



Kristu Jayanti College

AUTONOMOUS

Bengaluru

Reaccredited 'A++' Grade by NAAC | Affiliated to Bengaluru North University

PROCEEDINGS OF THE 4TH INTERNATIONAL CONFERENCE (VOLUME-1)

RESILIENCE AND PROGRESS: PIONEERING TRANSFORMATIVE PATHWAYS TO SUSTAINABILITY

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EDITORS

Dr. Aloysius Edward

Dr. Annie Stephen, FCA

Mr. Jagadeesh K.K

Dr. Aakash Kumar

Dr. Jayashree S



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Kristu Jayanti College (Autonomous)
K. Narayanapura, Kothanur P.O., Bengaluru-560077,
Karnataka, India.

Website: www.kristujayantimba.edu.in



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4th International Conference

on

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Transformative Pathways to Sustainability (ICRPPTS), 2025**

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Kristu Jayanti College (Autonomous)**

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February, 2025

Proceedings of the 4th International Conference

**INTERNATIONAL CONFERENCE ON RESILIENCE AND PROGRESS:
PIONEERING TRANSFORMATIVE PATHWAYS TO SUSTAINABILITY
(ICRPPTPS) 2025**

Editorial Board

Dr. Aloysius Edward J

Dean, Faculty of Commerce and Management

Kristu Jayanti College (Autonomous)

Dr. Annie Stephen, FCA

Head of the Department, Department of Professional Accounting and Finance

Kristu Jayanti College (Autonomous)

Mr. Jagadeesh K.K

Co-ordinator, Department of Professional Accounting and Finance

Kristu Jayanti College (Autonomous)

Dr. Aakash Kumar

Assistant Professor, Department of Professional Accounting and Finance

Kristu Jayanti College (Autonomous)

Dr. Jayashree S

Assistant Professor, Department of Professional Accounting and Finance

Kristu Jayanti College (Autonomous)



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K Narayanapura, Kothanur, Bengaluru, Karnataka, India-560077

www.kristujayanti.edu.in info@kristujayanti.com



ABOUT THE COLLEGE

Kristu Jayanti College, Autonomous, Bengaluru embodies the educational vision of St. Kuriakose Elias Chavara (1805 -1871), the founder of the religious congregation, Carmelites of Mary Immaculate (CMI). He envisioned the sunrise of a renewed humanity through the Integral development of mind, body and spirit. The motto of the College, 'Light and Prosperity' aims at this synthesis and harmony of the spiritual, physical, mind and body. Kristu Jayanti College was re-accredited by NAAC with 'A++' Grade in 2021 and is an Autonomous College under the Bengaluru North University. In the India Today – MDRA Survey 2023, the College is ranked 2nd in BCA & MSW, 3rd in Commerce, 4th in Arts & Science, 6th in BBA and Mass Communication in Bengaluru City. At National Level, in the same survey, it stands at 4th in BCA, 12th in MSW, 19th in Arts, 17th in BBA, 19th in Commerce, 21st in Arts, 24th in Science and 34th in Mass Communication.

ABOUT THE DEPARTMENT

The Department of Professional Accounting and Finance is built on a foundation of application-based learning, academic excellence and futuristic vision. The mission of the department is to build a strong knowledge base in the real-time finance and Accounting practices. The programmes offered by the department are designed in collaboration with the Association of Chartered Certified Accountants (ACCA), UK, Chartered Management Accountant, USA, (CMA), Institute of Chartered Accountant of India (ICAI), Institute of Company Secretaries of India (ICSI) and American Institute of Certified Public Accountant (AICPA) to provide students with the unique opportunity to pursue their qualification in tandem with their under graduation. The curriculum framework and content of this programme will enable students to accessibly pursue a career in International Finance and Accountancy.

ABOUT THE CONFERENCE

Economic achievement has been the leading objective of business organizations for a long time. However, providing answers to essential questions regarding the world's sustainable development has become a significant concern not only for society, but also for many corporate establishments. Sustainability, in terms of a "concurrent chase of economic, environmental, and social objectives", has accompanied and substituted the traditional profit-focus of many organizations. Organizations chasing sustainable strategies face additional and different challenges than traditional, profit-focused establishments, in particular with regards to the multiplicity and interdependence of their objectives and stakeholders and their challenging transformation journey towards sustainability. In this uncertain business environment, digitalization, technology, entrepreneurship and innovation are the core of business dynamics. It is evolving in terms of business models, knowledge sourcing and creation across



international network and geographic boundaries. The Department of Professional Accounting & Finance is elated to announce a two-day International Conference on "Resilience and Progress: Pioneering Transformative Pathways to Sustainability" on February 21st and 22nd, 2025. The objective of the conference is to provide a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends and concerns as well as practical challenges encountered and solutions adopted in the fields of Business Models for sustainable development. The conference is devoted in the view of bringing together both theoretical and practical insights from the fields of sustainable entrepreneurship, innovation and transformation on one hand and business models for sustainability on the other hand.

CONFERENCE SUB-THEMES

Aligning the above Tracks/Themes to business Models the following sub-themes may be looked at by the authors contributing a paper for presentation and possible publication.

Sustainability Business and Marketing | Block-chain in Accounting, Banking and Insurance |
Marketing Analytics for Sustainability

Business | Tapping Rural Market for Business Sustainability | Impact of Pandemic on Logistics &
Supply Chain Management | Green HRM |

Financial Analytics | Stress Management, Work and Family Balance | Virtual Communication in HR |
Sustainability Business and Changes in Financial Sector |

Cyber Security in Banking | Portfolio Optimization | Risk Assessment and Risk Management in New
Normal | Need of Financial Literacy and Financial Inclusion in Next Normal Sustainability accounting,
Accounting and Reporting | Entrepreneurship & Sustainability Businesses |

Financial Inclusion in Next Normal | Sustainability accounting, Accountability and Reporting |
Sustainable Business and Information

Technology | Machine Learning and Big Data Analysis in Businesses | IT Innovations in businesses
|New-age Technology for Building

Sustainable Businesses | Innovation and Entrepreneurship | Entrepreneurship & Sustainable
Development | Recent Trends



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CHALLENGES FOR HUMAN RESOURCE MANAGEMENT

Ms. B. Abirami

I-M.COM, PSGR Krishnammal College for Women, Coimbatore

N. Priyadharshini

I-M.COM, PSGR Krishnammal College for Women, Coimbatore

ABSTRACT

The liabilities of HR director have gradationally come broader and further strategic since the organization realized the significance of HR. The conception of global will redounded in exchange of societies across the globe as a single country, producing the factors in one country, assembling the products in alternate country, request the product in the third country, the banks in the fourth country to finance the operations, insurance companies in the fifth country to give insurance installations, all the countries give mortal coffers and so on so forth. This study explores the evolving challenges faced by Human Resources Management (HRM) in contemporary organizations, focusing on key areas such as talent acquisition and retention, employee engagement, diversity and inclusion, legal compliance, and technological integration. It examines the impact of these challenges on organizational effectiveness and employee satisfaction, emphasizing the critical role of HR in addressing these issues strategically.

The findings reveal that HR professionals must adopt innovative practices, leverage emerging technologies, and foster inclusive workplace cultures to overcome these challenges. Additionally, the study highlights the importance of aligning HR strategies with broader organizational goals to ensure long-term success.

Keywords: Challenges, Recruitment, Performance Management, Globalization, Strategies.

INTRODUCTION

While communicating is a vital skill for directors' at all organizational situations and in all functional areas, mortal resource directors are anticipated to be especially complete agents, given the important interpersonal element of their places. Interpreters and scholars likewise stand to profit from incorporating a streamlined and further nuanced view of communication proposition and practice into standard mortal resource operation practices.

By providing insights into the complexities of modern HRM, this study contributes to a deeper understanding of how organizations can navigate workforce challenges and create environments that promote employee well-being, productivity, and resilience. It concludes with actionable recommendations for HR practitioners and avenues for future research to address emerging trends and challenges in the field.

OBJECTIVES

The objectives of the study are:

- To study the efficient utilization of Human Resources.
- To analyze the major challenges of Human Resources Management. □
To offer suitable suggestions and conclusions of the study.

MAJOR CHALLENGES FOR HUMAN RESOURCE MANGEMENT



Recruitment and selection:

As technology advances, new HR operation tools and ways are developed. They will have to make some changes in their reclamation styles, including offering new training services to insure quality results.

Leadership development:

This is a strategic action that should be handled precisely to retain the stylish workers. In addition, HR professionals must insure they give essential tools and structures to elect and develop unborn leaders of their associations.

A Managing a different tool:

Hiring a different pool means that you bring onboard workers with a broader range of chops and different gests that can maximize productivity. For case, handling frequent dissensions and encouraging effective communication between a different pool with different backgrounds can leave other workers feeling neglected. In this regard, HR professionals must develop an organizational culture through colorful platoon- structure conditioning.

Compliance with employment laws:

Employment laws keep changing, and it's up to the HR professionals to stay abreast with the rearmost laws to avoid checkups and suits that could affect your business performance. Employment laws are regulations that help in effective hiring, hand operation, and plant safety.

Engaging Workers:

Besides gift accession challenges, HR departments struggle to keep their pool engaged and maximize productivity. As business grows, it will also alter its structure, work plan, and indeed internal processes. Getting workers to acclimatize to this change bear effective communication. Let them know the benefits of the changes and why their input is pivotal in taking the business to an advanced position.

Compensation and Benefits:

Businesses have to keep up with their challengers to retain the stylish gift. This can beget a strain on small businesses that are yet to induce the same profit large associations do. In this regard, HR directors with small payroll budgets should consider hand prices programs for the best- performing individualities. Incitement programs can also be a result to low hires and hand benefits.

Trade Union Demands:

Some trade unions have unrealistic demands that contribute to mortal resource operation challenges. Thus, it need to be skillful in handling trade unions that oppose company's programs and procedures. This is so that can fluently reach an agreement that benefits both parties.

Retaining the Stylish Gift:

This is one of the most common challenges of HRM faced by associations. With employers contending for the stylish workers, retaining them requires a structured on boarding plan. Flash back that hand development can be expensive and have an adverse effect on your business growth. To maintain the stylish gift, you should also produce a conducive work terrain, give room for career development, and motivate them to perform better.

Maintaining Workers' Health and Safety at Workplace:

HR professionals must insure that the plant is conducive enough to accommodate workers without affecting their health. For case, if there are types of ministry that bear chops to operate, let the workers know the troubles of using them. Their health should also be a precedence since healthy and safe workers will keep your business running and growing. Workload and stress situations are also other mortal resource operation issues and challenges that can be handled by allocating tasks inversely and planning for conditioning that help manage stress.

Organizational Data and Integrity Management:



Businesses are getting more digitized, using electronic bias to manage colorful tasks. Still, while they enjoy the benefits of the advancing technology, their data are at threat of spill into the wrong hands. Thus, you need to insure the data security department is on its toes to secure data. Also, consider communicating with your workers about data security stylish practices similar as the use of watchwords, phishing emails, desktop rules, etc.

BENEFITS OF HUMAN RESOUCE MANAGEMENT

HR Can help in allocating Organizational Excellence:

By designing an entirely new part and docket that results in perfecting the association's value to guests, investors and workers, HR can help in delivering organizational excellence. This can be carried out by helping line directors and elderly mangers in moving planning from the conference room to the request place and by getting an expert in the way work is organized and executed.

Mortal Resource Should be a Strategy Partner:

HR should also come a mate in strategy prosecutions by propelling and directing serious conversations of how the company should be organized to carry out its strategy. Creating the conditions for this discussion involves four way. First HR need to define an organizational armature by relating the company's way of doing business.

HR Responsibility Should be fixed to Ensure Employee Commitment:

HR must be held responsible for icing that workers feel married to the association and contribute completely. They must take responsibility for orientating and training line operation about the significance of high hand morale and how to achieve it. The new HR should be the voice of workers in operation conversations. The new part for HR might also involve suggesting that further brigades be used on some systems or that workers be given further control over their own work schedules.

The New HR Must Come a Change Agent:

The new HR must come a change agent, which is erecting the association's capacity to embrace and subsidize on change. Indeed though they are not primarily responsible for executing change it's the duty of the HR director to make sure that the association carries out the changes framed for perpetration.

Perfecting the Quality of HR:

The most important thing that directors can do to drive the new accreditation for HR is to ameliorate the quality of the HR staff itself. Elderly directors must get beyond the conceptions of HR professionals as unskillful support staff and unleash HR's full implicit.

Change in Employment Practices:

The balance distance of an association shows mortal resource as an expenditure and not as a Capital. In the information age, it's perceived that the machines can do the work more efficiently than utmost people still; technology to work is dependent on people.

FOURTH INDUSTRIAL REVOLUTION AND HUMAN RESOURCE MANAGEMENT

The 4th Industrial Revolution (4IR), characterized by advancements in technologies like artificial intelligence (AI), robotics, big data, block chain, and the Internet of Things (IoT), has significantly transformed HRM.

Workforce Transformation:

Rise in automation and AI reshaping job roles, requiring HR to focus on re-skilling and up skilling. Increased demand for digital skills and tech-savvy employees. The 4th industrial revolution has enabled HR to leverage technologies like AI and analytics to reduce bias in recruitment and promotions, fostering a more diverse and inclusive workforce.

Data-Driven Decision Making:



Use of HR analytics to enhance recruitment, performance evaluations, and employee retention strategies. Leveraging big data for predictive analytics to anticipate workforce trends and address issues proactively. Globalization and digital platforms allow HR to attract talent from a broader demographic and geographic pool.

Remote Work and Flexibility:

Enhanced adoption of remote work enabled by digital tools and platforms. HR's role in managing distributed teams, ensuring collaboration, and maintaining employee engagement. Use technology to promote work-life balance and support mental health.

Employee Experience and Engagement:

Integration of AI-powered tools to personalize employee experiences. Use of chatbots for real-time support and automating repetitive tasks. Invest in HR technology such as AI, analytics, and cloud platforms.

Up-skilling and Re-skilling:

Continuous learning programs to address the skills gap created by technological advancements. Focus on lifelong learning to prepare employees for future challenges. Encourage a culture of continuous development and up-skilling.

HR Automation:

Automation of repetitive HR tasks like payroll, leave management, and on-boarding. Deployment of AI for candidate screening and performance reviews. Ensure compliance with data protection laws and ethical AI Usage.

IMPACT OF HUMAN RESOURCE MANAGEMENT

Weak Labor Movement:

The Indian working class is generally UN resistant and depends on outside politicians for leadership. This outside leadership has failed to understand the requirements of the working class. The politicians in fact use the workers to achieve their political ends rather of awakening social knowledge amongst the workers.

Largely Authoritarian Culture:

The Indian society has a largely authoritarian culture. This makes the Indian worker depend on the elders. Freedom is not a value in India. This culture therefore discourages participative style of operation and free communication. These two conditions are the base for ideal mortal relations, which are lacking in the Indian situation.

Technological Backwardness:

Technological terrain influences business in terms of investment in technology, harmonious operation of technology, and the goods of technology on requests. Technological progress has a veritably important part to play in the profitable development of a country. No backward country can hope to march ahead on the road to profitable development without espousing newer and newer ways of product.

Insecurity in Employment:

The Indian workers are attracted to the metropolises by the lure of advanced stipend but the insecurity of their employment, habitual casing deficit, and high rents help them from settling down and bringing their families from the will. Therefore, the artificial worker would not remain in an assiduity if he could secure sufficient food and apparel in the will." They're pushed, not pulled to the megacity".

Unhealthy Growth of Trade Unions:

The migrant character of Indian labor leads to unhealthy growth of trade unions. Numerous workers do not take an active part in the conformation of unions and do not like to pay their subscriptions because they do not come to the metropolises to live permanently.

Migrant specific of Indian Labor:



As a result of migration, the artificial worker finds himself in a strange terrain. Due to lack of houses, workers are forced to leave their families in town lets. Separation from families leads to promiscuity, harlotry, venereal conditions and indeed AIDS. To compound the problem, the health of the worker is subordinated to severe strain due to numerous reasons like change in climate, working and living conditions etc.

STRATEGIES OF HUMAN RESOURCE MANAGEMENT

Enhancement of Labor Productivity:

Manpower or mortal coffer as a factor of product differs from other factors of product. As it's subject to its free will, the productivity of labor can be bettered if the workers are kept satisfied. In other words, just as satisfied workers can be productive, displeased workers can be destructive. Thus, through proper mortal resource planning we can ameliorate the morale of the labor and ameliorate labor productivity.

Reclamation of good mortal coffer:

Talented and professed labor has come a scarce resource especially in developing countries. Thus, for the long run survival of the establishment, it's essential to retain the stylish labor force through proper force planning.

Conforming to the Rapid Technological Change:

With the change in technology, the job and job conditions are also changing. Thus, it's necessary to read and meet the changing force, which can repel the challenges of the technological revolution. This can be done only through effective force planning.

Reducing Labor Development:

The labor development refers to the mobility of labor out of the organization due to colorful factors similar as dissatisfaction, withdrawal, death etc. Due to labor development, a establishment will be losing educated and professed labor force. This loss can be minimized only through effective force planning.

Control over Reclamation and Training:

Cost largely professed labor force are in short force and it's veritably expensive to hire, train, and maintain them. A company has to incur heavy costs in recycling the operations, conducting written tests, interviews etc., and in the process of furnishing acceptable training installations. In consideration of these costs, it's essential to plan precisely in relation to the force so as to reduce the reclamation and training cost.

CONCLUSION

This study highlights the multifaceted challenges faced by Human Resources Management in contemporary organizations, including talent acquisition, employee engagement, diversity, technological integration, and compliance with legal frameworks. The findings underscore that effective HR strategies are pivotal to addressing these issues and aligning workforce dynamics with organizational objectives.

The study emphasizes the need for HR professionals to adopt innovative practices, leverage advanced technologies, and prioritize employee well-being to foster a productive and inclusive workplace. Additionally, maintaining agility in HR processes is essential for navigating global competition, evolving workforce expectations, and rapid technological advancements.

In conclusion, HRM is not merely a support function but a strategic partner in achieving organizational success. By addressing the identified challenges proactively and strategically, HR can drive sustainable growth, enhance employee satisfaction, and create a resilient workforce prepared for future challenges.

Further research is recommended to explore emerging trends and develop advanced frameworks for HR excellence in the ever-changing global landscape.

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FINANCIAL LITERACY AND FINANCIAL INCLUSION OF ELDERLY PEOPLE IN BHOPAL CITY: ADAPTING TO THE NEW NORMAL FOR SUSTAINABLE ECONOMIC GROWTH

Ms. Khushbu Wadhvani, Ms Monika Patidar

Student, Institute for Excellence in Higher Education, Bhopal, Madhya Pradesh

Ms Saloni Paliwal

Faculty, Institute for Excellence in Higher education, Bhopal, Madhya Pradesh

ABSTRACT

As financial systems become more intricate and populations age quickly, older adults encounter growing difficulties in managing their finances efficiently. This research investigates financial literacy among individuals aged 55 and over in Bhopal, focusing on their financial autonomy and economic stability. Although there has been considerable research on financial literacy, a notable gap exists in understanding its effects on the elderly, particularly in developing economies such as India. Utilizing a mixed-method with 116 participants, the study evaluates literacy levels, decision-making skills, and obstacles faced.

The results indicate a dependence on traditional saving methods and a limited understanding of contemporary financial tools, underscoring the critical necessity for specialized financial education initiatives to ensure economic security for older adults. This aligns with Resilience and Progress: Pioneering Transformative Pathways to Sustainability, as financial literacy strengthens financial autonomy and resilience among senior citizens, ensuring their adaptability to evolving financial landscapes. The Need for Financial Literacy and Financial Inclusion in the Next Normal is evident, as economic sustainability in aging populations requires informed financial decision-making and access to modern financial resources. Addressing these gaps through targeted financial education will contribute to long-term financial stability, fostering both individual economic security and a financially inclusive society.

Keywords: Financial literacy, elderly population, risk diversification, wealth management

INTRODUCTION

Financial literacy is the knowledge, skills, and abilities needed to secure oneself and actively engage in financial markets. A financially literate person manages personal and family budgets responsibly, handling assets and liabilities while adapting to changing circumstances. It encompasses economic literacy, income generation, and the impact of personal decisions on financial stability. Understanding macroeconomic and fiscal issues is crucial as they influence individual and household cash flows.

Older generations struggle in today's complex world due to consumer pressures and their limited capacity. They have the social status of pensioners, are regarded as inactive or unproductive, and often face health issues such as morbidity, declining self-sufficiency, and loss of functional ability, though aging is also a subjective reality. Older people tend to manage more resources and wealth but face challenges with unfamiliar financial products and declining cognitive abilities, though years of experience in financial decision-making may help. Financial literacy includes the fundamentals of saving, debt, investment, and budgeting, considering risk diversification, wealth management, stock market participation, family networks, and retirement goals.

