of projects in various Indian states, including: 1. Waste resource and waste management initiatives—"Doh Bin" is one of them. 2. Solar energy initiatives. 3. The VEER Campaign, in partnership with CNN-IBN, the Being Human Foundation, and the American India Foundation (AIF). 4. Parivartan: A retailer training programme. 5. Support My School (SMS) Campaign: To raise awareness about education. 6. Lake revitalization projects. This foundation follows a systematic plan to achieve its goals of water conservation, energy conservation, healthy and active lifestyle promotion, and social welfare. (*Source:* cocacolaindia.com)
9	SAIL	The company holds the prestigious title of "Maharatna" and is India's largest steel manufacturer. SAIL strives to align its business goals with social and environmental goals. It is committed to upholding high ethical standards within the company. The company has made significant contributions in the following areas: health, education, water conservation, village development, solar energy (alternative sources of energy) projects, disaster relief, agricultural vocational training, sports, and the preservation of art and culture. The company has received numerous awards and recognitions for its role as a responsible corporate citizen and contributor to national development. (*Source:* India CSR Network)
10	Infosys	Infosys Limited is a digital and consulting services conglomerate. According to its annual report, it spent Rs. 340 crores on CSR activities in 2018-19. The company was a pioneer in CSR policy and initiatives. They established the Infosys Foundation, a non-profit organisation. The foundation's goal is to develop the community and meet its CSR commitments. 1. Health (including hunger, poverty, and malnutrition) 2. Education 3. Rural development 4. Gender equality initiatives and women's empowerment 5. Long-term environmental sustainability 6. Art, culture, and national heritage preservation. In order to implement CSR programmes, they formed a CSR committee. (*Source:* India CSR Network and infosys.com)

 ISBN NO: 978-81-962963-4-6

Evolution of Corporate Social Responsibility (CSR) in India

Religious practices in ancient India reflected social issues. All major world religions emphasized humanity's concern and service. The offerings for humanity were created by studying all religions. It compelled people of all socioeconomic backgrounds to set aside a portion of their earnings for charitable purposes. It was given various names by various religions. In its original form, CSR evolved from philanthropy. Donations and charity were regarded as social good deeds. CSR was influenced by culture, religion, and family values. Prior to the industrial revolution, merchants would contribute a portion of their profits to the construction of temples, hotels, and pharmacies.

During the Colonial era, Indian industrialists engaged in business with a focus on economic and social well-being. Donating to charitable causes and social good programmes was once considered an honor for large industrial corporations. Gandhi made extensive use of CSR during the independence movement. He desired that the industrial complexes function for the benefit of the common man. He urged them to support the poor, freedom of movement, and national interests. The Trust's concept gained traction. Gandhi's reforms, which aimed to end untouchability, develop rural and underdeveloped areas, and give women more power, had a significant impact on the operations of these trusts. Between 1960 and 1980, a mixed economy was prioritized. Public sector enterprises were established to create widespread employment and to develop the economies of remote areas. These initiatives were launched for financial reasons, but their primary objectives were social in nature. Environmental and Labour laws were also enacted. In 1965, influential political figures, businessmen, and members of Indian society convened for a workshop on CSR. Accountability, transparency, and regular stakeholder communication were decided upon. Despite these efforts, CSR was unable to gain the desired traction. Between 1980 and 2013, the Indian economy was first exposed to the global economy. Globalization, liberalization, and privatization (LPG) were all trending upward. Indian companies abandoned traditional CSR in favour of using it as a business strategy. During this time, business volumes increased, encouraging companies to make voluntary investments in CSR.

For the first time, the Indian government issued voluntary guidelines in 2009 to formally mandate CSR. In 2000, the Task Force on Corporate Excellence concluded that CSR is beneficial on both a social and financial level. It was more like a suggestion. In 2009, a clear distinction was made between philanthropy and corporate social responsibility for the first time. These recommendations were revised once more in 2011. The main goal of these rules was to promote inclusive growth. Corporations were required to follow nine principles. The transition from voluntary CSR to regulated CSR became clear when the Stock Exchange Board of India (SEBI) made CSR disclosure mandatory for the top 100 listed companies in accordance with clause 55 of the listing agreement.

The Securities Exchange Board of India (SEBI) mandated that the top 100 listed companies disclose their CSR activities in the Business Responsibility Reports (BR Reports) that accompanied the Annual Reports, in accordance with Clause 55 of the Listing Agreement. CSR activities of corporations were made legally required for the first time with the passage of Section 135 of the Companies Act 2013. (MCA, 2013). In addition to CSR implementation, reporting was made mandatory. Corporate, on the other hand, has complete control over how the CSR funds are spent. The law takes a "compliance-or-explain" approach, with no clear consequences for noncompliance. India is the world's first country to require covered corporations to report their CSR spending. In other parts of the world, CSR activities are still voluntary, but reporting is required. Section 135, on the other hand, mandates CSR rather than making CSR reporting mandatory.

Issues & Challenges

It is difficult to run a business while considering social responsibility. Businesses today must consider more than just profits if they are to satisfy their stakeholders. They are still learning how to balance the company's strategic goals with social and environmental concerns. Businesses must recognize new opportunities and use them to address societal issues. In order to create shared value, they must combine business goals with sustainability and social goals. The company should incorporate CSR into all aspects of its operations and be very clear about where its investments should be directed.

The following are some of the challenges that businesses will face when implementing CSR:

1. Lack of understanding of CSR in Indian society: CSR activities continue to receive scant attention and participation. Companies that participate in CSR initiatives may fail to establish effective communication with the affected society on occasion.

2. CSR Network Capabilities: Non-governmental organizations (NGOs) that are used as tools for CSR execution lack the necessary resources. NGOs lack the knowledge and professionalism required to handle CSR implementation and follow-up. In order to equip this machinery, they must become more proficient and efficient.

3. Lack of Transparency: Transparency is a critical requirement for the successful and effective implementation of a company's CSR policy. CSR and transparency go hand in hand. This allows various company stakeholders to gain a comprehensive understanding of the issues that are important to them. Window dressing is a technique used by businesses to conceal information from stakeholders. Today's society requires CSR, which necessitates CSR transparency. The current level of corporate transparency is completely insufficient. Businesses do not make enough effort to disclose relevant information. This is a barrier to the growth of community and corporate trust. Lack of transparency is the most serious issue confronting CSR today, as it is critical to the success of any CSR initiative. Some businesses are hesitant to be open about CSR funds, implementation, and reporting. As a result, trust-building, which is critical to the success of any CSR initiative, is hampered.

4. Non-governmental organizations (NGOs): There are still not enough NGOs to handle CSR activities in rural and remote areas, where they are most needed.

5. Advertising: The focus of CSR initiatives can be induced through gratifying and significant publicity. The publicity should not be used to set up a photo shoot.

 ISBN NO: 978-81-962963-4-6

6. Perception: Historically, CSR initiatives have been viewed through a narrow lens, which occasionally demoralizes corporations. For the public to support CSR initiatives, widespread awareness must be raised.

7. Lack of clarity in CSR regulations: CSR regulations are unclear. CSR priorities, activities, and CSR funds allocated to each type of activity are all missing. A CSR implementation will be successful if clear directives and objectives are established.

8. Implementation: Another issue is the appropriate and consistent deployment of CSR activities. A lack of cohesion among the implementing agencies can sometimes result in duplication or ignorance of some areas.

9. Balancing the interests of the company's shareholders with its development goals: Balancing social responsibility and economic performance is a significant challenge and extremely important. The creation of shared and sustainable value, which integrates the company's development goals with the interests of its stakeholders, is a significant impediment on the road to CSR.

10. Greenwashing: Inequality is widespread in India. The CSR law lacks a coercive enforcement mechanism and falls short of addressing inequality. CSR creates the appearance of progress because it is not sufficiently transparent. As a result, widespread greenwashing occurs. This is one of the most significant barriers to CSR effectiveness and compliance.

11. Inadequate Financial Resources, Local Capabilities, and Infrastructure: CSR may necessitate substantial investment. As a result, businesses must plan and priorities their investments carefully. Prior to launching initiatives, it is necessary to carefully plan the resources to be used and the problems to be solved. There is also a lack of appropriate infrastructure and local capacity. Because there are no reliable governmental or non-governmental organizations to support CSR, it is critical to develop local capabilities and infrastructure facilities for effective CSR implementation.

12. Lack of Consensus: Due to a lack of consensus among various local agencies and corporate entities, businesses' CSR initiatives are duplicated. This encourages unnecessary competition among businesses, which is counterproductive to the primary goal of adding value to society.

13. Lack of Community Participation: Communities where CSR is to be implemented are less interested in the initiatives and programmes that organizations plan. Long-term commitment from businesses is required, as is an effort to engage the workforce, as well as personal commitment and strategic planning from leaders. Instead of just talking about it, do something about it. Strategic CSR execution is critical for increased effectiveness and efficiency.

14. Failure to Consider a Holistic View of CSR: Companies continue to view CSR in a limited manner. They are unable to comprehend CSR's holistic viewpoint, which holds that CSR affects nearly all of the company's stakeholders as well as society and the environment as a whole.

Suggestions & Recommendation

- Raising general public awareness of Corporate Social Responsibility.
- Creating a long-term goal and a sustainable perspective on CSR activities in order to bridge the gap between all important stakeholders and effectively implement CSR activities.
- Companies must consider a variety of issues to address through their CSR practices. To avoid duplication of efforts, they should consider the development agenda in a much broader context.
- The pooling of resources and creation of synergies by businesses and non-governmental organizations for more efficient and effective CSR activity implementation.
- Efforts should be made to help the poor and underprivileged in both urban and rural areas.

 ISBN NO: 978-81-962963-4-6

- The government should give awards and recognition to corporations that help the needy and poor.

- Raising student awareness by making CSR a required subject or discipline in schools, colleges, and universities. This approach will inspire young people and prepare them to face future challenges. Also, to provide more innovative solutions for the overall benefit of society and the environment.

- Sustainability Reporting: Because of the growing awareness of sustainability issues, sustainability reporting is gaining traction. The Global Reporting Initiative is an organization that provides a framework for sustainable reporting (GRI). GRI's guidelines on sustainability reporting are widely used by corporations. A sustainability report is a proper presentation of the company's sustainability performance. It includes both positive and negative contributions to sustainability made by an organization. It discloses all relevant information about the organization's goals, strategies, commitments, and approaches.

Conclusion

According to studies, reviews of papers, and reports on CSR in the Indian context, efforts are not coordinated and focused. To ensure effective CSR implementation, a national policy framework is required. The government could create such a framework after extensive consultation with all stakeholders. Efforts should be made to reduce repetition, increase value for money, and achieve development goals. Broader CSR publicity and the adoption of a clear policy framework for CSR implementation will aid in achieving the goal. Companies should priorities long-term growth.

To make CSR more effective and meaningful, current practices and applications may be reviewed in order to develop a more comprehensive CSR approach. To adopt any implementation strategy, CSR expectations must be clearly kept in mind. CSR should be in line with the organization's vision, mission, and values. This should be communicated clearly to all parties involved. Another aspect of CSR transparency is reporting. In accordance with the provisions of the law and the guidelines established by the government from time to time. Impact assessment of CSR projects should always be done with a specialized third party. CSR investment returns can be scaled, measured, and visible. It would be ideal if CSR outcomes

 ISBN NO: 978-81-962963-4-6

were a win-win situation for all stakeholders. The key to success is need-based CSR implementation and proper monitoring. It is also critical to raise awareness about CSR programmes and their implementation in the society to which they are directed. NGOs involved in execution must be fair, alert, and sensitive. Professionalism is critical in the work of non-governmental organizations. CSR is still in its early stages in India, so it must be nurtured with great care. At the same time, what is commendable is the spirit with which India has made corporate social responsibility a priority, leading the world's most developed nations in this regard.

Corporates all over the world have recognized the importance of CSR in their business models. CSR is now recognized as an essential component of business growth and survival. To improve business, corporations are now focusing on business-aligned CSR policy and implementation. There is a prospectus for future CSR research work to propose a model of CSR spending, areas of CSR activities in their order of merit for selected regions and populations. It is for the simple reason that demographics and geography alter CSR expectations. The role of leadership and the qualities of leadership that motivate CSR efforts can also be studied. A systemic approach paper could be attempted to identify welfare gaps from government budgets and Planning Commission reports, as well as to set direction and objectives for CSR initiatives region-wide/nationally.

References

- Companies Act (2013), http://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf.

- CSR Outlook Report for India (2016). NGOBOX, A snapshot of CSR spending by 250 large corporations in 2015-16. www.ngobox.org/media/IndiaCSROutlookReport2016-NGOBOX.pdf.

- D.S. Prathima (2015): The 10 Companies with the Best CSR Reputations. Paper ID: Z5100, Proceedings of the Second European Academic Research Conference on Global Business, Economics, Finance, and Banking (EAR15 Swiss Conference).

- Du, S., and C.B. Bhattacharya, 'Maximizing Business Returns to Corporate Social Responsibility (CSR): The Role of CSR Communication,' International Journal of Management Reviews, Vol. 12, No. 1, p. 56, 2010.

- E. Sharma and M. Mani (2013), 'Corporate Social Responsibility: An Analysis of Indian Commercial Banks,' AIMA Journal of Management & Research, Vol. 7, No. 4, pp. 56-62.

- Jothi, M. (2016), 'Driving Factors of Corporate Social Responsibility Practices in India: An Empirical Study Based on Selected Executives' Perceptions from Public and Private Firms in India,' Amity Journal of Corporate Governance, Vol. 1, No. 1, pp. 39-53.

- M. Prieto-Carron, P. Lund-Thomsen, A. Chan, A. Muro, and C. Bhushan, 'Critical Perspectives on CSR and Development: What We Know, What We Don't Know, and What We Need to Know,' International Affairs, Vol. 82, No. 5, pp. 977-987.

- N. Saxena, 'Corporate Social Responsibility: Issues and Challenges,' International Journal of Research and Scientific Innovation, Vol. 3, No. 1, pp. 41-46, 2016.

- PTI-Economic Times (2016, Mar 10). In 2014-15, PSUs spent over '2400 cr on CSR. This information was obtained from http://economictimes.indiatimes.com/topic/CSR-spending

- PTI-Economic Times (2016, Mar 15). Arun Jaitley, Finance Minister, claims that corporations spend nearly 76% of their CSR budget.
- Retrieved from http://economictimes.indiatimes.com/topic/corporate-social-responsibility-spending

- PTI-Economic Times (2016, Mar 27). According to a survey, most corporations anticipate increased CSR spending in the coming fiscal year. This information was obtained from http://economictimes.indiatimes.com/topic/CSR-spending.

- PTI-Economic Times (2016, Jul 19). CSR: 2,351 businesses spend nothing, while 776 work with non-governmental organisations. This information was obtained from http://economictimes.indiatimes.com/topic/CSR-spending

- S. Dhawan, 'Green HR Practices and Environmental Sustainability: A Study of Indian Companies,' Journal of Emerging Technologies and Innovative Research, Vol. 6, No. 4, pp. 501-508.

- S. Rahman, 'Evaluation of Definitions: Ten Dimensions of Corporate Social Responsibility,' World Review of Business Research, Vol. 1, No. 1, pp. 166-176, 2011.

W. Dubbink, J.J. Graafland, and L.V. Liederkranz, 'CSR, Transparency, and the Role of Intermediate Organizations,' Journal of Business

ISBN NO: 978-81-962963-4-6

Theme: Future of Society

Sub Theme: CSR in a competitive Business environment

Title: Fresh water Governance and water usage analysis of Industries and domestic usage in India and attributes for conserving industrial water usage.

Author

Dr.Mahalakshmi.V

Head of the Department of M.Com

DayanandSagar Institutions

Kumarswamy layout

Bangalore

maha.5299@gmail.com

9980005656

ABSTRACT

Water is the major essential and basic requirement of every life on this earth. Fresh water is vital for all life supporting systems in this world, it is used for producing food, power generation, industry, sanitation etc. Governance of fresh water is essential for equitable distribution and balancing of growing demand for freshwater due to increased population and development activities. Good water governance is necessary for fairly allocating water resources and avoid disputes. From the total available water major portion of water is used for domestic purpose. Industrial and manufacturing businesses use 12 % of the public water supply, Industries like food, paper, chemicals, semiconductors and chips used in computers and cell phones including dairy, sugar mill, oil and gas automotive etc use high level of water. Most of all these industries are located in and around the cities and only few of them are away from city limits. This study concentrates on the issue of shortage of water supply in cities or towns due to sharing of fresh water with Industries and other business sectors which can otherwise operate much far away from cities and towns near water bodies without using public freshwater supplied through pipe lines. An analysis of the freshwater governance to identify which sectors has high consumption level of fresh water and which industries have to operate within cities sharing water along with public, identifying industries which can use the water resource from lakes or ponds far away from cities, this division and allocation of permission to industries contributes to balanced distribution of piped freshwater supplied to cities and cater to hassle free supply of water to domestic use and specific industries which need to operate within cities and the rest of

other industries to move to places near lakes or rivers. This allocation or division will also be helpful for maintaining public health and wellbeing and sustainable supply of freshwater all the yearlong to general public in any town or city. The study also poses few attributes which can conserve water usage of industries.

Key words: Fresh water Governance, balanced distribution, general public, Industry, water usage

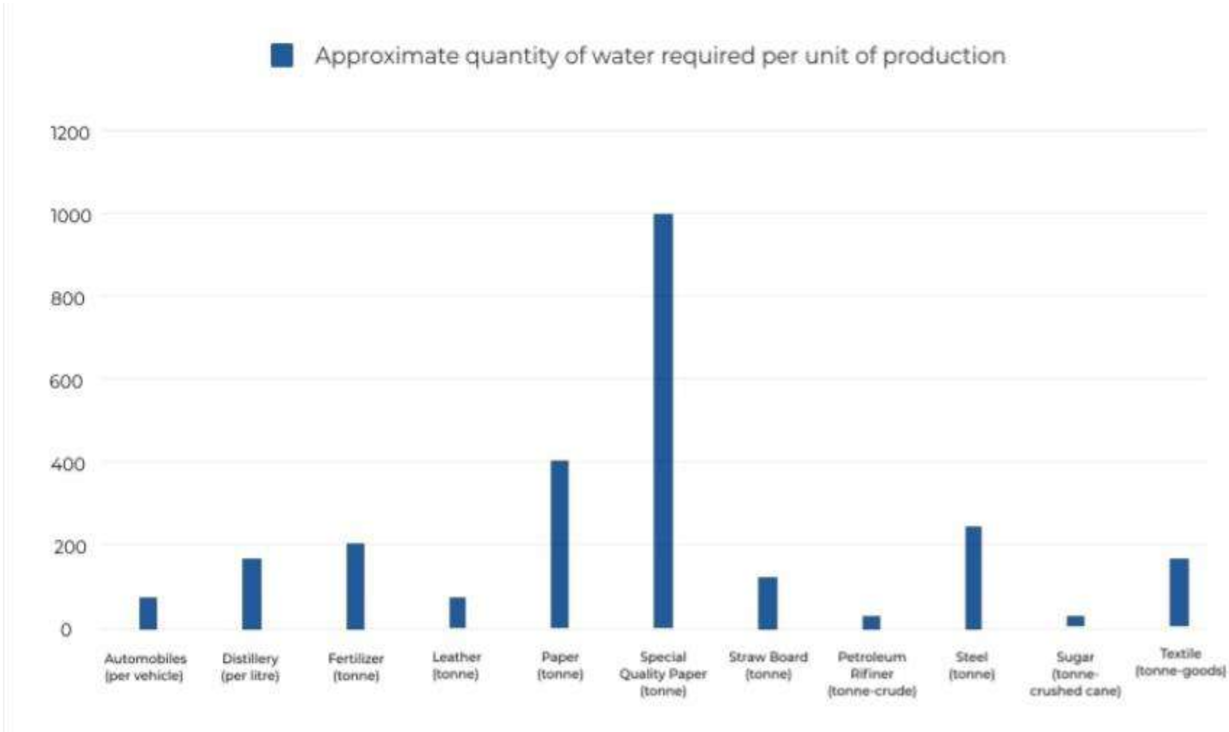
1. Introduction

India is the most populous country in the world which accounts 17.1% of world'spopulation. From the last one decade booming economics, population growth and rapid urbanization have considerable impact on India's water demand. Due to rapid economic and demographic changes, the demand for water is increasing day by day. As per the report of Asian Development Research Institute, irrigation sector alone will need additional water, and Industries water demand will range from 65 to 80 billion cubic meters (bcm) by 2025-2050 with the present 37 bcm consumed by Industries. Increase in demand and developmental activities is changing the scenario of water condition in India. At the same time good freshwater is necessary for good human health and the ecosystem, keeping a runningflow of healthy waterwith a sustainable distribution of water supply among public and industries is a challenge. Major part of the freshwater get polluted due to waste water and industrial production, there is no sufficient system created to manage wastewater generated daily in India. Rain fall is abundant in India, many rivers are flowing throughout the year and lakes have sufficient water all years long, in spite of these features India faces scarcity of fresh water in cities and rural areas during summer.

National water policy AMRUT 2.0 focuses on making the cities self-reliant and water secure. There are both public and private water control boards, the wellbeing of the society is dependent on the reliable drinking water. The supply of water is handled by Panchayati Raj Institutions PRI in rural areas, Municipalities in urban areas called urban local bodies ULB. Fresh water governance is necessary and need of the hour to balance the supply of water between public and industries specifically in cities. Public demand for water is mainly for all domestic uses, industrial demands include water for stores, offices, hotels, laundries restaurants and mostly manufacturing plants. While planning the water allocation system by local bodies' priority should be in order of drinking water, irrigation, hydropower, ecology.

In India, the domestic water consumption is about 135 litres per capita per day (lpcd) for the urban regions and 75 litre per capita per day (lpcd) for the rural regions totally which accounts for 4% of the water footprint. About 30% of the country's population is supplied with safe drinking water though with limited supplies. The amount of domestic water consumption per person varies as per the living conditions of the consumers. Around 50% - 60% of the total water consumption is accounted for the domestic water consumption in India. According to the Ministry of water resources, water is used in industrial areas of the country accounting about 6% of water available. Water Demand amongCertain Important Industries are taken as information from a study as shown below

Water demand in various industry



From the above graph the research has indicated that special quality paper production, paper production and steel industry consume high level of water per unit of production, followed by distillery, fertilizer and textile.

The objectives of this study are

Objectives

1. To analyse about industries which are using highest water
2. To determine attributes for conservation of water by Industries

 ISBN NO: 978-81-962963-4-6

Methodology

This study is the review of data available regarding water resources, usage and conservation reports of National,International organisations and local bodies. Secondary data is obtained to collect information relevant and required for analysis. Online publications, reports of national and International policies and reports are referred for the study.

This para starts from Introduction, next para 2 contains the data collected about distribution of freshwater- globally, in Indian perspective-Industrial and domestic usage statistics, para 3 descriptive Analysis of the data, para 4 attributes for conservation of water, para 5 limitation of the study, para 6 conclusion.

2. Industries which have highest water usage

Distribution of fresh water:

Out of the total water available on earth 96.5% is in oceans, 2.5% is fresh water and 0.9% is other saline water. From the total freshwater available on earth, 68% isin the form of ice and glaciers, 30% is in the ground and

remaining on surface in the form of rivers, lakes ponds used for different purposes. In urban areas piped water supply from rivers, natural lakes, reservoirs or deep wells are connected to properly planned network pipe lines connected to all areas in cities. Integrated water management system is a process which ensures water supply as a holistic process, the water situation should be gauged for the local bodies to link water distribution process with city development plans,and integrated policies can help in sustainable development and ensure balanced distribution of water at every level. To have a sustainable running water for domestic use, water used for industrial purposed should be saved by shifting such industries which needs no fresh water but, other sources of water can be used in their processes. Global water availability shows that fresh water available is 0.76% .Distribution of freshwater in Indian scenario beginning from total water distribution to specific with public distribution and industrial distribution. The statistics in India is as mentioned below:

Table 1

Few Globalwater rankings of India

Water availability per person p.a 133th rank	
Water quality record	120th rank out of 122
Hydroelectric power capacity	5th rank
Acute water stress	13th rank

ISBN NO: 978-81-962963-4-6

Ground water exporter	3rd rank

Table 2

Fresh Water usage of India

Global water % of fresh water available	**0.76%**
India Water usage as % of World water	17.1%
India fresh water % of world fresh water	4%
Utilisable water flow % of annual water flow	94.12%

Table 2.1

Industries using highest water in India

Industry consumption % of freshwater available (from publicsupply) 12% around 500 billion cubic meter water per year, as per CPCB (central pollution control board)

Thermal power plant % of water used	88%(440 billion cubic meters)	
Engineering	5.05%(25.25 billion cubic meters)	
Pulp and paper	2.26%	(11.3 billion cubic meters)
Textile	2.07%	(10.35 billion cubic meters)
Others	2.62%	13.1 billion cubic meters

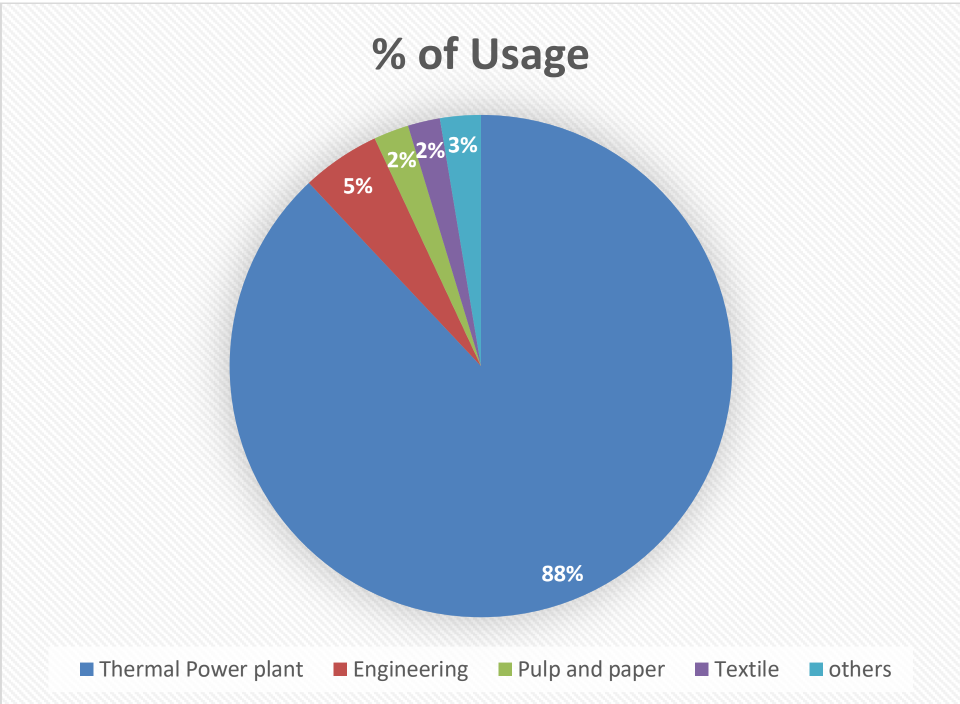


Figure 1: Industry usage of freshwater (Highest water users)

The graphical representation of data collected on highest water users in industry category is indicated in the analysis, it indicates that thermal power consumes highest water and only 3% is available for other uses.

Table 2.2

Domestic water usage in India

(Domestic consumption % of Total wateravailable (including groundwater) 60%)

Per capita water availability 1588 cubic meters(15,88,000 liters)

Drinking water usage(urban) 135 liters per head per day (lpcd)

Cooking 5 lpcd

Sanitation purpose % of fresh water 55 lpcd

Washing (clothes utensils house) 40 lpcd

Industry consumption is 1643 lpcd (approx.)

Domestic and industry consumption is 235 + 1643 lpcd = 1878 lpcd which is higher than available percapita water.

Industry draw water without any hassle but the sufferers are the general public.

Average daily water intake of an individual is analysed inage group of 30 to 44 years is 2.26litres per day[6]. Even though we reduce usage in one requirement we consume balanced in other requirement depending on geographical situations and environment. If we reduce the consumption of water conservation may be possible but, it is only a fraction of savings does not contribute to high level saving unless big industries reduce water consumption from fresh water and save for public use.

3. Descriptive Analysis

Fresh water includes both surface water and ground water used by public, industries, irrigation and other requirements. In this study fresh water governance is analysed for equitable distribution of public water supply for most required developmental activities and decisions regarding balanced division and distribution of water between public and industries are guided. From the above data industries use 500 bcm of fresh water as against 60% of freshwater for domestic purposes.

In this study the data starting from global ranks in important water levels are listed to focus down to identifying freshwater availability in India and further poses the details regarding usage of freshwater by industries as against domestic use. The analysis of the gathered data from various reviews is provided as under.

 ISBN NO: 978-81-962963-4-6

Table 1 Indian perspective in Global waters: Indian ranking is good in terms groundwater exporter and hydroelectric power with 3rd and 5th ranking respectively indicating highest loss of water which may have led to acute water stress in India.

Table 2 Water usage in India shows India uses 17.1% of globally available water and uses 4% of available freshwater in India, in spite of yearlong flowing river water source, ice and glaciers and abundant rainfall the utilisable water is less because of no sufficient preservation system compared to other developed countries.

Table 2.1 Thermal power plants use water mainly for cooling which can other wise use other than public water for cooling. According to the Water resource Institute upto 40% of thermal power plants are located in the area facing acute water shortages i.e 40% power plants are causing water shortage,19% plants declare non-compliant and 14 plants report using sea water, which exempts from complying water norms, nearly 269 power plants were there by 2019. Their water consumption of 88% of water could fulfil the water needs of four cities for two days according to the study by TERI (The energy and resources Institute). On the other hand solar plants consume a fraction of water used by thermal plants. This indicates that these industries should be compulsorily located out of urban areas or out of supply area of public water.

Engineering and construction industry use nearly 41% of surface water, 24% of municipal water that is public water supply. According to a survey conducted by FICCI water mission responses were obtained from sectors like automobile, construction, real estate, IT, food processing etc. almost all industries faced shortage of water, around 24% of industries have waste water treatment and using for industrial process, they are also of the idea to join hands with government and local body to work on water conservation. All these industries are normally located near cities sharing public water.

Paper Industries, one of the highest water consuming industry nearly 10% of fresh water goes to make paper, up to 20 litres of water goes for production of one A4 sheet paper. Paper industries are located in cities using public water.

Textile industries in India uses 4% of fresh water globally, for the process like dyes, and chemicals, washing and rinsing i.e 200 to 250 cubic meters for per ton of cotton cloth produced in India.. Annually 93 billion cubic

meter of water used equal to 37 million Olympic swimming pools of water. Industries are located in cities sharing public water.

Thus, all industries which use highest water are using freshwater from public water supply and are located in urban or city areas sharing water. .

ISBN NO: 978-81-962963-4-6

Table 2.2 Domestic water usage in India is 60 % of total fresh water available out of which 135 litres per head per day for drinking, 5 lpcd for cooking, 55 lpcd for sanitation, 40 lpcd for washing and total water consumption per individual is 2.26 litres. Approximately total usage of water for domestic purpose is 235 lpcd.

Thus, the following is the interpretation of the descriptive analysis of the data gathered about the water usage of industries which use highest water:

1. Industries which are involved in exporting ground water should be reduced, dependency on hydroelectric power should be reduced
2. Thermal power projects need water mainly for cooling which can otherwise be supplied from sea water
3. Engineering and construction can be supplied water from lakes or industry discharge treated water. Except food processing industries other manufacturing industries should not be permitted license even with single pipeline of normal public water supply.
4. Paper industries can strictly be ordered to use only treated water and should be granted permission to setup unit only around water treating points.
5. Textile industries are run in small scale in India especially process like dyeing, rinsing etc. Home based dyeing units should be banned because they use lot of public supply water for dyeing and rinsing.
6. Thermal power plant use 3000 litres of water for 1 megawatt-hour of electricpower,(1 cubic meter is 150 litre of water)
7. The water available for domestic use is 61000 cu.ft(17,50,700) litres)of freshwater per person every year, means 4976 litres perday per person is available. As per data collected 235 lpcd is used per day per person for different domestic purpose. This shows that only a fraction of available water is used by public and remaining water is shared with industries which is causing water stress at high level.

From Table 2.1 and 2.2 the water availability and usage by industries and domestic purpose out of freshwater available shows a stunning analysis and truly India is in water crisis not due to shortage of water but, because of high water usage industries. The analysis is as follows:

1. Table 2 - Global water % of fresh water available , 0.76% (1123bcm)
2. Per capita water availability (2010) 1588 cubic meters (1588000 liters)
3. Surface water available annually is 690 billion cm
4. Industrial consumption is 500 billion cm
5. Domestic (listed) usage Table 2.2,

 ISBN NO: 978-81-962963-4-6

Thus, available surface water is majorly used for industries, fresh water available for domestic use is a fraction of water available and requirement indicates much higher than actually distributed- approximately more than 32000croreliters are required percapita(3200000 cubic meters of water required). Water used by industries are in billion cubic meters and water used for domestic is available in liters.