People's cautious tactics and attitudes toward spending and saving have changed in the postmodern world, with rapid increases in consumption and a willingness to take on debt. Seniors are now one of the most socially disadvantaged groups and are becoming easy targets for banking and non-banking entities due to their lack of awareness of financial goods. This leads to reckless spending and its financial consequences. Therefore, it's essential to address seniors' socioeconomic competency and provide them with the fundamental knowledge and skills to manage finances and reduce risks like debt, insolvency, executions, and distrains.

REVIEW OF LITERATURE

(Delivala, 2022) Found that scams targeting the elderly cost an estimated \$36 billion annually, and many elderly people are unsure of the distinction between personal and non-personal data in digital technology. The industry's product offerings must be strengthened with awareness-raising campaigns on avoiding fraud and being watchful to inspire trust in digital banking products.

(S, 2022) Found that financial literacy is a significant global issue because of the challenges involved in obtaining different financial products available in the market. There has been a notable transformation in the pension system, as retirees are no longer exclusively reliant on their employers or the government for financial guidance. Nevertheless, emerging technologies are complicating financial management for elderly individuals.

(RBI, 2015) States that it is essential to understand retirement requirements, taking into account elements such as the age of retirement, inflation rates, and life expectancy. Inflation impacts retirement by driving up living expenses and diminishing the value of savings, highlighting the importance of careful planning.

Research Methodology

OBJECTIVES OF THE STUDY

- To understand the financial awareness among the age group 55 years and above.
- Examine their capacity for making wise financial decisions.

□

RESEARCH HYPOTHESIS

- There is no significant relationship between the different age groups ranging from 55-64, 65-75 and 75 and above with their financial literacy about the concept of risk diversification.
- Most of the senior citizens take correct financial decision in terms of wealth management concept.

SCOPE OF THE STUDY

This research explores the financial challenges and dynamics encountered by the elderly. Financial education plays a crucial role in enabling retirees to achieve self-sufficiency, prepare for retirement, and lessen their reliance on family and social assistance. Although financial literacy does not impact the likelihood of seeking financial advice, it does shape the choice of source, as individuals with high financial literacy tend to opt for professional advisors rather than consulting family or friends.

POPULATION

The research encompassed the whole city of Bhopal, concentrating on individuals aged 55 and older, both male and female. Given that there are approximately seven million senior citizens in Bhopal, studying the entire population was not feasible.

This variety was taken into account when selecting participants to ensure a broad representation of financial issues. A total of 116 individuals were randomly selected. The sample comprised retired seniors from various campuses, elderly residents in nursing homes who were unemployed or working part-time, and some who relied on their families. Data was gathered using a pre-arranged questionnaire.

DATA ANALYSIS

- The study used qualitative analysis to assess financial literacy among senior citizens, categorizing them into three age groups (55–64, 65–75, and 75+) and further dividing them into employed, retired, and unemployed. Understanding financial resilience in senior citizens is crucial for ensuring economic sustainability in the next normal. A financially literate elderly population can contribute to overall economic stability and progress rather than being financially dependent.
- A majority of working seniors have not considered retirement planning, showing a lack of long-term financial foresight. 71% of retired individuals rely on pensions, with some investing in securities like bonds, stocks, and real estate. However, a small percentage (7%) have no steady source of income, indicating financial vulnerability. Without financial inclusion, these gaps widen, making retirement a period of uncertainty instead of security. Sustainable financial strategies are necessary to ensure resilience in old age.
- Many unemployed seniors rely on family, pensions, or rental income. Some benefit from government welfare schemes, but awareness remains limited. Financial inclusion efforts must ensure that every elderly person has access to sustainable income sources, reducing dependence and building financial independence in the next normal. Promoting accessible financial tools and government-backed savings programs can pioneer a transformative pathway to long-term financial security.
- The study found that 95% of unemployed seniors rely on family members for their own bank accounts, but, encouraging digital and financial literacy can ensure that seniors independently manage their finances, strengthening their financial resilience and reduce risk of financial exploitation.
- The study assessed whether senior citizens carry debt and their ability to raise ₹20,000 or more in an emergency. Preparedness for financial shocks is crucial for resilience—without adequate savings or risk management, seniors remain economically fragile.
- Respondents were asked about their preferred savings plans, including fixed deposits, securities, and government schemes. The right financial planning and awareness of diverse investment options allow seniors to contribute to a sustainable economic cycle. Understanding wealth management ensures long-term financial progress for individuals and the economy as a whole.
- Respondents were tested on their awareness of various schemes, alongside their preferred sources of financial advice. The results highlight the need for more effective government outreach programs to enhance financial inclusion and empower seniors with the knowledge to make informed financial decisions.
- Limited knowledge of fundamental finance concepts weakens financial resilience—without understanding these basics, seniors struggle with smart money management. When asked about risk diversification, a chi-square test showed no significant correlation between financial literacy and the ability to diversify financial risks.

- Inflation awareness was assessed through a scenario where respondents were asked how they would manage financially if the inflation rate exceeded interest rates. Many struggled to understand the impact of inflation, highlighting a gap in financial literacy that can weaken purchasing power and long-term financial sustainability. Educating seniors on inflation's impact is crucial for ensuring they make informed investment and savings decisions.
- Wealth management practices were analysed. Many lacked a structured approach, demonstrating a need for improved financial planning education. Poor financial choices in asset management can hinder economic resilience in the next normal, making financial awareness programs essential.

LIMITATION OF THE STUDY

- The respondents from the city of Bhopal were chosen due to the time constraints, so it cannot be said that a comprehensive survey of the population was conducted.
- Collecting feedback from elderly proved to be difficult because of their age, limited patience, and potential health or family concerns. Arranging meetings while respecting their privacy was a struggle. Given the limited scope of the study, the results cannot be applied broadly.

HYPOTHESIS TESTING

Test 1: Relationship between the age of senior citizens (55-64, 65-75, 75+) and their financial literacy about the concept of risk diversification.

H₀: There is no significant relationship between the age of senior citizens and their financial literacy regarding the risk diversification concept.

H₁: There is a significant relationship between the age of senior citizens and their financial literacy regarding the risk diversification concept.

Table 1: Observed Value

Age group	Do you think that buying a single company's stock is much safer than buying multiple company's stock?			
	Do not know	May be	No.	Grand Total
55-64	10	14	22	46
65-75	18	8	12	38
75 and above	16	7	9	32
Grand Total	44	29	43	116

Table 2: Expected Value

Age group	Do you think that buying a single company's stock is much safer than buying multiple company's stock?			
	Do not know	Maybe	No.	Grand Total
55-64	17.44828	11.5	17.0517241	46
65-75	14.41379	9.5	14.0862069	38
75 and above	12.13793	8	11.862069	32
Grand Total	44	29	43	116

P-Value: 0.07071504

The null hypothesis, is accepted because P-Value is higher than 0.05.

MAJOR FINDINGS

- Most working seniors are self-employed and familiar with financial tools. Private-sector employees (25.6%) and government employees (23.3%) differ in financial literacy, with government workers being more retirement-conscious.
- 70% of seniors are debt-free, but some accumulate debt post-retirement. Confidence in emergency savings varies: 40% are highly confident, while 13% have no financial independence.
- Traditional saving methods like fixed deposits dominate. Some invest in securities, while a few lack basic saving strategies. Most save for security and family, not due to fear of money shortages.
- Seniors prefer family and friends over financial advisors, reflecting low financial trust and awareness. Poor money management can lead to losses.
- 77% are aware of pension plans, senior citizen savings plans, and mutual funds, but 22% remain uninformed. Despite awareness, only 6% use credit cards, preferring cash transactions.
- Only 42.2% could calculate simple interest, though 90% understood cost price due to daily interactions. 61% are unsure how to handle inflation.
- A chi-square test found no link between financial literacy on risk diversification and age. Only 39% make sound investment and savings decisions, while many hoard money, leading to unclaimed wealth.
- Seniors (60–70) receive care from children, but post-70, they face neglect due to their children's growing responsibilities. Despite high net worth, many seniors (70+) live lonely and unhappy lives.

DISCUSSION

A small sample from an old age home revealed that as people age—whether employed, retired, or unemployed—they struggle to keep their mind and body in one place and begin to accept their issues as inevitable, showing little interest in their finances. This acceptance of circumstances without effort is the root cause of many qualitative and quantitative problems they face.

Some medical conditions prevent them from working, while others are simply content with whatever they have and do not wish to work. Many jobless elderly individuals have been victims of scams by family or friends, leaving them so disheartened that they no longer care about their money or even their health. The research makes it clear that the majority of these issues originate in the mental realm.

Representative Statements from Apna Ghar

- I am unable to hear clearly and also have trouble remembering what is happening around me. I was born and raised in Gwalior's Madhav Ganj, and I've been here for 22 years now since my relatives passed away. Since I only have one daughter, everyone now calls me "Ayi".
-Sadhna Pathak (78 years)
- I'm from Maharashtra. My spouse died two years ago, and I have been residing here ever since. I require a walker for moving, and because of injuries, I have a rod in my leg.
- Shaila Madhukar (70 years)
- I've been here for two years. My kid used to work in the service industry at an SBI bank in Bhopal, and I used to reside in Nagpur. My family left me off here due to some inactivity after I underwent surgery to remove some of my foot fingers due to an abscess in my foot. My kid has since been relocated to Indore. Right now, my blood pressure is an issue. -(Radha 76)

SUGGESTIONS

Financial literacy is essential for a strong financial system and economic growth. The government must raise awareness and provide training to benefit society. Banks can partner with NBFCs to educate



customers, and a school-level financial literacy program should be introduced. Social media can also be used to enhance awareness in the digital age.

CONCLUSION

This study examined the financial behaviours of older adults in Bhopal, finding that those in their 60s were more responsible with credit card debt and engaged in stocks but were less likely to take risks. Working citizens managed their bank accounts well, showing financial literacy in technology but lacked retirement planning. Retired individuals relied on pensions, preferred saving over investing, and had limited wealth management awareness.

The online survey assessed financial literacy through objective and subjective questions on risk diversification, inflation, and interest. While respondents understood cost price and selling price, many struggled with interest calculations. Unemployed seniors mostly depended on family, friends, and NGOs for finances, making them vulnerable to fraud, though some had cost awareness due to household management.

About 72% of seniors preferred financial advice from family and friends over professionals, highlighting the need for better government initiatives. Over time, seniors improved long-term financial planning, leading to extra savings and potential unclaimed funds in banks. Dependence on family increased the risk of internal scams.

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A STUDY ON COGNIZANCE LEVEL OF EMPLOYABILITY FROM FINAL YEAR NON-MEDICAL STUDENTS PERSPECTIVE WITH SPECIAL REFERENCE TO THE SOUTH ZONE OF COIMBATORE DISTRICT

Dr. V. Gowrishankkar

*Assistant Professor, School of Management, Sri Krishna College of Technology, Coimbatore,
Tamil Nadu*

Mr. S. Saran

II MBA, School of Management, Sri Krishna College of Technology, Coimbatore, Tamil Nadu

ABSTRACT

The cognizance level of employability skills among final-year non-medical students in the South Zone of Coimbatore District, focusing on their awareness and readiness for the job market amidst a competitive landscape. As the demand for both technical and soft skills increases among employers, this research aims to identify gaps in students' understanding of essential employability competencies such as communication, problem-solving, and teamwork. The study analyzes demographic profiles, challenges faced during the transition from academia to employment, and the alignment between academic programs and industry expectations. By uncovering barriers such as skill mismatches, lack of practical exposure, and limited networking opportunities, the research aims to provide insights that can inform educational institutions and policymakers on enhancing employability training, ultimately contributing to a more skilled workforce in a rapidly evolving job market.

Key Words: Employability, Skills, Awareness, Students, Transition, Training, challenges.

INTRODUCTION

In today's competitive job market, developing employability skills, or soft skills, is essential for final-year non-medical students in the South Zone of Coimbatore District. This Project of study examines students' awareness of crucial skills such as communication, problem-solving, teamwork, adaptability, and time management, and how these influence their job readiness. Despite training in fields like engineering and management, many students struggle to transition to the workforce due to insufficient understanding of these competencies. The research reveals a gap between academic curricula and industry demands, highlighting the need for educational institutions to improve employability training. By addressing barriers to employment and emphasizing the importance of soft skills alongside technical knowledge, this study aims to offer insights for better preparing graduates for the evolving job market.

RESEARCH METHODOLOGY:

This study will employ a mixed-methods research design, integrating quantitative and qualitative approaches to assess the cognizance level of employability among final-year non-medical students in the South Zone of Coimbatore District.

Data Collection Methods: A structured questionnaire will assess students' awareness of employability skills, perceived readiness for employment, and challenges faced. This will be distributed online or in person. - ****Focus Group Discussions****: Selected students will engage in discussions to provide deeper insights into their experiences and perceptions regarding employability. **Quantitative Analysis:** Responses will be analyzed using statistical software (e.g., SPSS) for descriptive and inferential statistics.

Qualitative Analysis: Focus group discussions will be transcribed and analyzed thematically to identify common themes.

Ethical Considerations: Informed consent will be obtained, ensuring confidentiality and voluntary participation. This methodology aims to yield insights into the awareness of employability skills among students, addressing educational gaps and improving graduate readiness for the job market.

OBJECTIVES OF STUDY:

- To Study the demographic profile of final-year Non-medical students in south zone of Coimbatore district.
- To identify the challenges faced by final-year students in south zone of Coimbatore during their transition from academia to the workforce.
- To Analyse the skill gap between academic curricula and industry demands by aligning education with employer expectations and integrating soft skills development, including communication, teamwork, and problem-solving, to enhance workforce readiness.
- To evaluate students' awareness of employability skills, career development resources, and future career plans, while identifying areas for additional support.

REVIEW OF LITERATURE:

Rajkumar (2024)¹ an survey among engineering students in Coimbatore, a critical need for upskilling in digital literacy and real-world problem-solving emerged. The research highlights a notable discrepancy between the skills offered by traditional engineering curricula and those that employers now seek in a rapidly changing job market. Students expressed a strong understanding of the importance of digital literacy, which includes vital competencies such as data analysis, software proficiency, and the ability to utilize technology effectively across various contexts. Rajkumar warns that as industries become increasingly technology-driven, students lacking these essential skills may struggle to secure employment. The feedback from students indicates a proactive attitude toward enhancing their digital skills, underscoring their commitment to professional development.

John and Mathew (2024)², the employability of final-year engineering students in South India was examined, emphasizing the impact of internship experiences on their readiness for the job market. Employing a mixed-methods approach, the researchers utilized both quantitative surveys and qualitative interviews to gather perspectives from a diverse group of engineering students across various institutions.

DATA ANALYSIS:

DESCRIPTIVE STATISTICS

Table No. 1 - AGE

Age	Frequency	Percent
Below 20	102	25.4
21-23	215	53.6
24 and above	84	20.9
Total	401	100

FINDING: The majority of final-year non-medical students are in the age group of 21-23, comprising 53.6% of the surveyed population.

Table No. 2 - GENDER

GENDER	Frequency	Percent
Female	158	39.4
Male	243	60.6

total	401	100.0
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FINDING: The survey results indicate a higher representation of male students (60.6%) compared to female students (39.4%) among the final-year non-medical students in the South Zone of Coimbatore District.

ANOVA TEST ANALYSIS

Table No. 3 - Challenge faced by final year student's vs Age
ANOVA

Challenge faced by final year students	Sum of square	Age	N	Mean	Std Deviation	F	Sig
Between group	8188.623	18-20	102	41.4902	21.52951	3.654	.018
Within Groups	94459.182	21-23	215	50.3070	12.81824		
		24 and above	84	53.9762	12.26315		
Total	102647.805		401	48.8329	16.01935		

FINDING: The ANOVA results indicate a significant difference in the challenges faced by final-year students across different age groups, with younger students (18-20 years) reporting lower mean challenges compared to older students (21-23 years and 24 and above).

Table No. 4 - Challenge faced by final year student's vs Field of study
ANOVA

CHALLENGE FACED BY FINAL YEAR STUDENTS	SUM OF SQUARE	FIELD OF STUDY	N	MEAN	STD. DEVIATION	F	Sig
Between group	41859.158	Agriculture	28	11.7857	13.87339	6.454	.075
Within Groups	60788.647	Architecture	1	65.0000	12.34343		
	102647.805	ARCHITECTURE	1	50.0000	12.34555		
		Arts	64	49.8594	12.48601		
		Engineering	125	51.5360	12.26228		
		Management	122	51.7049	12.16192		
		Science	60	53.2667	12.50609		
Total			401	48.8329	16.01935		



FINDINGS: The ANOVA analysis indicates that there are no statistically significant differences in the challenges faced by final-year students across different fields of study, as evidenced by a p-value of 0.



Correlations

		Do you believe soft skills (like communication, problem-solving, teamwork) are equally important as technical skills for your employability?	How relevant do you think your academic curriculum is to current industry demands?	What areas do you believe need improvement in your academic program to align with industry requirements? (Choose all that apply)	Do you think the skills required by employers have been adequately addressed in your academic program?	How frequently are you updated about industry trends and requirements in your field of study?	Do you feel your academic program has provided sufficient opportunities to develop soft skills (communication, teamwork, leadership)?	Which of the following soft skills do you feel require more focus in your academic program? (Choose all that apply)	Do you believe there is a gap between what you have learned academically and what employers expect in the workplace?	Rate the event organized by your institution regularly employability in career development.
Do you believe soft skills (like communication, problem-solving, teamwork) are equally important as technical skills for your employability?	Pearson Correlation	1	.227**	.307**	.228**	.227**	.115*	.235**	.298**	.150**
	Sig. (2-tailed)		.000	.000	.000	.000	.022	.000	.000	.003
	N	401	401	401	401	401	401	401	401	401
How relevant do you think your academic curriculum is to current industry demands?	Pearson Correlation	.227**	1	.252**	.252**	.212**	.105*	.222**	.317**	.212**
	Sig. (2-tailed)	.000		.000	.000	.000	.035	.000	.000	.000
	N	401	401	401	401	401	401	401	401	401
What areas do you believe need improvement in your academic program to align with industry requirements? (Choose all that apply)	Pearson Correlation	.307**	.252**	1	.347**	.193**	.115*	.271**	.316**	.260**
	Sig. (2-tailed)	.000	.000		.000	.000	.022	.000	.000	.000
	N	401	401	401	401	401	401	401	401	401
Do you think the skills required by employers have been adequately addressed in your academic program?	Pearson Correlation	.228**	.252**	.347**	1	.280**	.169**	.310**	.329**	.193**
	Sig. (2-tailed)	.000	.000	.000		.000	.001	.000	.000	.000
	N	401	401	401	401	401	401	401	401	401
How frequently are you updated about industry trends and requirements in your field of study?	Pearson Correlation	.227**	.212**	.193**	.280**	1	.108*	.228**	.286**	.241**
	Sig. (2-tailed)	.000	.000	.000	.000		.031	.000	.000	.000
	N	401	401	401	401	401	401	401	401	401
Do you feel your academic program has provided sufficient opportunities to develop soft skills (communication, teamwork, leadership)?	Pearson Correlation	.115*	.105*	.115*	.169**	.108*	1	.175**	.107*	.069
	Sig. (2-tailed)	.022	.035	.022	.001	.031		.000	.032	.169
	N	401	401	401	401	401	401	401	401	401
Which of the following soft skills do you feel require more focus in your academic program? (Choose all that apply)	Pearson Correlation	.235**	.222**	.271**	.310**	.228**	.175**	1	.222**	.302**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000
	N	401	401	401	401	401	401	401	401	401
Do you believe there is a gap between what you have learned academically and what employers expect in the workplace?	Pearson Correlation	.298**	.317**	.316**	.329**	.286**	.107*	.222**	1	.142**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.032	.000		.005
	N	401	401	401	401	401	401	401	401	401
Rate the event organized by your institution regularly employability in career development.	Pearson Correlation	.150**	.212**	.260**	.193**	.241**	.069	.302**	.142**	1
	Sig. (2-tailed)	.003	.000	.000	.000	.000	.169	.000	.005	
	N	401	401	401	401	401	401	401	401	401

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

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

Table No. 5 - CORRELATION ANALYSIS

FINDINGS: The correlation analysis reveals statistically significant relationships among variables, indicating soft skills, curriculum relevance, and academic program improvements are interlinked with employability and industry alignment.

CHI SQUARE ANALYSIS

i. Chi square for Year of study and how important do you believe soft skills are in securing employment?

Table No. 6 - Chi-square			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.651 ^a	3	.449
Likelihood Ratio	2.667	3	.446
Linear-by-Linear Association	.975	1	.323
N of Valid Cases	401		

FINDINGS The Chi-Square analysis indicates no significant association between the variables, with a Pearson Chi-Square value of 2.651 and a p-value of 0.449.

SUGRESSION:

Enhancing Practical Exposure:

To effectively prepare students for their future careers, educational institutions should actively integrate hands-on experiences such as industry projects, case studies, and internships into their curricula. These practical components are essential for students to apply theoretical knowledge in

realworld environments, enabling them to develop relevant skills and gain insights into industry standards and expectations

Soft Skills Development:

Recognizing the crucial role of soft skills in the workplace, universities should prioritize structured training programs that cover essential areas such as communication, teamwork, leadership, and problem-solving.

CONCLUSION:

The project analysis of employability among final-year students in Coimbatore highlights a significant gap between academic knowledge and industry expectations. While students understand theoretical concepts, they often lack practical skills, essential soft skills, and awareness of job market trends, hampering their competitiveness. The study reveals a mismatch between educational curricula and employer demands, with over 50% of students having no internship experience, further limiting their job readiness. Additionally, disparities in career guidance between private and government institutions indicate the need for improved mentorship and better industry collaboration.

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A PRE- AND POST- MERGER STUDY: LIQUIDITY AND RISK POSITION OF HUL AND GSKCH

Dr. M. S. Sibi

Assistant Professor, SoM, Sri Krishna College of Technology, Coimbatore, Tamil Nadu

Ms. Santhanalakshmi G

Student, SoM, Sri Krishna College of Technology, Coimbatore, Tamil Nadu

ABSTRACT

Merger and Acquisition (M&A) are a key business strategy that is used by organisations to achieve growth, mitigate competition from fast growing new companies and also successfully penetrate into newer markets and increase the customer base. These approaches aid entities in business expansion, building product portfolio and reduction in operating cost. This paper aims to study about the merger and acquisition in FMCG industry. So, the paper was focusing on the pre- merger financial performance and post- merger financial performance of Hindustan Unilever Limited (HUL) and GlaxoSmithKline Consumer Healthcare Limited (GSKCH). In this paper seven financial years have been analysed from 2017-2018 to 2023-2024 which includes two years in pre- merger period (i.e. 2017-2018 to 2018-2019) and five years in post- merger period (i.e. 2019-2020 to 2023-2024). Tools such as financial ratios and leverage calculation are used to analyse and interpret the financial performance. The Findings of the study indicated that the liquidity ratios of the company has lesser resources to pay off its short- term obligation. The leverage metrics (DOL, DFL, DCL) have demonstrated a reduction in financial risk but recent changes should be closely monitored.

Key words: HUL, GSKCH, M&A, FMCG industry, Liquidity ratios, DOL, DFL and DCL.

INTRODUCTION

In Indian business environment, M&As are an increasingly growing concept aiding companies in faster growth, market penetration and mitigate competition from rivals. Merger means two or more businesses join together to form a single business, while in an Acquisition, one business/legal entity buys another to take control of its operations and assets. From finance point of view both mergers and acquisitions involve consolidations of assets and liabilities of the companies involved and issue or transfer of share capital or funds as agreed to the stakeholders. These approaches aids entities in business expansion, building product portfolio and reduction in operating cost. So, the main objective of M&A is to develop a strong position in the market by synergising with the strengths and values of the companies so as to achieve market and financial growth.

Concept of mergers and acquisitions (M&A) are important in India not just for the growth of the business but also for encouraging innovation and improvement in the methods of company operations. All major business industries such as banking, telecommunications, pharmaceuticals, and fast-moving consumer goods (FMCG) have recorded numerous high-profile M&A deals. Indian economy continues to grow and attracts various global transactions and M&A's is a good opportunity for the companies to scale up their market position, to have various revenue streams and also serves as a competitive advantage. Thus M&A's transactions is seen as cornerstone in growing the businesses of Indian landscapes.

REVIEW OF LITERATURE

Irene Marie Dove and et al. (2024) did a study on pre- and post- merger financial performance of HUL and Emami Limited. In this paper financial ratios have been used to analyse four financial years performance. The findings of the study concluded that the merger's impact on some financial indicators had a positive insight, meanwhile rest showed either no improvement or remained unchanged.

Srinivasa Rao and et al. (2023) conducted research on M&A of HUL and Emami Limited and the study was scrutinised through profitability ratios for 10 financial years. The study concluded that merger and acquisition in FMCG sector has showed a positive result on the acquiring firm because the profits of the company have been improving and it also said that FMCG sector in India focuses on profitability and thus the long run merger and acquisition will be profitable in Indian context.

OBJECTIVES OF THE STUDY

- To analyse the pre- and post- merger liquidity position of HUL and GSKCH. ➤
- To Study the level of risk of HUL and GSKCH.
-

RESEARCH METHODOLOGY

This study follows analytical research design to measure, analyse and interpret financial performance of HUL and GSKCH before and after the merger. This study relies on secondary data, which refers to information that has already been gathered by others, such as journals, articles, magazines, internal records, websites, and government publications. The research is done for seven financial years from 2017-2018 to 2023-2024 of which 2 years is for pre-merger (i.e. from 2017-2018 to 2018-2019) and 5 years is for post- merger (i.e. from 2019-2020 to 2023-2024).

DATA ANALYSIS AND INTERPRETATION

Ratio analysis

Liquidity ratios

Table 1 - Liquidity ratios

Period	Year	Current ratio		Quick ratio		Absolute liquidity ratio	
		HUL	GSKCH	HUL	GSKCH	HUL	GSKCH
Pre- Merger	2017-2018	1.29	2.6	1.02	2.38	0.72	2.06
	2018-2019	1.36	2.9	1.07	2.65	0.76	2.26
Post- Merger	2019-2020	1.31		1.02		0.69	
	2020-2021	1.26		0.95		0.65	
	2021-2022	1.34		0.98		0.65	
	2022-2023	1.38		1.03		0.62	
	2023-2024	1.64		1.33		0.95	

Chart 1 - Pre-merger liquidity ratios

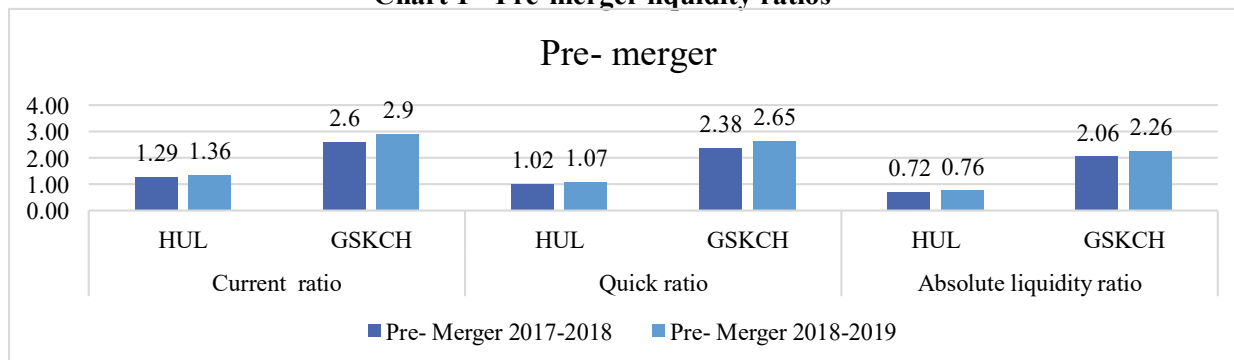
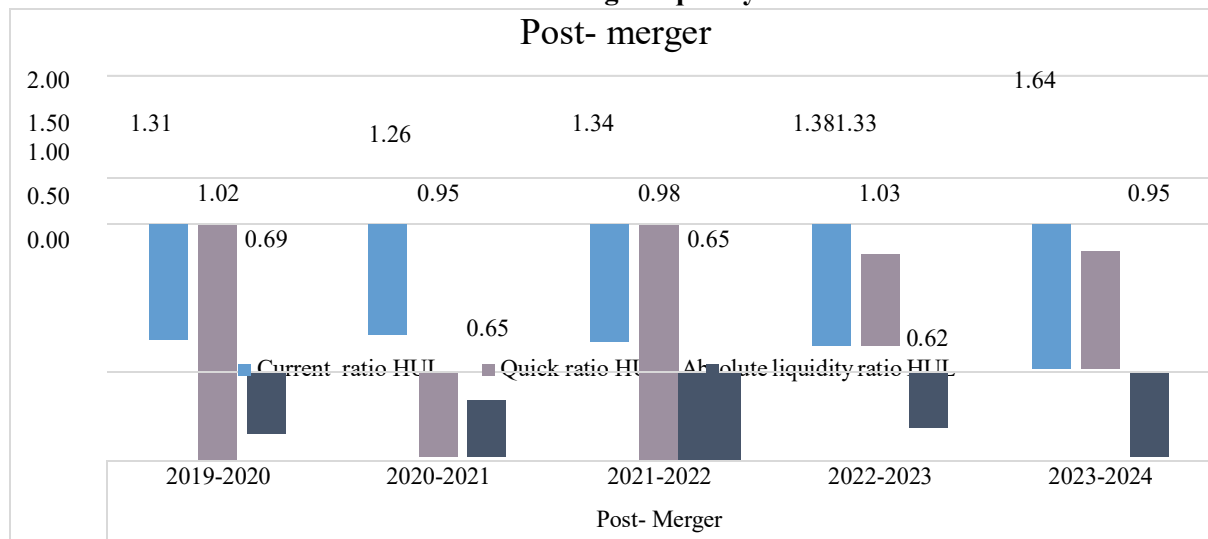


Chart 2 - Post-merger liquidity ratios



In the pre-merger period, GSKCH had a significantly stronger liquidity position compared to HUL, as evidenced by higher current, quick, and absolute liquidity ratios, indicating good short-term solvency position and ability to meet its short-term liabilities. HUL's ratios were stable but comparatively lower, reflecting moderate liquidity management. This may also be due to larger volume of business. Post-merger, HUL's liquidity has shown consistent improvement, with the current ratio rising from 1.31 in 2019-2020 to 1.64 in 2023-2024, signifying better management of current assets and liabilities. However, the quick and absolute liquidity ratios remain on the lower side, pointing to reliance on inventory to meet immediate obligations. The merger has contributed positively to HUL's liquidity by leveraging GSKCH's resources and operational capabilities.

Leverage analysis

Degree of operating leverage, financial leverage and combined leverage Table

2 - DOL, DFL & DCL

Period	Year	DOL	DFL	DCL
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		HUL	GSKCH	HUL	GSKCH	HUL	GSKCH
Pre- Merger	2017-2018	6.98	-6.24	1.12	1.06	7.84	-6.61
	2018-2019	2.24	4.39	0.80	1.00	1.79	4.37
Post- Merger	2019-2020	4.79		1.65		7.90	
	2020-2021	0.82		0.57		0.47	
	2021-2022	0.85		1.13		0.96	
	2022-2023	0.74		1.12		0.84	
	2023-2024	2.78		0.25		0.68	

Chart 3 - Pre- Merger DOL, DFL & DCL

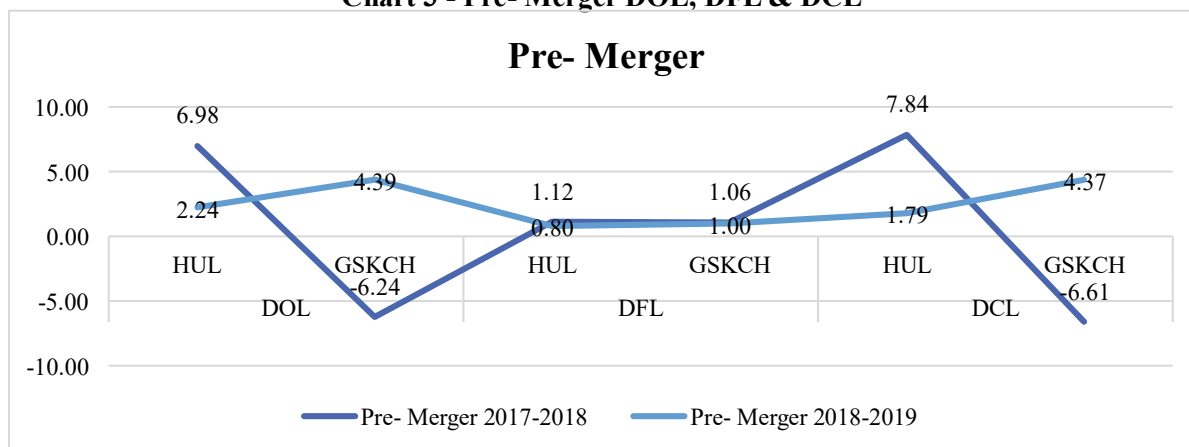
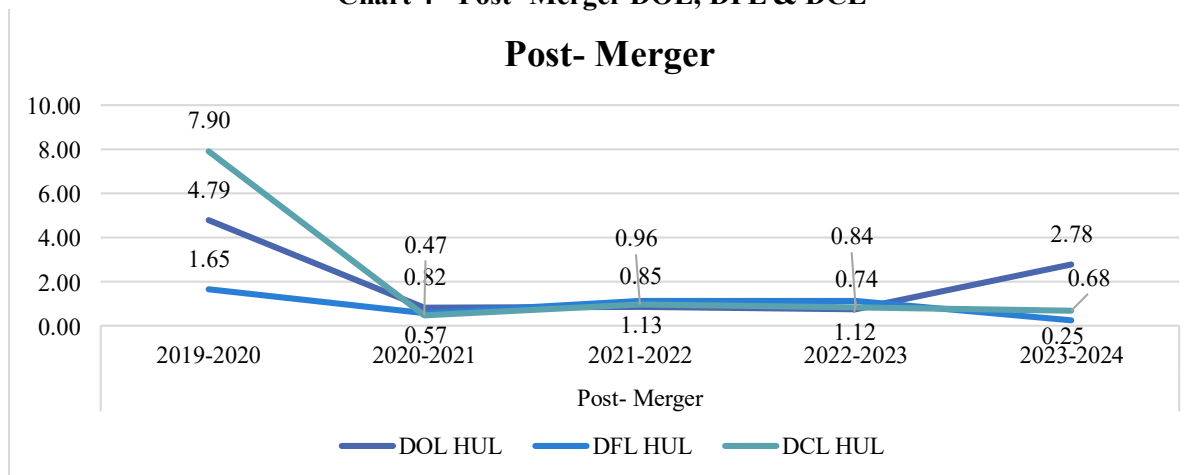


Chart 4 - Post- Merger DOL, DFL & DCL



In the year 2017-18 that is pre- merger period, HUL seems to have been very sensitive to sales, financial as well as combined risk. The high degree of operating leverage, financial leverage and combined leverage is indicative of this on the other hand, for the same period GSKCH had negative ratios which reflects inefficiency. In the year 2018-19 there is an improvement in GSKCH and also reduced leverage in the case of HUL indicating stable operations and lower risk. Post the merger from the year 2019-2020 to 2022-2023 HUL declined in the operational and combined leverage metrics. This indicates positive position and reduced risk due to efficient operation and cost management. It is also noted that in the year 2023-24, the metrics saw a rise indicating increase in risk and sensitivity. With respect to degree of financial leverage, in the year 2019-20 had the highest number at 1.65 reflecting the immediate post- merger position. The same got stabilised to 1.12 in subsequent years. Overall, HUL has managed to absorb the merger and mitigate the risk positively.

FINDINGS

- ❑ **To analyse the pre- and post- merger liquidity positions of HUL and GSKCH.**
 - For the years under study HUL's current ratios is lesser than the ideal ratio (i.e. 2:1 in current ratio) which means that company maintained lesser funds at disposal to pay-off its immediate liabilities.
 - HUL's quick ratio and absolute liquidity ratio is lower than the industry standards which showed that the company is relying on inventories to pay of its short-term debts.

To Study the level of risk of HUL and GSKCH.

- HUL'S degree of operating leverage is under control in most of the year in post- merger period which indicates that the company is effectively managing its operation and cost.
- The DCL reduced from 7.90 in 2019-2020 to 0.68 in 2023-2024 which shows that the company has made progress in managing its risks.

SUGGESTIONS

To analyse the pre- and post- merger liquidity positions of HUL and GSKCH.

- The company should analyse its current liabilities more in detail and ensure to have sufficient funds at hand to be able to meet its immediate liabilities on time.
- HUL should check its accelerating collection of receivables will help to improve timely cash inflows

To Study the level of risk of HUL and GSKCH.

- HUL has reduced its risk in terms of operational risk but to further increase its operational efficiencies it is advised to focus more on evaluation of product portfolio mix and optimising its supply chain.
- Continue monitoring combined leverage (DCL) to sustain the benefits achieved from reduced risks while ensuring better integration of operations.

CONCLUSION

The analysis of HUL and GSKCH before and after the merger shows that the merger has brought many benefits, including better operational efficiency and lower financial risks. Liquidity has improved, especially in managing current assets and liabilities, but the company still does not maintain the industry standard. Leverage risk has reduced over all after the merger but it is required to watch the fluctuations closely. Overall, the merger has created a positive impact on the financial position of HUL and by redefining the financial practices in line with fluctuations in the market and other external factors, the company can ensure steady growth and long-term success.

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INVESTIGATING THE RELATIONSHIP BETWEEN HUMAN RESOURCE PRACTICES AND EMPLOYEE STRESS LEVELS

Ms. Rayan Sharon P

2nd Year MBA, Department of Management Studies, Sona College of Technology, Salem, Tamil Nadu, India

Dr. V. Jothi Francina

Assistant Professor, Department of Management Studies, Sona College of Technology, Salem, Tamil Nadu, India

ABSTRACT:

The relationship between human resource (HR) practices and employee stress levels is a significant concern for organizations aiming to foster a healthy and productive workforce. HR practices directly

impact various factors that contribute to employee stress, such as job design, work environment, performance expectations, and support systems. Effective HR practices, including fair compensation, opportunities for career development, clear communication, and recognition of achievements, can help reduce employee stress levels. Additionally, implementing comprehensive stress management programs, offering flexible work arrangements, and providing access to mental health resources are crucial steps in mitigating stress. A supportive HR approach not only enhances employee well-being but also leads to higher job satisfaction, increased productivity, and lower turnover rates. In summary, strategic HR practices play a crucial role in managing employee stress, thereby promoting a more resilient and engaged workforce.

INTRODUCTION:

The relationship between human resource (HR) practices and employee stress levels is a vital area of focus for organizations aiming to cultivate a healthy and productive work environment. Focusing on the study of stress in the world of work has increased since the 1990s, particularly on the impact of work-related stress on workers' health and its management.^[1] HR practices encompass a wide range of activities, from recruitment and training to performance management and employee relations. These practices significantly influence the overall work experience of employees, affecting their job satisfaction, engagement, and stress levels.

Employee stress can arise from various sources, including workload, organizational culture, and interpersonal relationships. Effective HR practices, such as clear communication, fair compensation, opportunities for career advancement, and recognition of achievements, can help mitigate these stressors. Additionally, providing access to stress management programs, promoting work-life balance, and fostering a supportive work environment are essential strategies in reducing employee stress.

In essence, HR practices play a crucial role in shaping the workplace atmosphere and directly impact employee well-being. By prioritizing stress management within HR policies, organizations can enhance employee satisfaction, productivity, and retention, ultimately leading to a more resilient and engaged workforce.

HUMAN RESOURCE:

Human resource (HR) refers to the department within a business or organization responsible for overseeing employee-related functions and managing the workforce. HR plays a vital role in ensuring that an organization runs smoothly and efficiently by focusing on various aspects of employee management and development.

Here are some key responsibilities of HR:

- Recruitment and Staffing: Identifying staffing needs, posting job advertisements, conducting interviews, and hiring suitable candidates.
- Training and Development: Organizing orientation programs and ongoing training sessions to enhance employees' skills and knowledge.
- Employee Relations: Addressing workplace issues, handling grievances, and fostering a positive work environment.
- Performance Management: Setting performance standards, conducting evaluations, and implementing performance improvement plans.
- Compensation and Benefits: Administering payroll, managing employee benefits, and ensuring fair compensation practices.

Understanding Stress Levels in Employees:

In today's fast-paced and highly demanding work environment, stress among employees has become a major concern. Here's a quick introduction to the subject: **What is Employee Stress?**

Employee stress refers to the physical and emotional responses experienced when job requirements exceed the individual's ability to cope. While a certain level of stress can motivate employees and improve performance, excessive stress can lead to detrimental effects on both health and productivity. Stress is a state, which is accompanied by physical, psychological or social complaints or dysfunctions and which results from individuals feeling unable to bridge a gap with the requirements or expectations placed on them.^[2]

Causes of Employee Stress:

- **Workload:** Heavy workloads and unrealistic deadlines can overwhelm employees.
- **Lack of Control:** Limited control over job tasks or decision-making processes.
- **Work-life Balance:** Difficulty in balancing work and personal life.
- **Job Security:** Concerns about job stability and future prospects.
- **Interpersonal Relations:** Conflicts with colleagues or managers.
- **Work Environment:** Poor working conditions or an unsupportive work culture.

Organisations need to carry out a suitable and sufficient risk assessment for work-related stress, and take action to tackle any problems identified by that risk assessment.^[3]

RESEARCH METHODOLOGY:

Need for the study:

Understanding the connection between human resource practices and employee stress levels is crucial for several reasons:

- **Employee Well-being:** Ensuring that HR practices promote a healthy work environment can significantly improve employee morale and mental health.
- **Productivity:** Reduced stress levels can lead to increased productivity, as employees are more focused and motivated.
- **Retention:** Effective HR strategies can decrease employee turnover rates by creating a supportive and engaging workplace.
- **Corporate Image:** Companies known for good HR practices and low-stress environments tend to attract top talent.
- **Cost Efficiency:** Managing stress effectively can reduce costs related to absenteeism, healthcare, and turnover.