4. **Attributes for fresh water conservation**

Fresh water includes both ground water and surface water. This study concentrates on only surface water shared for different purposes through systematic pipeline distribution. These lines are extended to both public as well as industries, public are already are supplied lesser than they deserve it is the industries which over use water resource. In para 2, discussion about highest usage industries are listed and analysis about their usage is discussed. These industries are also interested to join with government in conservation of water. Through the analysis from para 4, 5 attribute are listed for balancing supply and usage of water for health and well ness of society. Responsibility of Industies and Government.

Industry

1. Reducing usage of water
2. Using treated water
3. Shifting of industries near water bodies
4. Rain water harvesting
5. building more fresh water storage bodies

Government

1. Permit thermal plants to use only sea water or treated water
2. Permission for only engineering industry which are necessary for domestic livelihood. others should be located far from city where pipe water distribution should not be shared
3. Textile and paper industries should be advised to use treated water
4. Should not permit dyeing, rinsing unit at household level to use public water
5. Licence should be given only after ensuring all above points

5.Limitations of the study

Water governance includes political, economic and institutional rules and practices and process through which decisions are taken to implement for balanced supply and accountability. As this study is limited to study, only freshwater governance among the water resource available on this globe. The limitations of the study are

1. Only freshwater resource is considered out of many other sources
2. Ground water usage need higher importance to be studied separately

 ISBN NO: 978-81-962963-4-6

3. Only highest water usage industries considered to compare with domestic usage because fraction usage may not contribute much in conservation of huge amount of water

6. Conclusion

National water policy Amrut 2.0 is related to making cities self-reliant in water resources. The normal supply of freshwater to urban is majorly used by industries which need highest water located within or nearby to cities having access to public water supply. Industries like thermal power plants, engineering, paper and textile further distillery, fertilizer industries need water which need not be fresh water supplied to public. These industries should purchase treated water or use water from sea or rivers, should also be not given permission to establish within cities or nearby cities. Engineering or subsidiary units should join hands with local government in conservation of water. Paper industries should not be given permission to setup unit within in or nearby to cities and no water pipe connection should be extend to such industries instead be allowed to operate near water bodies. Small units of textile process units like dyeing and rinsing located within cities should be excluded and shifted near water bodies and should not be allowed public water connections. Conservation of water in reducing domestic use with industries joining hands with government in developing models in conservation of water.

Reference

1.*Hydrology and water resources management in ancient India*, Pushpendra Kumar Singh et al. 05 May 2020

2.AlejandroIza, Head IUCN *Environmental Law Team, About transboundary water governance and diplomacy*.

3.*Different Sectors and their Water Consumption*, Ms.NiharikaWakchaure Civil Engineer, iNode, Ministry of Jalashakthi

4. *Improving Transparency, Integrity, and Accountability in Water Supply and Sanitation Action, Learning, Experiences*María González de Asís et.al. The World Bank.

5. *SIWI World leading water Institute*, Water Governance, Andreas Karlson

6. *Industrial water: our essential guide to pollution, treatment & solutions*, 29 May 2019

7. *A holistic water management system in urban areas for a sustainable future*, Krishna C Rao, 29th Sept, 2022 blog on Urbanisation.

8. *India's water wealth*, WRIS publications, 2021

9. *Water resources in India*, Wikipedia,

10. *Report of the state of the global paper industry-Environment paper network* (2018)

11. VOGUE, Emily Chan, 22 march, 2020

12. *Average water consumption per person India 2021, by age group*, Ian Tiseo 7th December, 2022. Statista.

13. *Water supply and sanitation in India*, Wikipedia

14. *Will urban India gain respite from its water woes?,AartiKelkarKhambete,Jul* 2021. India

Water portal

15.State *of Urban water supply in India, 2018, Water aid, Ministry of water resources, Government of india.*

16. *Urban water in india: Pricing and challenges*, Rashmi Shukla, SanatanNayak, DOI: 10.1177/0972266120140105. June 2014.

17. www.indiawris.gov.in

18. www.adiindia.org

* * * * * * * * * * * * * * *

 ISBN NO: 978-81-962963-4-6

Research paper titled:-

A STUDY OF ATTITUTE OF FINTECH USERS TOWARDS SUSTAINABLE DEVELOPMENT IN MUMBAI CITY

Authored by:-

Prof. CA ZAINAB SHABBIR RANGWALA

Associated with:-

BUNTS SANGHA'S S.M.SHETTY COLLEGE OF SCIENCE, COMMERCE AND MANAGEMENT STUDIES AFFILIATED TO THE UNIVERSITY OF MUMBAI

Contact details:-

Residential address:- 902/ARUM, NAHARS AMRIT SHAKTI, CHANDIAVALI FARM ROAD, POWAI, MUMBAI -400072

Mobile number:- + 91 9833687128

E-mail:- zainab.rangwala@gmail.com

 ISBN NO: 978-81-962963-4-6

"A STUDY OF ATTITUTE OF FINTECH USERS TOWARDS SUSTAINABLE DEVELOPMENT IN MUMBAI CITY"

ABSTRACT

Digital technology is a driving factor in today's modern day scenario as an approach towards sustainable development. Various modes of digital payments offer eco-friendly products, services, processes thereby offsetting carbon emission and assisting financial institutions, corporates and even individuals in achieving their sustainable development goals. An ushering sustainable payment ecosystem is a key in addressing the environmental hazards seen globally in term reduction in use of renewable resources. With the use of digital currencies, data analytics, robo-advisors, artificial intelligence, block chain technology, IOT etc. the fintech sector is playing a pivotal role in these times of global sustainability crisis. Fintech is well complimented by increased global e-commerce retail trade from 14% during 2019 to 17% during 2020. Keeping in pace with the international developments, India too is marching ahead with the motto of self-resilience with "Digital India" campaign thriving towards a digitalized economy. Encircling around digital literacy, e-governance and digital infrastructure, the flagship project is transforming India into a digitally empowered society and knowledge based economy. India now is the leader in fintech investments in the Asia-Pacific (APAC) region with US$ 1.93 billion raised across 66 deals in the third quarter of 2021. During 2022 the E-Commerce sector in India has witnessed an acute surge by 21.5% reaching US$ 74.8 billion with accelerated sustainable and fintech transformations. This has entailed a paradigm shift in banking habits of individuals especially in Mumbai city – the commercial capital of India. This paper is a humble attempt to study the fintech based individual banking habits as an approach towards sustainable development within Mumbai City.

Key Words:- Fintech, Digital Financial Transactions, Sustainable Development

INTRODUCTION

The World Economic Forum envisages the role of using digital technology in reforming the modus opendus of financial transactions making users experience the cortex of fintech services. The multi-dimensional projects of the Government of India underlying the flagship campaign "Digital India" has rooted in digital literacy, digital infrastructure and

 ISBN NO: 978-81-962963-4-6

e-governance. The nationwide unveiling of UPI, BHIM, Bharatnet, Smart cities, etc is a roadmap to lead the nation towards a digitally empowered 5 trillion dollar economy by the year 2025. In January 2021 with 624 million internet users in India, the internet penetration stood at 45%, which remarkable increased by 8.20% since January 2020. India has secured the 96th position amongst 100 countries at United Nations E-Government Development Index (EGDI) 2018 with an e-governance index of 0.9150. The strong, speedy and advent digitalization process in India with open source software, mobile technologies, data accessibility etc. has proposed gateways for deploying large scale digital financial inclusions nationwide. This is entailing a paradigm shift in individual banking habits from the traditionally used mechanism to digital based mechanism. The Pandemic Covid-19 has changed the mannerism our world as we knew it. It has radically impacted the way we live, work, learn, earn, spend, travel etc. The urge of social distancing to contain the virus within the economies has boosted the drive of contactless financial channels thereby boosting the use of digital banking services. The National Lockdown in most countries has also been instrumental in the stride towards digital banking channels. The lockdown being the "New Normal" resulted in businesses and consumers increased reliance on "Go Digital" by selling and buying goods and services online, thereby increasing the global e-commerce retail trade from 14% during 2019 to 17% during 2020. The E-Commerce sector in India has witnessed an acute surge with accelerated digital banking transformations. Thus, this paper is an attempt to study the changing trends in individual banking habits during pandemic Covid-19 within Mumbai the commercial capital of India.

.

REVIEW OF LITERATURE

The radical lifestyle changes provoked in the era of 'New Normal' due to the outbreak Covid'19 pandemic has affected all entities in a gamut of ways. The enhanced usage of digital payment is becoming an important characteristic of the 'New Normal' and beyond. In Mumbai usage of digital payments had become a necessity and routine rather than being a perk as conceptualized earlier.

In the research paper "A Compendious Study of Online Payment Systems: Past Developments, Present Impact, and Future Considerations" of (IJACSA) International Journal of Advanced Computer Science and Applications, 2017 by Burhan Ul Islam Khan, Rashidah F. Olanrewaju, Asifa Mehraj Baba, Adil Ahmad Langoo and Shahul Assad:- it

 ISBN NO: 978-81-962963-4-6

is concluded that, by establishing a common standard for a variety of service providers, improving the compatibility with a large number of customers, overcoming privacy and security concerns and employing the latest technology could facilitate expeditious adoption of online payment methods and expand the market for such a mode of payment.

In the research paper "A Study on Usage of e-Payments for Sustainable Growth of Online Business" of (IOSR) Journal of Business and Management (IOSR-JBM), 2018 by Prof. Sana Khan, and Ms. Shreya Jain deduce that the organizations are trying their level best to attract the consumers towards using their ecommerce and payment platforms to increase their business, but there have been always a hitch in consumers mind regarding the security and privacy.

In the research paper "Adoption of Digital Payment System by Consumer: A review of Literature" of International Journal of Creative Research Thoughts (1 IJCRT), 2021 by Gourab Ghosh envisaged that digital payments not only helps individual to payments or receive money it also performs multiple functions such as giving reminder about dues of any kind of payments to be made, it gives various offers to the user and its saves a lot of time.

Reserve Bank of India Reports on Retail Banking habits in India (2019) – emphasized on the digital literacy of respondents with bank accounts in 6 cities barring the lens of gender, educational qualification and income, stating that bank account played a significant role in the awareness about digital payments.

Gap in Literature Review

Different surveys and researches done periodically by researchers, scholars and academician have tried to analyze the several attributes in respect of digital payments in India and the world at large. It is keenly observed from these studies that the enhanced digital literacy rates in Indian, accompanied by the lifestyle changes due to pandemic outbreak, has magnified the digitalized payments drive in the nation. This is well supplemented by the magnified e-commerce trends, e-governance and digital infrastructure up gradation efforts of the government. This paper is an attempt to study within the commercial capital of India, the changing trends of banking habits during pandemic covid'19.

 ISBN NO: 978-81-962963-4-6

OBJECTIVES OF THE STUDY

1. To determine factors affecting use of fintech by individuals for sustainable development in Mumbai city
2. To understand the attitude of fintech user towards sustainable development in Mumbai city
3. To suggest course of action for secured and enhanced use of fintech for sustainable development.

HYPOTHESIS OF THE STUDY

H_{1}:- Individuals users have access to digital infrastructure to access fintech for sustainable development in Mumbai City

H_{2}:- Attitude of individual users towards adopting fintech for sustainable development is positive

RESEARCH METHODOLOGY FOR THE STUDY

1. Descriptive and Empirical Research was conducted in the city of Mumbai.
2. Non Probability Convenience Sampling was used
3. Primary data was collected through personal interview and questionnaire from 368 respondents.
4. Secondary data was collected from published reports
5. Appropriate statistical tools were used for data analysis.

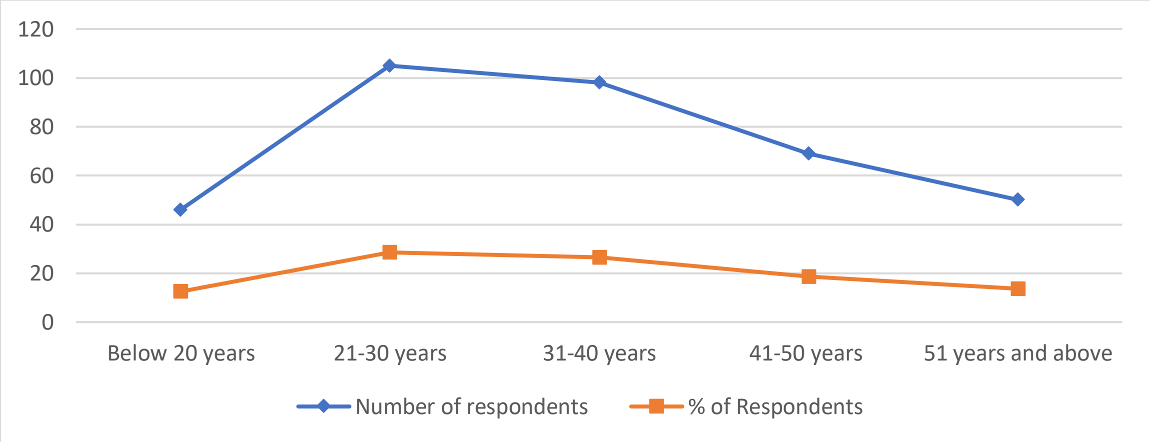
LIMITATIONS OF THE STUDY

1. The personal bias and experiences of respondents may affect their responses inappropriately.
2. The study is conducted in the city of Mumbai; alternatively other geographical areas could be used to widen the scope of the study
3. Only Individuals respondents are considered; alternatively corporates, local authorities, co-op societies and other entities could also be included.

ANAYLYSIS AND INTERPRETATION

The sample consisted of 368 individuals from the city of Mumbai. The analysis of their responses is as under:-

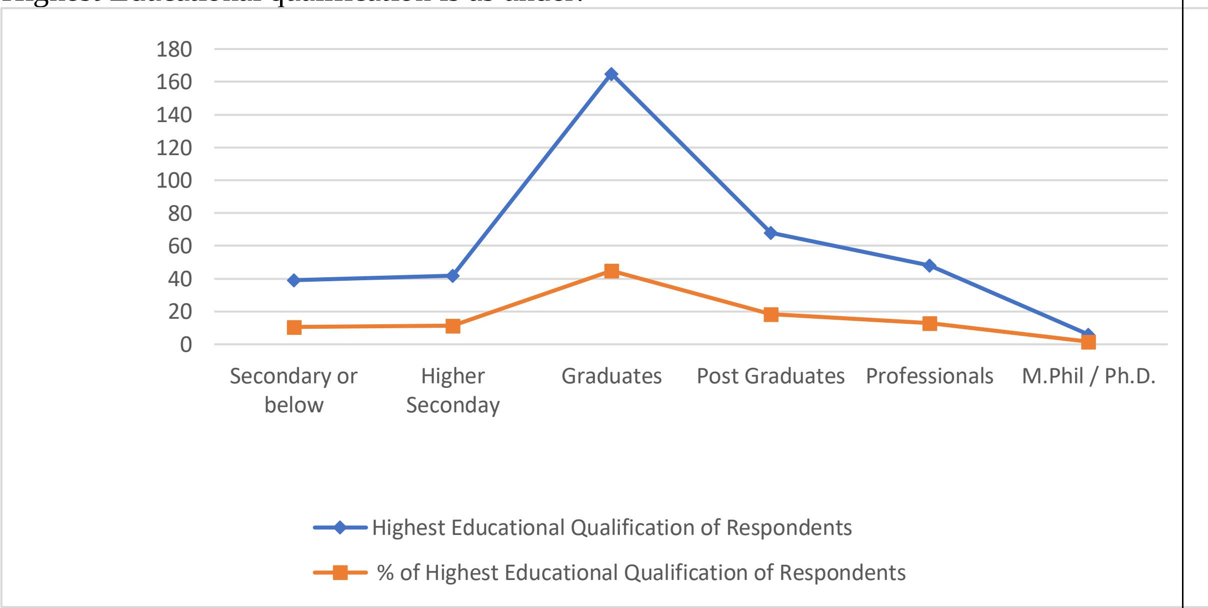
(a) The age of the respondents is as under:-



Source: - Primary data

It is observed from the above data that the maximum number of respondents fall in the age group 21-30 years being 28.53% followed by the age group 31-40 years being 26.63%. As all 100 % of the respondents use some or the other platform of fintech, it is deduced that 'Age is not a constrain in using fintech for sustainable development.'

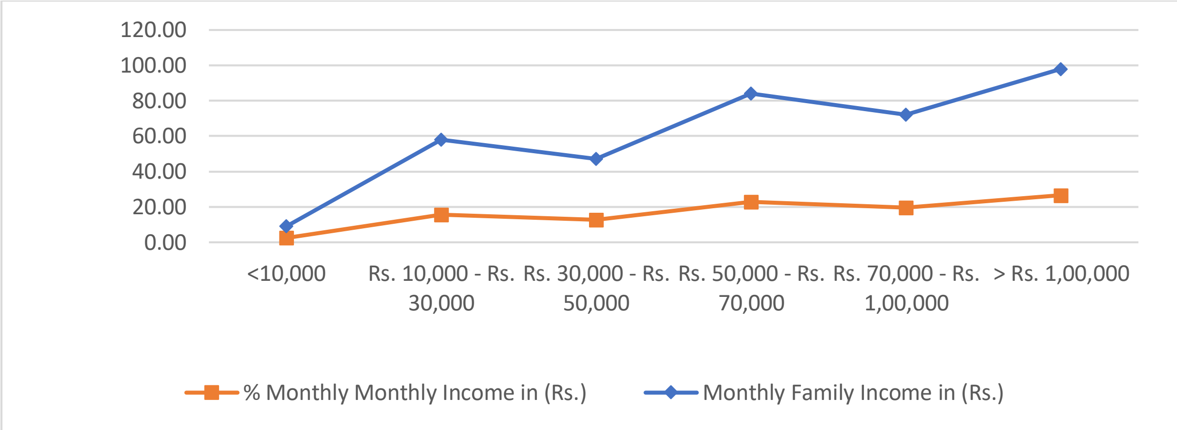
(b) Highest Educational qualification is as under:-



Source:- Primary data

It is observed from the above data that the maximum number of respondents hold formal education of being Graduates with 44.84% followed by the Post Graduates being 18.48%. It is also observed that 10.60% of the respondents have education below Secondary level of Standard 10th whereas 11.41% of the respondents are with formal education of below Higher secondary level of Standard 12th. As all 100 % of the respondents use some or the other platform of, it is deduced that 'Formal Educational Qualification is not a constrain for use of fintech for sustainable development'

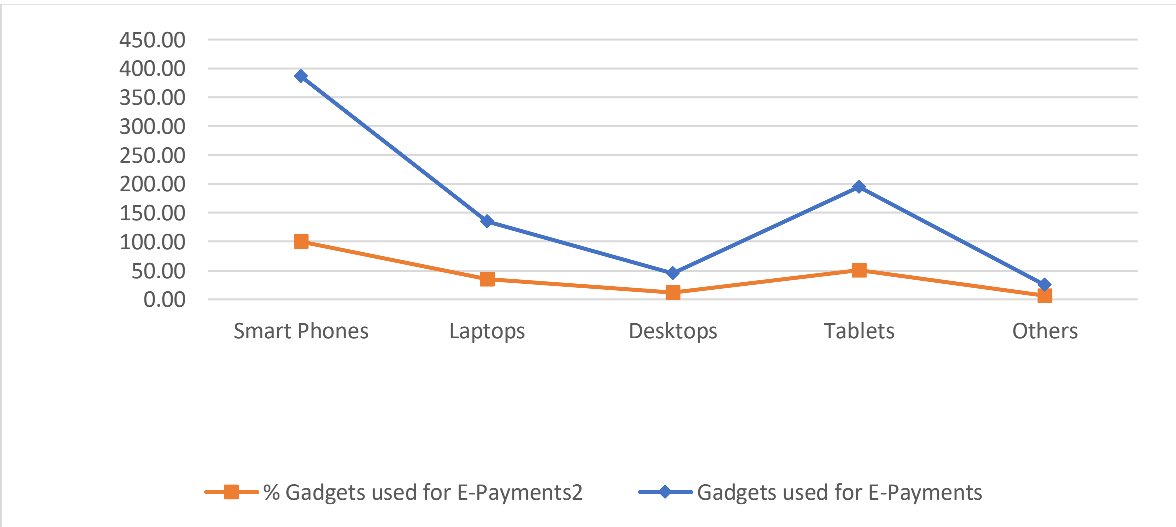
(c) Average monthly family income is as under :-



Source:- Primary data

It is observed from the above data that the 26.63% of respondents have an average monthly family income of more than Rs. 1,00,000 followed by 22.83% of respondents whose monthly family income is between Rs. 50,000 – Rs. 70,000. As all 100 % of the respondents use some or the other platform of fintech for sustainable development, it is deduced that 'Income is not a constrain for use of fintech for sustainable development'

(d) Exposure of respondents to digital infrastructure for fintech transactions is as under:-

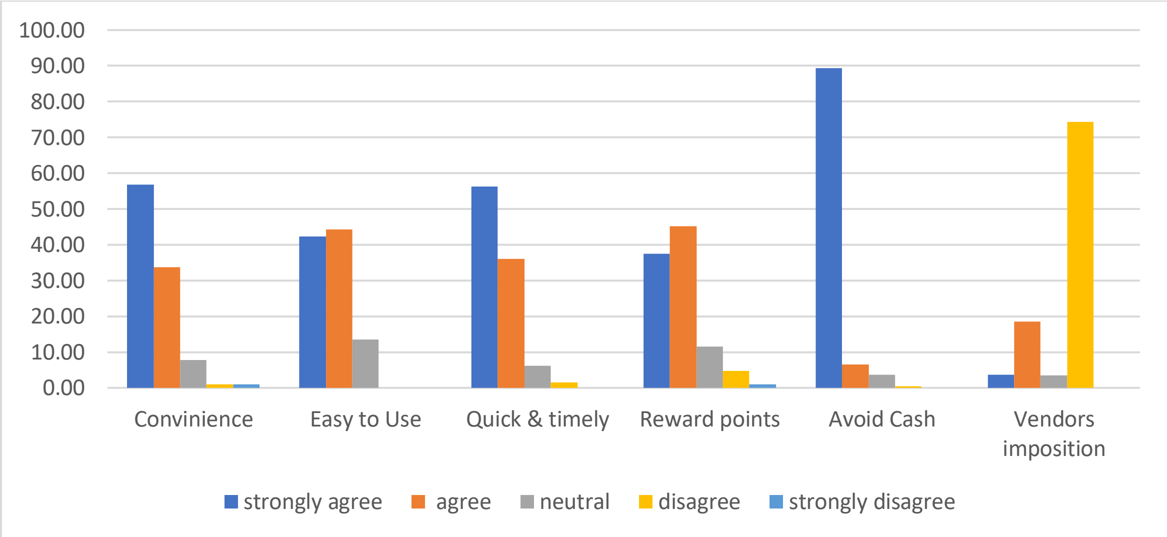


 ISBN NO: 978-81-962963-4-6

Source:- Primary data (Data as percentage is to the total number of respondents; where respondents could select multiple options.)

It is observed that respondents use electronic gadgets for digital banking purposes. They use multiple gadgets at time. It is observed that 100% use Smart Phones, 34.97% use Laptops, 11.66% use Desktops, 50.52% use Tablets and 6.48% use other gadgets. It is deduced from this data that all 100% of the respondents have access to necessary digital infrastructure for using fintech for sustainable development.

(e) Reasons for using fintech:-

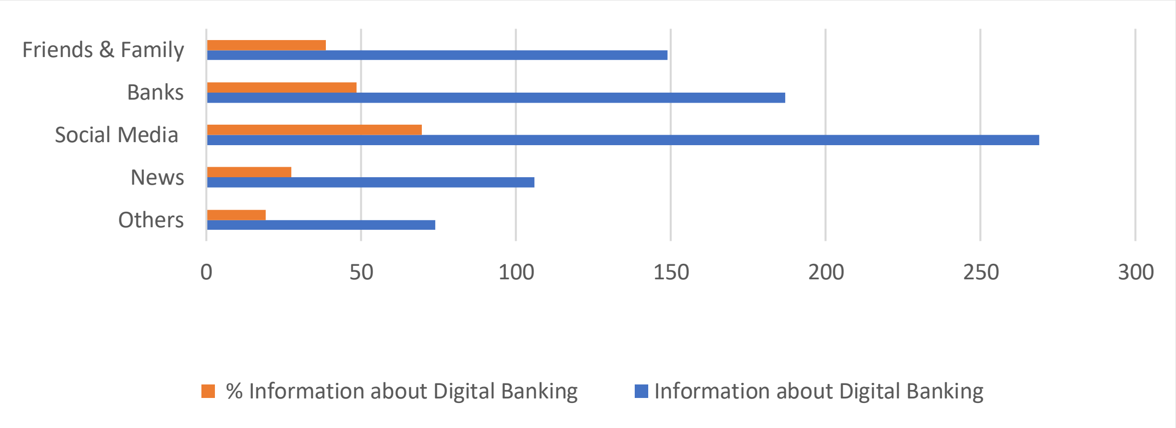


Source:- Primary Data

Source:- Primary data (Data as percentage is to the total number of respondents; where respondents could select multiple options.)

It is observed that respondents use digital banking for various purposes. It is observed that maximum respondents use digital banking to avoid cash transactions from amongst the various reasons of using fintech. This surge is associated to Pandemic Covid-19, as individuals urge to minimize contact by use of no touch or digital money. Thus, there is an inclination of digital technology users towards avoiding cash and physical transactions inclining towards fintech.

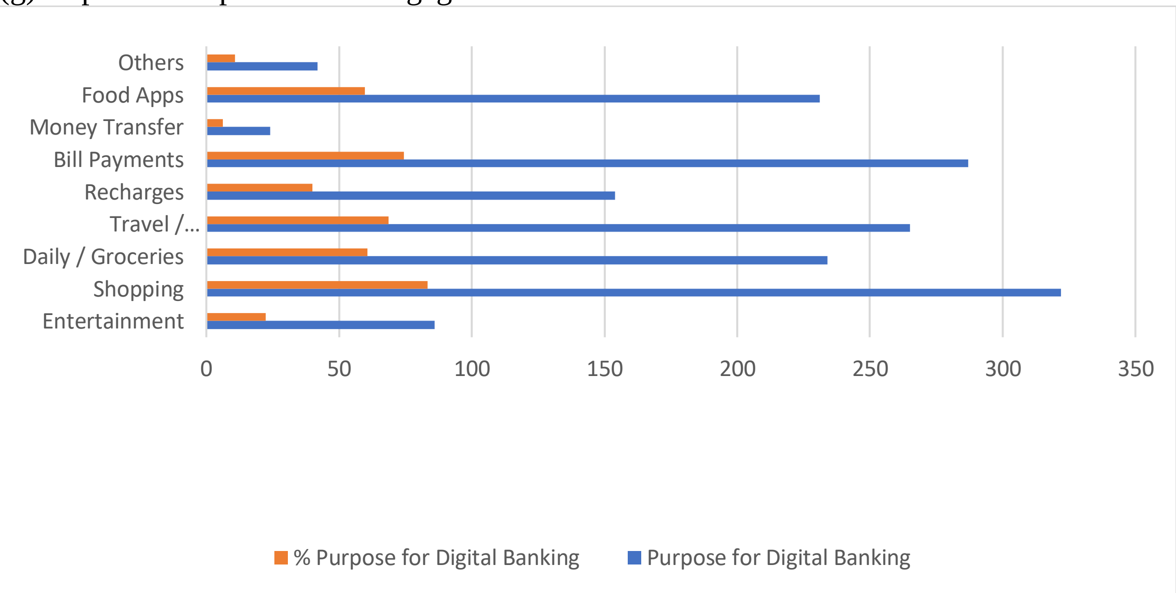
(f)Exposure of respondents to knowledge about fintech is as under:-



Source:- Primary data (Data as percentage is to the total number of respondents; where respondents could select multiple options.)

It is observed that respondents use information about fintech from various sources pertinent to digital infrastructure, cyber safety, technical issues, financial e-services, trending fintech software's etc. Users rely on information from collected through multiple sources at a time. It is observed that 38.60% place reliance from information received through friends, family & peer groups. Furthur,69.69% place reliance on information through advertisements and promotion through social media. Moreover 48.45% use information provided by Financial institutions, fintech advisors, banks, etc. whereas 27.46% use information provided by news channels. Thus it is deduced that all 100% of the respondents use information from multiple sources for fintech transactions.

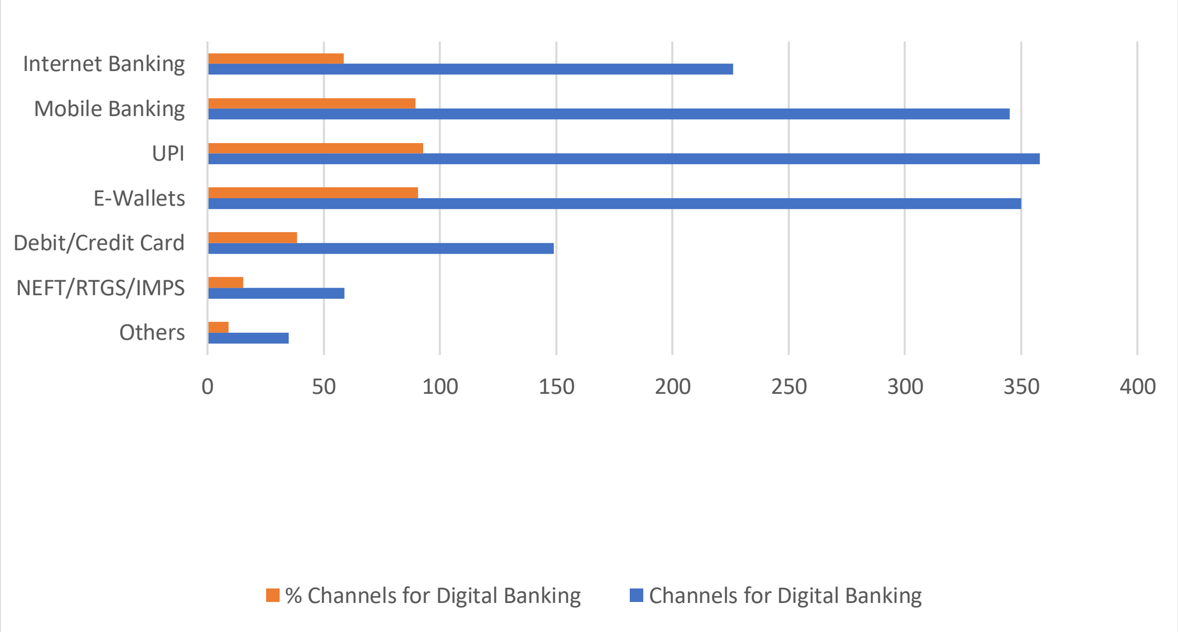
(g)Purpose of respondents to engage in fintech transactions is as under:-



Source:- Primary data (Data as percentage is to the total number of respondents; where respondents could select multiple options.)

It is observed that respondents use digital banking for various purposes. The maximum being 83.42% for Shopping, followed by 74.35% for Bill payments and 68.65% for travel / conveyance purposes. Thus it is deduced that all 100% of the respondents use fintech transactions for multiple purposes as per their needs.

(h)Channels used by respondents to engage in fintech transactions is as under:-



Source:- Primary data (Data as percentage is to the total number of respondents; where respondents could select multiple options.)

It is observed that respondents use multiple channels for fintech tranactions. The maximum being 92.75% through UPI, 90.67% through E-Wwallets and 89.38% through Mobile Banking. Thus it is deduced that all 100% of the respondents use multiple channels for undertaking fintech transactions.

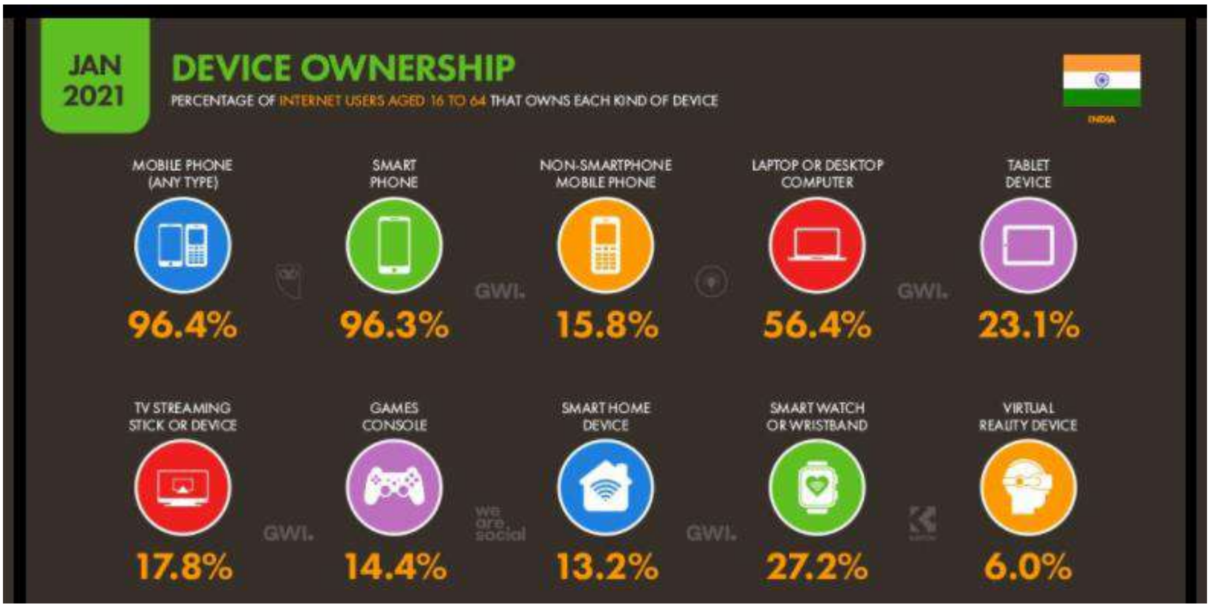
ISBN NO: 978-81-962963-4-6

(i)Internet penetration in India

Secondary data : -Source Digital India Report 2021

During January 2021 there are 624.0 million internet users in India with an Internet penetration of 45%, which has increased by 47 million (+8.2%) between 2020 and 2021.

(j) Electronic device ownership in India



Secondary data : -Source Digital India Report 2021

During January 2021, in India percentage of internet users who used smart phones is 96.3% with an average internet speed of 12.91mbps. Whereas those using laptop / desktop is 56.4% with an average internet speed of 53.90mbps.

(k) Use of mobile applications for different purpose:-

Secondary data : -Source Digital India Report 2021

During January 2021, in India percentage of monthly internet users who used mobile applications for the purpose of shopping is 72.20%. Whereas those using banking and financial services application is 32.30%.

Testing of **$H_{1:}$**- Individuals users have access to digital infrastructure to access fintech for sustainable development in Mumbai City

Individuals have access to digital infrastructure in order to undertake fintech in Mumbai City. It is deduced from the analysis and interpretation of primary and secondary data above that 100% of the respondents have access to electronic gadgets, with 45% internet availability, reasonable speed of internet connectivity ranging from 12.91mbps to53.90mbps and information to use digital banking channels with a monthly average of banking and financial services application is 32.30% . Hence **H_1** is accepted.

Testing of **$H_{2:-}$** Attitude of individual users towards adopting fintech for sustainable development is positive.

From the above primary and secondary data it is analyzed that 89.33% of respondents prefer to use fintech transactions as it does not entail the use of currency notes and coins, whereas 56% of respondents prefer to use fintech due to ease of convenience, speed and time saving benefits. Furthermore age, income level and formal education are not constrains for use of digital banking. Lastly it is observed that respondents use variety of

 ISBN NO: 978-81-962963-4-6

devices and numerous proposes frequently. Thus, we accept the hypothesis and conclude that the attitude of people towards adopting fintech for sustainable development is positive.

MAJOR FINDINGS

- Respondents in Mumbai have access to necessary digital infrastructure for fintech transactions
- Individual's preference in banking habits is based on many different reasons majorly being use of paperless and no-touch currency
- Individuals are digitally literate and have access to necessary information to engage in fintech transactions.
- Digital banking transactions carry an inherent risk of cybercrime that lead to financial losses. These cyber-threats should be known and avoided to promote a secure environment for use of fintech for sustainable development amongst individuals.

CONCLUSIONS

Based on the survey of 368 respondents from Mumbai city, the paper concludes a positive attitude of respondents towards use of fintech for sustainable development. The availability of necessary digital infrastructure, variety of electronic gadgets, software technological innovations and appropriate level of e-governance has made a conducive environment for the thriving use of digital banking in Mumbai and whole of India. The new era influencing technologies like Robotic Process automation (RPA), Artificial intelligence (AI), Internet of Things (IOT), Block chains etc are profound drivers of the changing digital banking landscape in India. Although there are some issues associated with the smooth use of fintech with the threat of deepening cybercrime in recent times, yet the use of fintech is not curtailed. Collective caution and efforts are required from the government, corporates, financial institutions, regulatory authorities, banks, and individuals to maintain a safe and secure environment for use of fintech for sustainable development.

REFERENCES

1. United Nations Digital Economy report 2019
2. Digital India Report 2021
3. Reserve Bank of India – Digital Financial Inclusions Report 2021
4. Impact of Covid'19 on digital payments in India report by KPMG
5. https://www.financialexpress.com/budget/will-the-union-budget-2021-catalyse-indias-digital-economy/2183774/
6. https://www.jpmorgan.com/solutions/cib/research/covid-spending-habits
7. https://www.ibef.org/archives/industry/indian-telecommunications-industry-analysis-reports/indian-telecommunications-industry-analysis-january2021.
8. https://www.india.gov.in/information-national-digital-literacy-mission
9. Global Journal For Research Analysisvolume-9, Issue-1, January-2020 • Print Issn No. 2277 - 8160 • Doi : 10.36106/gjra
10. Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668 PP 74-811
11. (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 8, No. 5, 2017
12. (IJCRT) International Journal of Creative Research Thoughts (1) | Volume 9, Issue 2 February 2021 | ISSN: 2320-2882

****

A Study on CSR Reporting Practices of Asian Paints Limited

Mittal S. Parikh

M.Com., M.Phil., B.Ed., UGC- NET, GSET

Ph.D. Research Scholar,

Department of Commerce,

Saurashtra University, Rajkot

Contact No: 9825937311

Email Id: mittalparikh123@gmail.com

 ISBN NO: 978-81-962963-4-6

Abstract

This paper studies the CSR reporting practices of Asian Paints Limited for the period of five years from 2017-18 to 2021-22. The objective of this paper is to study CSR fund allocation and CSR amount spent on various CSR activities of Asian Paints Limited. Descriptive research design and content analysis method is used by the researcher for the study. The result shows that Asian Paints Limited is not able to spent full amount of CSR in the financial year 2017-18, 2020-21 and 2021-22 whereas able to spent full amount of CSR in the financial year 2018-19 and 2019-20. Further the result also shows that Asian Paints Limited is spending most of the amount of CSR in Vocational Skills and spending very less amount in CSR activities like Education, HealthCare, Disaster Management, Safe Drinking Water and Prime Minister National Relief Fund.

Keywords: CSR activities, Vocational Skills, Education, HealthCare, Safe Drinking Water

1. Introduction

In recent year corporate social reporting is a new concept in accounting field. Nowadays companies are more aware about their responsibilities towards the society. Corporate social reporting is the process of informing stakeholders about the social and environmental effects of an organization's economic decisions. In other words nowadays companies achieve their social goals which they report to society with help of corporate social reporting. By disclosing this information the company communicate to the public that they are engaged in social responsibility. Thus, CSR is crucial for meeting stakeholder's expectations, demands and interests.

Corporate Social Responsibility in India

After the implementation of Companies Act 2013, Corporate Social Responsibility has become mandatory in India from 1st April, 2014. As per Section 135 of Companies Act 2013 all companies whose Net worth is Rs. 500 crore or turnover is Rs. 1000 crore or net profit is Rs. 5 crore have to spend at least 2% of average net profit of the last three financial years on Corporate Social Responsibility activities.

Company Profile

Asian Paints Limited was established in the year 1942 with 4 partners as a partnership firm. Asian Paints Limited is an Indian multinational company having a head quarter in

 ISBN NO: 978-81-962963-4-6

Mumbai, Maharashtra. The company is ranked second in Asia and 7th overall among the world leading coatings companies. Asian Paints Limited has 27 paint manufacturing plants worldwide and operates in 15 of them, serving customers in more than 60 different nations. The group also runs Asian Paints Berger, Apco Coatings, SCIB Paints, Taubmans, Asian Paints Causeway and Kadisco Asian Paints as subsidiaries which together make up the Asian Paints brand.

2. Literature Review

Chavda and Ransariya (2021) try to examine CSR Reporting Practices of Ultratech Cement Limited for a period of five years that is from 2015-16 to 2019-20. Researcher has used content analysis method to study the areas in which CSR amount is spent. The company is spending their profit on CSR activities like Education, Rural Development, Health Care and Art, Culture and Heritage. Thus result reveals that the company is spending more amount of CSR on CSR activities like Education and Rural Development whereas company is spending less amount of CSR on CSR activities like Healthcare and Art, Culture and Heritage.

Someshwari and Laxmana (2019) has study Corporate Social Responsibility of Infosys Limited for a period of five years from 2014-15 to 2018-19. The objective is to know the concept of CSR and amount spends by the company in different CSR activities. The company is spending amount in CSR activities like education, healthcare, infrastructure, art and culture, removal of malnutrition, environment sustainability and ecological balance. The result shows that the company is spending most of the amount of CSR in environment sustainability and ecological balance compare to rest of the corporate social responsibility activities of the company.

Singh et al. (2018) has analyzed CSR of Tata Motors for a period of six years from 2009-10 to 2014-15. The main objective of the study is to know the company spending money in different CSR activities. The company is spending money in CSR activities like Education, Women Empowerment, Child Mortality, Health, Vocational Skills and Environmental Sustainability. Thus result reveals that company is spending more amount of CSR in Education and Healthcare compare to the rest of corporate social responsibility activities of the company.

3. Scope of the Study

This study is undertaken to know CSR reporting practices of Asian Paints Limited particularly in CSR activities.

4. Research Methodology

4.1 Research Objectives

Objectives for the study are as follows:

1. To study the CSR fund allocation and CSR amount spent of Asian Paints Limited.
2. To study the CSR amount spent in various CSR activities of Asian Paints Limited.

4.2 Research Design

Research Design shows the way in which research is to be conducted. For this study researcher has used Descriptive Research Design.

4.3 Sample size

Sample is selected as per convenience sampling method. Asian Paints Limited is the company which is selected from BSE for the study as it stood first among the paint industry in India on the basis of profitability in the financial year 2021-22.

4.4 Data Collection

Secondary data are collected from the annual report and official website of the company for the study.

4.5Tools and Techniques

To study the CSR activities of the Asian Paints Limited Content analysis method is used.

5. Limitations of the Study

Limitations of the study are as follows:

1. This study is purely based on a secondary source of data.
2. Only 5 years from 2017-18 to 2021 - 22 is considered for the study.
3. This study focus only on disclosure and CSR amount spent on various CSR activities.

ISBN NO: 978-81-962963-4-6

6. Data Analysis and Interpretation

Table 6.1 CSR Fund Allocation and CSR Amount Spent of Asian Paints Limited

Sr. No.	Years	CSR Fund Allocation (in Crores)	CSR Amount Spent (in Crores)	%
1	2017-18	51.15	46.51	90.93
2	2018-19	52.7	52.7	100
3	2019-20	74.64	74.64	100
4	2020-21	59.83	45.04	75.28
5	2021-22	70.77	67.32	95.13

Graph 6.1 showing CSR Fund Allocation and CSR Amount Spent of Asian Paints Limited

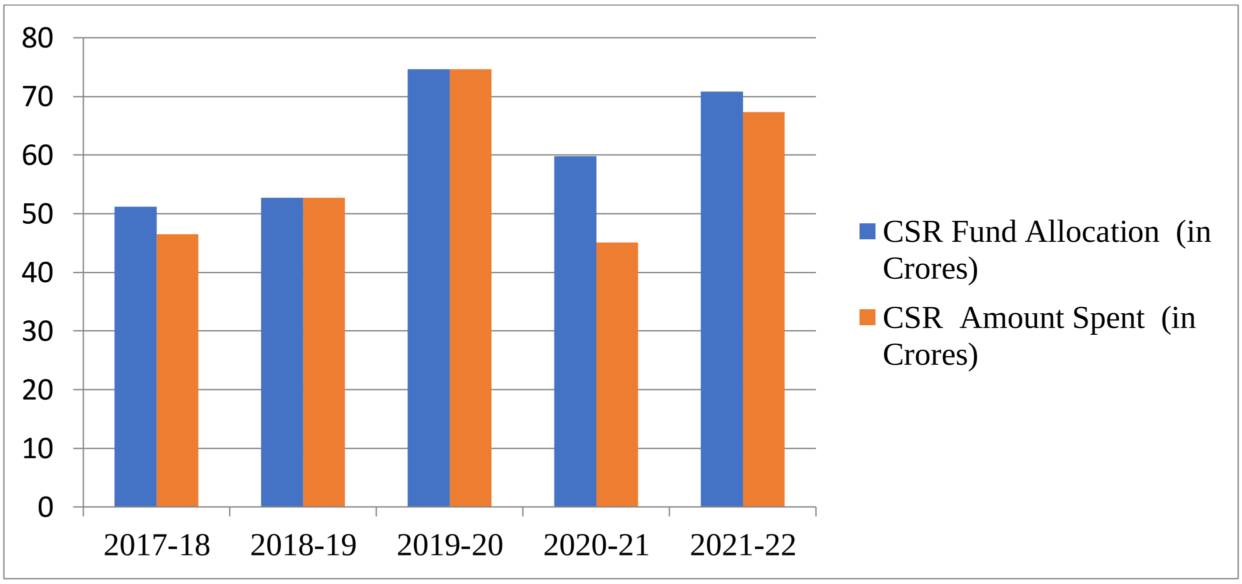


Table 6.1 and graph 6.1 shows CSR fund allocation and CSR amount spent of Asian Paints Limited. It is observed that the company is not able to spend full amount of CSR in the financial year 2017 – 18, 2020 - 21 and 2021-22 respectively. Only in the financial year 2018 - 19 and 2019-20 Asian Paints Limited is able to spend a full amount of CSR.

Table 6.2 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2017-18

Sr. No.	CSR Activities	CSR Amount Spent (in Crores)	%
1	Education	12.8	27.52
2	Health Care	4.85	10.43
3	Safe Drinking Water	6.53	14.04
4	Vocational Skills	22.33	48.01
	Total	**46.51**	**100**

Graph 6.2 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2017-18

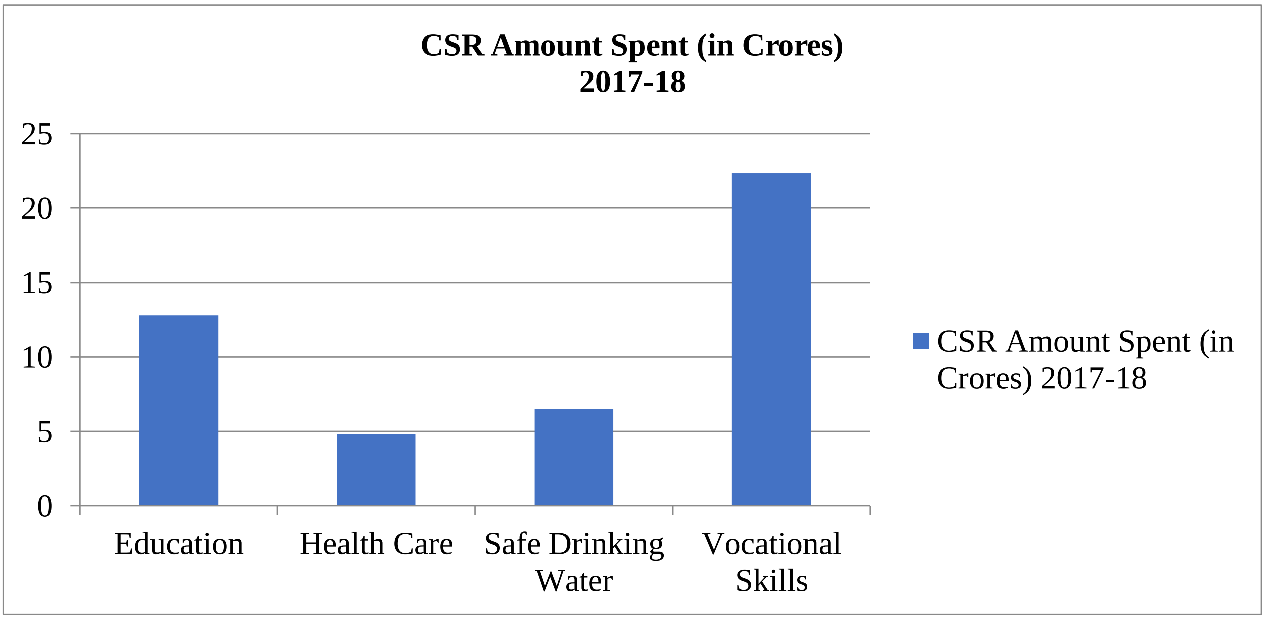


Table 6.2 and graph 6.2 shows the different CSR activities carried out by Asian Paints Limited in the financial year 2017 – 18. They have spent a total of 46.51 crores in CSR activities in the year 2017 – 18. The company has spent the highest amount of contribution 22.33 crores in vocational skills or 48.01 % whereas 12.8 crores in education, 6.53 crores in safe drinking water and 4.85 crores in Healthcare in the financial year 2017 – 18.

Table 6.3 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2018-19

Sr. No.	CSR Activities	CSR Amount Spent (in Crores)	%
1	Education	9.35	17.74
2	Health Care	9.93	18.84
3	Safe Drinking Water	8.33	15.81
4	Vocational Skills	25.09	47.61
	Total	**52.7**	**100**

Graph 6.3 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2018-19

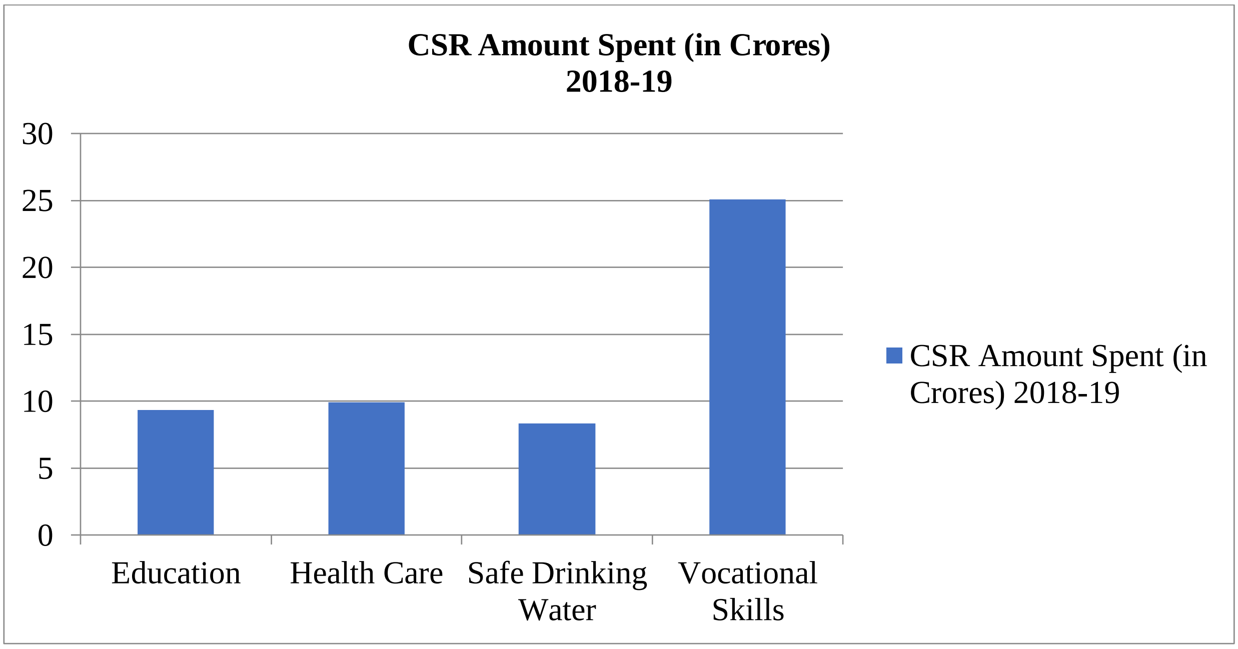


Table 6.3 and graph 6.3 shows the different CSR activities carried out by Asian Paints Limited in the financial year 2018 – 19. They have spent a total of 52.7 crores in CSR activities in the year 2018 – 19. The company has spent the highest amount of contribution of 25.09 crores in vocational skills whereas 9.93 crores in Healthcare, 9.35 crores in education and 8.33 crores in safe drinking water in the financial year 2018 – 19.

ISBN NO: 978-81-962963-4-6

Table 6.4 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2019-20

Sr. No.	CSR Activities	CSR Amount Spent (in Crores)	%
1	Education	10.41	13.95
2	Health Care	8.22	11.02
3	Safe Drinking Water	10.25	13.73
4	Vocational Skills	29.8	39.92
5	Prime Minister National Relief Fund	15.96	21.38
	Total	**74.64**	**100**

Graph 6.4 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2019-20

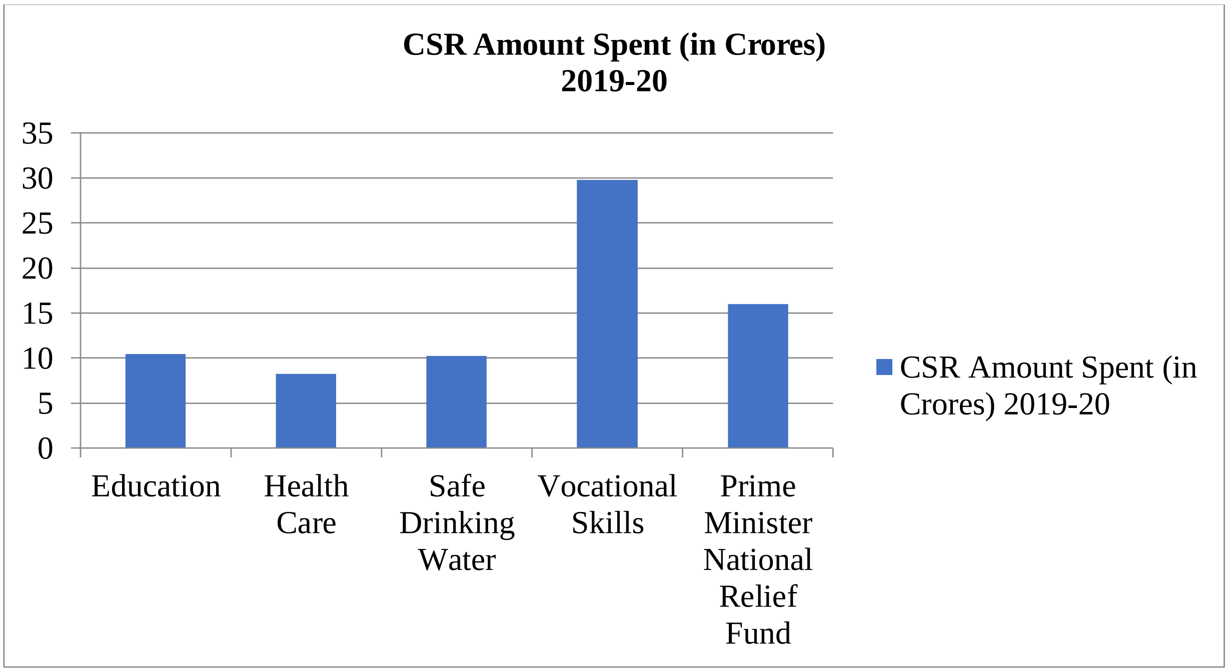


Table 6.4 and graph 6.4 shows the different CSR activities carried out by Asian Paints Limited in the financial year 2019-20. They have spent a total of 74.64 crores in CSR activities in the year 2019 – 20. The company has spent the highest amount of contribution

 ISBN NO: 978-81-962963-4-6

of 29.8 crores in vocational skills whereas 15.96 crores in Prime Minister national relief fund, 10.41 crores in education, 10.25 crores in safe drinking water and 8.22 crores in Healthcare in the financial year 2019-20.

Table 6.5 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2020-21

Sr. No.	CSR Activities	CSR Amount Spent (in Crores)	%
1	Education	1.02	2.26
2	Health Care	14.86	32.99
3	Safe Drinking Water	3.76	8.35
4	Vocational Skills	25.4	56.4
	Total	**45.04**	**100**

Graph 6.5 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2020-21

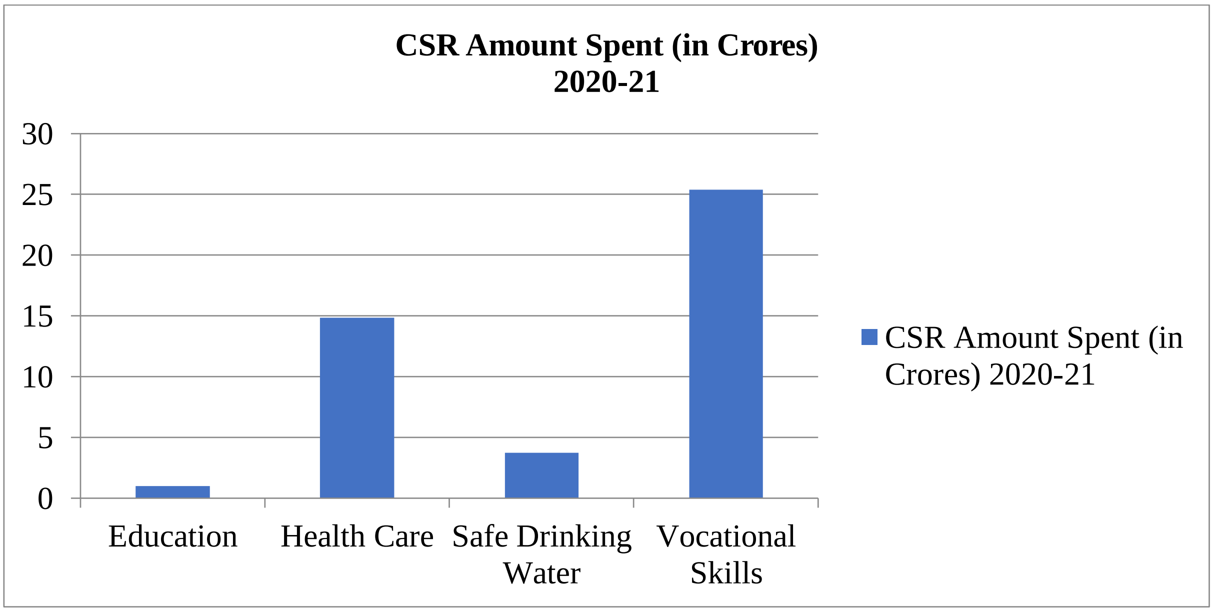


Table 6.5 and graph 6.5 show the different CSR activities carried out by Asian Paints Limited in the financial year 2020 - 21. They have spent a total of 45.04 crores in CSR activities in the year 2020 – 21. The company has spent the highest amount of contribution 25.4 crores in vocational skills whereas 14.86 crores in Healthcare, 3.76 crores in safe drinking water and 1.02 crores in education in the financial year 2020 – 21.

ISBN NO: 978-81-962963-4-6

Table 6.6 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2021-22

Sr. No.	CSR Activities	CSR Amount Spent (in Crores)	%
1	Disaster Management	2.47	3.67
2	Health Care	9.78	14.53
3	Safe Drinking Water	16.18	24.04
4	Vocational Skills	38.89	57.76
	Total	**67.32**	**100**

Graph 6.6 Showing CSR Amount Spent in different CSR activities of Asian Paints Limited for Financial Year 2021-22

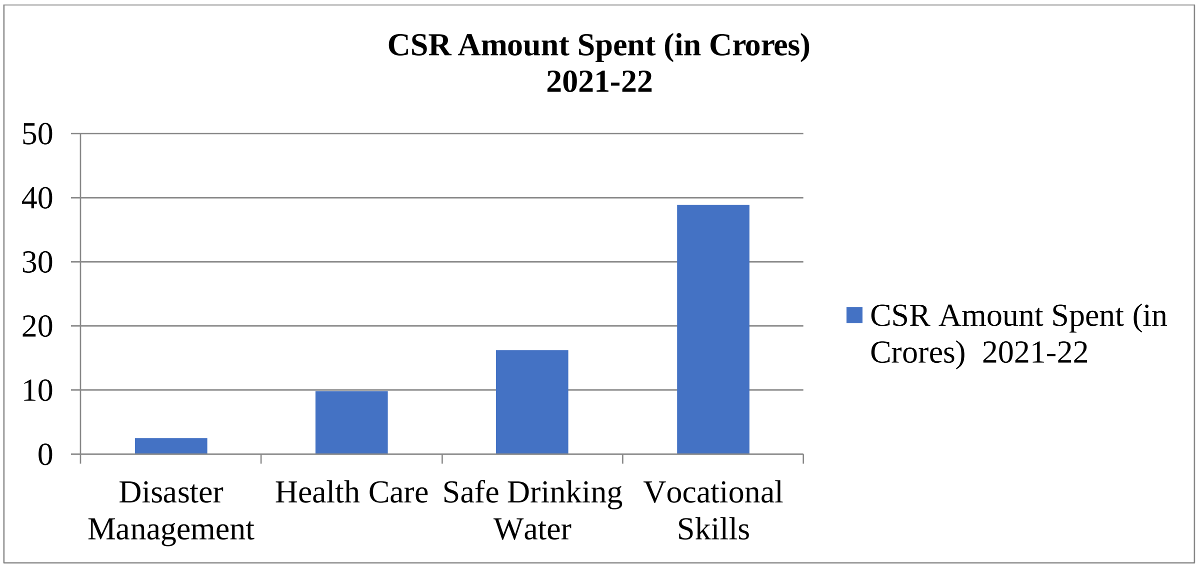


Table 6.6 and graph 6.6 show the different CSR activities carried out by Asian Paints Limited in the financial year 2021 - 22. They have spent a total of 67.32 crores in CSR activities in the year 2021 – 22. The company has spent the highest amount of contribution 38.89 crores in vocational skills whereas 16.18 crores in safe drinking water, 9.78 crores in health care and 2.47 crores in disaster management in the financial year 2021 – 22.

ISBN NO: 978-81-962963-4-6

7. Recommendations

- It is observed that Asian Paints Limited is spending most of the amount of CSR in vocational skills.
- It is seen that Asian Paints Limited is spending less amount on CSR activities like Education, Healthcare, Safe Drinking Water and Disaster Management. So it is recommended to spend more on these CSR activities.
- It also recommended that Asian Paints Limited should also spent amount of CSR on other CSR activities like Community Welfare, Rural Development, Women Empowerment, Environmental Sustainability and Art, culture and Heritage.

8. Findings and Conclusion

- The data analysis leads to the conclusion that Asian Paints Limited is not able to spend a full amount of CSR in the financial year 2017-18, 2020 – 21 and 2021-22 and spending full amount of CSR in financial year 2018 – 19 and 2019-20.
- In the financial year 2017-18 Asian Paints Limited has spent a total of 46.51 crores in CSR activities out of which the highest amount of 22.33 crores are spent on vocational skills and remaining on other CSR activities.
- In the financial year 2018-19 Asian Paints Limited has spent a total of 52.7 crores in CSR activities out of which the highest amount of 25.09 crores are spent on vocational skills and remaining on other CSR activities.
- In the financial year 2019-20 Asian Paints Limited has spent a total of 74.64 crores in CSR activities out of which the highest amount of 29. 8 crores are spent on vocational skills and remaining on other CSR activities.
- In the financial year 2020-21 Asian Paints Limited has spent a total of 45.04 crores in CSR activities out of which the highest amount of 25.4 crores are spent on vocational skills and remaining on other CSR activities.
- In the financial year 2021-22 Asian Paints Limited has spent a total of 67.32 crores in CSR activities out of which the highest amount of 38.89 crores are spent on vocational skills and remaining on other CSR activities.

ISBN NO: 978-81-962963-4-6

9. References

- Chavda, V., and Ransariya, S. (2021). A Study on CSR Reporting Practices of Ultratech Cement Limited. International Multidisciplinary Journal of Appiled Research, Vol.5, Issue-5, pp.148-151

- Someshwari, and Laxmana, P. (2019). Corporate Social Responsibility- A Study on Infosys Ltd. International Journal of Research in Engineering IT and Social Sciences, Vol.9, Issue-5,pp.379-385.

- Singh, J., Singh, J., and Singh, D. (2018).Corporate Social Responsibility- A Case Study of Tata Motors. International Journal of Current Engineering and Scientific Research, Vol.5, Issue-2., pp. 34-42.

- www.asianpaints.com

A Study on development in apparel retail market of Mumbai

Dr.Vijay A Kharde

Padmashri Vikhe Patil college of Arts ,commerce and Science (Loni)

Prof.Ashwini Madhukar Thorat

Pillai college of Arts, Commerce & Science

Abstract

Now a days its real common that humans are fond of the apparels .people like to look more attractive and presentable by wearing good apparels .people wants to grab attention of the society by wearing trendy apparels.

Apparels are the textiles or fabric which covers the body .it just not only covers the body but protect the body from harmful rays, germs and many more things.