By investigating this relationship, companies can identify which HR practices are most effective in reducing stress and fostering a positive work environment.

OBJECTIVES OF THE STUDY:

- To Identify the different elements contributing to employee stress.
- To distinguish between the various types and intensities of stress.

STRUCTURE OF RESEARCH METHODOLOGY:

- **Research Design:** Descriptive In Nature
- **Research Instrument:** Structured Questionnaire
- **Data Sources:** Primary Data, Secondary Data
- **Sample size:** 100
- **Statistical Tool:** Simple percentage

DATA SOURCES:

The data obtained for the research study is

- Primary data
- Secondary data

Primary data is obtained from interviewing and interacting the employees in Human Resource.

Secondary data is obtained from websites, newspaper etc.

SAMPLING PROCEDURE:

The sampling procedure used in the study was convenience sampling method

SAMPLING METHOD:

Random sampling method of sampling was adopted **SAMPLING**

SIZE:

The sample size is 100 employees working in Human Resource

RESEARCH INSTRUMENT:

This research used structured questionnaire with question of

- Open-ended question
- Closed-ended question
- Multiple-choice question **Research Approach:**

Survey method

Percentage Analysis:

Percentage is used to make comparison between two or more data

Percentage=No. of Respondents/Total Respondents*100

SCOPE OF THE STUDY:

The scope of the study is to identify the major cause of stress on employees.

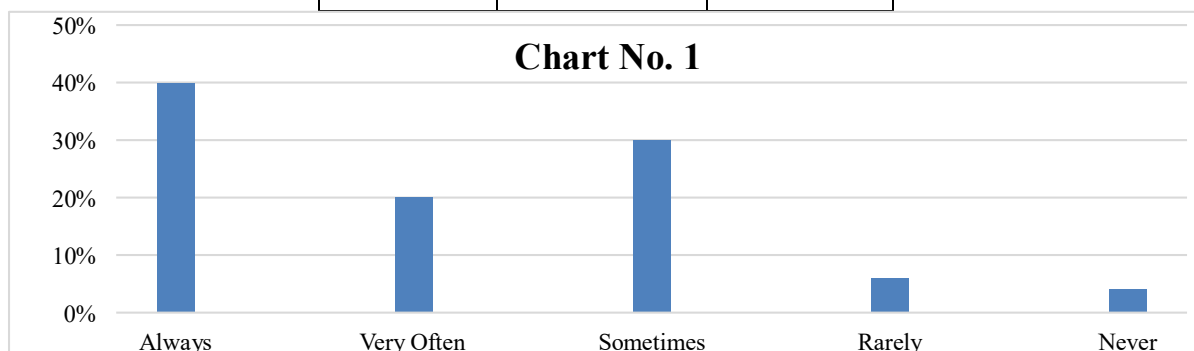
LIMITATIONS OF THE STUDY:

- Time limit was a major limiting factor
- Since the study was conducted on few employees the results can't be generalised

DATA ANALYSIS AND INTERPRETATION:

Table no. 1 - How often you feel highly stressed from your job

Option	No. of Respondents	Percentage
Always	40	40%
Very Often	20	20%
Sometimes	30	30%
Rarely	6	6%
Never	4	4%

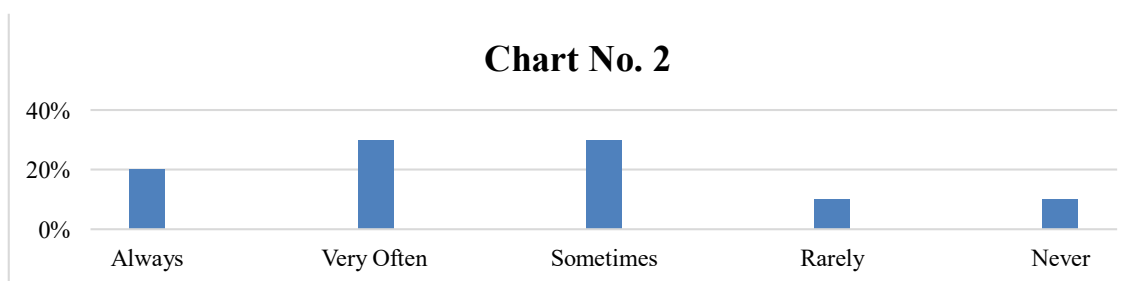


Inference:

From the above table it can be inferred that 40% of the respondents said that they always feel highly stressed, 20% said that they very often feel stressed, 30% said that they sometimes feel stressed, 6% said that they rarely feel stressed, 4% said that they never feel stressed.

Table No. 2 - How often do you have a hard time relaxing after work

Option	No. of Respondents	Percentage
Always	20	20%
Very Often	30	30%
Sometimes	30	30%
Rarely	10	10%
Never	10	10%

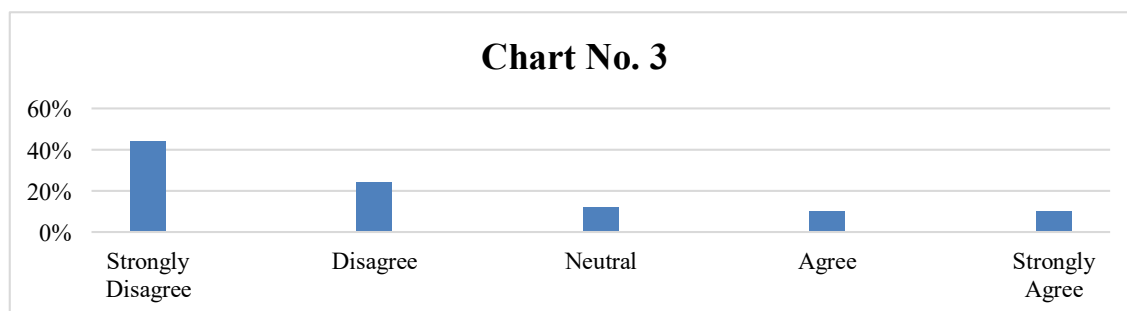


Inference:

From the above table it can be inferred that 20% of the people said that always had hard times relaxing after work, 30% of the people said that they very often had hard times relaxing after work, 30% of the people said that they sometimes had hard times relaxing after work, 10% of the people said that they rarely had hard times relaxing after work, 10% of the people said that they never had hard times relaxing after work.

Table No. 3 - Do you feel you have a good work-life balance?

Option	No. of Respondents	Percentage
Strongly Disagree	44	44%
Disagree	24	24%
Neutral	12	12%
Agree	10	10%
Strongly Agree	10	10%

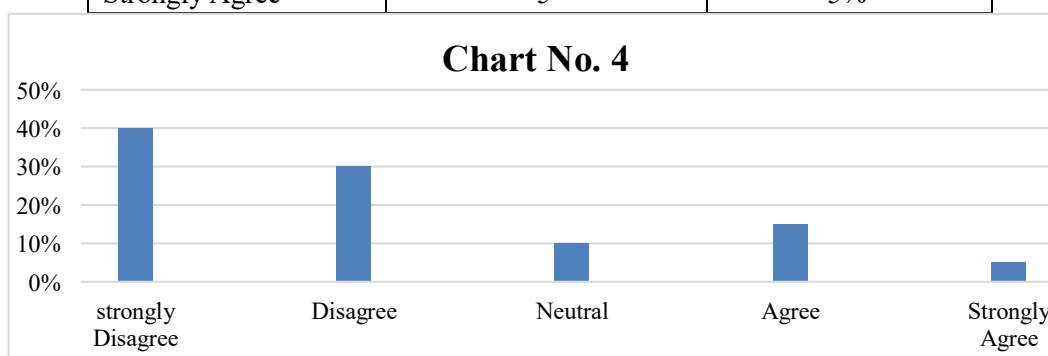


Inference:

From the above table it can be inferred that majority 44% of respondents feel they do not have a good work-life balance. Other 24% of the respondents disagree that they do not have a good work-life balance. 12% of the respondents are neutral. 10% of the respondents agree that they have a good work-life balance. And 10% of the respondents also strongly agree that they have a good work-life balance.

Table No. 4 - Do you feel you have enough time to complete your work

Option	No. of Respondents	Percentage
Strongly Disagree	40	40%
Disagree	30	30%
Neutral	10	10%
Agree	15	15%
Strongly Agree	5	5%

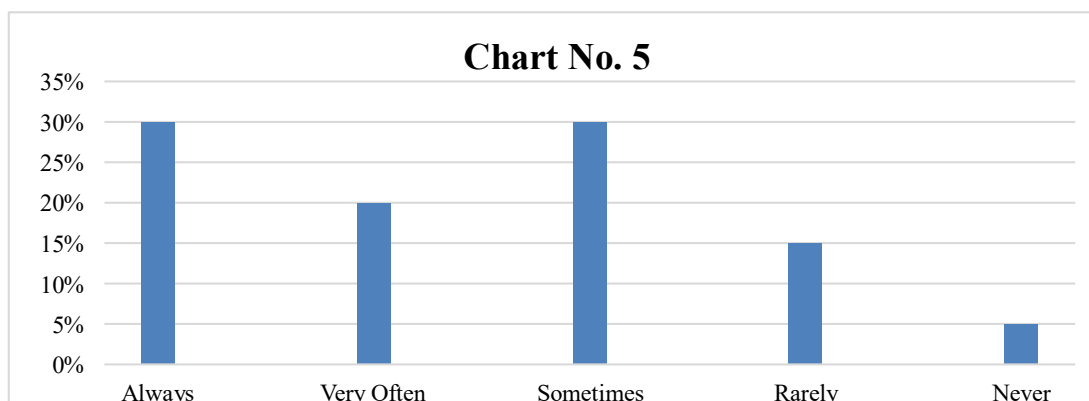


Inference:

From the above table it can be inferred that 40% of the respondents strongly disagree that they do not have enough time to complete their work. 30% of the respondents disagree that they do not have enough time to complete their work. 10% of the respondents are neutral. 15% of the respondents agree that they have time to complete their work. 5% of the respondents strongly agree that they have enough time to complete their work.

Table No. 5 - How often do you experience physical symptoms (e.g., headaches, fatigue) due to work-related stress?

Option	No. of Respondents	Percentage
Always	30	30%
Very Often	20	20%
Sometimes	30	30%
Rarely	15	15%
Never	5	5%

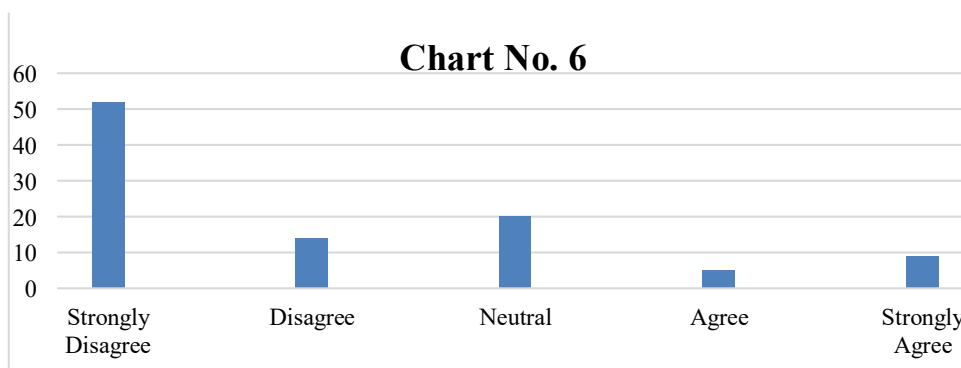


Inference:

From the above table it can be inferred that 30% of the respondents are always experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress. 20% of the respondents are very often experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress. 30% of the respondents are sometimes experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress. 15% of the respondents are rarely experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress. 5% of the respondents never experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress.

Table No. 6 - Do you have enough time for hobbies and personal interests outside of work?

Option	No. of Respondents	Percentage
Strongly Disagree	52	52%
Disagree	14	14%
Neutral	20	20%
Agree	5	5%
Strongly Agree	9	9%



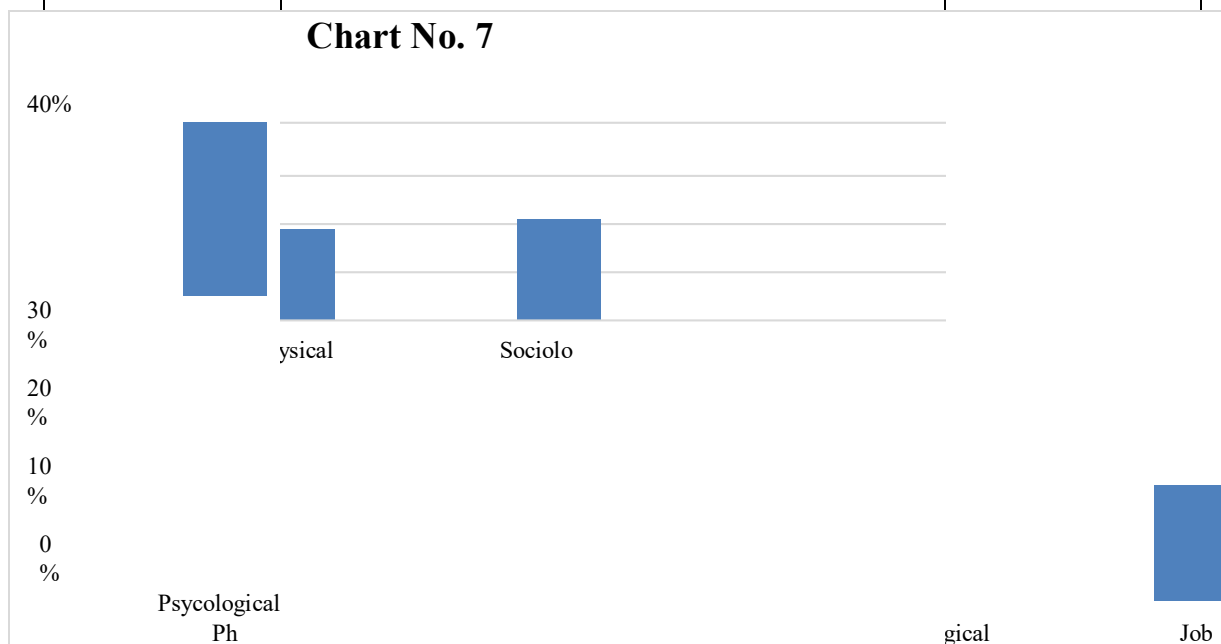
Inference:

From the above table it can be inferred that 52% of the respondents strongly disagree that they don't have enough time for hobbies and personal interests outside of work. 14% of the respondents disagree that they enough time for hobbies and personal interests outside of work. Other 20% of the respondents are neutral. 5% of the respondents agree that they have enough time for hobbies and personal interests outside of work. 9% of the respondents strongly agree that they have enough time for hobbies and personal interests outside of work.

Table No. 7 - Identity the major type of stress you feel?

Option	No. of Respondents	Percentage
Psychological	36	36%
Physical	19	19%
Sociological	21	21%
Job	24	24%

Chart No. 7

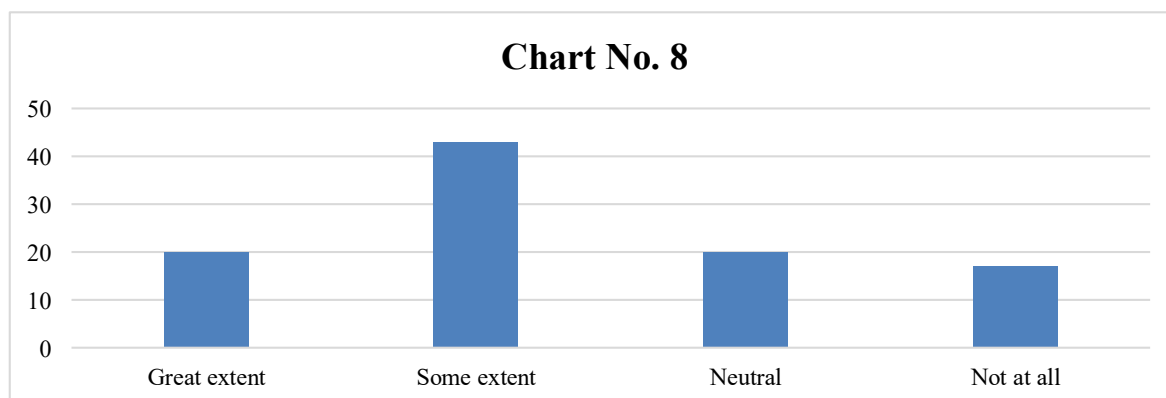


Inference:

From the above table it can be inferred that 36% of the respondents psychological feel stress. 19% of the respondents physically feel stress. 21% of the respondents sociologically feel stress, 24% of the respondents feel job stress.

Table No. 8 - Do your personal problems are cause for stress at work?

Option	No. of Respondents	Percentage
Great extent	20	20%
Some extent	43	43%
Neutral	20	20%
Not at all	17	17%

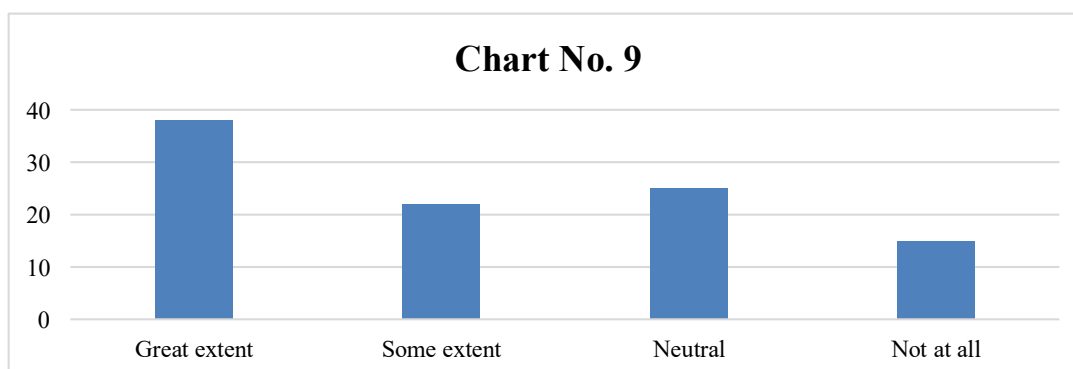


Inference:

From the above table it can be inferred that 20% of the respondents to a great extent finds that personal problems significantly contribute to their work stress. 43% of the respondents to some extent finds that personal problems significantly contribute to their work stress. 20% of the respondents are neutral. 17% of the respondents not at all finds that personal problems significantly contribute to their work stress.

Table No. 9 - Do you communicate the job stress with your co-workers?

Option	No. of Respondents	Percentage
Great extent	38	38%
Some extent	22	22%
Neutral	25	25%
Not at all	15	15%

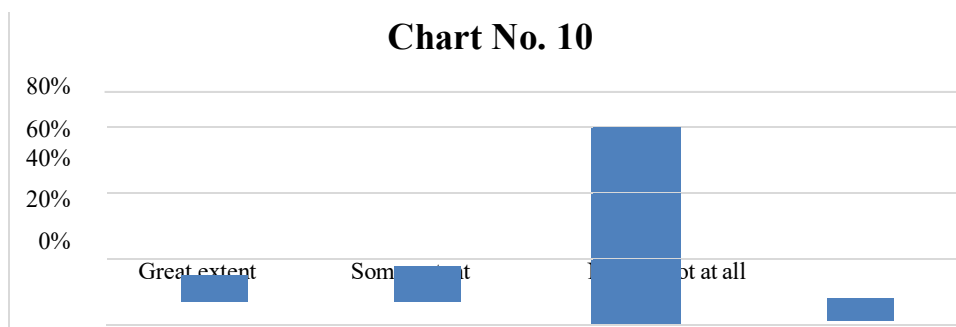


Inference:

From the above table it can be inferred that 38% to a great extent communicate the job stress with your co-workers. 22% of the respondents to some extent communicate the job stress with your coworkers. 25% of the respondents are neutral. 15% of the respondents not at all communicate the job stress with your co-workers.

Table No. 10 - Is your performance affected when you are under stress?

Option	No. of Respondents	Percentage
Great extent	13	13%
Some extent	17	17%
Neutral	59	59%
Not at all	11	11%



Inference:

From the above table it can be inferred that 13% of the respondents said that their performance is greatly affected by stress. 17% of the respondents said that their performance is to some extent affected by stress. 59% of the respondents are neutral. 11% of the respondents said that their performance is not affected by stress.