Apparels protect the body from any injury. Apparels represent our culture to in this study the researcher is highlighting the development took place in retail sector especially in apparels retails sector. The study is based on secondary data collection it maximise the research in north Mumbai and south Mumbai market both .there development ,new style of selling apparels and the new brands introduced in the market .

Key Words – Apparels, Brands ,Retail Markets

Introduction

Apparel is the attire or clothing which covers our body and make us look presentable in front of society .Apparel is also called as clothing which is made up of fabrics and textiles .in traditional days people use to wear animal skin or any other thing which was available in nature .but now its compulsory to wear proper apparels as we live in human society as its nature we need to cover our body in front of others .Amount and type of clothing depends on the gender and in which region they live in social condition and geographic consideration .As its human tendency to wear caps ,gloves, shoes to complete our look but it's not the part of apparels or clothing but they are combined together so that human can look much more presentable

 ISBN NO: 978-81-962963-4-6

Apparels or clothing is not just wore to look presentable but it will protect human from hard surface,stones,rash causing plants from insects etc. Apparel provides barriers between skin and the environment. Apparels can also protect you from hot and cold climatic conditions and even though from the radioactive rays.

The study wants to highlight the present apparel market situation where the customers and consumers are cheated by selling low quality apparels at higher price. And the area of study is south and north Mumbai apparel markets and the market techniques adopted by apparel businessmen both in north and south Mumbai apparel markets .

History

In Ancient time there were some particular and specific material apparels people use to use for any occasion .people use to have same style clothing's

Some Indian trational Attires are as follows

TRADITIONAL ATTIRES IN INDIA

Traditionally men *wear* dhotis, kurta, angarkha, and paggar or safa (kind of turban headgear). *Traditional* Chudidar pajama (puckered trousers) frequently...

Traditional Indian clothing for women in the north and east are saris worn with choli tops; a long skirt called a lehenga worn with choli and a dupatta scarf to create an ensemble called a ghagra choli; or shalwar kameez suits, while many south Indian women traditionally wear sari and children wear pattu langa.

LIMITATION

- The study is limited to Mumbai apparel Markets
- The study is limited to south market and north market consumers
- South and North apparel markets are analyzed

RESEARCH METHODOLOGY

The researcher tried to collect the quantitative data i.e. the secondary data through various papers and articles Google links are also posted at the end of research paper

OBJECTIVES

- To study on Development in retail sectors
- To study on Fashion brands in apparel markets
- To study on price influencing purchasing behavior of consumers

A Closer Look at Mumbai, the Fashion Capital & Retail Hub of India

Apparel Resources visits Mumbai to decode the success strategies of key players in the Mumbai retail space, making their mark countrywide with top-notch sourcing strategies.

by Shubhi Srivastava 12-February-2019 | 13 mins read

A veritable maze of neighbourhood, Mumbai is the metro city that holds more diversity with respect to people and businesses than probably the rest of India, thus justifying the title of being the Commercial Capital of India. Traditionally it has been the seat of Indian Cinema and the flagbearer of fashion. No wonder this vibrant city is also home to many fashion brands and retailers, originated and initiated by both companies and celebrities. The fashion and retail industry in the city today thrives on this hub of economic activities and without any doubt, it served as the breaking ground for the retail wave to consolidate its reach in India in the late ’90s.

 ISBN NO: 978-81-962963-4-6

Apparel Resources visited this leading brand hub of India and interacted with the top management of major domestic and international retailers based in the city, who are tapping on the aspirations of the dense Mumbai population to kick-start their operations throughout the country. The major shift from unorganised to organised retail, is emblematic of this brand culture, a trend that was first observed in Mumbai.

Having proximity to the port and major manufacturing hubs based in the south-east Asian countries, Mumbai serves as a hot spot for all major retailers in India. These retailers are not restricted to a particular product category, as the city offers a vigorous mix of exclusive brands, conglomerates, multi-brand retailers, across categories ranging from denim, to sportswear, to kidswear and lingerie. This is what makes the sourcing strategies of these industry stalwarts diverse yet efficient, to serve all the categories they want to explore.

Menswear fashion in Mumbai is much more progressive than the rest of country, as the local consumer base quickly adopts trends evolving in the segment. This is how the major homegrown menswear retailers, Mufti and Kewal Kiran Clothing, have consolidated their position in the market. While Mufti caters to more casual segment, KKCL houses four brands that address the needs of different menswear demographics ranging across multiple geographic demarcations, age groups as well as occasions. In fact KKCL boasts of being India's only denim company that works on zero discharge after dyeing. **Lakhbir Singh, Brand Head for Killer Jeans** told *AR*, "The infrastructure and set-up that we have includes the washing, stitching and cutting processes. Through our extensive brand offering, including Lawman, Intergriti, Killer and Page 3, we cater to all strata of the society."

The company is open towards sourcing product categories that lie out of the denimwear domain from the south-east Asian countries. This ensures that the quality of garments it provides with internally produced denims is at par with its more fashionable products in knits, cords and linen, which can be achieved at sharp pricing for larger quantities via these international manufacturers. Lakhbir further elaborated, "We outsource bomber jackets and zippers from Korea, Japan and China. When we have to buy something in corduroy, we source from Bangladesh and all our linen products are from Asian countries."

The kidswear arena consists of some domestic players as well, with names such as Gini & Jony, Toonz and RUFF KIDS. Gini & Jony, the oldest Indian kidswear retailer and Toonz, the eight-year old brand that started off as a business based on licensed cartoon character merchandising, are now key market holders in the domestic kidswear segment.

On the other hand, high-fashion detailed garments, strong campaigning skills and an international reach drive the success of the brand RUFF KIDS. The brand keeps diversity of product assortment as its central focus and has a firm belief in the quality that the manufacturers of South Asian countries provide when it comes to dynamic orders. **Sohail Patca, Director at RUFF KIDS**, informed, "Currently, production is done entirely in-house. We have factories that are completely working for us though we don't own the factory or the people. For jackets and a few of the sweater styles, we outsource the source activity from Ludhiana, but we are looking for manufacturing allegiances with other countries."

The brand however depends heavily on China, besides India for high quality fabric sourcing via agents. Patca is currently looking to collaborate with the expertise of other south-east Asian countries to meet the company's manufacturing requirements. As aptly stated by him, "Seeing the large order quantities, we have to cater to in varying styles, we want to import from South Asian countries in order to enjoy timely shipments and high-quality maintenance. Our denim collection is very unique and we need such manufacturers to keep up with our demands."

Another format that has come to the fore from this city is an influx of celebrity-led brands that tap on consumer sentiments by proving trust with aspiration. *AR* met two such trendsetters, each a stalwart in its own regard, namely, Salman Khan's Being Human and Hrithik Roshan's HRX. The two brands have observed immense success in their respective fields of casual menswear and activewear for all, respectively within a small time span since their inception.

Being Human works for achieving the highest quality, efficient pricing and best delivery times to keep up the brand identity associated with a celebrity, for which they rely on Indian manufacturers for about 85 per cent of their manufacturing and the rest comes from China and Bangladesh.

Being the solo Indian celebrity retailer in activewear, HRX works towards manufacturing the best assortment to compete with international players like Adidas, Reebok, Puma and Nike. **Afsar Zaidi, CEO & Co-founder of HRX** shared, "HRX is owned by Hrithik

 ISBN NO: 978-81-962963-4-6

Roshan and our expertise is in getting the right structure, marketing intelligence, creative ideas to ensure brand relevance. The manufacturing, distribution and logistics are Myntra's responsibility. We have not faced any quality issue in a long time and Myntra takes care of it. When you grow as a business, the MOQs get bigger too, and now we have the potential to tap vendors globally. Thus, by virtue of bigger MOQs and efficient inventory management, we are now working with the best factories that are catering to big international sportswear retailers such as Adidas, Nike, Reebok and Puma. We don't want to compromise on the quality of fabrics or products we offer and now, China is a strong hub and so is Sri Lanka."

Sharing the same viewpoint was **Rakesh Kathayat, the COO of FILA India**, one of the major international brands housed in Mumbai that is now assuming an identity exclusive to India. The international activewear stalwart does all its processes from design and product development to sourcing and distribution within India, for the merchandise retailed locally. "We source from India, China and Bangladesh among other countries – these three are observing the major chunk of our operations," averred Kathayat, who also spoke at great length about the brand's extensive expansion plans in the south-east Asian region in particular, and how South Asian countries are competing with international manufacturing hubs.

Keeping pace with international counterparts in the expansive intimatewear market is PrettySecrets, the online lingerie retailer with its reach in about 18,000 pin codes and a successful foray into the bricks-and-mortar segment. The brand started its journey with offerings in sleepwear but further expanded into lingerie, swimwear and activewear to suit the changing consumer demands. What makes it stand out is the efficient manufacturing network that it employs to suit this complex product mix. **Karan Behal, Founder & CEO, PrettySecrets**, explained that the manufacturing isn't in-house, by further adding, "All the prints, designs, patterns, styling, everything is finalised by our design team; however, manufacturing is done by third party manufacturers based in India and internationally. Right now, we are outsourcing 50 per cent of our products from China while the other 50 per cent comes from India. For our products, especially bras and shapewear, India lacks the manufacturing infrastructure to be able to manufacture high quality products and that's why we source from China and are open to sourcing from other neighbouring countries with expertise in our kind of products."

Another format that Mumbai's fashion industry boasts of are the major league MBOs like Pantaloons, the multi-brand retailer that is thriving after being acquired by Aditya Birla

 ISBN NO: 978-81-962963-4-6

Retail Group in 2012 with a worth of Rs. 3,300 crore and over four million square feet of retail space. Their strength lies in careful product assortment for every store where they focus on expansion of their private labels while giving equal importance to national players and international players under Madura. Being price-sensitive, sourcing for these private labels is done with maximum efficiency and efficient inventory management to balance the diversity in the product categories.

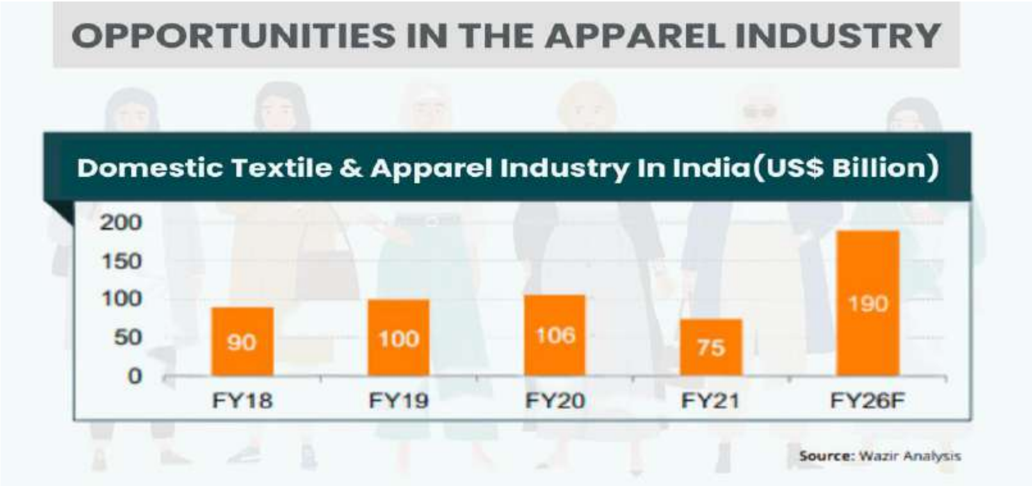
Neeraj Nagpal, the Sourcing Head of Pantaloons, told *AR*, "Having a complex product assortment that caters to menswear, womenswear and kidswear across all categories, our manufacturing has to be very flexible. This is why we do 100 per cent outsourcing and have a base of about 200 vendors who are working for us across India, Bangladesh and China. We work through clusters, so that we can efficiently source the specialisations each cluster caters to. In fact, with about 80 per cent of our manufacturing happening in India, we believe that these Indian segments of manufacturers can produce any product categories. This is the strength of India, we have the best emerging retailers as well as the most flexible manufacturers."

The visit to Mumbai brought to view the sole reason why Mumbai has been and continues to be one of India's strongest retail hubs, even from a manufacturer's perspective. The city is constantly evolving, as are its brands and retailers, leaving no stone unturned when it comes to overtaking the sales and expansion chunk, which is contributing to make India the next retail hub. The country's retail sector is actively looking to meet its shortcomings by outsourcing from neighbouring countries in order to capture a larger market share. This aspirational value that reflects the spirit of Mumbai is what Mumbai's key retail players are cashing on while balancing them with the correct product mix, sourced from the correct medium and correct delivery times to flourish in the dynamic Indian retail market.

Challenges and opportunities

TRENDS IN APPAREL INDUSTRY

- 



Government policies and regulations have directed their focus on this industry. Mr. Piyush Goyal, the Minister of Textiles, announced that the Indian government plans to create 75 textile hubs across the country. Not to mention the government has also reduced the custom duty rates on caprolactam, nylon chips, and nylon fiber and yarn to 5%. These regulations have created plenty of opportunities for the Textile and Apparel Industry in the e-commerce sector.

With lined-up opportunities, there come several challenges for simplified apparel e-commerce.

3. Current & Future Challenges and Problems in the Apparel Industry

The new trends, changing consumer habits, and market shifts have shed light on the new challenges the e-commerce apparel industry is facing in 2023.

CURRENT AND FUTURE CHALLENGES IN APPAREL INDUSTRY

- Difficulty in managing customized order allocation and inventory sync
- Unable to align warehouse operations manually
- The impact of COVID-19 and the need to adapt to the changing retail landscape and consumer behavior
- Inability to manage deliveries, leading to a higher % of Customer Initiated Returns (CIR)
- Hard to align multiple sales channels and offline stores alongside
- Back-breaking for e-commerce platforms to manage multiple vendors
- Untimely and inefficient delivery of products
- No stock rotation leading to outdated stock
- The increased cost of Reverse Logistics

 ISBN NO: 978-81-962963-4-6

- The need to navigate the complex and ever-changing regulations and compliance requirements
- Poor management of returns and cancellations
- Difficulty in predicting and managing demand, inventory, and logistics

4. Evolving Practices as a Solution to Challenges in the Apparel Industry

Starting up your own fashion e-commerce business has never been easier, especially post the pandemic. Right from managing the inventory and warehouse operations to timely updating the digital attire of an e-commerce store, the aspects are many. But with the advancement of technology, it has become important to adopt some upcoming practices, aligning the sales with your operations.

Following are some of the upcoming e-commerce practices that act as a solution to the challenges you are witnessing during these tough times.

LITERATURE REVIEW

The term 'consumer behavior' refers to the behavior of both the personal consumer and the organizational consumer. Studying consumer behavior includes the study of what to buy, how to buy, where to buy and why people are buying (Dadfor. 2009, Chen, 2013).The present study has made an attempt to study the behavior of personal consumers. The personal consumer buys goods and services for his or her own use, or the household or as a gift for a friend. Consumer behavior refers to the act of individuals who are directly involved in obtaining and using goods and services. It also includes the decision-making process, which leads to the act of purchase. Consumer behavior is not only the study of what people consume but also here how often, and under what conditions. Consumer behavior has no history or body of research of its own. It is a new discipline that borrows and combines factors from psychology (study of the individual), sociology (study of groups), social psychology (study of how an individual operates in groups), anthropology (the __Published by European Centre for Research Training and Development UK (www.eajournals.org) 65 influence of society on the individual), and economics which attempts to understand the buyer decision-making process individually and in groups (Dodoo, 2007). Several early theories related to consumer behavior were based on the

 ISBN NO: 978-81-962963-4-6

economic theory, on the notion that individuals act rationally to maximize their benefits in the purchase of goods and services. Consumer behavior research attempts to understand the buyer decision-making process, both individually and collectively. It studies individual consumer characteristics behavioral variables in an attempt to understand people's wants. Consumer is that foundation of every business. What consumer sees, thinks, prefers, and buys is of great importance to marketers to fine tune their marketing offers and achieve high level of consumer acceptance and satisfaction. Therefore, making a decision, the buyer considers many factors such as cultural factors, social, personal and psychological categories. It is essential for marketers to understand consumers to survive and succeed in the competitive marketing environment. A number of researchers have identified and analyzed factors affecting the consumers' buying behaviour which affect consumer behavior individually or collectively. The age of a consumer can have a significant impact on his behaviour. How old a consumer is generally indicates what products he or she may be interested in purchasing. Consumer tastes in food, clothing, cars, furniture and recreation are often age related. Judith Waldrop found marketers are interested in understanding what products will sell well in the youth market. Rani (2014) in her study note that personality is an important factor for purchase behavior. Again it has been observed that personality at different age group varies considerably and it is an important determinant of buying decision. A person do not consume same product from the age 20 to 70, in every stage. With age, the consumers purchase options, the motive of purchase, and the decisions to buy the products changes. Therefore, age may significantly influence consumers purchasing behaviour. Also, a household's income level combined with its accumulated wealth determines its purchasing power. Income certainly influences purchasing decisions because it determines how much people can afford. For example, families with incomes below Rs.10, 000 find it very difficult to buy a home. On the other hand, families in the higher income categories buy luxury automobiles and vacation homes. The income decides the purchasing power of an individual and thus, the more the personal income, the more will be the expenditure on other items and vice-versa. Everything can be bought and sold with the help of money.

 ISBN NO: 978-81-962963-4-6

CONCLUSION

A Study on development in apparel retail market of Mumbai conclude that the consumers are now days very much interested in branded apparels rather than the local materials from the local market .

And the sellers are becoming more conscious about the marketing techniques and promotion which they are doing in the business for making their business more successful. The development in retail sector is such as the apparel retail sector is doing marketing promotion in modern way as per the consumers need.

References

- https://apparelresources.com/business-news/retail/closer-look-mumbai-fashion-capital-retail-hub-india/

- FACTORS INFLUENCING CONSUMERS BUYING BEHAVIOUR WITHIN THE CLOTHING INDUSTRY Sunday C. Eze1 and Bello Adenike O. Bello2 1&2 Landmark University, PMB 1001, Omu-Aran,Kwara State, Nigeria,(https://www.eajournals.org/wp-content/uploads/Factors-Influencing-consumers-buying-behaviour-within-the-Clothing-Industry.pdf)
- An Investigation on Shoppers' Buying Behaviour towards Apparel Products in Bangalore City (Syed Irfan Shafi* Dr. C. Madhavaiah**)

- Consumer Buying Behaviour towards Fashion Apparels- A Case of Delhi (Deepali Saluja1)
- A STUDY ON CONSUMER BUYING BEHAVIOR IN THE APPAREL INDUSTRY IN MUMBAI AND NAVI MUMBAI (Sandeep Bhanot)
- https://www.ibef.org/industry/indian-textiles-and-apparel-industry-analysis-presentation
- https://timesofindia.indiatimes.com/blogs/voices/indian-apparel-and-fashion-market-in-next-five-years-industry-growth-challenges-and-opportunities/

 ISBN NO: 978-81-962963-4-6

- A STUDY ON GROWTH OF TEXTILE AND APPAREL INDUSTRY IN INDIA Dr.N.Krishnan *
- The Development of the Clothing Industry: Technology and Fashion Andrew Godley
- https://www.diva-portal.org/smash/get/diva2:230949/fulltext01.pdf (case study on business model in Zara and H&M) .

Skill requirement to meet New-Age Challenge

Asst. Prof. Padma Patil

Assistant Professor, Dnyan Ganga Education Trust's Degree College of Arts, Commerce & Science, Kasarvadavli, Thane (W) padmapharakte04@gmail.com

9920924342

&

Asst. Prof. Preeti Sharma

Assistant Professor, Arun Muchhala International College of Hotel Management

sharmapreeti1432sp@gmail.com

9769976663

Abstract:

Skills are required for an employee to perform at the workplace. Digitalization has led to a transformation in the workplace for the workforce to adapt to the new ways of working. The Workforce has started adopting hybrid work models. Workforce has started to excel more in terms of skills. It is need for an hour for employees to become acquainted with trending skills and to be competitive in the workplace and marketplace.

The importance of soft skills is required by an employee for the success of an organization. Employers should be given timely training to their employees for upgrading skills as per market demand. Flexible working is the new need for industry. The paper uses secondary data. Overall, this study will focus on new skill requirements required by an employee to show more productivity at the workplace with new skills & digitalization.

Keywords:

Digitalization, Skills, Workforce, Hybrid workforce, Training.

1.1) Introduction:

Technology has changed to an extent where skills are required for an employee to be best at the workplace. As per the digitalization era, many will be doing best at

 ISBN NO: 978-81-962963-4-6

their workplace, many will be losing jobs and many employees will be adapting technology to prove their skills. The skill set has become the new wave of technological revolution. All skill sets are important for an employee in the workplace. The important skill is social & soft skill that works as power skill for an employee. This new skill has been accelerated after the Covid19 pandemic. Artificial Intelligence and robots are the new skills. Creativity is one of the tools where routine tasks have been taken over by machines. This paper will focus on how the world is transformed with new technology and the workforce needs to learn new skills to adapt as new occupations emerge.

Knowledge management is one of the keys in this era. Digitalization has made human dynamics in the workplace. The youth of India requires new skills for cut throat competition. Continuous learning helps an employee to gain new knowledge and skills to implement at the workplace. The digital revolution is transforming people in organizations.

The ministry of skill development & Entrepreneurship has given guidelines to all states to expand and give training for new-age skills. A new wave of technological revolution is arising in the 21st century for digital skill improvement. Today our country and world want a skilled of workforce for development with the slogan "Sabka Saath Sabka

Vikas "NATIONAL POLICY FOR SKILL DEVELOPMENT AND ENTREPRENEURSHIP 2015 aimed that "skill development and skilled India". Our country will be modern when millions of youth acquire new skills.

1.2) <u>Objective of the Study:</u>

1. To understand how new skills can help the new generation face challenges and find solutions to have a worklife balance.
2. To create awareness among the new generation for skills development.
3. To make HR managers make strategies for reskilling employees who are already on the job.
4. To understand the employees who are constantly evolving with the change in business and our experiencing a new change at the workplace with new skills.

5. To understand the tech-driven era by employees so that they should not feel over pressure at the workplace.
6. To prepare youth with different training programs for learning new modern skills.
7. To retain an employee with the right skill set within the organization.

1.3) Research Methodology:

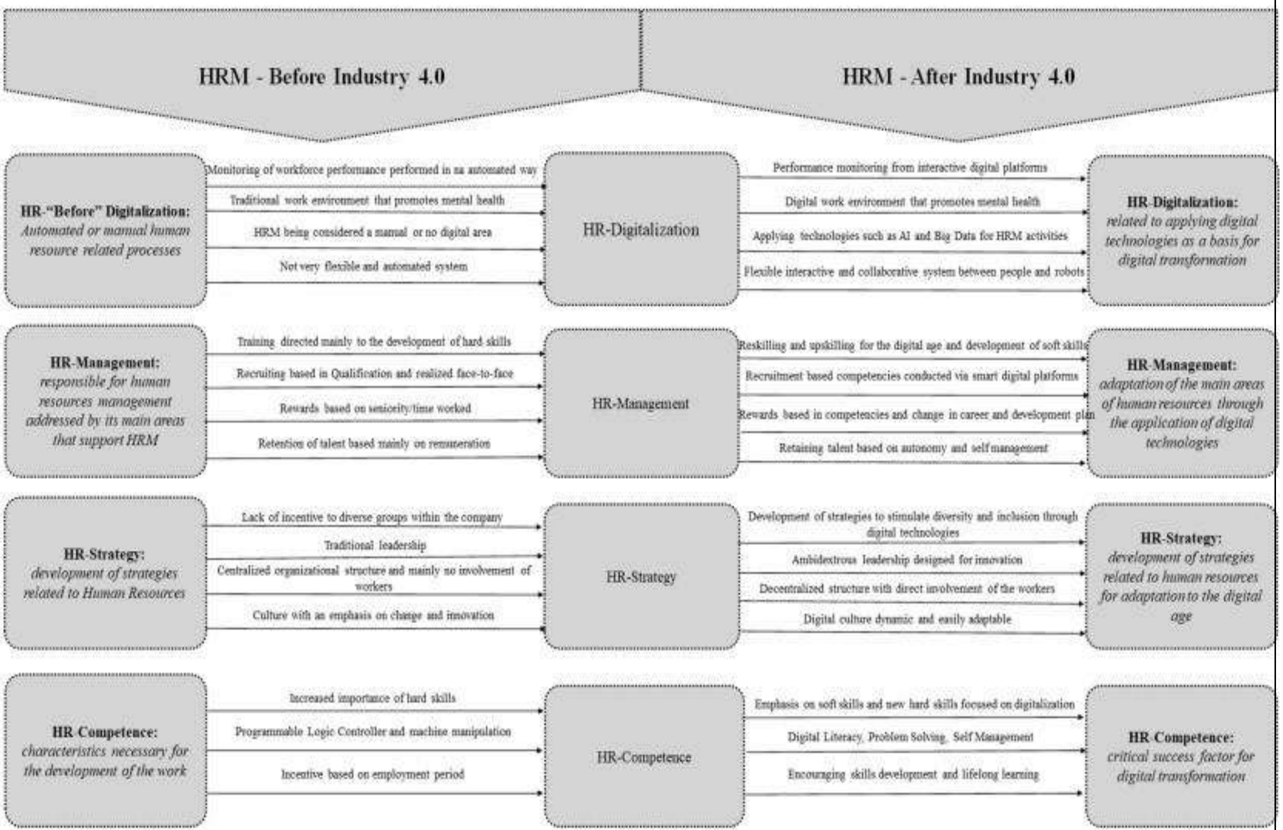
The study conducted is on secondary data by referring to different websites, books, and research papers for the understanding of skill requirements and challenges employees are facing at the workplace. The concept of understanding teamwork and thinking skills are required by an employee to show more performance at the workplace.

Self-directed learning is a new concept in the workplace. The pace of business change in business is so fast that employees need to adapt to changes as per new learning.

1.4) Benefits to Adapt New Skills :

1) Australian Department of Education, Science and Training and Australian National Training Authority 2001 worked on projects that took views of the industry on critical genetic skills that were required in the Australian Workplace. The report of the project from the Australian Chamber of Commerce and Industry (ACCI) and the Business Council of Australia (BCA) gives employability skills not only to gain employment but also to progress an enterprise to achieve great potential & give up successfully to enterprise strategic directions.
2) Due to Globalization, there were many jobs shifted in cities of developing countries reducing the cost of labor because of that unskilled labor. If we give training in new skills and improve their confidence level then it will benefit our country to raise the economy.
3) The aim of the G-20 is "A Skilled Workforce for Strong, Sustainable and Balanced Growth", International Labor Office (ILO's), Global Jobs Pact and admits the importance of the growth of an employmentoriented framework for the future growth of the country.

4) Skills policies will be more effective when they coordinate well with employment, social protection, investment, and trade.
5) Before the pandemic education was chalk and talk method but in the pandemic, all education was online. The entire education system drastically changed. All over the world teachers and learners adapt new skills of teaching. All teachers learn the new skills of information technology.
6) Global trends have affected all regions like educational commitment, market, supply-side challenges, technological innovations, and new skill requirements.
7) Due to changes in trends like online marketing & shopping, Digitalization, and Online banking transactions, our country will be a developed country by adopting new skills.
8) Meet new age challenges and adapting new skills will be essential to survive with job security.
9) May assist companies to develop the skills needed to respond to the challenges of a continuously changing business environment.



Conclusions:

 ISBN NO: 978-81-962963-4-6

1) Skilling, Reskilling, and upskilling are critical imperatives for employees.
2) Demand for skills has increased in the last 5 years which has led to more skilled manpower requirements.
3) Government policy is focusing on developing artificial intelligence and robotics in the industrial sector and skills that are principally about to concern lack of scientific knowledge, computing, and skills of engineering.
4) The focus on basic digital skills for 'everyone' is in terms of inclusion and employment, where digital proficiency is seen in the same light as basic acquisition and literacy (e.g. access to public services & markets)
5) Aftermath of the COVID-19 pandemic maximum number of employees resigned due to a lack of learning and skill development opportunities.
6) Skill development is an important aspect of the growth of the country. Skilled manpower is required so that there should be equal demand and supply of labor. As we have sufficient manpower but they are not skilled they can get new job opportunities. There should be a properly coordinated effort from all aspects for the growth of employees with new skills and the growth of India as well.
7) For the MOOC course, we train the teaching staff to work with multiage learners and to motivate and advise them to learn MOOC online courses

Suggestions:

1) Continuingly we must respond with ready to re-skill and up-skill. If our Government will commit that training and education are flexible so that they are easily accepted as the requirement of demand on workforce change and molded up for life-long learning.
2) Motivation too is an important factor in learning new skills and implementing the same at the workplace and employees should be paid accordingly.
3) As per the change in the process of learning techniques of working and initiatives should be taken by HR and employees to implement in the organization.
4) Up skilling can help young skilled professionals and new graduates with new-age digital skills.

 ISBN NO: 978-81-962963-4-6

5) New technology concept Web 3.0 demands more from employees with new job opportunities and requires more new skills.
6) Active learning digital literacy is very important for employees to adapt to new skills.
7) Employees should understand the career development of employees as well as the growth of the company. 8) The HR department should keep employees trained with the new updated technology and skills.
9) Employee performance should be measured the based on output given by an employee to the organization.
10) As the G-20 digital economy has successfully created the framework of mapping skilled workers to make them ready to showcase skills for the future government should come up with more programs for youth.
11) Adaptability & Cognitive flexibility is important for the future generation .
12) Flexibility at the workplace is important for an employee for learning new skills .

References:

1) Contemporary Global Issues in Human Resource Management
ISBN: 978-1-80043-393-9, eISBN: 978-1-80043-392-2 Publication date: 18 November 2020
2) Havermans, L. A., Den Hartog, D. N., Keegan, A., & Uhl-Bien, M. (2015). Exploring the role of leadership in enabling contextual ambidexterity. Human Resource Management, 54(S1), 179-200
3) GIAN JYOTI E-JOURNAL, Volume 5, Issue 1 (Jan-Mar 2015) ISSN 2250-348X 11th National
Conference on "Role of Skill Development in Employment Generation: A National Issue", held on December 20th, 2014 at GJIMT, Phase II, Mohali, Punjab
4) Palmer, R. (2009). Skills development, employment and sustained growth in Ghana: Sustainability challenges. International Journal of Educational Development, 29(2), 133-139
5) Zaware, Nitin and Zaware, Nitin, REDEFINING SKILL-SET IN THE ERA OF DIGITIZATION - A CONCEPTUAL STUDY (October 1, 2020). Available at SSRN: https://ssrn.com/abstract=3819232 or http://dx.doi.org/10.2139/ssrn.3819232
6) Jaiswal, A., Arun, C. J., & Varma, A. (2022). Rebooting employees: Upskilling for artificial intelligence in multinational corporations. The International Journal of Human Resource Management, 33(6), 11791208.Goulart, V. G., Liboni, L. B., & Cezarino, L. O. (2022)
7) Balancing skills in the digital transformation era: The future of jobs and the role of higher education. Industry and Higher Education, 36(2), 118-127.
8) National-Skill-Development-Policy-March-09
9) Srivastava, Y., Ganguli, S., Suman Rajest, S., & Regin, R. (2022). Smart HR Competencies and Their Applications in Industry 4.0. A Fusion of Artificial Intelligence and Internet of Things for Emerging Cyber Systems, 293-315.
10) HRM in the digital age – digital changes and challenges of the HR profession
11) Dr Emma Parry and Professor Stefan Strohmeier Employee Relations ISSN: 0142-5455 Article publication date: 27 May 2014

12) Agarwal, V., Mathiyazhagan, K., Malhotra, S., & Saikouk, T. (2022). Analysis of challenges in sustainable human resource management due to disruptions by Industry 4.0: an emerging economy perspective. International Journal of Manpower, 43(2), 513-541.
13) Balouei Jamkhaneh, H., Shahin, A., Parkouhi, S. V., & Shahin, R. (2022). The new concept of quality in the digital era: a human resource empowerment perspective. The TQM Journal, 34(1), 125-144.
14) DIGITALIZATION & HR By Helene Kristoff, Bjarne Tautra Hoen, Lasse Adrian and Victoria Stang PROJECT REPORT BY STUDENTS AT THE UNIVERSITY OF OSLO - MAY 2018
15) Anshari, M., & Hamdan, M. (2022). Understanding knowledge management and upskilling in Fourth Industrial Revolution: Transformational shift and SECI model. VINE Journal of Information and Knowledge Management Systems.
16) The Digitalization of Human Resource Management: Present and Future School of Management of the St. Petersburg University, 3 Volkhovskiy Lane, St. Petersburg 199004, Russian Federation
17) Skill Development in India: Challenges and Opportunity. Prof. Maheshkumar Shankar Kedar Sinhgad Institute of Management & Research Center, Wadgaon, Pune
18) Kopolovich, O. (2020). Learning soft skills in the digital age: Challenges and insights from development and teaching'Negotiation Management'MOOC. Online Journal of Applied Knowledge Management (OJAKM), 8(2), 91-106.
19) Jadhav, Sunita. (2020). The Changing Nature of Work: Skill Requirements to Meet New Age Challenges.
20) Mukherjee, S. (2018). Challenges to Indian micro small scale and medium enterprises in the era of globalization. Journal of Global Entrepreneurship Research, 8, 1-19.