FINDINGS:

- 40% of the respondents said that they always feel highly stressed, 20% said that they very often feel stressed, 30% said that they sometimes feel stressed, 6% said that they rarely feel stressed, 4% said that they never feel stressed.
- 20% of the people said that always had hard times relaxing after work, 30% of the people said that they very often had hard times relaxing after work, 30% of the people said that they sometimes had hard times relaxing after work, 10% of the people said that they rarely had hard times relaxing after work, 10% of the people said that they never had hard times relaxing after work.
- 44% of respondents feel they do not have a good work-life balance. Other 24% of the respondents disagree that they do not have a good work-life balance. 12% of the respondents are neutral. 10% of the respondents agree that they have a good work-life balance. And 10% of the respondents also strongly agree that they have a good work-life balance.
- 40% of the respondents strongly disagree that they do not have enough time to complete their work. 30% of the respondents disagree that they do not have enough time to complete their work. 10% of the respondents are neutral. 15% of the respondents agree that they have time to complete their work. 5% of the respondents strongly agree that they have enough time to complete their work.
- 30% of the respondents are always experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress. 20% of the respondents are very often experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress. 30% of the respondents are sometimes experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress. 15% of the respondents are rarely experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress. 5% of the respondents never experiencing physical symptoms (e.g., headaches, fatigue) due to work-related stress.

- 52% of the respondents strongly disagree that they don't have enough time for hobbies and personal interests outside of work. 14% of the respondents disagree that they enough time for hobbies and personal interests outside of work. Other 20% of the respondents are neutral. 5% of the respondents agree that they have enough time for hobbies and personal interests outside of work. 9% of the respondents strongly agree that they have enough time for hobbies and personal interests outside of work.
- 36% of the respondents psychological feel stress. 19% of the respondents physically feel stress. 21% of the respondents sociologically feel stress. 24% of the respondents feel job stress.
- 20% of the respondents to a great extent finds that personal problems significantly contribute to their work stress. 43% of the respondents to some extent finds that personal problems significantly contribute to their work stress. 20% of the respondents are neutral. 17% of the respondents not at all finds that personal problems significantly contribute to their work stress.
- 38% to a great extent communicate the job stress with your co-workers. 22% of the respondents to some extent communicate the job stress with your co-workers. 15% of the respondents are neutral. 15% of the respondents not at all communicate the job stress with your co-workers.
- 13% of the respondents said that their performance is greatly affected by stress. 17% of the respondents said that their performance is to some extent affected by stress. 59% of the respondents are neutral. 11% of the respondents said that their performance is not affected by stress.

SUGGESTIONS:

- It is recommended to organize frequent camps or programs on meditation, yoga and stress management programs.
- It is recommended to encourage employees to take short, regular breaks throughout the day to rest and recharge.
- It is recommended the organisation should foster an environment where employees feel comfortable discussing their stress and seeking support.
- It is recommended the organisation should regularly recognize and reward employees' efforts and accomplishments to boost morale and motivation.

CONCLUSION:

In conclusion, effective stress management for employees involves a holistic approach that addresses physical, mental, and emotional well-being. European countries acknowledge workplace stress as a serious public health issue and have integrated stress management into workplace health and safety policies, with a growing but still insufficient emphasis on psychosocial risks.^[4] By encouraging regular breaks, promoting physical activity, creating a healthy work environment, and fostering open communication, organizations can help reduce stress levels among employees. Additionally, offering support through employee assistance programs, encouraging work-life balance, and recognizing employees' efforts can significantly contribute to a healthier, more productive, and engaged workforce. Remember, the goal is to create a supportive and nurturing environment where employees can thrive and maintain their well-being both inside and outside the workplace.

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IMPACT OF TAX REFORMS IN SMALL AND MEDIUM ENTERPRISES

Ms. Christina Sanjay, Ms. Gowri Nandana K, Ms. Irin Winona S, Ms. Medha Vikasini

*IV Semester, B.Com ACCA Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Riya Singh

*Assistant Professor, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

The study highlights the significant changes in the Business environment due to tax reforms in India, particularly in SME's over the past decade (2014-2024). This research entails a thorough analysis of every tax reform since 2014 and their impacts. The introduction of **GST (2017)** streamlined indirect taxation, reducing cascading tax effects but posed initial compliance challenges. The **corporate tax reduction (2019)** improved SME profitability, whereas **faceless assessments (2019)** enhanced transparency in tax administration. However, digital adaptation and procedural complexities remain hurdles for SMEs, especially in underdeveloped regions.

While reforms such as the **abolition of Dividend Distribution Tax (2020)** and the **introduction of GST Appellate Tribunals (2024)** have facilitated business growth, disparities persist between states due to variations in infrastructure and digital readiness. These are some of the tax reforms that are analysed. Through this research, it was concluded that tax reforms have fostered a more businessfriendly environment, but further simplifications, increased digital literacy, and enhanced SME-centric incentives are required to ensure equitable benefits across the sector.

INTRODUCTION

India has undergone several significant changes in tax reforms over the years. Generally speaking, Tax reforms are highly instrumental for the growth of the economy and improvement in compliance. They help in the enhancement of revenue generation, in reducing tax evasion and to create a unified national market. Its ultimate goal is to develop a better and efficient tax system in India.

These tax reforms have an impact on all enterprises, and particularly on small and medium enterprises, which will be the spotlight of this research.

There have been several difficulties that affected the small and medium enterprises because of the nation's tax structure; such as direct and indirect taxes, which has compelled the owners to part with their revenue for the legal regulations. High corporate taxes, complex GST filings, and delayed refunds take a toll on the entity's cash flow, while the cost of hiring a tax consultant or investing in compliance tools burden their finances. In addition to this, limited access to tax incentives and the cumulative tax burden at various stages of production or sales reduce their profit margins, which leaves SMEs with fewer resources to reinvest or grow.

Small and medium enterprises serve the Indian economy significantly, by the means of their contribution to generation in employment, industrial output, and exports, so its performance is highly impactful on a larger scale and a number of its financial challenges are caused by the complex and burdensome tax compliance. So it is upon the Indian Government to take responsibility. It is crucial for the government as they form the backbone of the Indian economy, contributing significantly to GDP, employment, and exports. Therefore, the Indian government has introduced several tax reforms with an aim to ease this burden and foster the growth and encourage the sector.

This paper evaluates the evolution of tax reforms in India over the last decade (2014- present) , their impact on small and medium entities, and analyses the changes in the various taxes such as the GST, income tax, professional tax, etc., with an aim to boost the competitiveness of SMEs in both, domestic and global markets.

This research aims to contribute to the effectiveness of these reforms, how they were implemented in addressing the unique challenges faced by the SMES such as scarcity in financial resources, lack of skilled labour, and informal nature of many enterprises. The paper also examines the potential areas of improvement and includes recommendations to strengthen the tax policy initiatives to further strengthen the SMEs ecosystem in India.

LITERATURE REVIEW

The study using ROE and ROI examines the impact of India's GST (**July 2017**) on SMEs' financial performance. Analysis of 546 SMEs depicts the firm size, turnover, and financial drivers significantly boosted performance. GST resulted in improved tax compliance, reduced fraud, and enhanced working capital, and supports sustainable growth.

The paper inspect the impact of India's GST reform (**2017**) on the Make in India initiative (**2014**), focusing on eight factors like business formalization, logistics cost, and ease of doing business. The use of system dynamics modelling helps in providing insights to policymakers on boosting manufacturing growth.

Tax policies notably influence the growth and sustainability of MSMEs in India by affecting their financial viability, compliance burden, and competitive edge. A well-structured tax framework can ensure better entrepreneurship by reducing barriers, simplifying procedures, and promoting formalization. This study remarks the relationship between taxation and MSME growth, analysing how tax policies impact employment generation, business expansion, and the overall entrepreneurial ecosystem in India.

Tax policies majorly impact MSME competitiveness and growth in a globalized economy. While MSMEs face challenges due to their size (Mesut Savrul et al., 2014), tax structures, including GST and digital policies, it also influence their ability to scale and adopt e-commerce. Structured tax frameworks and incentives can enhance MSME sustainability, drive formalization, and support innovation (OECD, 2004).

India witnessed a monumental shift in its taxation system with the introduction of the Goods and Services Tax (GST) in 2017. Described by **Mukherjee and Rao (2019)** argue that GST replaced a complex tax structure with a unified framework, eliminating cascading taxes and promoting interstate trade. However, **Singh and Sharma (2020)** noted that GST's multiple tax slabs and frequent policy alteration initially posed compliance issues, particularly for small businesses.

A study conducted by **Roy and Patnaik (2021)** observed that GST has gradually improved tax buoyancy, with higher compliance due to digital tax filing systems. However despite its successes, scholars like **Bhasin (2022)** suggested further rationalization of tax slabs and resolving input tax credit delays are essential to fully harness GST's potential.

The major aim of Direct tax reforms was to make taxation fairer and more transparent. The impact of lower corporate tax rates on attracting foreign investment was emphasized by **Chakraborty and Bose**

(2017). By the introduction of **faceless assessments and appeals** in 2020 it was a game-changer in reducing corruption and ensuring impartiality in tax administration (**Patel, 2021**).

The aim of **Vivad Se Vishwas Scheme (2020)**, which focused on settling tax disputes, was highlighted by **Gupta (2022)** which had a significant step in reducing litigation and improving trust between taxpayers and the government.

The issue of tax evasion remains a formidable challenge in the economic landscape. As observed by **Rao and Das-Gupta (2009)** this problem is largely rooted in the dominance of the informal sector, weak enforcement mechanisms, and a general lack of awareness among taxpayers. To counteract these issues **Agarwal (2020)** advocates for increased taxpayers education, reduction in compliance costs, and the strategic use of technology to bolster compliance rates.

India's tax system got vulnerable to new challenges by the rise of the digital economy. **Basu (2022)** argues that existing tax policies should be able to capture revenues from e-commerce, digital services, and multinational corporations operating in India. The implementation of the **Equalization Levy** in 2016 aimed to step in this direction but a more comprehensive framework to address the complexities of taxing the digital economy was called for by scholars like **Sharma and Iyer (2023)**.

The interplay between tax reforms and economic growth has been extensively studied. **Chand and Singh (2018)** argue that rationalizing tax structures and improving compliance have contributed to higher tax-to-GDP ratios, which, in turn, fund developmental activities. However, **Dutta (2020)** observes that the complete potential of tax reforms is yet to be unlocked, owing to enduring challenges like low per capita income and a nascent tax base.

OBJECTIVES

- To Understand the evolution of Indian Tax system
- To analyse the impact of its evolution on Small and Medium Entities
- To examine any challenges faced by SME's due to the tax reforms.

□

METHODOLOGY

This research is highly dependent on the observations of SME's performance after any significant changes in taxes. Consequently, surveys and qualitative data would be irrelevant for this particular analysis. Therefore this research adopts a qualitative approach to analyze the impact of tax reforms on small and medium enterprises (SMEs) in India. The methodology includes:

- **Literature Review** – A comprehensive analysis of existing studies on tax reforms, SME taxation, and government policies from academic papers, government reports, and industry publications.
- **Comparative Analysis** – Comparing the performance, compliance burden, and growth potential of SME's during the Indian tax system before and after major tax reforms (2014–present) and assessing their effects.
- **Data Collection** – Utilizing secondary data from government reports, financial records, and tax compliance statistics to assess the effectiveness of tax reforms like GST, corporate tax reductions, and faceless assessment schemes.
- **Impact Assessment** – Measuring key indicators such as tax compliance rates, SME profitability, employment generation, and investment trends post-reform.

ANALYSIS

Pre 2014

Prior to **2014**, the tax system in India was complex and fragmented, creating a challenging environment for small and medium enterprises (SMEs). Businesses had to deal with multiple taxes like VAT, Service Tax, and Central Excise. These taxes also varied across states adding to the difficulty as it led to confusion, higher costs, and a cascading tax effect, where taxes were levied on other taxes, increasing the overall burden.(IMF).

Compliance with the tax system back then required a lot of time and manual work, which was complex for SMEs to keep up. A streamlined process or significant tax incentives tailored for small businesses or start-ups were absent. Limited cash flow, reduced profit margins, and challenges in expanding their operations, and avoidance in formalizing their businesses due to the complicated system were the consequences of the same.

There were steps like e-filing and tax benefits for export businesses introduced to help the situation, however, this proved to be insignificant and the system remained inefficient and required other major reforms. A notable change occurred after the introduction of GST in **2017** as it simplified the tax structure and provided relief for SMEs. (Zoho).

Tax reforms from 2014 - present

Goods and Services Tax (GST) Implementation (2017)

- **Issue:** GST was implemented on July 1, 2017. Before its introduction, there were a number of taxes to be paid by businesses like VAT, service tax, and excise duties. This creates a “cascading effect” which is like paying taxes on taxes. ●

Description:

The GST combined all of the indirect taxes and was like a single tax payment that replaced this myriad of taxes. It created a unified tax structure for goods and services across India, simplifying the tax system and making it more transparent.

- **Impact:** - Due to the single tax payment, SMEs benefited from input tax credits for the tax already paid on raw materials, services, or goods used in your business. Reducing their overall tax burden.

GST also had a negative impact on SMEs as its implementation required businesses to upgrade their compliance mechanisms and maintain digital records, which posed challenges for smaller businesses.[cleartax.in](https://www.cleartax.in)

Table summarizes the GST revenue collections in India from the fiscal year 2017–18, 2023-24

Table No. 1

Fiscal Year	Total Gross GST Collection (in ₹ lakh crore)	Average Monthly Collection (in ₹ lakh crore)
2017–18	7.41	0.62
2018–19	11.77	0.98
2019–20	12.22	1.02
2020–21	11.37	0.95
2021–22	14.83	1.24
2022–23	18.10	1.51
2023–24	20.18	1.68

Reduction in Corporate Tax Rates (2019)

- **Issues**

The major reason for cutting down the corporate taxes was because of the economic slowdown, decline in business growth, and the need to attract foreign investment. Because of the high tax rates which made India less competitive compared to other nations, the major aim was to boost corporate profitability, encourage investment, and stimulate economic activity. The government aimed to improve business confidence, improved tax compliance, and a favourable environment for domestic and foreign businesses, especially in the manufacturing sector.

- **Description:**

A reduction in corporate taxes was announced by the Indian government in 2019. 22% of tax rate reduction was introduced for domestic companies, and it was reduced to 15% for new manufacturing units, since they did not avail certain exemptions and incentives. The major objective of this reform was to attract investment, promote industrial growth, and increase the competitiveness of Indian businesses globally. pib.gov.in

- **Impact**

SMEs faced improved cash flows due to reduced tax liabilities, which encouraged reinvestment in business operations and expansion. However due to specific conditions attached to the scheme certain SMEs were not eligible for these tax reductions.

Chart No. 1



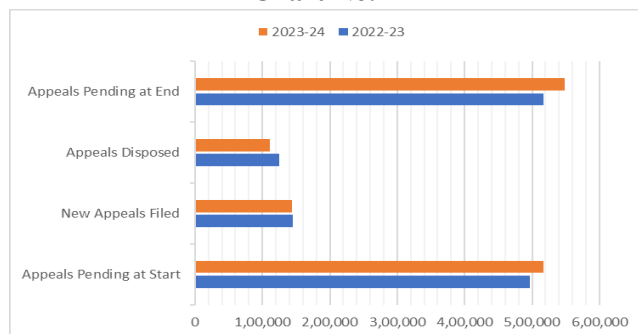
The data conveys the significant increase in FDI inflows following the corporate tax rate reduction in 2019. This examines that the policy may have contributed to making India a more attractive destination for foreign investors.

Faceless Assessment Scheme (2019)

- **Issue:** The system prior to the introduction of this scheme required taxpayers to meet tax officials in person, which sometimes led to harassment, favouritism, or corruption. The Tax assessments were highly prone to subjectivity. It was also a manual system, so there was an obvious delay which made this process highly inefficient.
- **Description:** This scheme was introduced by the Indian government in 2019. It digitised the tax assessments without the requirement of contacts between taxpayers and tax officers promoting transparency, fairness, and efficiency in tax assessments. incometaxindia.gov.in
- **Impact:** - SMEs experienced quicker, unbiased tax assessments, reducing the administrative burden.

- However, working digitally is still a very new system which takes time to adapt to. So, some businesses found it difficult to navigate the new digital platform, requiring them to invest in digital literacy and infrastructure, which increased the expenses on some level.

Chart No. 2



The above data indicates an increase in pending appeals in the fiscal years following the introduction of the Faceless Assessment Scheme. Though the scheme was designed to streamline tax assessments and reduce delays, the rise in pending appeals suggests challenges in its implementation. Factors like, taxpayers adapting to the new digital processes and the system's capacity to handle appeals efficiently may have contributed to this trend.

Abolition of Dividend Distribution Tax (2020)

- **Issues**

The abolition of Dividend Distribution Tax (DDT) in 2020 majorly aimed to simplify the tax system by removing double taxation on dividends. Previously, companies paid tax on dividends, and shareholders were taxed again upon receiving them. By taxing dividends in the hands of shareholders, the government sought to create a more transparent and efficient tax structure, benefiting both companies and investors.

- **Description:**

The Dividend Distribution Tax (DDT) was abolished in the 2020 Budget. This means that there will no longer be a payment of tax on the dividends. It will be taxed only above a certain amount. It would now be taxed in the hands of the shareholders at the applicable income tax rates. (**Union Budget 2020-21 Documents**)

- **Impact:** - This is fairer and means the SMEs can focus more on growing their business.

This was potentially encouraging higher dividend pay-outs to owners and shareholders.

-SMEs paid a flat **15% DDT** (plus surcharges) on the dividends they distributed to shareholders. This rate was relatively lower and predictable, benefiting SMEs with smaller shareholders who didn't have high personal income tax rates. But after its abolition, dividends are taxed in the hands of shareholders at their **personal income tax rates**, which can go as high as **30%** for those in higher tax brackets. SMEs with shareholders in higher income brackets saw their investors or owners taxed more heavily on the dividends they received. As a result, dividends seemed less attractive for SMEs compared to reinvestments or other forms of profit distribution.

Introduction of New Personal Tax Regime (2020)

- **Issue:** Before the tax reformation, the numerous exemptions and deductions. These included various provisions that taxpayers had to carefully calculate and document, making the filing process time-consuming and confusing. It focused on favouring higher income categories which lead to less compliance, inequitable benefits and transparency.groww.in
- **Description:**

The government introduced an optional New Personal Tax regime with lower tax rates and no exemptions or deductions. This regime provided individuals with the choice to pay taxes at reduced rates without availing of various tax exemptions and deductions.groww.in

- **Impact:** -owners that preferred the simpler tax filing processes and lower tax rates found this new reform beneficial.
- However this limited the deductions and exemptions and this negatively impacted SMEs as they highly relied on it to reduce their overall tax burden and maintain financial stability. ijrpr.com

Constitution of Goods and Services Tax Appellate Tribunals (2024)

- **Issue**

Before the Goods and Services Tax (GST) Appellate Tribunals was established, there were delays and uncertainty in businesses in resolving GST-related disputes due to the lack of a dedicated platform. Taxpayers, and SMEs, had to rely on high courts or multiple forums, leading to prolonged litigation, high legal costs, and inconsistent rulings. Thus it lacked efficient dispute resolution and created challenges in the tax environment due to the absence of a specialised body. The GST Appellate Tribunal aims to provide a timely, consistent, and accessible platform for resolving these issues thus, improving the ease of doing business. m.economictimes.com

- **Description:**

The Goods and Services Tax Appellate Tribunals are similar to courts, established in 2024. This was set up to provide a platform for resolving disputes or any disagreements between businesses and the tax office, related to GST. This was established to speed up the resolution of cases and provide clear judgments for businesses. pib.gov.in

- **Impact::** If an SME had a disagreement with the tax department before, they had to go through long legal processes, which took time and money., but after the introduction of the tribunal, there is a more efficient and quick process of resolving disputes and disagreements, saving SMEs from delays and letting them focus on their business. business-standard.com

These reforms are designed to create a more efficient, transparent, and competitive environment for businesses, particularly benefiting SMEs by easing the tax burden and improving the ease of doing business in India.

CONCLUSION

This analysis highlights a transformative shift in India's tax system. While the earlier tax regime was fragmented and complex, creating significant challenges for SMEs, the reforms introduced post-2014, particularly the implementation of GST, have streamlined processes, reduced the cascading tax effect, and improved transparency. The **corporate tax reduction (2019)** improved SME profitability.

However, like every coin that has two sides, the impacts also range from positive to negative. The **faceless assessments (2019)** did enhance transparency in tax administration. However, digital adaptation and procedural complexities remain hurdles for SMEs, especially in underdeveloped regions. There has also been variations between the impacts when compared with different states of India. While reforms such as the **abolition of Dividend Distribution Tax (2020)** and the **introduction of GST Appellate Tribunals (2024)** have facilitated business growth, disparities exist between states due to variations in infrastructure and digital readiness.

Majorly, tax reforms have fostered a more business-friendly environment, but further simplifications, increased digital literacy, and enhanced SME-centric incentives are required to ensure equitable benefits across the sector.

Therefore, Largely speaking, these tax reforms have fulfilled their objectives by having a **positive impact** on India's business ecosystem by simplifying tax structures, promoting fairness, and encouraging investments. SMEs have benefitted from unified taxation, reduced corporate tax rates, and faster dispute resolution. However, the transition to digital systems and the removal of certain

exemptions have posed challenges for smaller businesses, particularly in rural or underdeveloped regions.

In retrospect, while the reforms are a step in the right direction, their effectiveness varies across states depending on their economic development and infrastructure. On balance, the overall impact is **positive**, fostering a more business-friendly environment that supports SMEs' growth and competitiveness, albeit with room for improvement in accessibility and inclusivity across the country.

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INDIA'S ECONOMIC REVIVAL: GROWTH, REFORMS AND CHALLENGES

Mr. Saurav KR Ray, Mr. Tushar Debnath N, Mr. Sudhan Shahi

*II Semester, B.Com CMA, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous), Bangalore*

ABSTRACT:

India economy has faced a lot of challenges and overcome all of it without a doubt. India's economy has demonstrated robust and resilient growth, capitulating from the 12th largest to the 5th largest globally and positioning India as the fastest growing economy among the G20 nations. The International Monetary Fund forecast India's GDP growth to be 6.8% for the fiscal year 2024-25 and 6.5% for the year 2025-26. But was this the same story all over the years? Or did someone took the initiative of its revival?

INTRODUCTION:

This research is based on the biggest economic crisis that India has ever faced since it gained independence. In the year 1991, India was left with only 3 weeks of money through which they could import essential commodities. We could say that India was suffering through the same situation which Sri Lanka faced a while ago. What was the fault of the reformers that made India stand at this point? What were the other factors? How did the people reacted to this situation? Who stood up and brought India out of this havoc?

The answer to these questions has a deep meaning in them as it was a turning point for the economy of India. India economy is complicated yet interesting. India is the 5th largest economy as well as the fastest growing economy in the world among the G20 nations. But there was a time when India was at the verge of bankruptcy, the political party of Chandrasekhar Singh which was in power was demolished, and the International Monetary Fund also stepped back because there was no party in power.

REVIEW OF LITERATURE:

If we look back in time and try to figure out the real reason to this Economic crisis we can actually pin point some strong and valid points to support this research. India gained independence in the year 1947, after experiencing the English rule also known as British Raj. This happened because the East India Company gained a lot of power and became well established in the blink of an eye. They exploited our resources as much as they could and the Indians were not benefiting from it even a bit.

When we finally gained independence, our leaders such as Mahatma Gandhi, Jawaharlal Nehru, Bhimrao Ambedkar, and others were concerned and were making all the policies as well as decisions keeping in mind that no other company like the East India Company comes to India for Investment and again establishes monopoly. That's why the investments from outside India was generally being avoid. India was exploited over the years as a result people of our nation were not in position to start a new industry.

All the major industries were taken care by the government such as infrastructure, mining, steel, telecom, and others. Lack of money, investment and one of the major reason was license not being approved. There was a lot of checks and bureaucracy and corruption involved, this is the reason why those days were known as license raj. The License Raj was one of the main reason behind the exit of Coca-Cola and IBM by the end of the year 1970. This crisis took a major turn after the year 1985.



India's biggest supporter at that time was Russia which was also termed as USSR. USSR was a union of 14-15 nations. That union came to an end. As a result the bonding between India and Russia was disturbed for a considerable amount of time. This was not the end of the problems faced by India. Few years after the USSR union demolished there was a war between Gulf countries in which total of 32 nations were involved including USA. Due to this the price of petroleum were sky rocketing, imports costed us a lot, and all the commodities which we used to import had a considerable rise in their price.

By the end of the year 1990 India was in such a situation that it was left with only Rs2500 crore of foreign exchange. Adding on to this, the government which was formed in the year 1991 was a minority government and was not strong politically. In February 1991 this government failed to pass a budget in the parliament. This was the reason to which foreign rating agencies attacked the credit rating of India and made it difficult for us to raise a loan.

International Monetary Fund (IMF) refused to lend a helping hand because the party which was in power dissolved. During this phase Sir Rajiv Gandhi was killed during elections rally in Tamil Nadu. Now there was economic as well as political crisis. After the elections Sir PV Narasimha Rao became the Prime Minister of India. Without wasting even a day, call was made to Sir Manmohan Singh who was the ex-Governor of RBI and ex-Finance Secretary of India. He was elected as the Finance Minister of India.

The major steps that he took to help India outgrow this crisis were as follows:

- The value of Indian Rupees in comparison to dollar was reduced to 20%. As a result a lot of imports and investment came flooding into our country.
- The next step was to mortgage 47 tonne gold in the foreign banks and get a handsome amount of money to somehow make the conditions stable for a while.

Within a month Sir Manmohan Singh proposed a strong budget. Some of the points which were proved to be a major step in balancing India's economic situation were:

- Before the year 1991 there were lots of restriction on imports made from foreign lands. There was a list of items which had the permission of the government that, these items could be imported to India. This list was removed and a negative list was prepared that, except these products or commodities anything has the permission to get imported to India.
- Investors which were interested to invest in India were allowed to invest up to 51% in any company they wanted to.
- License Raj came to an end and 80% companies were set free from the license system. They were free to establish and expand their industry without taking approval.
- Before the year 1991 some areas were reserved for the public sector companies. This rule was abolished and the areas were open to all for establishing industry.
- The rule of taking approval to establish a public sector company was removed and they were given autonomy and freedom to establish and expand.

What was the effect of these major steps in the life of people living in India?

- This might not sound like a very major change, but before 1991 we were only able to see cars like Ambassador and Premium Padmini. But after the year 1991 we saw cars like Toyota, Honda, and Hyundai.
- Before the year 1991 the source of entertainment in and household was mainly through television. And in market we were able to see only two companies BPL and ONIDA. But this too changed and now people were buying from companies like SONY, LG, SAMSUNG.

- Many people were introduced to companies such as COCA-COLA, PEPSI, MC DONALD'S, DOMINOS, and PIZZA HUT.
- In the name of television channel there was only one channel that is National TV (DOORDARSHAN). But this too changed and people's new favourite were SONY, ZEE TV, and STAR PLUS.
- There was also a big upgrade in Telecom sectors, Airlines, Malls and Super Marts, Clothing Brands, etc. These areas were also a keen interest to the foreign inventors.
- The most important of all, due to the opening of such industries there were job opportunities for the people. People got jobs and India's Economy started growing at a respectable and stable pace.

These changes were possible because India is a huge market place and Indian people didn't had that much amount of money to establish and run a successful business. Moreover if people did take initiative they were not given the approval by the government. The foreign companies which were running their business outside India were saturated and wanted to expand. They saw the situation in which India was and took it as an opportunity. As a result these companies got a new market to expand and prosper. And India in return got a lots of foreign exchange.

This policy of Globalisation, Industrialisation and Privatisation introduced by Sir Manmohan Singh was continued by all the upcoming political parties. And as a result India currently is the 5th largest economy in the world.

Sir Manmohan Singh, at the end of his budget speech of 1991 said that, "No power can stop an idea whose time has come". He proved it by changing the face of India and the situation which it was going through.

OBJECTIVES:

The 1991 Indian Balance of Payments (BOP) Crisis

"By June 1991, the balance of payments crisis had become overwhelmingly a crisis of confidence - of confidence in the government's ability to manage the balance of payments... A default on payments, for the first time in our history had become a serious possibility in June 1991." – The Economic Survey (1991-92) the deficit payments problems from the '90s was the direct result of the workings in the country in the 1980s. Keeping in mind the continual international monetary aid, the Indian government relied heavily constructed on various forms of external funds which stemmed from the excessive selfimposed trade restrictions post 1980s. Additionally, the national foreign exchange reserves were depleting unsustainably and by mid-1991, the government could barely manage to pay for two weeks' worth of imports.

The initial goals of promoting exports through an active policy of depreciation in real exchange rates were met at the end of the '80s, but that was unfortunately too late for the rest of the economy. Post 1980, as import and industrial licensing rules began to loosen, the value of imports rose much more quickly than what could be supported by exports. In the latter part of the 1980s, the increase in external borrowing significantly impacted some of India's external debt indicators. The ratio between shortterm debts and foreign currency reserves increased drastically. A declining external trade balance and an excessive reliance on borrowing from outside sources. This comprised commercial loans, outside funding, and increasingly expensive NRI deposits. Additionally, foreign exchange reserves were exhausted. Only 0.1 percent of the nation's GDP was invested by foreigners. The decrease in certain

measures of India's external debt was largely caused by the country's increased reliance on borrowing from outside sources in the latter part of the 1980s

By the end of 1991–1992, the external debt stock to GDP ratio had climbed to 39%, and the debt to export ratio had also increased to 563 percent. Short-term debt increased to a dangerous 382 percent of foreign currency reserves.

Policies - During the 1980s, India was spending far beyond its abilities in terms of export earnings and nominal aid flows. As imports began to grow rapidly, they were supported by commercial borrowings or predatory term loans. This was feasible only as long as these funds were accessible. The economy was plunged into crisis as soon as these sources of funding dried up. The roots of the crisis, therefore, stem from an import liberalization policy but within the context of macroeconomic policies, specifically fiscal policies, which let internal demand for the home market rise without sufficient exports during the period when the external environment was hostile toward India.

Acharya (2002) gives the following explanations for the crisis of 1991:

- i. Excessive fiscal deficits spending during the 1980s, An overvalued exchange rate (compounded by the real appreciation of the rupee during the first half of the 1980s) ii. Foreign trade regulations and payments systems that discriminated against any exports iii. Increased reliance on various forms of outside borrowing to cover large multi-year trade and current account deficits in the second half of the 1980s.

Descriptive:

The 1991 Indian Balance of Payments (BOP) crisis was a result of the country's 1980s economic policies, which heavily relied on external funds and self-imposed trade restrictions. The government could barely pay for two Weeks' worth of imports by mid-1991. The initial goals of promoting exports through depreciation in real exchange rates were met, but this was too late for the rest of the economy. Post-1980, import and industrial licensing rules began to loosen, leading to a rapid rise in import value. The increase in external borrowing significantly impacted India's external debt indicators, with the ratio between short-term debts and foreign currency reserves increasing drastically. The crisis was rooted in an import liberalization policy within the context of macroeconomic policies, specifically fiscal policies, which allowed internal demand for the home market to rise without sufficient exports during the hostile external environment. The rising reliance on external borrowing contributed to the decline in some of India's external debt indicators.

The lack of foreign exchange reserves in India resulted in the country losing confidence in government managed economic systems altogether and marked the start of the 1991 Indian Balance of Payments (BOP) crisis. This now stands as one of the most pivotal events in Indian monetary history and attribute it's origin to the 1980's when local monetary policies along with external economics actions resulted in dire CF the Companies capabilities.

The early 1990s recession, however, was experienced by most countries, including the United States, due to high interest rates, a savings and loan crisis, and oil price shocks from the Gulf War. Japan's "Lost Decade," beginning in 1991 after the asset price bubble burst. Collapse of the Soviet Union in 1991 brought economic instability into former Soviet countries. Economic Analysis Use macroeconomic indicators (GDP, inflation, unemployment, interest rates) in your analysis to track the impact .Compare pre-crisis and post-crisis data in order to measure economic decline and recovery.



Historical Analysis, Look into the government policies, banking regulations, and trade agreements in detail before and after the crisis. Archival research such as news reports, government records, and IMF/ World Bank reports.

Case Study Approach Focus on a single country (as in Japan's Lost Decade) or compare multiple regions. Sector-specific studies for example banking, housing markets, or trade.

Political Economy Perspective analyse how political decisions triggered the economic collapses (e.g., Soviet collapse, U.S. monetary policy). Consider the roles that international institutions like the IMF and World Bank played.

Econometric Modelling Use statistical models (e.g., regression analysis) to study causative factors and correlations. Forecast the behaviour of recovery patterns from past economic patterns. The early 1990s recession, however, was experienced by most countries, including the United States, due to high interest rates, a savings and loan crisis, and oil price shocks from the Gulf War. Japan's "Lost Decade," beginning in 1991 after the asset price bubble burst. Collapse of the Soviet Union in 1991 brought economic instability into former Soviet countries.

DISCUSSIONS/ FINDINGS:

A number of factors, including excessive government spending, a large fiscal deficit, mounting external debt, and a sudden shock from the Gulf War, contributed to the 1991 Indian economic crisis, which was primarily characterized by a severe balance of payments crisis. This led to a sharp decline in foreign exchange reserves and forced India to devalue its rupee, which in turn prompted significant economic reforms to liberalize the economy. Key findings include the crucial role of structural issues like low export growth, inefficient public sector, and inadequate domestic savings, highlighting the need for policy adjustments to address these imbalances and promote sustainable economic growth. Important topics of conversation:

The crisis's causes:

Excessive government expenditure that put a strain on the public finances was known as a high fiscal deficit. Increasing debt from outside sources: In the 1980s, there was a lot of borrowing from foreign lenders, which put strain on debt servicing commitments. Impact of the Gulf War: India's import bill skyrocketed as a result of the oil price spike that followed the Gulf War, further exacerbating the country's balance of payments predicament. Ineffective public sector: Economic growth was hindered by low-productivity, inefficient state-owned firms. Slow export growth: Insufficient export revenue to meet import needs. A highly regulated economy with little involvement from the private sector is an example of structural rigidities. Crucial elements of the crisis, Depleting foreign exchange reserves, India's capacity to import necessities was impacted when its foreign exchange reserves fell to extremely low levels.

The following are policy responses (Economic Reforms of 1991): fiscal consolidation: actions to lower the fiscal deficit through tax reforms and expenditure cuts; privatization: encouraging private sector involvement by disinvesting in public sector businesses; financial sector reforms: enhancing the stability and efficiency of the banking system; and liberalization: lowering import tariffs, permitting more foreign investment, and deregulating industries.

Results: Benefits of reforms: Many people agree that the 1991 reforms greatly improved India's economic growth trajectory by permitting deeper integration with the global economy, enhancing private investment, and raising export competitiveness. Obstacles still exist: In spite of the early

achievements, problems including regional differences, income inequality, and the requirement for additional structural reforms remain significant worries.

CONCLUSION:

India was in danger of going bankrupt during the 1991 economic crisis, which was a turning point in the nation's history. A combination of trade imbalances, rising oil costs, budgetary mismanagement, and dwindling foreign exchange reserves set off the crisis. By the middle of 1991, India was on the verge of going into default on its external loans and had hardly enough reserves to fund three weeks' worth of imports. India had to take immediate and drastic action as a result of this economic unrest. India pledged gold as collateral when it applied for financial aid from the International Monetary Fund (IMF) in an effort to calm the situation. Concurrently, the administration initiated a number of daring reforms under the leadership of Prime Minister Narasimha Rao and Finance Minister Manmohan Singh.

One of these was depreciating the rupee, eliminating the license raj, lowering trade barriers, and opening up industries to international investment. The crisis eventually resulted in the liberalization of the Indian economy, despite the challenging immediate effects, which included increased unemployment and inflation. India's economy changed from being closed and centrally planned to being more market-driven and internationally linked as a result of the 1991 reforms. India's growth potential was unlocked by this shift, and it intensified throughout the ensuing decades, making it one of the economies with the fastest rates of growth in the world. While the immediate impact was unpleasant, with inflation and unemployment soaring, the crisis eventually resulted in the liberalization of the Indian economy.

The 1991 reforms transformed India from a closed, centrally planned economy to one that is more market-driven and globally integrated. This move freed India's growth potential, which intensified over the next few decades, propelling India to become one of the world's fastest-growing economies. The 1991 crisis, however severe, laid the groundwork for India's economic change and globalization. It proved to be a watershed moment, as India emerged stronger and more resilient, having learned significant lessons in economic management and global competitiveness.

REFERENCE:

- 1) For completing this Research Paper, we took references from the following:
- 2) "What Caused the 1991 Currency Crisis in India?" (2002, IMF Staff Papers) It offers a thorough examination of the causes of the crisis, particularly the stringent capital controls imposed by India. Oxford University Press's
- 3) "India's Economic Reforms, 1991-2001" provides a thorough rundown of the economic changes made in the wake of the 1991 crisis.
- 4) The book "India's Economic Crisis: Nature and Remedies" (Sage Journals, Bakul H. Dholakia) addresses the main components of the crisis, including inflation, fiscal imbalances, and the foreign exchange constraint.
- 5) The World Bank report "Structural Adjustment in India: A Report of the Independent Evaluation Group" examines the post-crisis structural adjustment measures taken by the Indian government.



UNRAVELLING THE INFLUENCE OF SOCIAL MEDIA ON STOCK MARKET DYNAMICS

Ms. Jivitha Shobashree Sudhakar, Ms. Naina SL, Mr. G Nethraan

*VI Semester, B.Com Business Analytics, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Neerupa Chauhan

*Assistant Professor, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT:

Social media expansion resulted in major changes regarding retail investors' financial information intake and information processing, influencing their stock market investment choices. Researchers analyze how social media networks modify investor activities by studying behavioural flaws and financial knowledge understanding and risk awareness together with confidence levels in finance experts. A structured survey allowed us to collect primary data from 72 respondents for analyzing their social media usage in financial topic research and information reliability assessment.

The analysis demonstrates that digital investment space needs better financial regulation as well as education programs. The future will require the development of simulation-based learning platforms and AI-driven content verification systems together with influencer credibility rating mechanisms to fight misinformation while building investor trust. Such measures work to support investors in making prudent decisions through mechanisms that decrease participation in share market speculation and trading based on emotional responses to social media content.

People gain access to abundant financial information through social media but investors need to evaluate its effects on their decision making. Financial investors need to be cautious when using social media information by combining it with conventional financial research along with expert professional advice to conduct well-informed investment choices that account for risk factors.

INTRODUCTION:

Since its initial establishment during the 17th century, the stock market developed into a worldwide financial hub that generates financial consequences throughout different countries. The inventory marketplace in India has become more convenient for retail investors because of the leadership role of its two leading exchanges, the National Stock Exchange and the Bombay Stock Exchange. The explosive development of social media platforms now functions as the main distribution network for investing information and market data.

This research investigates how social media shapes investor decisions in the stock market. We conducted primary research through a structured survey, gathering data from diverse respondents about their reliance on social media for financial information. The study analyzes how trustworthy these reports are in the modern-day complex stock market setting.

The data from Statista demonstrates financial content material engagement exceeds 80% among global internet users because digital systems continue to expand their influence. According to RBI reports monetary literacy levels in India experienced continuous growth resulting in a 24% increase from 2011 to nearly 33% in 2021. Our inquiry analyzes various patterns, biases, and probabilities to assess social

media reliability in stock market investment decisions to reveal modern investment conduct dynamics. Understanding this connection between informed investment decisions and virtual financial data risks will be improved by the study results.

REVIEW LITERATURE:

The research evaluates the investment decision processes of Ahmedabad social media users by studying their usage habits and the trustworthiness of the obtained information. Male respondents composed seventy-six point seven percent of the total participants while young investors between eighteen and twenty-four years old formed forty-five point six percent of the sample. Tests using analysis of variance revealed distinct patterns between different age groups but discovered no relation between investor age and the amount of social media exposure regarding financial investment decisions. The gender analysis demonstrated how social media shapes decision processes in particular. (Shah, M., Patel, R., Sharma, A., Chauhan, R., Maseleno, A., & Isnanto, R. R., 2024).

The research analyzes stock market reactions to peer-based guidance through an analysis of Seeking Alpha articles. Research reveals that stock market performance depends on article sentiment levels which also forecast earnings disclosures most powerfully in widely accessed content involving retail investor portfolios. This observation demonstrates how social media affects economic marketplace operations. (Chen, H., De, P., Hu, Y. J., & Hwang, B. H. (2013)).

This research investigates the effects of social network-based mimetic strategy acquisition on financial asset prices. The genetic programming algorithm allows traders to adopt different forecasting strategies through their adaptations. The imitation process operates at an individual level to convey real-world data between sources. The shape of trading networks affects price distortions, market price oscillations and trading activity quantities. (Yeh, C. H., & Yang, C. Y. (2014).

The research reveals that news media functions as a system for warning social networks about emerging news stories that these networks expand through conversation before stock exchanges engage. A direct link between news media and social media and stock market fluctuations exists although a clear cause-effect sequence remains unclear. Researchers have developed an explanatory model to study price dynamics of imperfect information but more research is necessary to specify the involved processes. Jiao, P., Veiga, A., & Walther, A. (2020)

The researchers studied Twitter sentiment effects on financial indices during times of pandemics. Research indicates that both markets and Twitter react to social media sentiment changes with periods spanning 0 to 15 days for markets and 0 to 11 days for Twitter. The stock market demonstrated visible correlations with articles published by large platforms at The New York Times and Bloomberg. (Khan, W., Ghazanfar, M. A., Azam, M. A., Karami, A., Alyoubi, K. H., & Al Fakeeh, A. S. (2022).

Social media investigates its effects on Angel Broking users from Tumkur Karnataka through its influence on their investment choices trading practices and risk management abilities. The investment influence of financial influencers as well as non-traditional advice on younger investors are mainly controlled through platforms Facebook Instagram and LinkedIn. Angel Broking investors follow traditional sources due to their experience while absolute newbies fall under viral stock tips and trending market news impacts. The survey and interview combination employed in this research presents analytical data that identifies important population-based findings demonstrating why financial education should help investors evaluate market information from social media platforms. (Naveen Kumar T S, Dr. Sureshramana Mayya 2016).