 ISBN NO: 978-81-962963-4-6

"GAMIFICATION: A METHOD TO FOSTER EMPLOYEES ENGAGEMENT'

Submitted By,

Prof. Muskan Jeswani

Head, Department of Self Finance Course

St. Paul College

Ulhasnagar – 421004.

Email Id: muskan.jeswani@stpaulcollege.co.in

ABSTRACT

The goal of gamification is to increase employee engagement by combining the human tendency to engage in gaming activities with their work. Maintaining employee engagement and motivation can be a challenging work. When employees are motivated, the workday passes fast, they are enthusiastic and attentive to their clients, and the business prospers. For our purposes, the different actions, behaviours, and control methods utilised to "gamify" an activity are referred to as game mechanics. The game dynamics that surround the engagement with the game mechanics then come about as a by-product of the gamified experience's inspirational nature. A few gaming concepts that are utilised to affect human behaviour and desires include achievements, appointments, bonuses, levels, and points. Whatever a company can do to increase motivation and engagement is worthwhile. Finding tools that encourage workers in a way they love and even seek out is difficult. Gamification can be the solution for the same because it has several uses, including helping with internal organisational processes like hiring, employee rewards and recognition, employee performance, training programmes, wellness, and safety. It also has customer-focused uses including increasing brand loyalty and customer engagement. This research article intends to examine this newly developed idea, its literature, and theoretical evolution with a focus on current applications of gamification and its function in raising user motivation and engagement.

KEYWORDS:

Employee Engagement, Gamification, behaviour, motivation, mechanics

INTRODUCTION:

In the early 2000s, a firm by the name of Bunchball developed a gamified system to boost customer contact, garnering a lot of attention in the process. This trend was embraced and put into practise in operational settings all throughout the world. Gamification has remained among the most popular strategies for managers to increase employee engagement and performance over the years. One of the company's top strategic goals is to figure out how to motivate employees to develop and perform better so they may share their knowledge.

Gamification involves the application of game mechanics and game design to engage and inspire people to accomplish their goals. These methods can be used in a variety of contexts, including training for employees, marketing, and education. It can enhance drive to finish work and make boring or difficult chores more intriguing.

Examples of gamification include adding game-like aspects to educational software to make learning more interactive and enjoyable, as well as employing points, badges, and leader boards in the workplace to promote friendly competition among co-workers.

Gamification was developed as a notion to take advantage of people's propensity for engaging in games and incorporate it into their job in order to apply the outcomes to the fields of education, customer engagement, employee engagement, and other business and management operations. Briefly, it seeks to combine the ideas of work and play. Nowadays, gamification can be used in more contexts. According to the flow concept, flow may be attained anywhere, hence it can be used to any kind of good or service. Gamification is the use of game design elements (such as challenges, levels, points, and leaderboards) to the workplace to improve employee engagement and job satisfaction. Gamified Flow-related activities should influence users' behaviour. This objective may be attained by intrinsic or extrinsic motivation. While extrinsic motivation comes from outside sources (such as money incentives), intrinsic motivation comes from within the workplace. Extrinsic factors can spark Flow, but they can also have negative long-term impacts.

Gamification is more than just playing video games. Kim (2015) claims that although games create an imaginary world that is distinct from reality, gamification adds game-like features to the real world. A game's features that go beyond its conventional framework encourage players to Acting and having fun will motivate and boost participant involvement (Kapp, 2014; Zichermann & Cunningham, 2011).

 ISBN NO: 978-81-962963-4-6

The gamification method takes advantage of the innate human needs for rivalry, success, status, selfexpression, altruism, and closure. Gamification's main strategy is to reward players for successfully completing tasks. Due to the shift in the labour structure of businesses, which is currently dominated by echo boomers and Gen Y, such a technology trend is necessary. This generation is heavily reliant on technology and e-commerce and has developed under their influence. Their methods of social interaction, communication, and cooperation have all changed as a result of technology. Gamification is a useful tool for businesses to use to interact and engage with their staff and customers in a unique way (Xu, 2011; Rishi & Goyal, 2013). Gamified applications have been utilised by businesses like Head Space, Mahindra and Mahindra, Starbucks, Dulingo and many others to improve employee and consumer experiences. The idea that gaming is pleasurable and that any process utilising that mechanism would also be engaging and inspiring has led to a strong positive view about the usefulness of gamification in commercial operations (Hamari & Koivisto, 2013)

OBJECTIVE OF THE STUDY:

1. It explains behaviour is linked to reward. When employees are engaged, they are automatically are delivering their best in the business.
2. People learn the best ways to interact with your company, your goods, your services, and your brand when they take part in and engage with your gamification project.
3. Gamification in organizations can increase the employee motivation in order to determine the company’s performance.
4. The main aim is to retain the best talents in the industry. To promote loyalty and Employee engagements by making it more fun at work.
5. Games establish an Emotional Connection and also keep the learner engaged.
6. To identify the impact of gamification in retaining the best talented asset in the organization.
7. To study the role of gamification in emerging corporates.

OVERVIEW OF THE ACTUAL PROBLEM:

Organizations are struggling to figure out how to retain their workers motivated to complete their allocated responsibilities effectively. High turnover frequently exhibit a

 ISBN NO: 978-81-962963-4-6

poor attitude about their jobs and are less effective. They must locate a cutting-edge, reasonably priced solution that will enable them to adopt engagement and incentive systems. The main force behind managing this issue is gamification, which makes work enjoyable, encourages employee participation in achieving set goals, and provides actual data. Making something that currently exists into something enjoyable will engage staff and encourage them to alter their behaviour in response to organisational changes. Workers must be working towards the same goals as the organisation while also competing with one another to get up the corporate ladder.

LITERATURE REVIEW

Gamification science is a complicated area that has only recently begun to be studied. Game mechanics have a tremendous deal of potential to be successfully adapted to the corporate environment as its underlying principles and mechanics are better understood. “Gamification and its effect on employee engagement and performance in a perceptual diagnosis task” (Ong, 2013). Another study demonstrates that gamification has become popular in our era; technology will advance this one step, making it a more useful and enjoyable workplace experience for everyone. The bottom line is that gamification lays the groundwork for a stress-free workplace by tying employees together and encouraging them to maintain ties to the company. (Mathiyarasan & Reena R, 2021). Gamification should be handled with caution, and good game design should be guaranteed. This could be suggested as a topic for future research as the goal of this study was unrelated to the identification of effective game design and game content. (Daiga & Iveta, 2018). The potential of using gamified human resource management systems to change employee attitudes and behaviour at work. (Mario Silic, 2020). A study by (Leimeister & blohm, 2013)links between game design features and personal incentives, such as the use of rankings, might assist users of gamified applications feel a feeling of social recognition. The BPO industry may use gamification as a form of staff engagement . In this article, he suggested applying gamification at the surface, integrated, and embedded levels, where game mechanics are applied in various ways to boost motivation and engagement. (Neeli, 2012). Further research, examined the mediating effect of employee engagement on the relationship between gamification and employee performance (Abdul Basit, July 2021) Another aspect of Gamification, was to encourages healthy competition, which encourages

 ISBN NO: 978-81-962963-4-6

competent assets to perform well without undue stress and to take advantage of rewards for top performance. (Reena, 2021)

RESEARCH METHODOLOGY:

The review was carried out by identifying and choosing important works for this article, and a full examination of the topic was done by searching the Scopus, EBSCOhost, ProQuest, Emerald, and Google databases. The framework of the study was established utilising secondary research. Based on their applicability to finishing this article, the studies were either included or excluded. Due to the novelty of the idea of gamification, many of the investigations were presented as conference papers rather than journal publications. The same factor also explains why reports and news items are taken into consideration while writing an article's applications section to broaden the body of scholarly knowledge.

FINDINGS:

The fundamental justification for using gamification is that it can encourage employees or consumers to be more engaged, which enables businesses to persuade the target user to behave in the way they want (Andrzej Marczewski, 2013, Hamari et al., 2014). Both the most recent academic research and commercial applications support this.

The assessment of prior research makes it very evident that gamification has a very favourable impact on performance, engagement, and retention. The only thing left to do is strike the appropriate balance between pushing the envelope and levelling up at the same time. Try not to overstress and overwhelm your staff with victory. It has improved the field of human resources by motivating workers to learn and alter their behaviour, which makes the workplace more enjoyable and effective.

It entails changing how to go about the activity in order to make it more difficult and rewarding. Gamification will succeed in engaging people and inspiring them to alter their behaviours, acquire new abilities, or resolve issues. If employers can find ways to make work seem more like play, it will enhance employee interest and their capacity to pick up new skills. A competitive advantage provided by gamification is having motivated personnel who are more self-assured and effective.

CONCLUSION

While gamification is still a comparatively recent phrase in the workplace, it is constantly evolving and growing. The introduction of gamification technologies has fundamentally changed many organisations' key human resource approaches and is transforming industries like business. With the aim of achieving organisational outcomes like employee and customer engagement, learning and development, improved employee performance, recruitment, brand loyalty, brand development, customer participation, and also social consciousness, the notion has been implemented across a variety of industries. To fulfil the concept's full potential in both academics and industry, it is necessary to broaden it and create a solid theoretical foundation. In order to avoid failures, it is also necessary to address the ignorance of how to create a game design that is coherent with the desired organisational end. For this reason, it is crucial to use the right game design in order to produce a transformative result. All generations have been addicted to gamification, which keeps people motivated, engaged, and more productive. It is an opportunity for workers to exhibit their desire for rivalry, success, and status in the workplace. Gaming is a fantastic technique to make work appear less like work and to encourage people in achieving the intended result in line with the organization's values. It helps HR professionals to make the most of gamification opportunities to encourage, inspire, and incentivize workers to collaborate.

REFERENCES:

1. Hamari, J., & Koivisto, J. (2013). Social motivations to use gamification: an empirical study of gamifying exercise. Proceedings of the 21st European Conference on Information Systems http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1328&context=ecis2013_cr
2. Gamification Design of IT-Based Enhancing Services for Motivational Support and Behavioral Change, Business & Information Systems Engineering, Authors: Ivo Blohm & https://www.researchgate.net/publication/260988461_Gamification_Design_of_ITBased_Enhancing_Services_for_Motivational_Support_and_Behavioral_Change
3. Gamification and its effect on employee engagement and performance in a perceptual diagnosis task , Author: Michael Jun Kiat Ong 2013

https://ir.canterbury.ac.nz/bitstream/handle/10092/7640/OngMmastersthesis.pdf?sequence=1

4. A Study on Upshot of Human Resource Strategy Gamification in Retention Management http://www.journal-aquaticscience.com/article_131863_80c8b9cda8e5ab142fd24911cb2762fc.pdf
5. Engaging users through fun and achievement based experiences https://www.infosys.com/services/incubating-emerging-technologies/offerings/infosys-enterprisegamification-platform.html
6. Ahana Ruth Pinto, Dr.Shubhra Rahul (2018) Role Of Gamification As A Tool For Employee Engagement
7. Using Employee Gamification to Improve Engagement & Experience. https://blog.empuls.io/employeegamification/

   Bunchball Inc. (2010). Gamification 101: An Introduction to the Use of Game Dynamics to Influence Behavior. Retrieved from http://www.bunchball.com/sites/default/files/downloads/gamification101.pdf

8. Neeli, B. K. (2012). A method to engage employees using gamification in BPO industry. Proceedings of the 2012 3rd International Conference on Services in Emerging Markets ICSEM ‘12 (pp. 142–146). doi:10.1109/ICSEM.2012.27

Digital Marketing and its Types

Ms. Aayesha Ansari Mohd. Yunus

Assistant Professor – Skm's J.M.Patel College of Commerce

Abstract:

Digital marketing is a successful ways to achieve a results in business. Digital Marketing has not only benefitted businesses but has also emerged as a promising career opportunity. In this paper we will discuss what is digital marketing? History, evolution of digital marketing and types of digital marketing.

Keyword: Digital marketing, Evolution of Digital marketing and types of Digital marketing.

Marketing is currently defined by the **American Marketing Association (AMA)** as " The Activity, set of institution and process for creating, communicating, delivering and exchanging offering that have value for customers, clients, partners and society at large". The **AMA** review this definition and its implication for marketing research every three years. AMA's **1935** interpretation: "Marketing is a performance of business activities that direct the flow of goods and services from producer to consumer". **Philip Kotler** has evolved his definition, In **1980** version: "Satisfying needs and wants through an exchange process", In **2018** defined as " the process by which companies engage customers, build strong customer relationship and creates customer values in order to capture value from customers in return".

Digital marketing is successful way to achieve meaningful results in business. Digital marketing makes use of the internet and digital technologies via computers and smartphones. Its goals are to boost brand recognition, stimulate sales, and advertise products and services. Different websites, mobile devices, social media, search engines, and analogous channels are used in digital marketing.

Dr. Jessica Rogers, senior associate dean of business at SNHU, said the two disciplines serve to connect with distinct groups of consumers. "Traditional media is a great way to

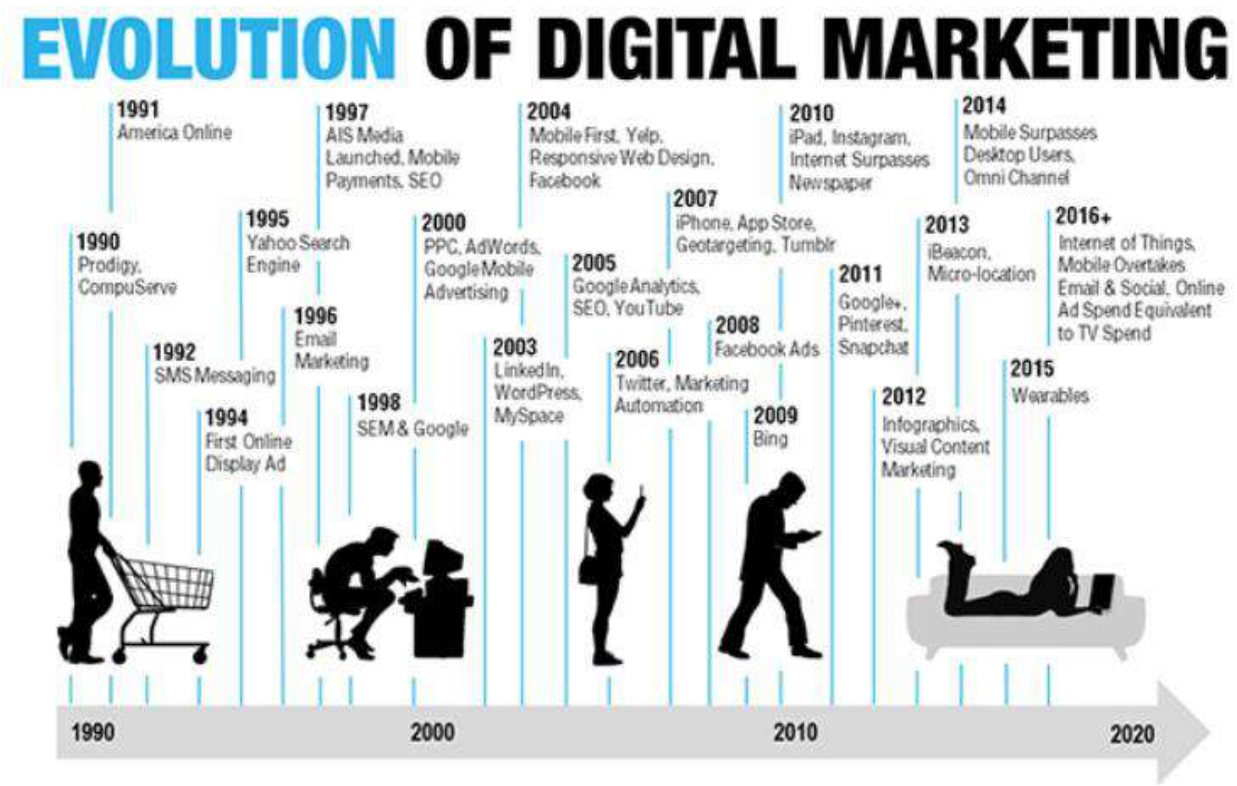
 ISBN NO: 978-81-962963-4-6

reach a broad consumer base, whereas digital media has the ability to reach very specific audiences", A key point is that depending on the target audience, some channels are more effective than others.

History and Evolution of Digital Marketing:

- Digital marketing is a form of marketing that leverages the internet and digital techn ologies. Digital marketing effectively began in **1990** when **Archie search engine** was created as an index **FTP** (File Transfer Protocol) sites. In the 1990s, the term digital marketing was coined. With the development of server/client architecture and the popularity of personal computers, Customer Relationship Management (CRM) application become a significant factor in marketing technology.
- Marketers were also able to own online customer data through e-CRM software after the Internet was born. This led to the **first clickable banner ad** going live in 1994, which was the **"You Will"** campaign by **AT&T** (American telephone and telegraph, founded in 1885) and over the first four months of it going live, 44% of all people who saw it clicked on the ad.
- In the 2000s, with increasing numbers of Internet users and the birth of iPhone, customers began searching products and making decisions about their needs online first, instead of consulting a salesperson. During the 1990s and 2000s changed the way brands and businesses use technology for marketing. As digital platforms became increasingly incorporated into marketing plans and everyday life, and as people increasingly use digital devices instead of visiting physical shops.

 ISBN NO: 978-81-962963-4-6



1990: The term "Digital Marketing" was first used

1993: Introduced first **clickable web-ad** banner.

1994: **Yahoo** was launched and the first **e-commerce transaction**, over Net Market.

1996: Small search engines were introduced i.e. Hotbot, Looksmart, and Alexa.

1997: Launch of the first **social media** site **SixDegree.com**.

1998: This year was the **changing year**, the birth of **Google, Microsoft** launched MSN, and Yahoo! Introduced Yahoo! Web search.

2000: During this year Internet bubble burst, SixDegree.com shut down, and also smaller search engines were wiped out.

2001: F**irst mobile marketing campaign** was introduced i.e. Universal Music.

2002: Introduced **LinkedIn.**

2003: **WordPress** was introduced and launched **myspace**

2004: The changing year when **Gmail** was launched, Google goes public and **Facebook** goes live.

2005: **Youtube** was introduced.

2006:

 ISBN NO: 978-81-962963-4-6

2007:	Microsoft launches MS Live Search, In this year **Twitter** was launched, moreover Amazon's e-commerce sales crossed $10 billion.
2008:	Tumblr, Web streaming service: Hulu, and **iPhone** were launched.
2009:	This year China take over America in terms of the number of users and even **Spotify** was introduced to listen to online songs
2010:	Google launches Instant for real-time search engine results.
2011:	**WhatsApp** was introduced to make communication easier.
2012:	Google Buzz shut down and also web overtake the TV viewership among the youth generation.
2013:	A progressive increment in Social Media Budget that is up to 64%.
2014:	Yahoo acquired Tumblr in this particular year.
2015:	So many things happened like Mobile exceeds PC internet usage.
	In this era, **Snapchat** was launched and also there was the rise of predictive analytics.

People started preferring digital content on a daily basis, there are a number of advantages in Digital Marketing. Unlike traditional marketing, digital marketing is more affordable. With the advent of digitalization the online shopping crowd is exponentially increasing.

Many companies realized all these fresh new sites that were popping up were beginning to open new doors of opportunities to market their products and brands. With new resources, they needed new approaches to promote their brands & capitalize on the social networking platform.

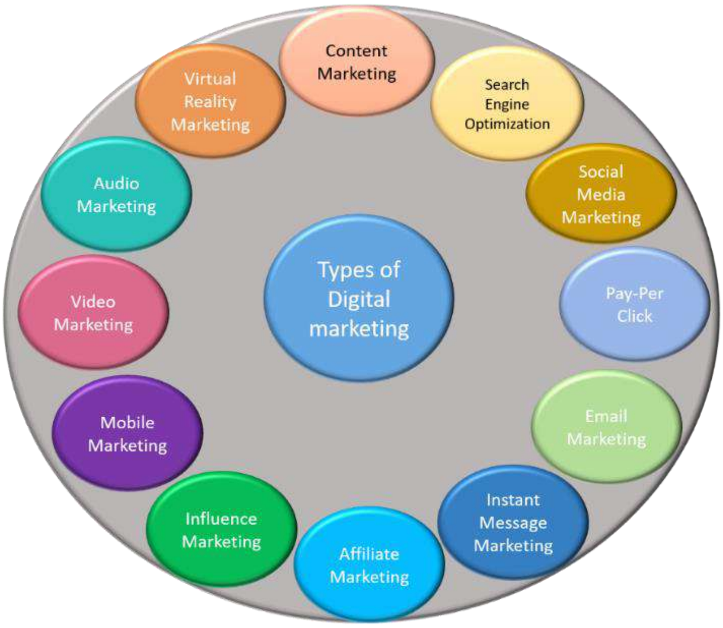
Products marketed digitally are now available to customers at all times. Social media posting is the most popular online activity in the US according to data gathered by the Marketing-Techblog for 2014. On average, Americans use social media for 37 minutes each day. 99% of digital marketers use Facebook, 97% Twitter, 69% Pinterest, and 59% Instagram for marketing. Facebook has been used by 70% of B2C marketers to bring in new clients 67% of Twitter users are far more likely to buy from brands that they follow on Twitter. Pinterest is used by 83.8% of luxury brands. Facebook, Twitter, and LinkedIn are the top three social networking sites utilised by marketers.

A person today uses a mobile device for 65% of their time when using digital media. Google Ad Words currently controls the majority of the $200 billion digital advertising market and accounts for 96% of the company's revenue. With an estimated 3.1 billion internet users, social networking has been at the forefront of the digital marketing

 ISBN NO: 978-81-962963-4-6

revolution. A $1 billion industry, influencer marketing is currently predicted to develop further due to the popularity of blogs and Instagram. The exciting domain of digital marketing is expected to grow and experience various new breakthroughs in the years to come.

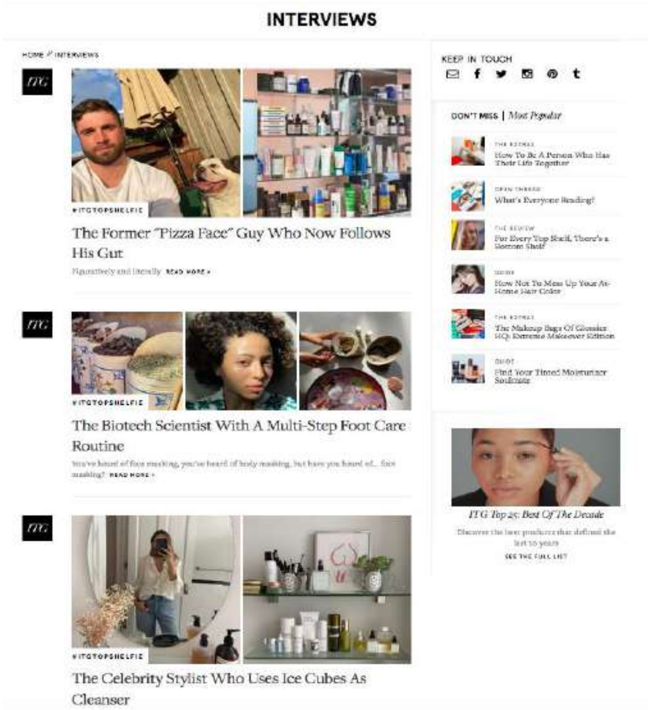
Types of Digital Marketing:



1. **Content Marketing:**

   It is all about content. The term denotes the creation and promotion of content assets for the purpose of generating brand awareness, traffic growth, lead generation, and customers. It refers to informational, valuable content like blog posts, how-to videos, etc. This type of marketing helps you connect with your audience and answer their questions. It can also help to generate leads and close sales. Content should be published regularly with the target audience in mind. Content marketing is a long-term strategy that can help you achieve your business goals.

   The main tools of content marketing are: **Blogs, eBooks and whitepapers, Online Courses, Infographics, Podcasts, etc.**



- LinkedIn's approach follows the golden rule of content marketing: Develop content that serves your customers, not your brand.
- Interviews, product reviews, and testimonials lead their content, which emphasizes a lot on the perspectives and reactions of their audience. It is therefore not surprising that these customer endorsements make their blog and products very successful because such content also provides for excellent social proof.

  Taco Bell, GoPro, Slack, Glossier etc. are inspiring examples of content marketing.

2. **SEO (Search Engine Optimization)**

   The goal of search engine optimization (SEO), a strategy, is to raise the visibility of online content on search engines like Google and Bing thereby increasing the amount of organic (or free) traffic your website receives. The channels that benefit from SEO include websites, blogs, and infographics. Digital marketers use SEO to make sure that interested customers can access their products or services online. SEO has a number of sub-processes. The main ones are: **Technical SEO, On-Page SEO, and Off-Page SEO.**

Case study: When Canva was introduced in 2012, it completely satisfied a need in the industry for a graphic design tool for non-graphic designers. Its rapid expansion was not, however, only a result of its market placement.

It can be attributed to their clever marketing strategy, which is still in effect today. Due to the way they marketed their brand and designed the website, it was valued at $6 billion and had 30 million monthly active users.

3. SMM (Social Media Marketing)

Social Media Marketing is the process of attracting traffic and attention through social media platforms. It has to do with reaching people on the various social networks either through content marketing campaigns (postings), paid ads, or both.

Between 2004 (the year MySpace became the first social media site) and 2022, interactive digital channels grew rapidly, pushing social media to heights that challenge even the reach of television and radio. Almost **58%** of the world's population, or 4.6 billion people, used social media in 2022, a rise of over 10% in only one year.

Social media has changed not only how we interact with one another but also how businesses can influence consumer behaviour. This includes both the promotion of content that increases engagement and the extraction of location-based, demographic, and personal data that helps messaging resonate with users. The power of social media marketing (SMM) is driven by the capacity of social media in three key marketing

areas: connection, interaction, and customer data.

Example; Gillette: "We Believe: The Best Men Can Be"

In January 2019, Gillette launched a social media campaign aiming at a modern interpretation of manhood. The short film posted exclusively on **YouTube** depicted several cases of men struggling with traditional masculinity that Gillette itself used to glorify: the fear of showing their emotions, sexual harassment, and bullying others. Then the film shows several examples of positive masculinity, such as standing up for others, caring for your loved ones, and so on.

The campaign was clearly inspired by the **#MeToo movement**.

4. **Search Engine Marketing / Pay Per Click / Paid Advertising:**

It is refers to paid advertisements and promoted search engine results.

At the top of the SERP paid advertisements are referred to as search engine marketing, or SEM. These advertisements are often "pay-per-click," as the cost is determined based on how many people click the link. The "Ad" label will be seen next to your Website if you pay for these top SERP slots. Although many consumers are aware that these are advertisements, it can still be a very successful digital marketing tactic. Other channels like Google Ads includes: Paid Ad on Facebook, Twitter ads campaigns, Sponsored messages on LinkedIn.

ISBN NO: 978-81-962963-4-6

A 56% YoY Revenue Increase With Google & Microsoft Ads – Click Toast PPC Case Study

To help its client achieve their pay-per-click advertising goals, this digital marketing team focused on driving sales through advanced shopping campaigns and branded search campaigns with both Google Ads and Microsoft Ads. The result: a 56% revenue increase year-over-year along with a 26% increase in customer transactions.

5. Email marketing

Businesses communicate with their audiences by using email marketing. Email marketing is a form of marketing that can make the customer on your email list to aware of new products, discounts and other services. Advertise events, promotions, and special material, as well as to point customers towards a company's website.

Many successful online businesses and marketers use all other digital marketing channels to add leads to their email lists, and then through email marketing, they create a number of funnels to turn those leads into customers.

 ISBN NO: 978-81-962963-4-6

Soluna Garden Farm is a small farm in Massachusetts specializing in herbs, flowers, tea, and spices. "Prior to the pandemic, most of our sales were in-person – at our retail store, our stall in the Boston Public Market, and other area farmers' markets," said Amy Hirschfeld, Co-owner, Soluna Garden Farm.

When COVID-19 closed down those options, the farm did not have a single retail outlet to sell its products. They started a new subscription offering to get farm products to customers even during the pandemic and announced it with an email campaign.

They had steadily grown the email list for years and had a regular newsletter and email marketing but pivoted to speak to an online-first audience. The very first email caused the farm to sell out – what normally would have taken a season to sell in-person was accounted for in a single day thanks to email marketing. Now seeing open rates of almost 25% and click rates over 10%.

(The very first email was sent in 1971 by a computer engineer named Ray Tomlinson. The message he sent was just a string of numbers and letters, but it was the beginning of a new era of communication.)

6. **Instant Message Marketing**

Every month, 1.5 billion individuals use WhatsApp, Facebook Messenger, and WeChat together. Hence, instant messaging marketing is useful for reaching your audience where they are. Instant messaging tools are interactive customer support. More and more, customers are invited to chat online with a specialist while visiting a company support website, or when they are on hold on the phone.

WhatsApp, Skype, Messenger, Viber, etc. are examples of Instant Messaging marketing.

7. Affiliate Marketing.

This is a type of performance-based advertising where you receive a commission for promoting someone else's products or services on your website. Affiliate marketing channels include:

- Hosting video ads through the YouTube Partner Program.
- Posting affiliate links from your social media accounts.

This is part of the relatively new wave of influencer marketing. Creating a campaign using influencers can be a highly effective form of affiliate marketing. Finding the right content creators can take your digital campaign to the next level.

Many well-known companies like **Amazon** have affiliate programs that pay out millions of dollars per month to websites that sell their products.

When designing your digital marketing strategy, you should include affiliate marketing as a way to get people involved in your brand and sell your products for a commission.

8. Influence Marketing

Partnering with someone who have a significant audience to promote your products is known as influencer marketing. It works well to raise brand awareness, improve visibility, and foster trust. According to 63% of customers, influencer recommendations are more trusted than those of brands. Moreover, it is essential to collaborate with a trustworthy influencer.

Influencers can be celebrities, authorities, or content creators and can be found on various social media platforms. They are often compensated per post, and the money they receive depends largely on the size of their readership.

9. Mobile Marketing:

Mobile marketing refers to the process of reaching customers in the different mobile app stores such as Google Play, Apple app store, or Amazon marketplace. The consumer journey on mobile devices is expanding exponentially.

Brands that want to stand side by side with their customers must use mobile marketing. The marketer must convert all of his desktop activities to mobile ones. Also, you must be proficient in mobile-specific duties including texting, social messaging apps, and

in-app advertising etc.

Domino's had to "go big" to gain attention in their app promotion ideas. And the brand achieved this feat through its innovative Piece of the Pie Rewards program.

It allowed customers to sign up for the Rewards Program and earn 10 points for scanning any pizza. Upon collecting 60 points, the participant would receive a free pizza from Domino's!

It is only required a simple AI-driven pizza scanning mobile app, which in turn, contributed to tons of user-generated content and increased brand awareness.

10. Video Marketing

Video marketing become so popular. YouTube has become the second most popular search engine and lot of users turning to YouTube before they make a buying decision. YouTube is just one of the mediums you can execute Video marketing. There are so many other platforms like Facebook Videos, Instagram, and Vimeo to use to run a video marketing campaign.

Videos that are brief and snappy can draw viewers more quickly than texts in the fast-paced world of today. Live or recorded video content, whether it's informative or entertaining, is a trustworthy digital marketing strategy. More than 2 billion individuals use YouTube each month to search for various things.

 ISBN NO: 978-81-962963-4-6

11. Audio Marketing

Since the peak of commercial broadcasting, radio has been a consumer favourite, from 1920's to till today switching from traditional to internet radio. Audio marketing is advanced by platforms like Spotify. Podcasts and smart home assistants like Google Home or Amazon Alexa are included in the much broader category of audio marketing.

12. Virtual Reality Marketing

The use of virtual reality technology in marketing initiatives is known as virtual reality marketing. It can be utilised to engage your audience more effectively and connect with them. For instance, customers can interact with a virtual character rather than reading text..

Virtual technologies are being used by more companies in a variety of industries to train their staff, test new or existing processes, and create new products. Businesses are seeing the value of virtual reality as a marketing tool in addition to increasing productivity and optimising operations.

Businesses in the tourist and retail sectors are adopting virtual reality to present their products to customers in innovative, engaging ways. The entertainment sector is also utilising virtual reality to provide their target audiences with more immersive, engaging, and educational experiences.

Example: In the Displaced, a story about how war affects children, the **New York Times** used virtual reality portray the story. Users were given an in-depth insight into the destruction produced by wars and what it's like to be a youngster displaced by such life-changing events through this multimedia experience. The experience enables readers of the New York Times to witness what is actually happening, making VR and the documentary powerful storytelling formats that provide readers a connection with the brand in addition to emotional intensity.