SCOPE OF STUDY:

- **Effect on Retail Investors:** This research examines how social media shapes retail investors' choices. It focuses on behavioural biases like herd behaviour and fear of missing out. The study also looks at investors' trust in financial influencers and their access to information.
- **Platform-Specific Patterns:** It investigates how YouTube, Reddit, and Twitter each mould people's financial thinking and decision-making.
- **Risk Outlook and Quick Choices:** By examining the instant updates from social media, this study shows how they result in hasty short-term choices by investors. This changes how they see risk.

RESEARCH METHODOLOGY:

Research methodology in a research paper refers to the systematic approach of using techniques, processes, and strategies to collect, analyze, and interpret data. The methodology section explains how the study was designed, the data collection process and sampling techniques and tools for the analysis of data.

Primary data - Google Forms was used to collect the perspectives of the stock market investors. 72 responses were obtained in total.

Secondary data - Past research papers were examined to sharpen the problem statement define the scope of the study and frame our survey accordingly. These are discussed in the review literature.

DATA ANALYSIS:

a) Role of Financial Influencer

TABLE NO. 1.1					
PARTICULARS	1	2	3	4	5
How often do you rely on financial influencers for investment advice?	11.1	15.3	58.3	15.3	0
Rate the impact of financial influencers on your investment decisions.	1.4	15.3	41.3	29.2	11.1
Have you ever made an investment decision based solely on advice from a financial influencer?	34.7	0	0	0	65.3
How trustworthy do you find financial influencers compared to other sources of financial advice?	6.9	0	45.8	0	47.2
Which type of content from influencers affects your decisions the most?	20.8	38.9	15.3	25	0

TABLE NO. 1.1 presents insights into the role of financial influencers in investment decisions. A majority of respondents (58.3%) rely on financial influencers occasionally, while 15.3% never seek their advice, and only 11.1% do so daily. When assessing the impact of influencers, 41.3% rate their influence as moderate, while 29.2% find it low and only 1.4% perceive it as very high. Notably, 65.3%

have never made an investment decision solely based on influencer advice, whereas 34.7% have done so. Trustworthiness remains a concern, as 47.2% find financial influencers less trustworthy compared to other sources, while only 6.9% consider them more reliable. Lastly, market-related content (38.9%) influences decisions the most, followed by stock-related (20.8%) and general financial advice (25%), while personal finance content has a lower impact (15.3%). These findings suggest that while financial influencers play a role in investment decisions, their influence is often moderate, and trust remains a key issue.

b) Financial Knowledge

TABLE NO. 1.2					
PARTICULARS	1	2	3	4	5
Do you feel social media has improved your financial literacy?	23.6	44.4	29.2	2.8	0
Which aspect of financial knowledge on social media has been most influential?	50	18.1	16.7	15.3	0
How often do you seek financial knowledge on social media?	12.5	22.2	40.3	20.8	4.2
Rate the reliability of financial knowledge shared on social media.	5.6	26.4	58.3	6.9	2.8

TABLE NO. 1.2 shows that investment risk-taking behaviour demonstrates sensitivity to social media discussions as 48.7% of participants confirmed their risk acceptance through these discussions. Social media mainly presents investment risks in a way that is either less than accurate or significantly less accurate according to 51.4% of survey participants. Users identify social media as affecting their investment risk perception to a medium level according to 44.4% of the respondents yet only 6.9% recognize a powerful influence. The study demonstrates that investors must approach social media information cautiously before involving it in their investment choices.

c) Platform Specific Effect

TABLE NO. 1.3					
PARTICULARS	1	2	3	4	5
Do social media discussions make you more inclined to take investment risks?	5.6	43.1	34.5	13.9	2.8
How often do social media posts understate the risks of certain investments?	12.5	38.9	40.3	8.3	0
How does social media affect your overall perception of investment risk?	6.9	37.5	47.2	5.6	2.8

TABLE NO. 1.3 indicates Social media discussions push respondents into taking greater investment risks because 48.7% of participants indicated their agreement or strong agreement to this effect. Social media frequently or very often presents investment risks inaccurately in the opinion of 51.4% of people

and may result in unnecessary decision mistakes. The majority of individuals who perceive investment risk through social media do so at a moderate level according to 44.4% of respondents although only 6.9% identify a very strong impact. Investors need to approach social media content analysis with care before using it for investment decision-making purposes.

d) Risk Perception

TABLE NO. 1.4					
PARTICULAR	1	2	3	4	5
Rate the quality of financial discussions on your preferred platform.	15.3	44.4	34.7	4.2	1.4
How does platform-specific content affect your investment strategy?	8.3	41.7	50	0	0

TABLE NO. 1.4 shows Financial discussions people view on their preferred platforms demonstrate high value since most respondents (59.7 percent) evaluate them positively yet 5.6 percent think they are poor. Platform-based content plays a substantial role in shaping investment choices because fifty percent of participants noticed a moderate impact while forty-one point seven percent experienced a major influence. Social media financial discourse primarily brings value but creates differences in how it influences investment choices due to its importance for careful assessment.

e) Behavioral Biases

TABLE NO. 1.5					
PARTICULARS	1	2	3	4	5
How often does social media create FOMO (Fear of Missing Out) in your investment decisions?	25.7	25.7	27.1	11.4	10
Do you agree that social media amplifies herd mentality among investors?	19.4	51.4	27.8	1.4	0
How confident do you feel in your investment decisions after consuming social media content?	7	19.7	62	9.9	0

TABLE NO. 1.5 indicates Social media affects investment choices because users exhibit FOMO and engage in herd mentality decisions according to the research data. Social media strengthens herd patterns according to 51.4% of the respondents because it pushes people toward spontaneous investment choices. The same percentage of people (51.4%) face FOMO frequently because of social media discussions that could lead them to make riskier financial decisions. The majority of investors (62%) maintain average confidence levels regarding their investment choices following interactions with social media content at the same time as few reach an exceptional level of confidence (7%). Social media contributes to investment sentiment formation yet causes investors to face behavioural problems that require attentive management.

f) Real-time Decision Making

TABLE NO. 1.6

PARTICULARS	1	2	3	4	5
How often do you act on investment opportunities based on realtime social media updates?	8.5	15.5	40.8	31	4.2
Do real-time social media updates prompt impulsive decisions?	8.5	19.7	45.1	21.1	5.6
Do you feel pressured to make quick decisions based on social media updates?	12.7	25.4	40.8	14.1	7

TABLE NO. 1.6 shows that the influence of live social media updates on financial decisions is substantial but most investors avoid making hasty decisions. Updates on social media platforms lead only 24% of individuals to take action while the rest (71.8%) choose to avoid them or wait until sporadic intervals. The same 28.2% of participants state that real-time updates trigger hasty investments yet 45.1% show they only experience mild impact. Social media pressure encourages 38.1% of people to rush their decisions and demonstrates the urgent nature of social media. Most investors demonstrate a cautious approach toward social media impacts on real-time decisions even though social media operations slightly influence investment reactions.

DISCUSSION ON DATA ANALYSIS:

Financial knowledge together with investment behaviour receives substantial influence from social media channels. Most individuals (68%) realize how social media influences their financial understanding while one in four people uses social media very little for learning financial information. The content affects half of the users but reliability issues persist because only 26.4% consider it "very reliable." The majority of 55.6% of people found social media information helpful for making investment choices indicating both positive aspects and safety risks. A majority of users report they open themselves to greater financial risks through social media discussions but an equivalent number fear risks being understated (48.7% and 51.4% respectively). The strong impact of social media on risk perception becomes obvious to 44.4% of respondents thus monitoring content carefully protects listeners from false or prejudiced information. People obtain financial information through social media platforms yet they must exercise caution when making decisions to achieve responsible outcomes.

Our ability to learn financial concepts undergoes fundamental changes through social media because it modifies academic approaches to this subject. Through social media networks, many people obtain financial knowledge which guides their financial behaviour. The lack of rigorous oversight regulation permits wrong information to spread which creates doubts about future financial results for users. Our research further evaluates how social media impacts monetary choices while creating methods of safe processing of financial content online.

FUTURE IMPLICATIONS:

Simulation-Based Practical Learning for Stock Market Education

Top stock market applications should incorporate realistic time-enabled simulation models that enable risk-free trading practice sessions. These simulations need to combine with educational content teaching the dangers of herd mentality and FOMO and fundamental investment principles to users. The risk assessment together with portfolio diversification and short-term and long-term investment benefits can be reinforced through interactive gamified challenges.

Enhancing Trust in Financial Influencers:

A rating system based on algorithms will evaluate financial influencers through accurate verification procedures that judge their previous recommendations according to their reliability and update speed as well as investment disclosure standards. The rating system needs to use verified market performances and user reviews for dynamic adjustments. Through this system, followers will receive a dependable reference that lets them evaluate the reliability of content generated by influencers.

AI-Powered Financial Content Hub:

The platform should create a stand-alone application or site extension that allows users to submit and examine social media financial content. Users should be able to both upload and link social media posts through the system before the AI conducts assessments of content credibility alongside relevance and accuracy checks. Through its verification methods, this solution presents users with informative insights from quality-assessed information. User preferences and investment targets drive the platform to generate tailored recommendations for its users.

Simulation-Based Practical Learning and Stock Awareness

Top stock market apps should introduce real-time simulations where users can practice trading in a risk-free environment. These simulations should be paired with a well-structured curriculum that educates users on the dangers of herd mentality, FOMO (Fear of Missing Out), and the importance of disciplined investment strategies. Additionally, interactive gamified challenges can reinforce learning by helping participants understand risk assessment, portfolio diversification, and the advantages of both short-term and long-term investments.

CONCLUSION:

As a fundamental instrument, social media operates in sophistication to transform markets through changes in investor behaviours, financial asset allocation patterns and market prices. People encounter both analyzed financial content and original data through social media which results in mistakes, heightened market uncertainties and increased speculative activity. Content management algorithms paired with heuristic behaviours create a feedback mechanism that produces immediate investment pressure which affects risk assessment in addition to investment-related decision processes. Investment information trust continues to decline because people depend on financial influencers to conduct expedited digital system analysis using quick market information. Investors in modern times require protection from social media market manipulation which can be achieved by combining behavioral financial approaches with oversight controls and AI verification methods.

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IMPACT OF PANDEMIC ON LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Ms. S. Parinithaa, Ms. P. Sai Shruthi, Ms. Meghana. R, Ms. Sawant Aaditi Prashant
*II Semester B.Com (Business Analytics), Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Neerupa Chauhan
*Assistant Professor, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

When the World Health Organization (WHO) declared COVID-19 a pandemic in early 2020, most countries across the globe shut down their borders and limited transportation and travel to contain the coronavirus (COVID-19) outbreak, thus creating impediments to international trade and transportation. As the outbreak caused disruptions in supply chain operations, the logistics and transportation industries were hampered in various ways across air, freight, and sea segments. Companies had to rethink their approach to optimizing warehouse locations and inventory to meet customer expectations. This research paper will review recent developments, significant impacts, and opportunities. Some key impacts happen during a pandemic. The pandemic has given retail holders a lot of struggles and impacted their sales, which led to huge losses that took them a lot of years to recover. Then again, we will have profits and get back to normal. We have taken qualitative research methods, where we have taken surveys from retail holders. It concludes by synthesizing key takeaways and reflecting on the future of these retail holders.

INTRODUCTION

□ *Overview of the pandemic and its global spread*

The COVID-19 pandemic, caused by the SARS-CoV-2 virus, is one of the most significant global health crises of the 21st century. The pandemic profoundly affected nearly every aspect of life worldwide, from health systems and economies to societies and individual behaviors. Governments worldwide implemented strict measures to contain the virus's spread, including lockdowns, travel restrictions, and social distancing protocols. The pandemic exposed vulnerabilities in global supply chains and logistics networks, which are heavily interdependent across industries and companies. Border closures, labor shortages, disrupted transportation routes, and fluctuating demand created unprecedented challenges for businesses worldwide. Essential sectors, including healthcare, food supply, and manufacturing, faced severe disruptions, while other industries like e-commerce and digital services experienced growth due to changing consumer behavior.

Logistics and Supply Chain Management (SCM) are the backbone of global trade and commerce, ensuring the efficient movement of goods, services, and information across borders. SCM involves planning, implementing, and controlling the flow of resources from suppliers to end consumers, while logistics focuses on these resources' transportation, warehousing, and distribution aspects. Logistics and Supply Chain Management (SCM) contribute approximately 14% of India's GDP and serve as the foundation for industrial growth and economic stability.

During the pandemic, India faced border closures, labor shortages, raw material scarcities, and transportation bottlenecks. Effective logistics was critical in ensuring the country's distribution of vaccines, medicines, and essential supplies. The pandemic accelerated the shift towards e-commerce and digital supply chain technologies in India.

QUALITATIVE RESEARCH

□ Sri Krishna Vaibhav (Food Industry)

The time during COVID-19 was hectic for people and also for businesses that had to endure losses. To understand the impact of the pandemic, we interviewed some of the businesses/shops.

A certain one was Sri Krishna Vaibhav, a vegetarian restaurant serving South Indian, North Indian, and Chinese cuisine. The restaurant commenced just a month before the lockdown. We had the honor of meeting the owner, Mr. Shekar, who was kind enough to provide us with the required information. Mr. Shekar explained that during the COVID, the restaurant was shut off, and most employees returned to their hometowns. He mentioned that there were no layoffs, and the employees were given 2 months' salary in advance, but the landlord took the rent regardless. He even mentioned that he got a legal notice from his landlord due to late payment. The restaurant lost almost two lakhs in stock (pulses, rice, vegetables, etc.) and electricity. The owner mentioned that they earned 10k every day out of takeout, and the rent was equally 10k per day, coming up to 3 lakhs per month. The loss for the pandemic and post-pandemic added up to 15 lakhs (including rent paid out of the owner's pocket).

Once the lockdown was over, the restaurant returned to its life (though only takeout were done). The cooking was done by the owner and his business partners (15-20 persons), and it was challenging to do the work of both employees and employers. For a month or 2, the restaurant served only online; later, when it opened, they maintained strict hygiene rules and allowed only two people per table. They maintained hygiene during COVID-19 by sanitizing and wearing gloves and masks. They didn't struggle much to regain the customers' trust, as hostels/PGs near the restaurant helped them gain customers. It took them one and a half years to recover from the loss.

When 'What if a similar situation arises?' the owner laughed it off and said he would close down the restaurant. He faced backlash from the landlords who forced him to pay the rent, though his business was running at a loss. One gain, though, is that they learned about e-commerce thanks to the pandemic.

□ U S Polo (Clothing Industry)

The time of COVID-19 was hectic for people and businesses, who had to endure a lot of losses. This is another business/shop, US Polo, a brand from the United States. Mr. Ajay M R, our polo branch K Narayanapura central road manager, Kolhapur, Bengaluru, Karnataka, was so kind as to help us with the information.

Mr. Ajay explained to us how the business went so far with fewer profits during the pandemic, using technology and online shopping for the customers.

He mentioned that the sales dropped significantly by about 20%, customers took time to use online platforms, and even the customers did not have the option to go and see the clothes physically and try them on.

The main impact on the businesses was workforce shortage, where employees were fired as the shops were supposed to be closed according to the lockdown rules. So many people got laid off from work.

The key solution was online shopping and deliveries, but still, there was a delay in the supply chain, and logistics created hurdles for the company.

Their deliveries were hygienic as they used polythene covers to pack them and sanitize them as a safety measure.

There were no complaints from the customers as they maintained hygiene, and every customer was happy with the delivery. After the pandemic, it took some time for the business to return to business, and everyone was still very cautious. Their main fallback was that despite their efforts to keep safety measures, not everyone was ready to come to shop and check out the clothes physically. All the customers needed around one or more years to come and shop in shops physically.

□ **Anand Sweets (Food Industry)**

The time during COVID-19 was hectic for people and also for businesses that had to endure losses. To understand the impact of the pandemic, we interviewed some of the businesses/shops.

A well-known shop is Anand Sweets. Manager Dilip helped us with a lot of information about the business as he has about 35 years of experience in the food industry, which gave us a lot of information. The sales were not under losses as they had not prepared weeks before, but they prepared it 2 days max before and got sold within a day or two max.

Which did not affect the business under significant losses, but they did not meet the target either as there were strict rules about the pandemic and once the company started after the pandemic, the sales took time to meet the target as the customers were scared to take things or food items from outside as the safety did not assure the customers after a while when the business gave the customer assurance, customers started to come and buy sweets and savories from Anand Sweets. They took around 3 years to meet to get an improved.

They had a lot of safety measures, such as keeping everything hygienic; cleanliness should be maintained for the safety of all the customers despite the shortage of supplies. The company managed it smoothly without cutting salaries or laying off the employees.

The feedback from the manager was the sales were good and improved after the pandemic, and there was no such case where they had to close the company branch.

The customers gave a positive response based on the hygiene standards. The company canceled no major deals due to the pandemic, and their business was well maintained and stable throughout and even after the pandemic.

□ **Nandini (Milk Industry)**

The time during COVID-19 was hectic for people and also for businesses that had to endure losses. To understand the impact of the pandemic, we interviewed some of the businesses/shops.

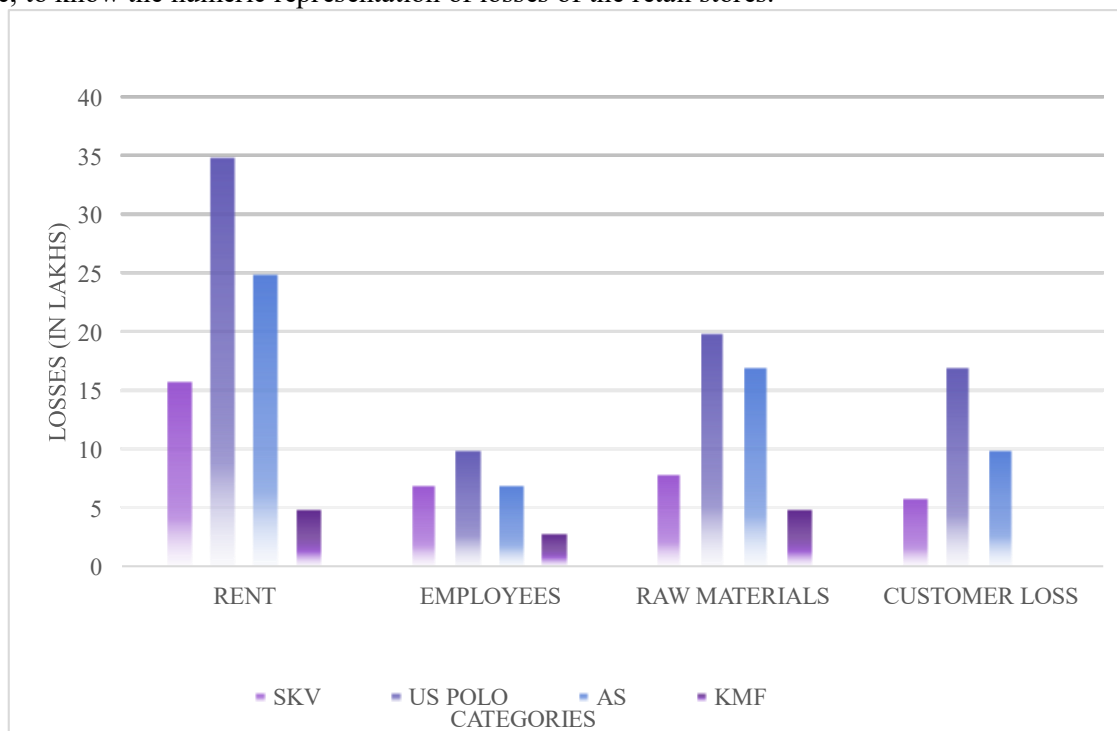
A well-known milk brand, Karnataka Milk Federation (Nandini); the shop's owner, Rita, has helped us with the information about their shop. They started the shop 2 years before the pandemic, when the location of the shop was near hostels, and the shop had excellent business. As Nandini is known for its taste within a budget, students in hostels were thrilled to have a good time with their friends.

Rita had an assistant in their shop and would pay an amount to the assistant every month. After the pandemic, the shop was shifted to a resident's place where only residents of the society were allowed. They maintained rules and regulations, and employees were very safe, always wearing gloves and masks.

And safe distance was maintained with customers. They had a permission card that allowed them to go out during the pandemic to get the products. They sold all the Nandini products and bakery items like bread, cookies, etc. The customers were pleased as they had a shop where they could get everything they needed in one place and were not scared to go to different places for necessities. They made an excellent profit. Rita has said she made more profit than before during the pandemic. After the pandemic, she also started a restaurant for about a year. After that, they closed the restaurant and shop for personal reasons, even though they had good profits. The technology has come into place for this only for payments and calculations. Otherwise, there was no need for digital aspects at all.

❖ RESEARCH METHODOLOGY

The overall strategy used in writing the research paper was using qualitative techniques. We went to different retail stores and understood their human behavior, experiences, and social phenomena through a survey process known as the questionnaire. Through the process, the overall financial stability of the retail stores was under loss, and they faced financial issues like the price rate of raw materials, sudden changes in customer preferences, loss of stock, cancellation of products in online markets, etc. It took almost a minimum of two years to recover from these issues. adding on, we used reference books like "the great lockdown by Shivaji Das," "the future of Shopping by Jorien Castelein" etc, to know the numeric representation of losses of the retail stores.