Conclusion:

In today highly competitive market, digital marketing is the most effective kind of advertising. It has boosted company opportunities and, over time, enhanced marketing tactics. Due to its psychological effects on our customers, digital marketing's significance and potential future applications cannot be ignored. Digital Marketing has not only benefitted businesses but has also emerged as a promising career opportunity. As a result of this more and more people are inclined towards building a career in Digital Marketing & the demand for Digital Marketing Institutes is rising continuously.

Suggestions:

- We have to promote and encourage the idea of digital marketing.
- We should add digital marketing in curriculum.

References:

Access on 17th March 2023, 2:52 pm.

https://en.wikipedia.org/wiki/Digital_marketing

https://brytdesigns.com/

What are the 8 Types of Digital Marketing? | SNHU

https://intellipaat.com/blog/history-of-digital-marketing/

https://www.simplilearn.com/history-and-evolution-of-digital-marketing-article

https://www.convertful.com

PPC Case Studies: 21 PPC Case Study Examples for Paid Search (seochatter.com)

https://www.investopedia.com/terms/s/social-media-marketing-smm.asp

https://www.searchenginejournal.com/social-media-marketing-examples

https://www.marketingsherpa.com/article/case-study

https://blog.hubspot.com/marketing/what-is-digital-marketing

https://www.reliablesoft.net

https://hvseo.co/blog/how-canva-templated-their-seo-to-success/

Images are subject to copyrights from google.

 ISBN NO: 978-81-962963-4-6

Recruitment & Selection Procedure of Aristopharma Ltd.

Ms. Shraddha Pagare

Alkesh Dinesh Mody Institute for Financial and Management Studies

ABSTRACT: Recruitment is the art of discovering and procuring potential applicants for actual and anticipated organizational vacancies. Accordingly, the purpose of recruitment is to locate sources of manpower to meet job requirements and job specifications. Recruitment is considered as one of the most important functions in an organization. Unless the appropriate people are hired, even the best plans, organizational charts, and control systems would not yield good results. Decisions regarding employee testing, work policies, programmes, compensation and corporate image all have an impact on recruiting. The Indian pharmaceutical industry currently tops the chart amongst India's science-based industries with wide ranging capabilities in the complex field of drug manufacture and technology. A highly organized sector, the Aristopharma Ltd. is estimated to be worth $4.5 billion, growing at about 2 to 3 percent annually. It ranks very high amongst all the third world countries, in terms of technology, quality and the vast range of medicines that are manufactured. It ranges from simple headache pills to sophisticated antibiotics and complex cardiac compounds; almost every type of medicine is now made in the Indian pharmaceutical industry. The paper attempts to highlight the Recruitment & selection processes in Aristopharma ltd. in its difficulties in the recruitment and selection processes are determined and suitable suggestions are made.

KEYWORDS: Recruitment, Employment, Selection, Staffing, Manpower planning, Human resource planning, Job analysis.

Introduction:

Aristopharma Ltd. is one of the top 10 pharmaceutical companies in Bangladesh. The company started its journey in 1986 with the honest promise to provide quality medicines at affordable prices to the countrymen. Aristopharma now owns two plants- one at Shampur, Dhaka & another at Gachha, Gazipur. The Shampur plant is located at Shampur-kadamtali I/A, 10 km South-East from central Dhaka. Although it is the 1st plant of Aristopharma, with continuous expansion & upgradation, it is now equipped with highly sophisticated and advanced facilities. The facility is planned and designed to meet the local as well as international demand both qualitatively and quantitatively.

 ISBN NO: 978-81-962963-4-6

It started manufacturing sterile ophthalmic products in 2002 and presently is maintaining no. 1 position in ophthalmic market in Bangladesh. In Aristopharma, quality is a journey, not a goal. It continuously sets higher standards and feels passionate to achieve that. The motto of Aristopharma's quality policy is "**Quality - the unit we count**" and by quality we don't mean only product quality rather it is infused in every activities that we do.

With the aim to cope with the challenges of globalization, Aristopharma ltd. stepped beyond the boundary of Bangladesh in 2000, Vietnam being the first country to export.

Today Aristopharma exports its quality medicines to 30 countries of 5 continents and is moving aggressively to expand and extend its export market. As a recognition to its Quality Management System, Aristopharma achieved ISO 9001:2000 certificate in 2005. The certificate was issued by Orion Registrar Inc. USA, one of the prime certification bodies in the world. Later on the certificate was upgraded to ISO 9001:2008 standard. Today around 7000 employees are relentlessly working for Aristopharma in its journey to build a healthier future.

RESEARCH AND DEVELOPMENT :

Our R&D department is located in Mandideep, Madhya Pradesh, which was established in the year 2003. The department is housed in a 12000 sq. ft. area comprising Formulation research & development and Analytical research & development section and recognized by the Department of Science & Technology, Government of India.

Marketing efforts of ARISTO are supported by a strong R&D team comprising highly qualified formulation and analytical scientists. It is fully equipped with state-ofthe -art equipments, facilitating development of conventional and novel drug products complying to high standards of quality.

Our capabilities of drug product development are:

- Immediate Release Tablets
- Effervescent Tablets
- Orally Disintegrating Tablets
- Chewable Tablets
- Bilayered Tablets

 ISBN NO: 978-81-962963-4-6

- Inlay Tablets
- Delayed Release Tablets
- Extended Release Tablets
- Powder for Suspension / Syrups
- Oral Liquid Suspension / Syrups
- Hard Gelatin Capsules
- Multiple Unit Delayed Release / Extended Release Pellets (MUPS)
- Powder for Injection
- Liquid Injection
- Creams
- Gels
- Ointments

The analytical research & development section supports all the developmental work of formulation development. It is well equipped with highly sophisticated instruments and undertakes method development, stability studies, validation and method transfer.

Our research & development team have solved a number of complex challenges across oral solid, liquid, semi-solid dosage forms as well as parenterals - whether it is drug product complexity or drug substance complexity. We have the capability to deliver quality products within established timelines, at low costs without compromising on quality.

Although our drug products are developed adhering to Indian regulatory requirements and ICH guidelines; we consider the International regulatory agencies like USFDA in controlling the levels of inactive ingredients to be under IIG limits, following dissolution methods as per dissolution methods database for drug products. The drug substances are procured after detailed understanding of solubility and polymorphs to use in our formulations.

- The theme of ARISTOPHARMA's Marketing is to care for its customers and this responsibility doesn't lie only on the shoulder of Marketing Department rather all the company's departments work together to serve the customers' interests and not only the external customers, but also the internal customers i.e. employees.

The core marketing job is accomplished by six departments-

- Product Management,
- Sales
- Distribution

 ISBN NO: 978-81-962963-4-6

- Medical Services
- Sales Training
- Market Research

1.) Product management department (PMD)

Product Management Department lies in the center of all marketing activities. A dedicated team with solid professional background comprising Pharmacists, MBAs, Biochemists and Medical Graduates work in this department

2.) Sales Department

The sales department lies as an important part of marketing as they do the implementation part of all strategies. A large team of around 1200 highly skilled sales people work throughout the country to bring in success for the company.

3.) Distribution Department

To make its quality products available at every corner of the country, ARISTOPHARMA has a strong distribution network comprising of 14 depots throughout the country. A dedicated team of around 450 people and a fleet of vehicles comprising delivery vans, three wheelers etc are engaged to distribute time of the products throughout the country.

4.) Medical Services Department (MSD)

ARISTOPHARMA, believe that their responsibility does not end only in manufacturing and marketing quality medicines but also extends to the total improvement of the healthcare sector of the country. To do this, ARISTOPHARMA has established an independent Clinical

- Research and Medical Services
- Department (CRMSD) for the first time in Bangladesh. CRMSD comprised of medical graduates, assists in conducting Clinical Researches with their own medicines on their local people upon collaboration with different medical institutions. It also arranges seminars & symposia, publishes newsletters & articles and provides other professional services to the doctors.

 ISBN NO: 978-81-962963-4-6

5.) Sales Training Department

They organize training for sales people. Training is organized both in the entry level as well as for existing people to keep them updated with product knowledge, selling skills etc.

6.) Market Research Team (MRT)

The Market Research Team conducts prescription audit throughout the country to find out the prescription behavior of the doctors, which acts as the major input for formulating marketing strategies.

Export

With the aim to cope up with the challenges of globalization, ARISTOPHARMA started its export operation in 2000, Vietnam being the first destination. Today ARISTOPHARMA export to 12 countries of three continents namely Singapore, Sri Lanka, Myanmar, Vietnam, Bhutan, Pakistan, UAE & Macau of Asia; Ukraine of East Europe & Nigeria, Mauritius of Africa. Apart from usual tablet, capsule, syrup, suspension or cream/ointment, it also exports sophisticated ophthalmic dosage forms to Hong Kong and Myanmar. It is the 1st pharmaceutical company in Bangladesh to export to a developed country like Hong Kong & 2nd company to export to Singapore.

Now ARISTOPHARMA is moving aggressively to increase its market share in the operating countries as well as to invade new countries. Some other African countries & countries of Middle East are under active search.

Human resource

Skilled human resources are the key driving force of ARISTOPHARMA. Their success is based on attracting, developing & retaining talented & motivated human resource.

The employees of ARISTOPHARMA believe in collaborative spirit. They appreciate that working as a team multiplies the strength of the individuals involved as well as the impact of the results.

Skill acquisition & development of all staff is key to a company's growth, we believe. In this regard, they are always on the look out to identify training needs of their employees in order to enable them to carry out the entrusted responsibilities. Training programs undertaken, not only address skills relating to the specialty of the individuals concerned, but also improving leadership skill.

Training

The term training refers to the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to specific useful competencies. During In Plant Training we know about how the pharmaceutical raw materials are processed from the dispensing of the materials to the finished products with maintaining its quality. In-plant training is a very important part in Pharmacy Education to achieve practical knowledge for every student.

Why In Plant Training is needed?

In Pharmaceutical Industry to build up the carrier as an industrial pharmacist every pharmacy graduate must have a practical experience on developing formulations, manufacturing, quality control and industrial management. It forms the core of apprenticeships and provides the backbone of content at institutes of technology. In addition to the basic training required for a trade, occupation or profession, observers of the labor-market recognize today the need to continue training beyond initial qualifications, to maintain, upgrade and update skills throughout working life. People within many professions and occupations may refer to this sort of training as professional development. To make the pharmacy graduates more competent and more experienced In-Plant training is essential.

On-the-job training takes place in a normal working situation, using the actual tools, equipment, documents or materials that trainees will use when fully trained. On the-job training has a general reputation as most effective for vocational work.

Purpose of in-plant training

The purpose of in-plant training is given below-

For the fulfillment of B.Pharm Degree.

■ To achieve idea about the documentation and this is necessary for practicing GMP.

■ To get ideas about the function of IPC (In Process Control) department.

■ To achieve overall idea how cGMP standards are followed in a pharmaceutical industry.

■ To correlate the theoretical knowledge with the practical knowledge.

 ISBN NO: 978-81-962963-4-6

■ To get idea about the important machineries and equipments those are needed for the production and product analysis. ■ To get ideas about the activities of QA (Quality Assurance) department.

■ To get ideas about development department.

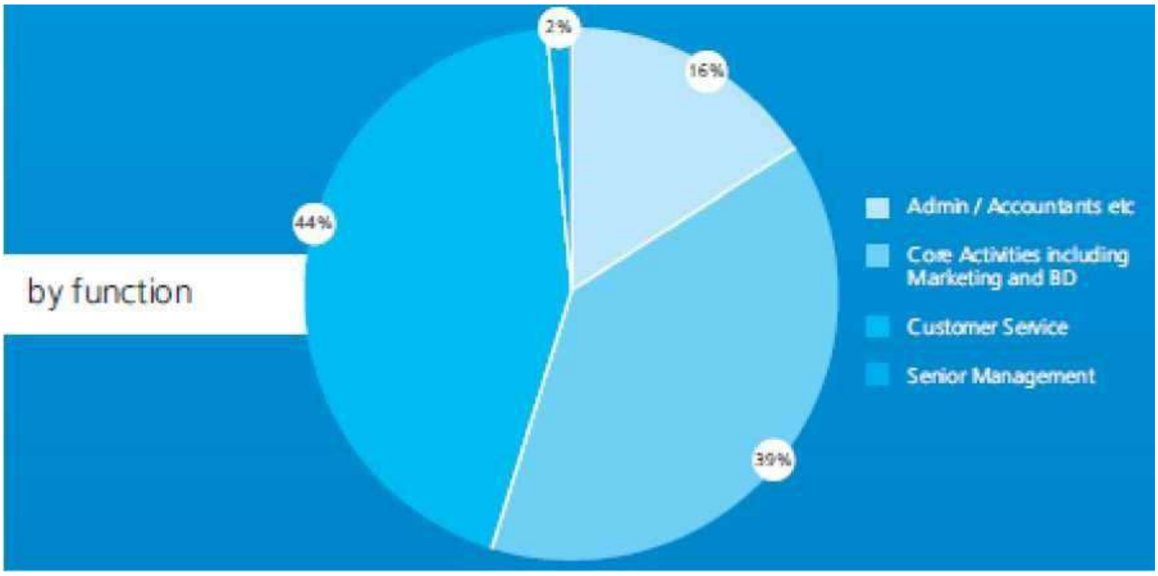
OBJECTIVE:

The objective of the research is to accentuate the significance of the procedure of the staffing role. After this, we need to comprehend the measurement of its success and find a solution to face the predicaments it comes across.

METHODOLOGY:

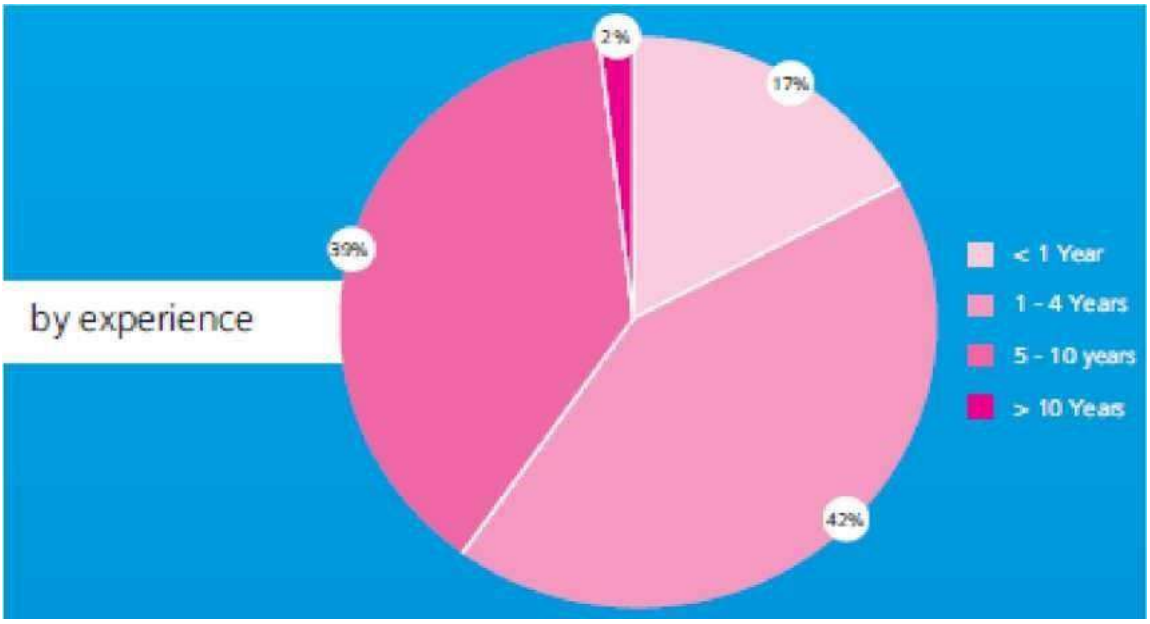
The Research Methodology is based on primary data available through interviewing around ten Personnel managers. It also includes secondary data available through various website portals, books and e-articles. The assimilation of the information is used to suggest ways and means to face the arising investigation of the processes involved in the recruitment and selection function.

Diagram 1. - shows selection Process



ISBN NO: 978-81-962963-4-6

Diagram 2: shows a generalized composition of new hires



FINDINGS:

Recruitment:

There are several sources of recruitment and they may be broadly categorized into (i) internal, and (ii) external.

Internal Recruitment:

Internal recruitment seeks applicants for positions from those who are currently employed. Internal Sources include present employees, employee referrals, former employees, and former applicants.

Present employees: Promotions and transfers from among the present employees can be a good source of recruitment. Promotion to higher positions has several advantages. They are

1. It builds good public relations.
2. It builds morale.

However, promotion can be dysfunctional to the firm as the advantage of hiring outsiders who may be better skilled and qualified is denied.

Employee referrals: Employee referrals are an excellent means of locating potential employees for those recommendation from a current employee regarding the job applicant is considered the best source because an employee will recommend someone only when he believes that the individual can perform efficiently. While recommending, the reputation of the person who recommends is at stake and, hence, a careful judgment is endured. The recommending employee often gives the applicant a more realistic view and information about the job than what is conveyed through advertisements. This information reduces realistic job anxieties and increases job survival. As a result, employee referrals tend to be more acceptable and once employed seem to have a high job survival rate. Moreover, employee referrals are an excellent means of locating potential employees in the hard-to-fill positions. Some organizations also reward an employee for recommending a candidate. However, it has its own disadvantages. Employees may be tempted to recommend their friends and relatives to the organization with exaggerated potentials. This might develop unhealthy groupism, which may not be conducive for a healthy work environment. Another drawback is to recommend and include relatives into the organization. This might also lead to nepotism and may not exactly align with the objectives of the organization. Finally, employee referrals may also minimize diversity in the workplace.

Former Employees: Former employees are also an internal source of applicants. Some retired employees are willing to work on a part-time basis or may recommend someone who would be interested in working for the company. An advantage with this source is that the performance of these people is already known.

Previous Applicants: Although not truly an internal source, those who have previously applied for jobs can be contacted by mail, a quick and inexpensive way to fill an unexpected opening.

External Recruitment:

External sources far outnumber the internal methods. Specifically, sources external to a firm are:

Professional or Trade Associations: They maintain complete bio-data of their members and organizations find this source more useful to recruit executives, managers & engineers.

Advertisements:

Want ads describe the job and the benefits, identify the employer, and tell those who are interested and how to apply.

Employment Exchanges:

The Government has set up Public Employment Exchanges in the country to provide information about vacancies to the candidates and to help the organizations in finding out suitable candidates.

Campus Recruitment:

Campus recruitment offers an excellent source for professional and managerial positions. This method is very popular and successful. The candidates thus selected also proved to be quite successful in their careers and jobs. The philosophy in this procedure is *catch them young.* It is this scope to identify potential candidates and the adaptability of candidates to be moulded in the desired way that make this method a highly successful one.

Walk-Ins, Write-Ins and Talk-Ins:

Candidates apply casually for jobs through mail or hand-over the Applications in Personnel Department.

Consultants:

Consultants in India perform the recruitment on behalf of a client company by charging a fee. Organizations depend on this source for highly specialized positions and executive positions.

Contractors:

Contractors are used to recruit casual workers. The names of the workers are not entered in the company records and, to this extent, difficulties experienced in maintaining permanent workers are avoided.

 ISBN NO: 978-81-962963-4-6

Acquisitions and Mergers:

When organizations combine into one, they have to handle a large pool of employees, some of whom may no longer be necessary in the new organization. As a result of the merger, new jobs may be created. Both new and old jobs may be readily staffed by drawing the best-qualified applicants from this employee pool.

Competitors:

Rival firms can be a source of recruitment. There are legal and ethical issues involved in 'raiding', this method involves identifying the right people in rival companies, offering them better terms and luring them away.

E-recruiting:

There are respective company websites devoted in some manner to job posting activities. There are negatives associated with Internet recruiting. For example, broader exposure might result in many unqualified applicants applying for jobs. More resumes need to be reviewed, more e-mails dealt with and specialized applicant tracking software may be needed to handle the large number of applicants. Another problem is that the recruiters are likely to miss out many competent applications that lack access to internet.

CONCLUSIONS:

Let us conclude that the recruitment and selection process across ten organizations in the Indian Pharmaceutical context have been emphasized. The various problems posed to these organizations have been highlighted along with the necessary solutions. The identity of the organizations has been concealed for privacy concerns.

 ISBN NO: 978-81-962963-4-6

A STUDY OF INSTAGRAM AS A MARKETING TOOL

Asst.Prof. Pallavi Mirgal
Assistant professor, I/C HOD Department of Management Studies
KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai
(Author) Email Id: - pallavi.m@klessccmumbai.edu.in

Mr. Harsh Mavani
T.Y.BMS, Bachelor of Management Studies
KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai
(Co-Author) Email Id: - harshmavani83@gmail.com

ABSTRACT:-

Social network marketing is increasingly being used by businesspeople as a marketing tactic. Following in the footsteps of popular social media platforms like Facebook and Twitter, Instagram joined the trend in 2010 and gave businesses another useful channel for connecting with customers. Instagram is a social media platform that is widely used and that many multinational corporations have utilized as a marketing tool. It is a crucial marketing tool that enables effective business communication. Through Instagram, marketers can engage with their audience by posting photos and videos, commenting to share information, and receiving likes and comments to get feedback from users. We'll talk about how Instagram can be used as a marketing tool for social network marketing in this essay.

INTRODUCTION:-

As the marketing strategy trend move from the traditional marketing strategy to social network marketing strategy, many companies have started to participate in promoting the Company's brand through various social networking sites. In this era where everyone is always busy, many customers would prefer looking at visual based advertisement such as pictures and videos than advertisement filled with words. Therefore, the social networking site that best fit the marketing strategy is the Instagram.

Instagram is a social media platform that has become one of the most popular marketing tools in recent years. It allows businesses to promote their brand and products to a massive audience of over 1 billion users, many of whom are active daily. Instagram's visual nature makes it an ideal platform for businesses to showcase their products and services through photos and videos. Businesses can also use Instagram's features such as Stories, Reels, and IGTV to create engaging and interactive content that helps to build their brand and engage with their audience.One of the key advantages of using Instagram as a marketing tool is its targeting capabilities. Instagram's advertising platform allows businesses to target their ads to specific demographics, interests, behaviors, and locations, ensuring that their content reaches the most relevant audience. In addition to advertising, businesses can also use Instagram to build their brand through influencer marketing. Influencer marketing involves partnering with social media influencers who have a large following to promote your products or services. This can help to increase brand awareness, reach new audiences, and build trust with potential customers. Over all, Instagram is an effective marketing tool for businesses of all sizes and industries. With its large user base, visual nature, and targeting capabilities, it provides a powerful platform for businesses to connect with their audience and grow their brand.

KEYWORDS:- Instagram, Consumer Behaviour, Marketing Tool, Analysis, Marketing Mix, Social Media, Business, Promotion, Social Network.

OBJECTIVES:

- Understanding the effectiveness of Instagram as a marketing tool.
- Identifying best practices for using Instagram as a marketing tool.
- Analysing the impact of Instagram on consumer behaviour.
- Identifying the role of influencers in Instagram marketing.
- Exploring the role of Instagram in the overall marketing mix.

LITERATURE REVIEW:-

Instagram is a digital branding catalogue, and is more intuitive and easier to access than more other web platforms; I use it as both a portfolio and photo journal. My Instagram gets much more web traffic than my actual website. Almost all my gigs involve posting an ad on my Instagram account in the form of a unique photo that's blended seamlessly into my other content." – Laura Lawson Visconti, travel journalist, social influencer, business owner.

"I use Instagram to build my personal brand by documenting my life and through networking." – Paul Raimondo, Digital Marketing Strategist. I use Instagram to help as many people as possible with their businesses, so beyond the inspirational quotes, Instagram for me is now a platform to promote either my own free magazine, my own e-books/pdfs or other people's/companies' free and paid products." – Brad Cameron, founder of Build Your Empire Magazine.

"We use it to build brand value by showing inspiring use cases for our clients' products. After all, nobody buys something unless they are compelled to use it." – Jim Tobin, president of Ignite

"I use Instagram for brand awareness and development and as a means to connect more intimately with my audience." – Jenn Herman, expert and blogger on Instagram marketing.

"I treat marketing like a boy I want: Keep it simple, but attractive, and always make him want more." – Deonna Monique, founder and CEO of Boho Exotic Studio.

"Instagram is the best platform to present my brand's image and reach my target audience and new potential customers. Over time, this audience can be leveraged for website clicks, sales, and more." – Zahira Jade, community manager at Hire Influence.

Ever since its arrival in 2010, Instagram has steadily grown to become one of the most dominant social media platforms in the world.

Today, the network has more than 500 million monthly active users, it's estimated that 20% of all internet users have Instagram accounts, and there is little sign of the photo sharing app slowing down anytime soon. With such impressive stats, businesses everywhere are making Instagram the cornerstone of their marketing strategies.

HISTORY:-

Instagram began development in San Francisco as Burbn, a mobile check-in app created by Kevin Systrom and Mike Krieger. Realizing that it was too similar to Foursquare, they refocused their app on photo-sharing, which had become a popular feature among its users. They renamed it Instagram, a portmanteau of "instant camera" and "telegram".

On March 5, 2010, Systrom closed a $500,000 seed funding round with Baseline Ventures and Andreessen Horowitz while working on Burbn. Josh Riedel joined the company in October as Community Manager, Shayne Sweeney joined in November as an engineer, and Jessica Zollman joined as a Community Evangelist in August 2011.

The first Instagram post was a photo of South Beach Harbor at Pier 38, posted by Mike Krieger at 5:26 p.m. on July 16, 2010. Systrom shared his first post, a picture of a dog and his

 ISBN NO: 978-81-962963-4-6

girlfriend's foot, a few hours later at 9:24 p.m. It has been wrongly attributed as the first Instagram photo due to the earlier letter of the alphabet in its URL. On October 6, 2010, the Instagram iOS app was officially released through the App Store.

2012–2014: Additional platforms and acquisition by Facebook

On April 3, 2012, Instagram released a version of its app for Android phones, and it was downloaded more than one million times in less than one day. The Android app has since received two significant updates: first, in March 2014, which cut the file size of the app by half and added performance improvements; then in April 2017, to add an offline mode that allows users to view and interact with content without an Internet connection. At the time of the announcement, it was reported that 80% of Instagram's 600 million users were located outside the U.S., and while the aforementioned functionality was live at its announcement, Instagram also announced its intention to make more features available offline, and that they were "exploring an iOS version".

On April 9, 2012, Facebook, Inc. (now Meta Platforms) bought Instagram for $1 billion in cash and stock, with a plan to keep the company independently managed.

2018–2019: IGTV, removal of the like counter, management changes

To comply with the GDPR regulations regarding data portability, Instagram introduced the ability for users to download an archive of their user data in April 2018.

IGTV launched on June 20, 2018, as a standalone video application.

2020–present: New features

In March 2020, Instagram launched a new feature called "Co-Watching". The new feature allows users to share posts with each other over video calls. According to Instagram, they pushed forward the launch of Co-Watching in order to meet the demand for virtually connecting with friends and family due to social distancing as a result of the COVID-19 pandemic.

<u>RESEARCH METHODOLOGY:-</u>

- Research Method:- This is a qualitative research
- Research Design:- Descriptive research design

ISBN NO: 978-81-962963-4-6

- Data Collection:- Secondary sources are used to collect data

CONCLUSION:-

- For any company, Instagram can be found very useful when used right.
- Instagram provides room for creativity and innovation for marketers to create interesting and personalized content.
- As Instagram is based on communication through visual elements like images and videos it creates a totally new way for marketers communicate to customers.
- According to the findings the main characteristics for successful Instagram marketing are:-

a. Be active; comment, like and share other user's content.

b. Follow selected users; both individuals and other brands.

c. Using brand related hash tags.

REFERENCES:-

- https://www.businessnewsdaily.com/7662-instagram-business-guide.html#:~:text=Using%20Instagram%20for%20business%20can,all%20your%20marketing%20plan%20strategies.
- https://www.big3.sg/blog/a-brief-history-of-instagram-and-its-rise-to-popularity#:~:text=Sponsored%20Posts%3A%20As%20social%20media,rebranding%20as%20an%20advertising%20platform.
- https://en.wikipedia.org/wiki/Instagram
- https://www.businessnewsdaily.com/7662-instagram-business-guide.html
- https://www.voxco.com/blog/how-to-use-social-media-for-market-research/#:~:text=Brands%20can%20carry%20out%20market,conduct%20polls%20and%2For%20surveys.

A Study of Relationship between Customer Satisfaction & Customer Loyalty at McDonald's & Burger King

Asst.Prof. Pallavi Mirgal
Assistant professor, I/C HOD Department of Management Studies
KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai
(Author) Email Id: - pallavi.m@klesscmumbai.edu.in

Ms.Trupti Premji Patel
T.Y.BMS, Bachelor of Management Studies
KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

Abstract

The purpose of this study is to examine the connection between customer loyalty and happiness at Burger King and McDonald's. A mixed-methods strategy is used in the study, combining quantitative and qualitative research techniques. Customers of both fast-food chains participated in online questionnaires that were used to gather the main data. According to the research's results, customer satisfaction is a key factor in determining customer loyalty, and customers who are extremely pleased with their experiences are more likely to stick with a business.

The research also showed that there are notable distinctions between McDonald's and Burger King in terms of patron loyalty and customer satisfaction. Although customer satisfaction is comparable between the two companies, Burger King's clientele is more devoted than McDonald's. According to the qualitative information obtained through questionnaires, The research also showed that there are notable distinctions between McDonald's and Burger King in terms of customer loyalty and customer satisfaction. Although customer satisfaction levels at both companies are comparable, McDonald's has a more devoted following of patrons than Burger King. Customers valued the restaurants' food quality and quick service, according to the qualitative data collected through surveys.

The results of this research have significant ramifications for fast food chains because they emphasize how crucial customer satisfaction is in cultivating client loyalty. To increase

 ISBN NO: 978-81-962963-4-6

consumer loyalty and market share, fast-food chains should concentrate on improving customer experiences.

Introduction

India is a diverse country where food is not only seen as a form of nourishment but is also intertwined with customs and traditions. The taste and flavours of food vary from state to state in India. In the past, people preferred home-cooked meals, but with urbanization, the concept of fast food is becoming more prevalent. In today's fast-paced world, where expenses are rising and families need to work to survive, quick and easily prepared meals are becoming increasingly popular. However, the consumption of fast food has drawbacks, such as the burden of diseases and the replacement of balanced home-cooked diets with high-calorie junk food. The fast-food industry has both benefits and flaws, and its consumption is increasing in India, leading to its economic growth but also contributing to food inefficiency and poverty.

The fast-food industry originated in Southern California in the 1940s and has had a significant impact on the eating habits of Americans and Asians. The rise of fast-food culture can be attributed to several factors, including the interest in automobiles, the development of major highways, and the growth of suburban communities. In different regions, various fast-food items have become popular, such as noodles in East Asian cities, flatbread and falafel in the Middle East, and char-grilled meat sticks in French-speaking West African nations. In India, popular local fast-food items include vada-pav, chat, dahi vada, pav-bhaji, and pani-puri [1]

Burger King India, which made its debut on the Fortune India Next 500 list at No.319 this year, is a joint venture between the U.S. burger giant and private equity firm Everstone Capital. The company plans to invest $200 million in the next sixseven years in India.

In November 2014, India became the 100th country in which Burger King set up shop, and at the helm is Rajeev Varman, its CEO here. With close to two decades at the company, Varman has helped expand the restaurant’s global footprint to markets like Canada and the U.K. Now, he is back in India to grow the brand. And there’s no better way to do it, he feels, than by giving the customer real value.

Under Varman, the company has tailored its menu and messaging to suit Indian tastes. For instance, it is building a wider vegetarian offering, enhancing its flame-grilling expertise, and focussing on value leadership rather than price as a differentiator. “Value does not necessarily mean buying cheap products. We need to be value [oriented] in pricing and premium in quality,” says Varman. [2]

ISBN NO: 978-81-962963-4-6

The fast-food industry is highly competitive and customer satisfaction is a key factor in determining customer loyalty. McDonalds and Burger King are two major players in this industry, both vying for customer loyalty. However, there is a need to investigate the relationship between customer satisfaction and customer loyalty for these two fast-food chains, as it has not been extensively studied in the Indian context.

Objectives of the Study: -

1. To examine the correlation between customer satisfaction and customer loyalty at McDonald's and Burger King in the fast-food industry.
2. To compare and contrast the levels of customer satisfaction and loyalty between McDonald's and Burger King.
3. To contribute to the existing knowledge on customer satisfaction and customer loyalty in the fast-food industry through mixed-methods research.
4. To emphasize the significance of customer satisfaction as a crucial factor that drives customer loyalty in the fast-food industry.

Literature Review: -

In India, the fast-food industry has experienced significant growth in recent years, driven by changing lifestyles and increasing disposable incomes. As a result, fast-food chains are investing significant resources in improving customer. Satisfaction and loyalty to maintain market share and increase profits. This literature review explores the factors that influence customer satisfaction and loyalty in the Indian fast-food industry and examines the relationship between the two.

1. Several factors impact customer satisfaction and loyalty in the Indian fast-food industry. A study by Jha and Khan (2018) found that food quality, service quality, and convenience were the most critical factors that influenced customer satisfaction. The study also found that price and ambiance were significant determinants of customer satisfaction. [3]

2. Another study by Khurana et al. (2021) found that cleanliness and hygiene were essential factors that impacted customer satisfaction and loyalty. The study also highlighted the importance of customer service in building customer loyalty in the fast-food industry. [4]

ISBN NO: 978-81-962963-4-6

3. In a study by Nayak et al. (2019), the authors found that social responsibility and sustainability practices also had a significant impact on customer satisfaction and loyalty. Customers who perceived fast-food chains as socially responsible were more likely to be satisfied and loyal to the brand. [5]

4. The relationship between customer satisfaction and loyalty Several studies have established a strong positive relationship between customer satisfaction and loyalty in the Indian fast-food industry. A study by Singh and Jain (2020) found that customer satisfaction had a direct and positive impact on customer loyalty in the fast-food industry. The study also found that perceived value and service quality mediated the relationship between customer satisfaction and loyalty.[6]

5. Another study by Venkatraman et al. (2020) found that customer satisfaction was positively related to customer loyalty, and the relationship was moderated by switching costs. The study suggested that fast-food chains should invest in reducing switching costs for customers to enhance customer loyalty. [7]

6. Comparison between fast-food chains in India Several studies have compared customer satisfaction and loyalty levels between different fast-food chains in India. A study by Goyal and Singh (2021) found that customers rated McDonald's higher in terms of food quality, service quality, and convenience compared to KFC and Pizza Hut. The study also found that KFC had a higher level of brand loyalty compared to McDonald's and Pizza Hut. [8]

Research Methodology

This study uses a mixed-method approach that involves both primary and secondary data collection methods. The primary data was collected through an online survey conducted among fast-food customers in India. The survey was designed to gather data on customer satisfaction and loyalty towards McDonald's and Burger King, as well as the factors that contribute to customer satisfaction and loyalty. A total of 47 respondents completed the survey, with 28 respondents (59.6%) being McDonald's customers and 19 respondents (40.4%) being Burger

King customers. The data collected from the survey was analyzed using descriptive statistics and inferential statistics.

The secondary data collection method involves the collection of data from various sources, including academic journals, articles, books, and reports, to supplement the primary data. The secondary data was used to provide a theoretical framework for the study, review the literature on customer satisfaction and loyalty, and gain insights into the fast-food industry's practices and trends.

Sampling:

The study uses non-probability sampling, specifically convenience sampling, to select respondents for the online survey. The participants were selected based on their willingness to participate in the survey and their availability online. Convenience sampling was chosen due to its cost-effectiveness, speed, and convenience.

Data Analysis:

The data collected from the online survey was analyzed using descriptive statistics to identify the respondents' demographics, satisfaction levels, and loyalty towards McDonald's and Burger King. Inferential statistics, such as correlation analysis and regression analysis, were also used to test the relationship between customer satisfaction and loyalty and identify the factors that contribute to customer satisfaction and loyalty.

Ethical Considerations:

The study was conducted in accordance with ethical principles, and the privacy and confidentiality of the respondents were maintained throughout the study. The participants were informed about the purpose of the study and provided informed consent to participate in the survey. The data collected from the respondents were used solely for research purposes and kept confidential.

Findings of the study:

The findings of the study suggest that customer loyalty in the fast-food industry is heavily influenced by the customers' experience and perception of the food quality and cost. The study

 ISBN NO: 978-81-962963-4-6

found that these factors were the most significant contributors to customer satisfaction, which in turn, led to increased customer loyalty towards the respective fast-food chains.

Additionally, the study found that customer satisfaction was also influenced by factors such as speed of service and convenience although to a lesser extent. These factors were also found to contribute to customer loyalty, albeit not as significantly as the cost and quality of food.

Overall, the findings suggest that fast-food chains should prioritize their efforts to provide a high-quality and cost-effective customer experience to enhance customer satisfaction and promote loyalty. This can be achieved by investing in food quality, pricing strategies, and customer service training for employees. By doing so, fast-food chains can retain their customers and maintain their market share, ultimately leading to a more competitive advantage in the fast-food industry.

Limitations:

The study's findings are limited to the respondents' perspectives and may not be representative of the entire population. The sample size is relatively small, which may limit the generalizability of the study's findings. Additionally, the study only focuses on two fast-food chains in New Panvel (India), which may limit its applicability to other fast-food chains or different location / countries.

1. **Limited Sample:** The study used a relatively small sample size of only 48 participants. This small sample size may not be representative of the wider population and could affect the generalizability of the findings.
2. **Response Bias:** The data collected through the online survey is subject to response bias. Respondents may have provided socially desirable answers or provided inconsistent responses, which could compromise the validity of the study.
3. **Limited Scope:** The study was limited to McDonald's and Burger King, and may not be generalizable to other fast food chains in India or other regions. The scope of the study could be broadened to include more fast-food chains and a larger sample size to increase the generalizability of the findings.

4. **Time Constraints:** The study was conducted within a limited time frame, which may have affected the depth and breadth of the research.
5. **Data Quality:** The accuracy and completeness of the secondary data collected for the study may be subject to limitations. The researcher cannot control the quality or reliability of the data obtained from secondary sources.
6. **Reliance on Self-reported Data:** The online survey relied on self-reported data, which may be subject to bias or inaccuracy. Respondents may not always be truthful in their responses, which could affect the validity of the results.
7. **Location Limitations:** The study was conducted in a specific geographic location (Panvel) and may not be generalizable to other regions in India or other countries. The findings of the study may be influenced by cultural and social factors specific to the location where the study was conducted. This could limit the external validity of the study, and caution should be taken when interpreting and generalizing the results to other populations or locations.

CONCLUSION: -

After analysing the data and reviewing the literature, it can be concluded that customer satisfaction is a key driver of customer loyalty in the fast-food industry. The results of the study show that customer experience, cost, and quality of food are the three main factors that contribute to customer satisfaction and ultimately customer loyalty.

The study found that McDonald's had a higher level of customer satisfaction and loyalty compared to Burger King, with 83% of respondents preferring McDonald's and only 17% favouring Burger King. Further analysis revealed that food quality and pricing were the most important factors contributing to customer satisfaction at both chains, followed by speed of service and convenience.

The findings of this study have practical implications for fast-food chains like McDonald's and Burger King. They can use these insights to improve customer satisfaction by focusing on factors such as food quality, pricing, and speed of service, which will ultimately enhance customer loyalty and provide a competitive advantage in the marketplace.

Overall, this study provides valuable insights for the fast-food industry on how to improve customer retention strategies and maintain market share. It is recommended that future research should expand the sample size and include a wider range of fast-food chains to validate the findings of this study.

ISBN NO: 978-81-962963-4-6

References

1. https://www.mcdonaldsindia.com/McDonaldsinIndia.pdf
2. https://www.fortuneindia.com/enterprise/burger-kings-big-bite/105327
3. Jha, M. K., & Khan, M. A. (2018). Investigating factors influencing customer satisfaction in fast food industry: An empirical study. Asia Pacific Journal of Marketing and Logistics, 30(5), 1145-1164.
4. Khurana, P., Gupta, S., & Dangayach, G. S. (2021). Investigating factors affecting customer satisfaction and loyalty towards fast food chains in India. Journal of Foodservice Business Research, 24(1), 1-24.
5. Nayak, J. K., Devi, A. R., & Prusty, A. K. (2019). A study on the factors affecting customer loyalty in the fast-food industry in India. Journal of Retailing and Consumer Services, 51, 265-273.
6. Singh, R., & Jain, D. (2020). Investigating the relationship between customer satisfaction and loyalty: the mediating role of perceived value and service quality. Journal of Foodservice Business Research, 23(3), 225-239.
7. Venkatraman, S., Krishnan, R., & Pani, A. K. (2020). A study on customer satisfaction and loyalty in the Indian fast food industry: The moderating effect of switching costs. Journal of Retailing and Consumer Services, 53, 101962.
8. Goyal, N., & Singh, A. K. (2021). A comparative study of consumer preferences for multinational fast food chains in India. Journal of Retailing and Consumer Services, 63, 102701.

A Study on Models of Corporate Social Responsibility

Asst.Prof. Pallavi Mirgal

Assistant professor, I/C HOD Department of Management Studies

KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

(Author) Email Id: - pallavi.m@klessccmumbai.edu.in

Ms. Meera Madhukar Barge

F.Y.BMS, Bachelor of Management Studies

KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

INTRODUCTION :

Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable to itself, its stakeholders, and the public. By practicing corporate social responsibility, also called Corporate citizenship , companies can be conscious of the kind of impact they are having on all aspects of society, including economic, social, and environmental .CSR helps both improve various aspects of society as well as promote a positive brand image of companies. Corporate responsibility programs are also a great way to raise morale in the workplace. CSRs are often broken into four categories: environmental impacts, ethical responsibility, philanthropic endeavors , and financial responsibilities.

For a company to be socially responsible, it first needs to be accountable to itself and its shareholders. Companies that adopt CSR programs have often grown their business to the point where they can give back to society. Thus, CSR is typically a strategy that's implemented by large corporations. After all, the more visible and successful a corporation is, the more responsibility it has to set standards of ethical behaviour for its peers, competition, and industry.

 ISBN NO: 978-81-962963-4-6

OBJECTIVES :

1. To study the four models of Corporate Social Responsibility .
2. To study the impact of CSR on society and business organisation.
3. To study need and best practices of CSR.

REVIEW OF LITERATURE:

In general, there are four main types of corporate social responsibility. A company may choose to engage in any of these separately, and lack of involvement in one area does not necessarily exclude a company from being socially responsible.

Environmental Responsibility

Environmental responsibility is the pillar of corporate social responsibility rooted in preserving Mother Nature. Through optimal operations and support of related causes, a company can ensure it leaves natural resources better than before its operations. Following ways can be implemented to persue environmental responsibility.

- Reducing pollution, waste, natural resource consumption, and emissions through its manufacturing process.
- Recycling goods and materials throughout its processes including promoting re-use practices with its customers.
- A manufacturer that deforests trees may commit to planting the same amount or more.
- Distributing goods consciously by choosing methods that have the least impact on emissions and pollution.

Ethical Responsibility

Ethical responsibility is the pillar of corporate social responsibility rooted in acting in a fair, ethical manner. Companies often set their own standards, though external forces or demands by clients may shape ethical goals. Instances of ethical responsibility include:

- Honest disclosure of operating concerns to investors in a timely and respectful manner. Though not always mandated, a company may choose to manage its relationship with external stakeholders beyond what is legally required.

- Fair treatment across all types of customers regardless of age, race, culture.
- Positive treatment of all employees including favourable pay and benefits.

Philanthropic Responsibility

Philanthropic responsibility is the pillar of corporate social responsibility that challenges how a company acts and how it contributes to society. In its simplest form, philanthropic responsibility refers to how a company spends its resources to make the world a better place. This includes:

- Whether a company donates profit to charities or causes it believes in.
- Whether a company only enters into transactions with suppliers or vendors that align with the company philanthropically.
- Whether a company supports employee philanthropic endeavors through time off or matching contributions.

Financial Responsibility

Financial responsibility is the pillar of corporate social responsibility that ties together the three areas above. A company make plans to be more environmentally, ethically, and philanthropically focused; however, the company must back these plans through financial investments of programs, donations, or product research. This includes spending on:

- Research and development for new products that encourage sustainability.
- Recruiting different types of talent to ensure a diverse workforce.
- Initiatives that train employees on DEI, social awareness, or environmental concerns.
- Processes that might be more expensive but yield greater CSR results.
- Ensuring transparent and timely financial reporting including external audits.

 ISBN NO: 978-81-962963-4-6

DATA COLLECTION:

In this research Secondary Data has been collected .This is qualitative research and descriptive research design.

DATA ANALYSIS AND INTERPRETATION:

Corporate social responsibility is important because when a company has engaged employees they see a 17% increase in productivity, are 21% more profitable and can have 41% lower absenteeism. Innovation also increases in an engaged workplace. Giving back to the community is a virtuous circle in which engaged employees are enriched by volunteering opportunities that further engage and encourage them. Companies investing in social purpose have a 6% higher market value and generate 20% more revenue than companies that don't invest in social purpose, according to project ROI.

For all the fantastic benefits your business gets from showcasing your CSR initiatives, it can be easy to overlook its reason for being in the first place. CSR gives people the leverage and the platform they need to make a difference in local and global communities. For all the fantastic benefits your business gets from showcasing your CSR initiatives, it can be easy to overlook its reason for being in the first place. CSR gives people the leverage and the platform they need to make a difference in local and global communities .Impactful CSR can win you excellent press coverage. Creating a CSR program that gets you noticed could lead to a boost in your brand awareness and overall online brand affinity.

Research has shown that employee beliefs behind CSR initiatives can impact workplace attitudes, trust in top management, organization pride, job satisfaction and even performance. Your employees are your biggest brand ambassadors so, lead with authenticity, and authentic press opportunities can follow.

 ISBN NO: 978-81-962963-4-6

CONCLUSION :

It's important to note that CSR is not a one-time effort, but rather an ongoing commitment that requires continuous monitoring, evaluation, and improvement. Companies that are committed to CSR will strive to make a positive impact on society and the environment while also creating value for their shareholders.

In conclusion, corporate social responsibility is an essential aspect of modern business operations. It's not just about a company's obligation to society, but also about how it can benefit the company in the long run. Companies that adopt CSR programs are more likely to have a positive impact on society and the environment, while also creating value for their shareholders. It's a win-win for all parties involved.

Overall, CSR can play an important role in the development of a country by supporting education, providing healthcare, and protecting the environment. By engaging in such initiatives, companies can not only improve the lives of individuals and communities, but can also contribute to the overall development of the country.

REFERENCES:

- https://www.investopedia.com/terms/c/corp-social-responsibility.asp#:~:text=Corporate%20social%20responsibility%20is%20a,positive%20brand%20image%20of%20companies.
- https://benevity.com/resources/corporate-social-responsibility-benefits .
- https://indiacsr.in/purpose-of-csr-activities-in-indias-development/#:~:text=Corporate%20social%20responsibility%20(CSR)%20refers,businesses%20in%20achieving%20this%20goal.

 ISBN NO: 978-81-962963-4-6

ANALYSIS OF THE MUTUAL FUNDS INVESTMENT IN SOFTWARE APPLICATION: GROW

Asst.Prof. Shafaq Heyat Khan

Assistant professor, Department of Management Studies

KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

Email Id: - shafaq.k@klessccmumbai.edu.in

Ms. Amisha Maurya

T.Y.BMS, Bachelor of Management Studies

KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

Email Id: - amishamaurya9@gmail.com

Abstract

Investing in mutual funds through the Grow app can provide individuals with a simple and accessible way to diversify their investment portfolio. These mutual funds are managed by experienced professionals who invest in a diversified range of assets, including stocks, bonds, and other securities.

The growth of mutual funds can be attributed to their ease of use, diversification benefits, and professional management. Mutual funds can be great option for investors who are looking for a way to invest in the stock market without having to pick individual stocks. The study found that software applications provide increased accessibility to the investors. In recent years, the software and technology sectors have experienced significant growth, driven by technological advancement, changing consumer preferences, and increased demand for digital services. This growth has led to an increased interest in mutual funds that focus on software app growth. Software applications offer several benefits to investors. One of the key benefits is diversification, as investors can gain exposure to a broad range of software and technology companies through a single investment. Investors in mutual funds in software app growth should be aware of the risks involved.

 ISBN NO: 978-81-962963-4-6

INTRODUCTION

A mutual fund is a type of investment vehicle that pools money from multiple investors to invest in a diversified portfolio of stocks, bonds, and other securities. The history of mutual funds dates back to the 18th century, when the first investment trusts were established in Europe. The Investment Company Act of 1940 provided a regulatory framework for mutual funds. These funds are managed by professional fund managers who make investment decisions on behalf of the investors. It is important to research the application and ensure that it is legitimate and reputable. The first step in introducing mutual funds in a grow app is to research the different types of funds available and their performance history. Software application is an ever-growing industry that is expected to continue to see growth in the years to come. With so many different companies and startups vying for market share, it can be difficult for individual investors to pick the winners and losers. This is where mutual funds come in. By investing in a mutual funds that specializes in software applications or grow apps, investors can gain exposure a diverse the portfolio of companies that are involved in this space. These mutual funds are managers who have expertise navigate the complex landscape of the software industry. Investing in mutual funds the focus on software application can be a great way for individuals to participate in the growth potential of this industry without having to pick individual stocks. Additionally, by investing in funds, individual can benefit from diversification, which can help to mitigate risk. It is important to note that when investing in mutual funds, individuals should always do their research and carefully evaluate the risks and potential rewards of any investment. Additionally, individuals should look for mutual funds that are transparent about their holdings and fees, and that align with their investment goals and risk tolerance. Popular investment vehicle that can help individuals grow their wealth over time by pooling their money together with other investors to invest in portfolio of securities. One area where mutual funds are becoming increasingly popular is in software applications and Grow app. India is one of the fastest-growing economies in the world, and with a popular of over 1.3 billion people, it offer huge potential market for investors. One popular investment option for Indian investors is mutual funds. Mutual funds in India have gained significant popularity over the years as a means of investment due to their potential for higher return and diversification of risk. India’s economy is rapidly evolving, and the investment landscape is constantly changing. One investment option that has gained significant popularity in recent years is mutual funds. Mutual funds in India offer investors unique opportunities to invest in a

 ISBN NO: 978-81-962963-4-6

diverse range of assets classes, including equities, debt, and hybrid securities, and have proven to be an effective way to generate returns while managing the risks. India has a dynamic and fast-growing economy, and its mutual funds industry reflects this with a range of specialized funds that invest in sectors like technology, infrastructure, and consumer goods. The regulatory environment for mutual funds in India is well-established, with the Securities and Exchange Board of India (SEBI) regulating the industry and ensuring investor protection.

OBJECTIVES

- To analysis the investors preference towards Mutual Funds.
- To understand the investors goals.
- To understand the investors view on mutual funds.
- To analyze the risk.

LITERATURE REVEIW

The use of grow apps has been on the rise in recent years, with an increasing number of utilizing this application to stream their operations and improve efficiency. As a result, investing in the grow app industry has become an attractive option for many investors. Mobile apps like Grow can be a convenient and cost-effective way to invest in the stock market. With the growing popularly of software applications and increasing use of technology in the financial industry, mutual funds have also seen a rise in software-based applications to enhance investment experience for users. Several studies have been conducted to analyze the impact of software applications on mutual funds. A literature review reveals that there are several advantage and disadvantage associated with the use of software applications for mutual fund investment. These applications allow investors to track their investment and monitor market trends from the comfort of their own homes or on-the-go, making it easier for them to stay on top of their investment. Advantage is ability of software applications to provide personalized investment advice based on an individual’s financial goals, risk tolerance, and investment preferences. It is important for software applications to have robust security measures in place to protect user’s personal and financial goals. Literature suggests that software applications have the potential to enhance the mutual fund investment experience by providing increased accessibility and personalized investment advice. Diversification can help reduce risk, and mutual funds that are well-diversified across multiple asset classes and sectors tend to be less risky than those that

ISBN NO: 978-81-962963-4-6

are concentrated. Another objective of mutual funds is income generation. These funds invest in fixed-income securities such as bonds, which generate regular income through interest payment. Income generation funds are ideal for investors and low-risk investment options. One such objective is the tax-saving objective. . These mutual funds, also known as Equity-Linked Saving Scheme (ELSS), offer tax benefits under Section 80C of the Income Tax Act. . These funds invest in equities and have a lock-in-period of three years, making them ideal for investors looking to save taxes while generating long-term returns. Moreover, mutual funds in India are also offer sector they believe have the potential for growth. Mutual funds in India offer a range of unique investment objectives, catering to the specific needs and preferences of Indian investors. Investors can choose from traditional investment objectives such as capital appreciation and income generation or opt for more specialized objectives such as tax-saving, Sharia-compliant, sector-specific, or socially responsible investing. It is essential to understand the investment objectives of mutual funds before investing, as each objective has its unique risks and return profile. Mutual funds in software app may use a variety of investment strategies, such as value investing, growth investing, or a combination of both, to achieve their objectives. Investors should carefully consider their investment objectives, risk tolerance, and time horizon before investing in any mutual fund. Mutual funds that are seeking capital appreciation invest in stocks and other securities with the potential to grow in value over time.

RESEARCH METHODOLOGY

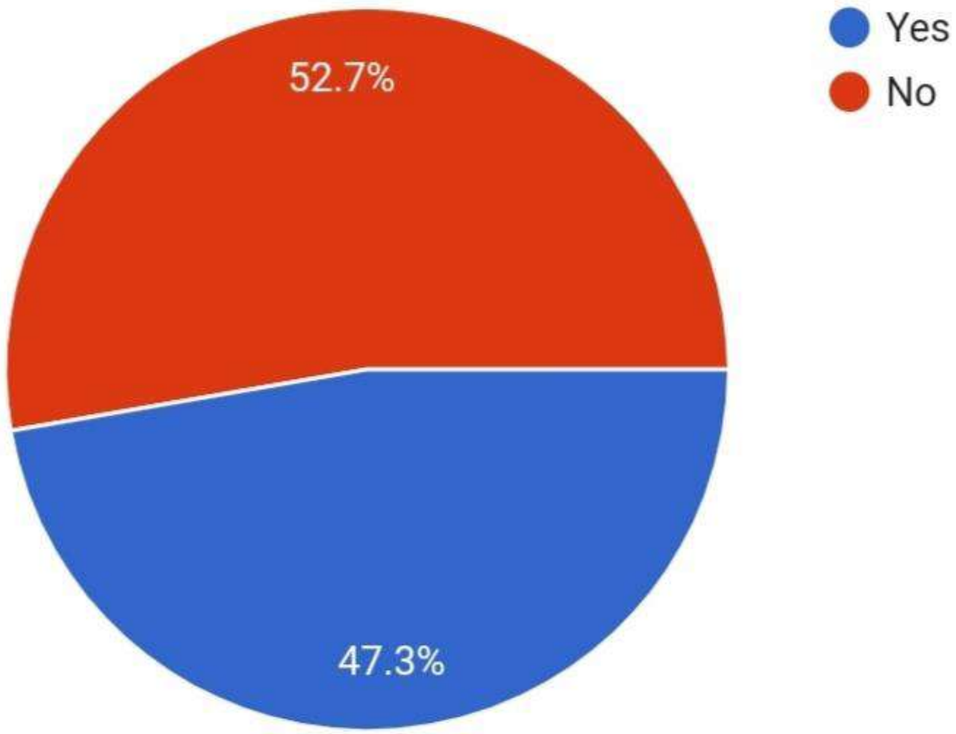
Research Design: The data collected uses the approach of exploratory research to discuss the analysis. The research examines the customer insight towards software application Grow.

Primary data: Using questionnaire a sample size of 55 respondents.
Instruments: Survey with self-structured questionnaire.

ISBN NO: 978-81-962963-4-6

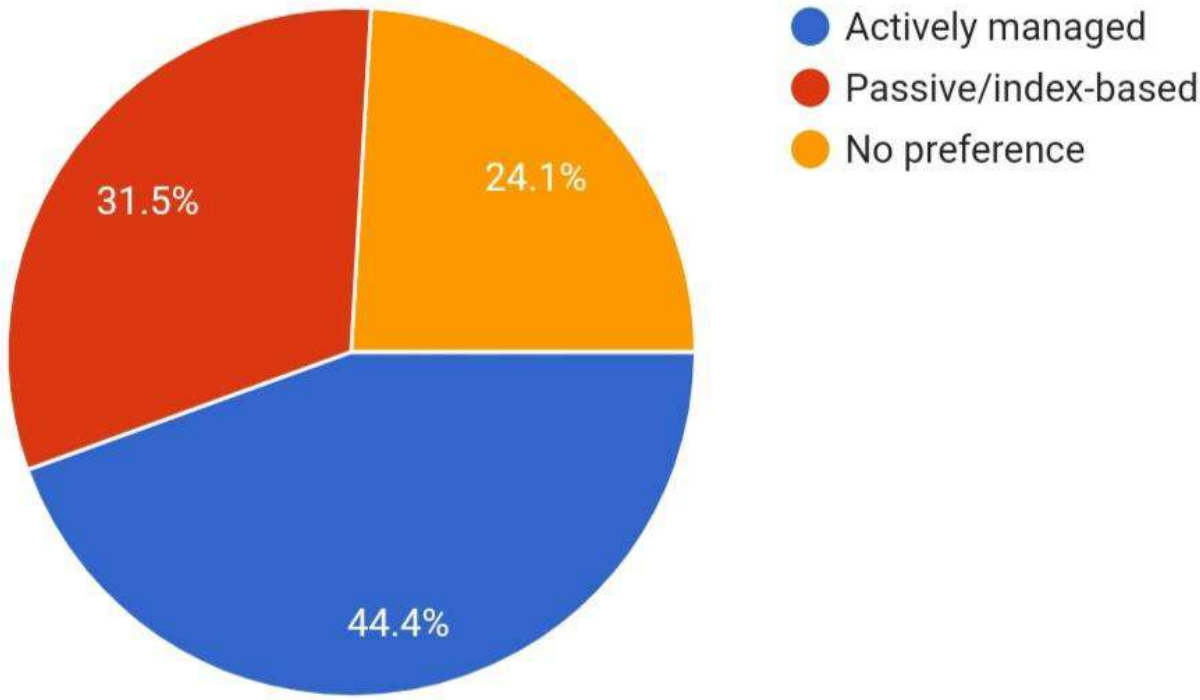
DATA ANALYSIS

Have you invested in mutual Funds?



ISBN NO: 978-81-962963-4-6

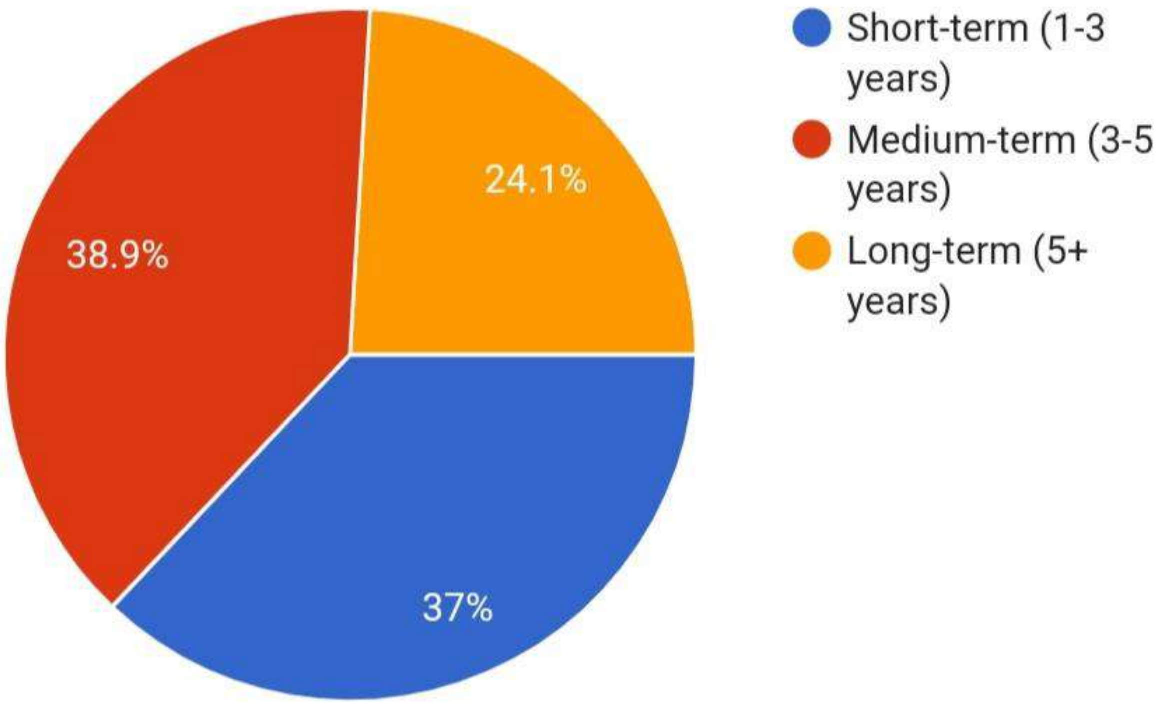
Do you prefer actively managed or passive/index-based mutual funds?



44% of investors actively managed their funds to gain amount of profit.

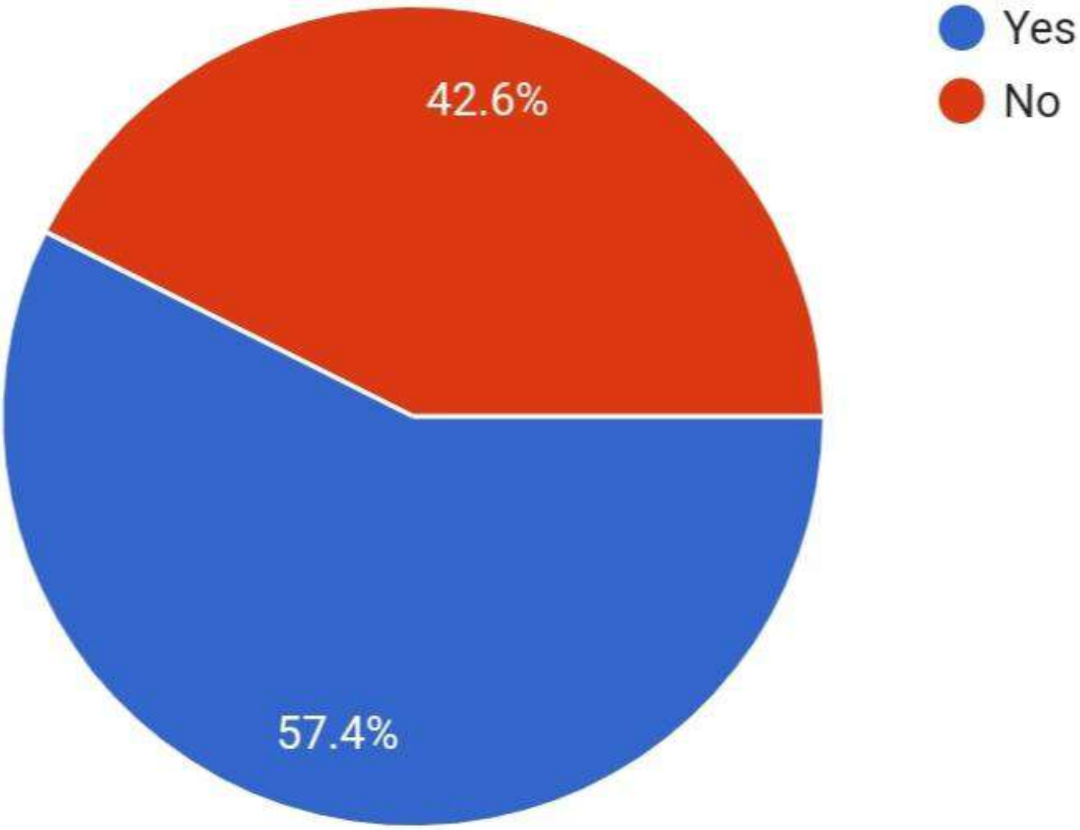
ISBN NO: 978-81-962963-4-6

What is your investment goal?



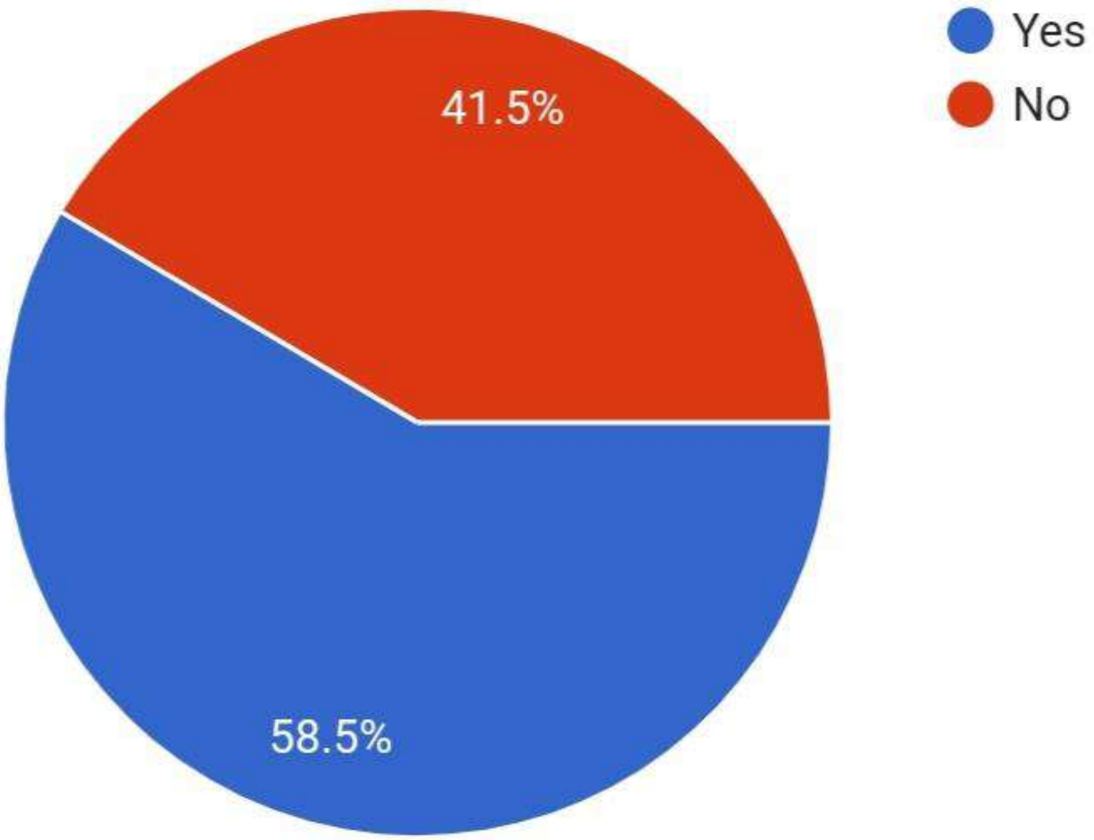
 ISBN NO: 978-81-962963-4-6

Have you consulted with a financial advisor before making the investment decision?



 ISBN NO: 978-81-962963-4-6

Have you made any plans to invest in mutual funds?



It shows us people want to start their mutual fund journey.

FINDINGS OF THE STUDY

- Firstly, software applications have the potential to enhance the mutual fund investment experience by providing increased accessibility and personalized investment advice.

- Secondly, the use of software applications for mutual fund investment can lead to better outcomes in the long run as investors are able to make informed decisions but their investment.
- Investors have done research on the mutual funds plan to investment.

- Investors preferred financial consultants to manage the funds.

- In modern technology, the application is a very eco-friendly term to access the portfolio.

- 47% of the respondents started their mutual funds journey using a mobile application.

- After researching, it looks like numbers of investors wanted to start their journey to make a large amount of money.

- Finally, the study highlighted the importance of being aware of these potential drawbacks and choosing a reputable and secure software application for mutual fund investment.

- Historically, mutual funds have been a popular investment vehicle for retail investors.

- Overall, the research suggests that software application have a significant role to play in the future of mutual fund investment.

CONCLUSION

- Mutual funds investment through the grow app can be a convenient and accessible way to build wealth over time.

- Using the grow app, you can easily diversify your portfolio and take advantage of different investments strategies.

- It is important to approach investing with caution and to always do your own research before making any investment decisions.

- The use of software applications for mutual fund investment has become increasingly popular due to the growing adoption of technology in the financial industry.

 ISBN NO: 978-81-962963-4-6

- These applications provide investors with increased accessibility and personalized investment advice, which can lead to better outcomes in the long run.

- It is important for investors to be aware of the potential drawbacks associate with over-reliance on technology and the need for strong security measures to protect their personal and financial information.

- As the mutual fund industry continues to evolve and technology advances, software applications will play an increasingly important role in enhancing the investment experience for users.

- Applications provide users with access the real-time market data, personalized investment advice, and advanced trading tools, making it easier for them to make informed decisions about their investment.

- Investing in any mutual funds, it important for investors to carefully consider their investment objectives, risk tolerance, and time horizon, and to consult with a financial advisor.

- Mutual funds in software app are investment vehicles that aim to generate long-term capital appreciation by investing.

 ISBN NO: 978-81-962963-4-6

REFERENCES

- GROWW MUTUAL FUNDS-
- https://groww.in/mutual-funds?gclid=Cj0KCQjwuLShBhC_ARIsAFod4fICYPicu7M7vZ_1uXfMehdat9Vn31vf0H_cER8uZTlaCIUADZ8Qji8aAtKJEALw_wcB

- INVESTOPEDIA MUTUAL FUNDS- https://www.investopedia.com/terms/m/mutualfund.asp

- ZERODHA MUTUAL FUNDS-
- https://zerodha.com/varsity/chapter/introduction-to-mutual-funds/

- ASSOCIATION OF MUTUAL FUNDS IN INDIA (AMFI) - *QUARTERLY UPDATES.*
- https://www.amfiindia.com/

- RESERVE BANK OF INDIA ANNUAL REPORT-
- https://rbi.org.in/Scripts/AnnualReportMainDisplay.aspx

- WORLD BANK (2012). WORLD DEVELOPMENT INDICATORS.

- INVESTMENT COMPANY INSTITUTE. (2013)
- Anagol, S., & Kim, H. H. (2012). The Impact of Shrouded Fees: Evidence from a Natural Experiment in the Indian Mutual Fund Market. American Economic Review, 576-593.
- Indicus Analytics. District GDP of India, 2005-09
- NCAER Max New York Life. (2008). India Financial Protection Survey.
- Thompson, J & Choi, S.-M. (2001). Governance systems for collective investment schemes in OECD countries. Paris: OECD.
- Wermers, R. (1999). Mutual Fund Herding and the Impact on Stock Prices. Journal of Finance.
- Chiyachantana, C., Jain, P., Jiang, C., & Wood, R. (2004). International evidence on institutional trading behaviour and price impact. The Journal of Finance, 869-898.
- Halan, M. (2013). Why do Indians buy so much gold jewellery? HT Mint, June 11.

 ISBN NO: 978-81-962963-4-6

HR Analytics : In Business: Role, Opportunities, And Challenges

Asst.Prof. Shafaq Heyat Khan

Assistant professor, Department of Management Studies

KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

Email Id: - shafaq.k@klessccmumbai.edu.in

Ms. Siddhi Sunil Rokade

T.Y.BMS, Bachelor of Management Studies

KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

ABSTRACT

Data measurement and forecasting. HR analytics helps organizations solve problems and make informed decisions. HR analytics thereby synchronises HR strategy with overarching company strategy.

The collection, evaluating, and measuring of HR data has become simple with the introduction of HR Analytics in enterprises. Combining statistical methods, HR Analytics serves as a tool for data collecting, interpretation, and gaining a competitive edge. Analytical processes for measuring sub-HR functions have been completed.

HR Analytics provides numerous opportunities to businesses because it forecasts workforce requirements, enables HR to achieve corporate goals, and improves organizational performance, all of which help businesses succeed. Despite its success, the company faces significant challenges in implementing and utilising the HR Analytics tool in business, including data governance, employee skill gaps, top management support, and many other issues.

For many years, various research scholars have discussed HR analytics. Many papers have been published that focus on the conceptual aspect of HR analytics, the past, present, and future scenario of HR analytics, the acceptance of HR analytics in organizations, the extent of its utility, the rise of HR analytics, and various other related studies. The purpose of this paper is to investigate the challenges and opportunities that business firms face when implementing HR analytics as a tool in organizations. This study also provides a theoretical concept of HR analytics based on secondary data collected from previous research papers, journals published between 2016 and 2019, blogs, and websites that provide HR analytics recent data. The study will examine the benefits and drawbacks of implementing and utilising HR analytics.

Keywords: Human resources, Human resource management, human resource analytics, predictive, descriptive, evolution, role, opportunities and challenges.

INTRODUCTION

Human resource management is focused on investing all of the tools and techniques, practises and strategies, approaches and measures, and approaches and measures to understand the performance of employers and employees who collaborate to achieve organisational goals. Humans are valuable resources in any organisation. Human resources are an important aspect because the human resource department results in prosperous organisational performances by establishing a link between HR actions and business results.

Every function in any organisation is important because their results can be easily analysed; however, the human resource function in any organisation has lagged behind due to its reliance on metrics and scorecards of data that can be quantified. Because of the qualitative nature of human resource data, most of it could not be quantified. However, human resources is now focusing on understanding how people are affecting the organisation as technology advances.

Organizations generate a lot of HR data, making its collection and analysis challenging. The company has had tremendous expansion in recent years, particularly in the 21st century's in-service sector. Due to the sectors' rapid growth, new cutting-edge processes and technologies have been developed. Organizational operations have improved as a result of development and new methods, and these organizations are growing effectively and efficiently.

Organizations are working to increase their competitive advantages. Businesses are rapidly adopting such technologies and practises that can aid in the retention of human resource management as human resource management plays a critical role in any organisation. It is the only function of an organisation that has a direct impact on its employees. HRM provides all of the tools, practises, approaches, principles, and guidelines for employer and employee behaviour so that they can collaborate to achieve competitive organisational goals.

Understanding the significance of HRD for any firm, these businesses are seeking to implement these technologies that will improve operations. Only the HR function lagged behind due to its reliance on metrics and scorecards of quantifiable data, the majority of which could not be quantified due to their qualitative nature, and the interpretation of HR data was mostly reliant on instincts. Yet HR is now moving forward to comprehend how individuals are affecting the firm. The firm has evolved its HR analytics to also quantify the qualitative data. HR analytics aid in the collection, analysis, and measurement of HR data. HR analytics offers current, accurate data and helps with future decision-making. It aids in offering a remedy for organisational issues. Analytics in HR synchronise HR strategy with corporate strategy.

DEFINITION

HR analytics is a methodology that uses statistical tools and techniques to unify and evaluate employees quantitative and qualitative data that helps in bringing out meaningful insights to develop better future decision making. HR analytics is an experimental approach that uses software and method based on HR metrics to provide reliable and justifiable human capital results impact effectively and efficiently. HR analytics is a data-driven framework that understands and evaluates the relationship between workforce problems and employee's performance by driving new insights through existing insights. HR Analytics is HRM innovation enabled by companies to analyses HR data, processes, human capital statically for making data-driven decision making and ignoring the process of gut feeling. This tool helps in making better decisions and testing the effectiveness of the HR department towards business goals. HRIS has provided a way to HR analytics to grow and develop as it includes some limited analytics solutions within its system.

EVOLUTION

As organizations were raising globally, they have a large amount of data in each function. The Organization uses analytics in all of its functions but HR was lacking behind, so due to difficulty in collecting and analyzing HR data it becomes a necessity for the evolution of HR analytics. In 1959 E.T. Rennese explained a theory given by Barney namely "Resource -Based View Theory". This theory explained that to achieve a competitive advantage in an organization there is a need to understand the relationship between HRM and Business strategy. Barney also stated VRIO i.e., Valuable, Rare, Inimitable, and Organized framework which was later criticized by scholars as this theory included only human capital and accordingly human capital cannot create any competitive advantage. In the 1970s HRM-related issues were analyzed and how to use HR metrics and scorecards to measure HR data were discussed.

Baird and Meshoulam explained the relationship between three important aspects of any organisation in 1988: HR policies, the organization's life cycle, and the organization's business challenges. They also discussed vertical and horizontal fit, which explains how collaborations of the HR function with other functions and HR sub-functions aid in the achievement of organisational goals.

Organizations discovered in the 1990s that it is critical to value employees in order to achieve the objectives and goals of any organisation and create a competitive advantage, and they began to view their employees as material resources. Various new tools and techniques, such as HR scorecards or workforce scorecards, were introduced during the first half of the 2000s to measure the impact of HR activities and practises on organisational performance. Later, in the mid-2000s, there was an exposure of HR accounting and utility analysis, which resulted in a shift towards the development of a more scientific and evidence-based approach to HR.

In 2002 Oakland A found more advanced perceptive use of metrics and based on this experiment Lewis in 2003 found a concept called "Moneyball Concept" which showed growth on a large scale in 2006. In 2009 GOOGLE worked on finding out the best competent traits that are needed to be an effective manager and doing this Google developed "Project Oxygen" which bought a tremendous shift from traditional HR measurements to HR analytics. Google also highlighted the benefits of using HR analytics in organizational performances.

Since then, HR analytics has received some attention, but it has not yet reached its final stage. Recently, researchers on HR analytics have begun to focus on the use of HR analytics as a decision support tool, the capability of this tool, or awareness of HR analytics. HR analytics was developed after the development of big data, and it now uses a large amount of HR data to provide decision making to the organisation.

TYPES OF HUMAN RESOURCE ANALYTICS

Gartner's model has described various kinds of depth levels HR analytics includes which are discussed below:

- Descriptive: it explains "What" of HR data. It interprets the historical data to analyses results. It includes key performance indicators and dashboards to explain the data.

- Diagnostic: it explains the "Why" of HR data. It gives a deeper analysis of descriptive data.
- Predictive: it explains "What will" of HR data. It uses statistical modeling to predict results. It explains the trend that would occur in the future.
- Prescriptive: it guides to understand the HR data and provide evidence-based results. It uses simulation and optimization techniques.

LITERATURE REVIEW

- Nucleus Research, 2014 states Analytics pays back $13.01 for every dollar spent.
- According to Lije George and T. J. Kamalanabhan's 2016 paper A Study on the Acceptance of HR Analytics in Organizations, the growth of the business analytics software market, which was valued at $40 million globally with a growth rate of 6.5%, is another indication of the growing popularity of business analytics.
- Workforce Analytics Market Analysis, by Solution Type (Solution, Services), by Services (Managed, Consulting, System Integration), by Deployment, by Organization, by Application, by Region, and by Segment Forecasts, 2018 to 2025 Date Publish: June 2017 - 2016 is the Base Year for Estimates. - GVR-1-68038-947-0 Report ID - Electronic (PDF) - Prior Information: The size of the global market for workforce analytics was estimated to be USD 430.9 million in 2015.
- According to Anushree Sharma on People Matters, the research Overview on the World HR Analytics Market, 2019-2025, the market for global HR analytics is expected to expand by about 12% between 2019 and 2025.
- Markets and Markets forecasts a 13.7% CAGR in the global HR analytics market size from USD 1.9 billion in 2019 to USD 3.6 billion by 2024, as stated in Human Resource Analytics Market Component, Application Area in Workforce Management, Recruitment, and Employee Development, Organization Size, Deployment Type, Vertical (Industry like Banking, Financial Services And Insurance, Manufacturing, and IT and Telecom), showing Region to Global Forecast from 2024. Report Code: TC 7162 | Published Date: June 2019

 ISBN NO: 978-81-962963-4-6

RESEARCH METHODOLOGY

This is a conceptual and descriptive study. Secondary data sources include journals, magazines, periodicals, books, websites, and organisational records. Secondary data dates from 2016 to 2019 at both the national and global levels. The data is thoroughly analysed in order to comprehend and identify the current role, opportunities, and challenges of HR analytics.

OBJCECTIVES:

- To identify the role of analytics in human resource function.
- To Find out the threat and opportunities of implementing and using human resource analytics

ANALYSIS:

ROLE OF HUMAN RESOURCE ANALYTICS IN HUMAN RESOURCES

HR analytics is very important in human resources. HR functions that use analytical techniques can grow at a faster rate and make evidence-based decisions. HR analytics collects and analyses previous data to provide organizations with positive and negative trends. It easily compares organisational performance to competitors.

HR analytics is important in workforce planning, competitive advantage, employee acquisition and retention, leveraging data, developing insights and models for organizations, performance management, data manipulation, selecting appropriate modeling techniques, and other areas. Some of the most important roles of analytics in human resources are discussed further below.

 ISBN NO: 978-81-962963-4-6

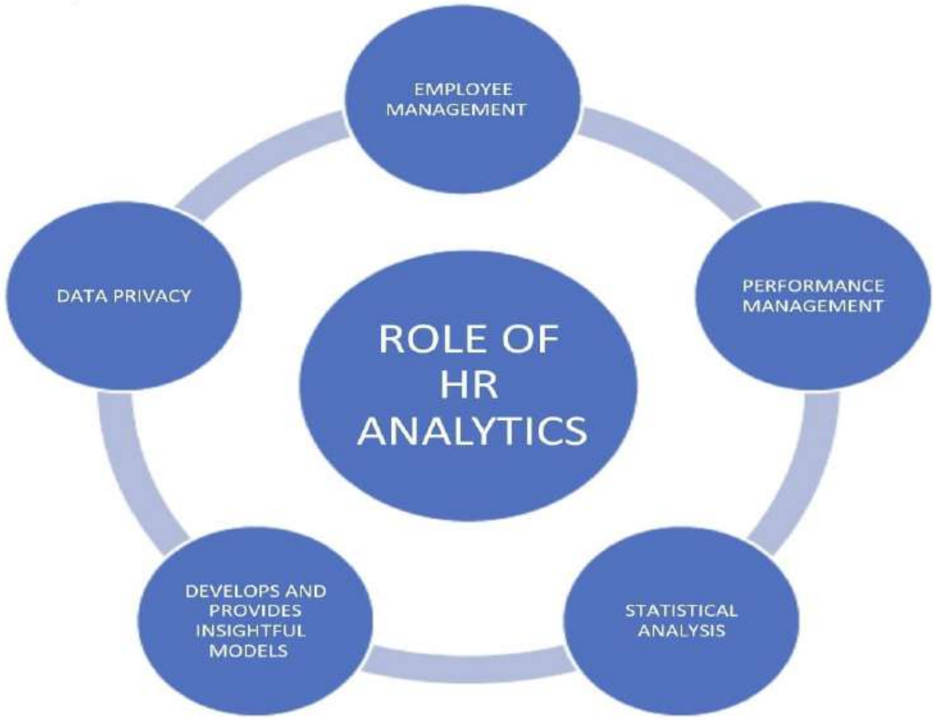


Fig. 1: role of HR analytics

1. Employee Management: Human resource analytics is critical in the management of a company's employees. This stool stores relevant data from employee profiles such as experiences, skill set, knowledge, and so on. It contains information that assists the HR department in the hiring process by analysing resumes and other relevant details using various metrics. HR analytics examines the reasons for an organization's increased or decreased attrition rates. This keeps track of employee or job satisfaction, job involvement, years in the role, and any other information about the employee that is relevant.

2. Performance Management: As a result of its ability to provide high- and low-performance indicators, HR analytics aids in the construction of a road map for assessing employee performance. HR analytics gives information on present performance and performance improvements needed for development. The what and how of employees' performance are provided here.

3. Statistical Analysis: The data collected through the use of HR analytics is analysed. HR analytics assist in data integration and provide input-output analyses related to

ISBN NO: 978-81-962963-4-6

employees, cost-benefit, and social-networking analysis. This tool also aids in employee satisfaction and performance evaluation. This is important for project planning and utilisation, as well as providing communication and interaction schemes. HR analytics, for example, can assess risk level attrition.

4. Develop and Provides Insightful Models: HR analytics tool uses statistical measures that help in leveraging data to show an impact on the organization. This creates models that provide visual insights to identify the performance gaps, factors boosting or decreasing productivity etc.

5. Data Privacy: Privacy of any data is of utmost importance for any organization to protect itself from threats. HR analytics maintains and stores a huge amount of data with security. Data can not be manipulated and unauthorized use of data is not possible if an organization uses HR analytics

- **Opportunities and challenges of using human resource analytics in business.**

  A. Opportunities include the favourable scope of something. When we talk about HR analytics opportunities, we mean the favourable scope or outcome that may result from using this tool. HR analytics has numerous opportunities that organisations discover while using or implementing this tool. Here are some opportunities for using and implementing HR analytics:

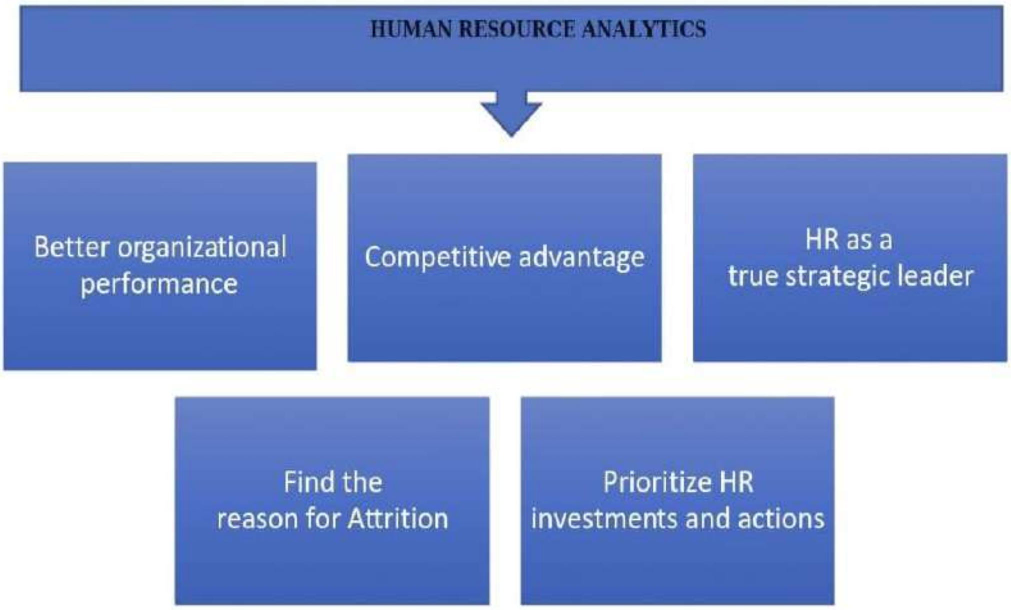


Fig2 : Opportunities of using HR analytics

 ISBN NO: 978-81-962963-4-6

Opportunities for Using HR Analytics in Business:

1. Better Organizational Performance: HR analytics helps businesses improve their knowledge of their workforce while also building trust among employees, resulting in improved employee performance. This allows for better organisational performance.

2. Competitive Advantage: HR analytics enables HR professionals and managers to make data-driven decisions and influences how an organization's HR function is managed. It manages the organisation by connecting the HR function to the organization's goals. HR analytics enables strategic decision making, which leads to a competitive advantage through improved financial and operational performance.

3. HR as a True Strategic Leader: HR analytics assists businesses in communicating good decisions within the organisation. Decisions are now analysed using tactical and strategic alliances, rather than predictions. It enables the HR department to act as a strategic leader by providing meaningful insights.

4. Find the Reason for Attrition: The HR function is responsible for employee planning, recruitment, training, and retention. Businesses prioritise employee satisfaction and health in order to achieve organisational goals effectively and efficiently. HR analytics enables organisations to determine the cause of employee attrition. Organizations make investments to keep valuable employees and reduce attrition.

5. Prioritize HR Investments and Actions: The HR department has been able to dynamically transition from the old system to the tactical and strategic system in order to shape and improve organisations thanks to HR analytics. This has aided in closing the gap in the organization's HR function's role. Due to the absence of analytics techniques to analyse results, the HR function previously lagged behind. HR has now been able to prioritise investments and activities thanks to HR analytics.

ISBN NO: 978-81-962963-4-6

B. CHALLENGES

Everything in the universe, it is rightly said, has both positive and negative aspects. From humans to technology, everything around us faces both opportunities and challenges, which are entirely dependent on how we understand or perceive such things, or how beneficial they are to us or an organisation, particularly when it comes to certain technologies. Opportunities have a favourable scope, whereas challenges are a provocation that impedes the happening process. This study discusses the challenges that organisations and their employees face when using or implementing HR analytics.

Fig3 : Challenges of using HR Analytics

Challenges of Using HR Analytics in Business:

1. Data Quality Issue: HR analytics faces data quality issues because organisations generate a large amount of data that is difficult to collect, generate, and store. Due to a lack of accurate data provided by employees, data collected may have missing or incorrect attributes. Duplicate data may exist, or data may be corrupted while being transferred from one source to another. The HR analytics tool generates results based on the availability of data, but if there are issues with data quality, the results may not be as expected.

ISBN NO: 978-81-962963-4-6

2. Data Governance: By implementing the HR analytics application, the organisation lacks data governance. The legality and ethics of data are defined by data governance. It says that a company's use of customer data must be morally and legally correct. Additionally, the use of HR analytics tools by enterprises may impair data governance because it makes use of cutting-edge methods and tools for gathering and analysing vast amounts of data in order to support data-driven decision-making.

3. Top Management Support: HR analytics lacks the support of the business's top management. Businesses find it challenging to secure their support for investing in such technologies in an organisation that gathers and analyses employee-related data because management has long used the conventional procedure. In order to create a strong HR analytics, the top management will want a higher return on investment.

4. Skill Gap: To utilise HR analytics effectively, one must possess a variety of talents, including analytical, business and business environment understanding, quantitative analysis, psychometrics expertise, knowledge of pertinent regulations, and many more. Only people with the necessary knowledge, abilities, and ability to build contextual insights to offer pertinent findings can undertake HR analytics. Otherwise, HR analytics may damage business.

CONCLUSION

As sectors have advanced technologically, businesses have evolved the use of HR analytics to boost organisational effectiveness. Using statistical models and approaches, HR analytics quantify decisions and enable data-driven decision making. HR analytics manages all pertinent HR data and interprets results more effectively.

By this article, it is analysed that using and implementing HR analytics in business has been difficult because HR workers may not have the necessary expertise to use the tool or there may be problems with data quality or data governance. A situation like this could prevent top management from supporting an organisation.

Despite various difficulties, HR analytics has been beneficial for firms in establishing a competitive edge, resolving HR-related issues, enhancing organisational performance, and enhancing HR function. By picking up and applying new knowledge and skills, knowledge and skill gaps can be filled. If a company adheres to the necessary guidelines and rules, data can be used and kept in an ethical and legal manner.

to the study, HR analytics usage and implementation have both benefits and drawbacks, but when viewed in a broader context, the benefits of using HR analytics outweigh the drawbacks and lead to tremendous growth for the organisation. It has been determined that if an organisation understands the proper purpose of implementing HR analytics, they will receive a higher return on investment, and businesses will accept and begin incorporating HR analytics in HR departments.

Soon, the use of HR analytics will increase, assisting organisations in obtaining evidence-based results and transforming the HR department's operations from traditional to statistical decision making. HR analytics used correctly at the right time and in the right business can lead to tremendous growth in an organisation, allowing it to grow faster.

REFERENCES

1. Anushree Sharma of People Matters predicts a 12% growth in the global market for HR analytics.

2. L. Ravikiran and Kambam Vedanta's HR Analytics - Extent of its Utility in Making Strategic Business Decisions in its Sector.

3.The Role of HR Analytics in the Global Community by Dr. Mrs. Prajyakti Bakre (Jan-feb 2019) International Journal of Trend in Scientific Research and Development

4. A study by Lije George and T. J. Kamalanabhan on the adoption of HR analytics in organisations. It's January 2016 IJIRD.COM, Vol. 5, No. 2

Analysis of Challenges facing Human Resource Management in current scenario

Asst.Prof. Shafaq Heyat Khan

Assistant professor, Department of Management Studies

KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

Email Id: - shafaq.k@klessccmumbai.edu.in

Ms. Safa K.P.

T.Y.BMS, Bachelor of Management Studies

KLE Society's Science and Commerce College, Kalamboli, Navi Mumbai

Email Id: - kpsafa16@gmail.com

Abstract - In this paper we discuss about in current scenario what challenges faced by the Human Resource Departments. Human Resource Management (HRM) is designed to the company's operations to maximized employee performance in order to meet the employer's strategic goals and objectives. HRM focuses on management of people with companies, emphasizing on policies and systems. Today era HRM consider the more vital and strategic role, addressing these issues and solving the employees and organization's particulars problems in less consuming time. In this paper we discuss about in current scenario what challenges faced by the Human Resource Departments. Human Resource Management (HRM) is designed to the company's operations to maximized employee performance in order to meet the employer's strategic goals and objectives. HRM focuses on management of people with companies, emphasizing on policies and systems. Today era HRM consider the more vital and strategic role, addressing these issues and solving the employees and organization's particulars problems in less consuming time. In coming Scenario HR Departments will be facing challenges in the coming few years. HR Departments consider as a employee's "valuable assets" of the organizations. So employees fully concentrate on work as a result full utilization of resources in minimum cost and maximum profit in less consuming time in production.

Keywords: Challenges, Trends, Human Resource Management

ISBN NO: 978-81-962963-4-6

I. INTRODUCTION

Human Resource Management faced significant challenges in organizations. In short HRM is process of recruiting, selecting employees, providing proper orientation and induction, imparting proper training and developing skills. HRM also includes employee assessment like performance appraisal, facilitating proper compensation and benefits, encouragement maintaining proper relations with labor and with trade unions and taking care of employee's safety. Welfare and health by complying with labor laws of the state or country concerned. HRM tries to put people on assigned tasks in order to have good production or results. Basically, we can say that HRM is a multidisciplinary activity, utilizing knowledge and inputs drawn from psychology, economics etc. HRM main focuses on outcomes and not on rules. The Human Resources challenges and Functions every year change. Today HR Departments are mainly facing the challenges regarding Recruitment, Selection, Retain the employees, Leadership Development and Corporate Culture.

RECENT CHALLENGES OF HUMAN RESOURCE MANAGEMENT

 ISBN NO: 978-81-962963-4-6

EMPLOYEE RELATION:

The downsides to high employee retention are disengaged employees who remain in their roles, hurt productivity, create toxic work environments, and drive good employees away. High retention can also lead to difficulty implementing change, less innovation, and a lack of diversity and inclusion.

1. **CHANGE MANAGEMENT** Organizational change can happen for several reasons, including financial concerns, a merger or acquisition, expanding markets, accommodating growth or a simple shift in business model. Whatever the reason, change is almost always difficult for employees and it can wreak havoc with your bottom line. Factors that may cause a project to not achieve the desired results. Understanding the risks can also illustrate what is necessary for a change to succeed. The Initial risk assessment identifies gaps or barriers that may inhibit a successful outcome, and it sets the foundation for developing the change management strategy and plan.

2. **RESKILLING AND UPSKILLING** Reskilling is a process where employees learn new skills to move into a different job role within an organization or to meet the new demands of a current role. On the other hand, upskilling is the process of learning new skills and acquiring relevant competencies needed for today's work environment and the near future. Reskilling your employees is a complex task that demands strategic L&D planning. The top barriers to skill development within the organizations are lack of time, lack of budget, and lack of offerings in content, topic, or depth, and that upskilling is not a priority for leadership.

3. **MANAGING DIVERSITY** One of the challenges of diversity is the potential for workplace conflict. When people are from different backgrounds and have different perspectives, it is possible for them to clash. This can be a problem in the workplace, where productivity can be affected. As you diversify your team, it’s possible you could see more biases, discrimination, and harassment.

 ISBN NO: 978-81-962963-4-6

4. **EMPLOYEE ONBOARDING** Constantly changing how you onboard employees every time you hold a meeting can confuse your employees and make your job more complicated. Keep a list of activities, goals to achieve, and documents necessary before starting up an onboarding session. One common onboarding challenges during onboarding is that most new hires have lack of clarity of their role. They usually think that they signed up for some specific role but doing something else. The new employee might be in a dilemma and could be disappointed by the assigned role

5. **GLOBALISATION :** Some of the major challenges faced by HR management due to globalization are varying labor laws in different countries, different cultural aspects of employees hailing from different countries, and the need to stay competitive to thrive in a larger make. Due to globalization, the workforce has become more diverse. Human resource leaders face a challenge when dealing with a heterogeneous team. Having a diverse workforce will have implications for management. Managers should understand the differences between in-office and remote resources and make decisions accordingly.

III. CONCLUSION

The role of HRM must parallel the needs of changing organizations environment. Successful organizations are becoming more adaptable, quick to change directions and customer oriented. HR professional must learn how to manage effectively through planning, organizing, leading and controlling the human resource by effective HR department .HR managers be knowledgeable of emerging trends in training and employee development. HR managers focuses how to Recruiting, Selecting, Training & Developing Programs, Performance Appraisal and Retained the employees and how to using the employees to managing human capital to help Organizations succeed In other words we can say that HR managers works as a bridge between the Management and Employees, as a result build a strong relationship established between them. The main objective of this study to analysis and highlight the challenges facing by Human Resource Management, what vital role play in the Organizations. HR managers through the HRD Programmers. HRM in today era in a wide range to perform various challenges and issues may emerge in front of HR managers of human resource department while performing their obligations. Any Capable HR manager would work

 ISBN NO: 978-81-962963-4-6

on these issues and challenges to prevent the organizational activities whose harmful for organizations . HR Managers motivate the employees working in the organization to perform the high levels for individual employees organization and economic growth.

IV REFERENCE

- Agrawal Sujata, 2006 The workplace of the future.
- Alvin Chan, The Challenges of Human Resource Management, http://www.callcentercafe.com http://www.employee-retention-guide.com
- Tata Ratan , 2006 Vision of the future, taken from http://www.tata.com/0_media/features/interviews/20060811_ratan_tata.htm Corporate culture, http://www.1000advices.com/guru/org_culture_vk.html
- http://www.callcentrcafe.com http://www.researchgate.net www.personio.com