COMPARSION OF LOSSES DURING COVID-19 PANDEMIC

KEY IMPACTS OF COVID-19 ON SUPPLY CHAIN AND LOGISTICS

The COVID-19 pandemic exposed vulnerabilities in the global supply chain while accelerating significant transformations in logistics and supply chain management. It created labor shortages, production disruptions, and increased border restrictions. However, the crises also spurred innovations like digital transformation, real-time tracking, and a shift toward resilience and sustainability.

- **Production disruptions and labour shortages**

The pandemic led to temporary shutdowns of manufacturing facilities worldwide due to lockdowns, social distancing requirements, and virus outbreaks among workers. Labor shortages were particularly acute in the transportation, warehousing, and manufacturing sectors, severely affecting supply chain continuity.

The lack of production capacity caused delays in meeting the demand for essential goods, including personal protective equipment (PPE) and medical supplies. For instance, factories in China, the pandemic's epicenter, initially shut down, creating ripple effects globally due to their critical role in global manufacturing.

- **Demand shock and stockpiling**

The pandemic triggered erratic consumer behavior in demand shock for essential goods like food, toilet paper, and sanitizers. Panic buying and stockpiling overwhelmed supply chains, leading to temporary shortages in retail stores. Simultaneously, demand for non-essential goods plummeted as consumers prioritized necessities, disrupting sales in sectors like fashion and electronics.

Retailers and manufacturers were forced to reevaluate their strategies, leading to a shift from "just in time" to "just in case" models—this strategic adjustment aimed to improve preparedness for future demand surges.

- **Border restrictions and trade disruptions**

During the pandemic, strict border controls, quarantines, and travel restrictions significantly disrupted international trade. Delays at ports and customs checkpoints created bottlenecks, increasing transit times and costs. Export bans on critical goods, such as medical supplies, further exacerbated supply chain vulnerabilities.

Companies faced challenges diversifying suppliers and relocating production closer to end markets, a trend now referred to as "nearshoring." This shift aims to reduce reliance on geographically distant suppliers to enhance supply chain resilience.

- **Shift toward sustainability and regionalization**

COVID-19 accelerated the trend toward sustainable and regionalized supply chains. Companies began focusing on reducing environmental impact by adopting green logistics practices, such as electric delivery vehicles and renewable energy-powered warehouses.

Additionally, regionalization gained importance as businesses sought to mitigate risks associated with global disruptions by establishing closer supplier networks. This approach improves agility and reduces dependence on international trade routes.

The COVID-19 pandemic exposed critical vulnerabilities in the supply chain while simultaneously driving technological advancements and resilience-building efforts. Challenges like production disruptions, labor shortages, and demand shocks revealed the fragility of global logistics networks. However, the crises also highlighted the importance of digital transformation, sustainability, and regionalization in creating future robust and adaptable supply chains.

CONCLUSION

The COVID-19 pandemic profoundly impacted e-commerce supply chains, forcing businesses to adapt and innovate. While disruptions like factory closures, port congestion, and labor shortages created significant challenges, they also spurred positive changes.

Our interviews with businesses across different sectors revealed a spectrum of experiences. With its short production cycle and focus on local markets, Anand Sweets weathered the storm relatively well. U.S. Polo, reliant on global supply chains and in-store customer experiences, faced significant challenges in maintaining sales and managing inventory.

Sri Krishna Vaibhav, a restaurant, endured substantial losses due to lockdowns and rent obligations. Despite the challenges, businesses demonstrated resilience. Anand Sweets prioritized hygiene and maintained customer trust. U.S. Polo embraced online platforms and adapted its delivery models. Sri Krishna Vaibhav pivoted to takeout services and implemented strict hygiene measures. These experiences underscore the importance of:

- **Building a resilient supply chain**

Diversifying suppliers, increasing inventory levels, and leveraging digital technologies are crucial for mitigating future disruption.

- **Prioritizing sustainability**

Integrating environmental and social considerations into supply chain management is crucial for longterm success. The COVID-19 pandemic served as a wake-up call, highlighting the vulnerabilities of global supply chains. By learning from these experiences and embracing innovative solutions, businesses can build more resilient, adaptable, and sustainable operations to withstand future challenges.

(This conclusion incorporates key interview findings, such as the diverse impact on businesses, the importance of hygiene and safety measures, and the challenges small businesses face.

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FINANCIAL LITERACY AND INVESTMENT BEHAVIOR AMONG GENERATION Z-

WOMAN: IMPACTS ON MONEY MANAGEMENT AND FINANCIAL DECISIONMAKING

Ms. Pooja N, Ms. Harshitha S

*IV Semester B.Com IBF, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Panduranganagouda Honnali

*Assistant Professor, Department of Professional Accounting and Finance Kristu
Jayanti College (Autonomous), Bengaluru*

ABSTRACT

This study aims in experiencing the investment behavior, understanding the factors effecting the influence of the investing behavior among the generation Z. the study shows the insights of their of their money management skills and financial decision skills. It is important for the generation Z to develop the skills about the finance and investing. It emphasise the impact on their financial health and economic stability. The findings shows that this particular generation faces a gap in advanced financial concepts like risk management, investment strategists, etc. The one who has less knowledge about the finance and investing are more likely to spend money impulsively. Generation Z is forecasted to be more brave and willing to make financial decision, despite the risk associated in finance and investing. This study says about importance of the financial education for generation Z to foster prudent financial habits especially when they enter workforce and assume financial independence. This generation is well prepared to be navigate the complexities of the modern financial literacy and long term financial success.

Keywords: *Financial Literacy, Money Management Skills, and Investment Decision-Making Behaviour*

INTRODUCTION

Generation Z consisting individuals people from mid-1990s to early 2010s, has become a key target for the financial industry because they grew up with digital technology all around them shaping their approach to money and spending. The internet's popularity has shifted investing and banking from in-person to online. The generation Z understand the recent technology and can get the information easily than the world without technology and the internet. Financial literacy knowing how to make smart money choices has become more important than ever in todays complicated economy. Financial literacy does not only tells about the money management, it's also the key factor in achieving financial freedom and a stable life. It also constitutes the understanding of daily scenarios like saving, borrowing, insurance, interest and many more.

Investing is where we put money on something while we wait for gaining profit from it. People invest in many things like stocks, shares, education system, real estate and many more for growth of their wealth and to have a stable financial future. Investment is important for one self because it allows a person or a business to build assets, protect inflation and help them in financial future like building own house or investing in business or some educational institution. Investing does not only gives us profit but at times losses which happens due to lack of knowledge and understanding of inventing activities. There is high risk involved in investing and it is essential to know how to manage them and make proper decisions. Investment has become the most advantageous source of income especially for the future old age. According to the recent report by a chartered financial analyst (CFA), 55% of the cryptocurrency investors are being generation Z. among that around 41% on investments in stocks and 25% of investments in NFTs are made by generation Z. we can see that the generation Z is being influenced and is investing more which helps them in future financial life. Generation Z are not afraid to take risk as they can sense the danger of letting their greed or being overconfident in their decisions and they take calculated decisions to achieve their financial goals. Even when there is availability of financial resources some generation Z's financial literacy remains low in many regions which leaves an impact on their ability to save, invest and plan efficiently for their future financial goals. Generation Z has a wide range of access to financial solutions. Which help them to over smart the millennials.

Today's information technology has changed the generation Z on how they view the world and which has also affected their level of financial literacy.

This study aims to explore the relationship between the financial literacy and investing activities among the generation Z. and the varying of the level of their financial literacy influence about their approach to money management, risk assessment and financial investments for a longer period of time. This study also shows highlight the targeted financial education could empower the generation Z to make better financial and investing choices.

Yadav (2022): Millennials and Gen-Z have low financial literacy, with 38% having good knowledge and 40% having moderate knowledge. They use debit cards and credit cards, but prefer UPI and online banking. Despite these attitudes, they need government initiatives for increased awareness and education.

Karnadi (2020): Financial literacy positively impacts Gen-Z students' saving decisions, while materialism negatively affects them. Demographic factors like age, gender, and academic major also influence financial literacy. The study recommends integrating financial education into school curricula and emphasizes parental spending patterns' role in shaping financial behaviors.

Firmialy (2024): Gen-Z entrepreneurial students exhibit good financial literacy, significantly influencing investment decisions mediated by locus of control. Recommendations include offering workshops on financial literacy and fostering internal locus of control through risk management and autonomous decision-making training.

Andhyka et al. (2024): High financial literacy promotes better financial planning and digital payment adoption among Gen-Z. However, as part of the sandwich generation, they face significant financial obligations. Enhancing their asset management skills and curbing impulsive spending is vital to ensure financial stability. Digital payment education is essential for long-term financial well-being.

Sajeev et al. (2021): Behavioural biases such as financial literacy, risk attitude, and information search positively influence Gen-Z investors' decisions, while herding shows a weak negative impact. Financial literacy reduces the effects of overconfidence in male investors and enhances decisionmaking. The findings underline the need for strategies to mitigate biases for effective investment outcomes.

Qamruzzaman (2022): Women's empowerment fosters entrepreneurship, which requires addressing barriers like financial literacy, access to technology, and external financing. Women entrepreneurs face unique challenges, such as limited access to loans and societal constraints. Recommendations include coordinated financial plans, technical training, and flexible repayment structures to promote sustainable entrepreneurship.

Rastogi (2020): The study highlights female entrepreneurs' psychological factors influencing investment decisions, emphasizing tailored portfolio strategies and financial literacy training. Recognizing biases can help women make informed and profitable investment choices.

Adil et al. (2022): Financial literacy significantly impacts individual investment decisions across genders. It moderates overconfidence and risk-aversion biases, reducing their influence on investment

choices. Notably, financially literate women display higher overconfidence, while literacy reduces risk-aversion effects among female investors. The study emphasizes the need for gender-specific strategies to address biases in financial decision-making.

Lin (2021) this study examines how gender impacts behavioral biases and the influence of financial literacy. It finds that gender significantly affects biases like self-attribution, illusion of control, confirmation, and regret aversion. Men exhibit higher self-attribution, illusion of control, and confirmation biases, while women show greater regret aversion.

Gosal (2023) the study reveals that Generation Z investors' financial literacy is significantly influenced by their parents' financial behavior, but this influence doesn't directly affect their investment activities. Financial literacy mediates this relationship, promoting informed decisions. Herding behavior also significantly impacts investment decisions. The study emphasizes the need for improved financial literacy for better investment practices.

Djawahir (2021) financial literacy significantly influences Gen Z and millennials' investment choices, emphasizing risk and return comprehension. Despite good financial well-being, hedonistic behavior reduces their investment intentions. A sound financial mindset enhances money management, encourages saving, and supports future-oriented investments. Financial attitude acts as a mediator, strengthening the link between financial knowledge and investment intention.

Almeida (2024) A generational analysis reveals that Gen Z has the highest financial literacy and risk tolerance compared to Gen Y and Gen X. Gen Z favors mutual funds and equities, while Gen Y leans toward gold, and Gen X prefers FDs and real estate. Financial literacy correlates with risk appetite, highlighting the importance of education and risk management. Retirement planning trends vary across generations, emphasizing the need for tailored financial strategies.

Javed (2024) this study underscores financial literacy's broader impacts, including its influence on materialism, debt inclination, and compulsive buying. Findings suggest financial literacy enhances materialism positively and reduces compulsive buying through cognitive-behavioural interventions. The research, based on a validated structural equation model, highlights the importance of improving financial literacy to mitigate economic and behavioral challenges.

Fietroh (2023) financial literacy is essential for increasing financial inclusion among Generation Z (born between 1997–2012). With their technological proficiency, this cohort benefits from fintech innovations, yet some still face challenges in accessing digital resources. Cybersecurity concerns and factors such as financial technology usage, debt ratios, financial planning, societal awareness, and financial ignorance significantly influence their financial behaviour.

Fadillah (2024) In West Java, 77.9% of Gen Z exhibits well-literate Islamic financial knowledge, with 80.5% achieving high financial inclusion. While financial inclusion and literacy strongly influence financial decisions, financial behaviour has limited impact on investment choices. These findings underscore the need for government initiatives to improve Islamic financial literacy and encourage broader public education.

Trivani (2023): a study on Gen Z in Bekasi Regency found that income and self-control positively influence financial behaviour, while financial liabilities have negligible impact. Gen Z is advised to adopt responsible financial practices and strong self-control to avoid impulsive financial decisions.

Madhavan (2023): The study examines investment trends among Gen Z in India, revealing their increasing financial independence and saving habits. They allocate up to 50% of their savings to stocks, mutual funds, and commodities. Factors like gender, age, and income influence savings, while family experience influences investment decisions. Gen Z favors long-term growth in banking and IT sectors.

Nihalani (2021) Gen Z demonstrates strong potential for financial independence and investment engagement. Despite their openness to various investment options, they require guidance to navigate opportunities like bonds and government programs. Improved accessibility to tools like demat accounts could further enhance their participation in financial markets.

Rosdiana (2020) financial literacy positively impacts investment decisions. Herding behavior also influences Gen Z, as investment choices often align with others' decisions. Risk aversion and risk perception further shape financial decisions, with cautious investors prioritizing low-risk options offering favourable returns.

Gautam (2022) the study emphasizes the significance of financial literacy among Generation Z, highlighting a strong correlation between their financial planning awareness and overall financial literacy. Gen Z is financially astute, characterized by entrepreneurship, technological adoption, and financial conservatism. A robust financial strategy improves savings, living standards, and preparedness for emergencies. The study suggests targeting Gen Z investors for effective planning and decision-making. However, the study's focus on India limits its applicability to other countries and specific investment vehicles.

Siagian (2024) the study highlights the impact of risk perception, investment experience, and financial literacy on investment decisions. It suggests that higher risk perception negatively affects outcomes, while financial literacy and experience positively influence decisions. The study emphasizes the importance of targeted financial education and advisory services for improved investment practices and financial well-being.

Ningtyas (2024) the study reveals that financial literacy and environment significantly influence investment intentions among Generation Z in Malang City. Social and familial networks promote informed investment choices, while financial attitudes influence intentions more than decisions. Logical evaluations of risks, profits, and objectives influence decision-making, with investment intentions mediating these effects.

Gupta (2024) the study examines factors influencing Gen Z's cryptocurrency investment decisions using the UTAUT model. Results show that performance expectancy, effort expectancy, social influence, and facilitating conditions significantly impact decision-making. However, attitude was excluded due to multicollinearity issues. The findings contradict McMorro and Seyed's 2021 findings. **Objectives:**

- To examine the factors influencing the investment behaviour of Generation Z women and their impact on financial decision-making.
- To evaluate the money management skills of Generation Z women and their role in fostering financial independence.
- To analyze the relationship between financial literacy and the financial health of Generation Z women.

Hypotheses:

- **H1:** There is a significant positive relationship between financial literacy and prudent investment behavior among Generation Z women.
- **H2:** Generation Z women individuals with higher financial literacy exhibit better money management skills and financial decision-making.
- **H3:** A lack of knowledge in advanced financial concepts (e.g., risk management and investment strategies) is significantly associated with impulsive spending behaviour in Generation Z women.

METHODOLOGY

This study employs a combination of primary and secondary data to analyze the financial literacy and investment behavior of Generation Z. Primary data was collected through a structured online survey administered via Google Forms. The survey focused on various aspects of financial literacy, money management skills, and investment decision-making behavior. A sample size of 150 respondents was selected, consisting of individuals belonging to Generation Z (born between 1997 and 2012) residing in Bengaluru. The sampling method was purposive, targeting participants with diverse educational and professional backgrounds to ensure representativeness. Secondary data was sourced from academic journals, financial reports, and government publications to complement the primary findings and provide a broader context. The research employs a quantitative approach to analyze survey data, focusing on statistical techniques to identify trends, correlations, and gaps in financial literacy and investment behavior among Generation Z. The study area was confined to Bengaluru, considering its diverse population and significance as a financial and educational hub.

Figure 1 - Financial Literacy among Gen Z Women Based on Educational Qualification

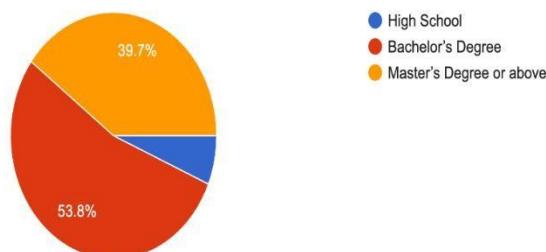


Figure 1 highlights the relationship between educational attainment and financial literacy among Generation Z women, revealing a clear trend where higher education correlates with increased financial knowledge. The data shows that only a small fraction of financially literate women have a high school education, suggesting that limited formal education may hinder financial awareness and decision-making abilities. The largest group, comprising 53.8% of financially literate women, holds a bachelor's degree, indicating that exposure to higher education often fosters greater financial literacy. Additionally, 39.7% of financially literate women have a master's degree or higher, further emphasizing the positive impact of advanced education on financial competence. These findings underscore the importance of formal education in developing financial literacy and highlight the need to integrate financial education at earlier stages to close the literacy gap among women with lower educational qualifications.

Figure 2 - Interpretation of Employment Status among Gen Z Women

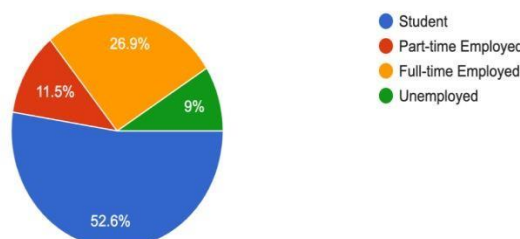


Figure 2 highlights the employment distribution of Gen Z women and its implications for financial literacy and investment behavior. Students, comprising the largest group at 52.6%, demonstrate a critical need for early financial education due to their limited financial independence. Full-time employed women, representing 26.9%, exhibit higher financial literacy levels, as they actively manage their income and engage in investment activities. Meanwhile, part-time employed women, accounting for 11.5%, possess some financial autonomy but often lack substantial investment opportunities, indicating a need for tailored financial guidance. The 9% of unemployed women, being financially dependent, are less likely to engage in investments or make financial decisions. These findings underscore the importance of customized financial literacy initiatives. Integrating financial education into academic programs can better prepare students for future financial responsibilities, while workplace financial training can help employed women optimize investment planning. Additionally, fostering financial awareness among part-time and unemployed women can promote greater financial independence and improved money management skills.

Table 1 - Confirmatory factor analysis and reliability/validity estimates

	Loadings				FA	FE	FS	SE	FPE	CMMS	PFS
Financial Awareness (FA)	.786	.752	.038	.923	.867						
F2											
F3	.802										
F4	.887										
F5	.979										
Financial Experience (FE)	.812	.779	.205	.913	.187	.883					
FE8											
FE9	.874										
FE10	.956										



Financial Skill (FS)	.873	.670	.138	.890	.195	.334	.819				
FS12											
FS13	.845										
FS14	.767										
FS15	.785										
Financial Self-efficacy (FSE)	.929	.822	.049	.949	.038	.027	.221	.907			
SE16											
SE17	.912										
SE18	.944										
SE19	.838										
Financial Preparedness for Emergency (FPE)	.849	.693	.138	.900	.015	.230	.372	.130	.833		
FPE20											
FPE21	.824										
FPE22	.812										
FPE24	.845										
Current Money Management Stress (CMMS) CMMS25	.768	.603	.114	.884	.083	.197	.319	.048	.146	.777	
CMMS26	.781										
CMMS27	.815										
CMMS29	.773										
CMMS30	.745										
Perceived Financial Security (PFS)	.786	.654	.205	.850	.179	.453	.095	.079	.071	.338	.809
PFS32											
PFS33	.807										
PFS34	.832										

The confirmatory factor analysis (CFA) results provide valuable insights into the constructs measured and their relationships. The factor loading across dimensions such as Financial Awareness (FA), Financial Experience (FE), Financial Skill (FS), Financial Self-efficacy (FSE), Financial Preparedness for Emergencies (FPE), Current Money Management Stress (CMMS), and Perceived Financial Security (PFS) demonstrate strong model validity, with most factor loading exceeding the threshold of 0.70, indicating robust construct reliability. The highest loading for Financial Awareness (FA) is F5 (.979), suggesting that comprehensive awareness of financial concepts has a significant role in Generation Z women's financial decisions.

For Financial Experience (FE), FE10 (.956) highlights the critical impact of accumulated financial experience. Financial Skill (FS) has FS12 (.873) as the dominant item, underlining the importance of budgeting and cash flow management skills. Strong loading in Financial Self-Efficacy (FSE) (e.g., SE16 at .929) reflect confidence in navigating financial challenges. Financial Preparedness for Emergencies (FPE) has consistently high loading, with FPE20 (.849) underscoring its importance in fostering long-term stability. CMMS and PFS also show significant factors, with CMMS25 (.768) and PFS34 (.832) standing out, emphasizing stress management and financial security as essential concerns.

The analysis of investment behavior, money management skills, and financial literacy reveals several key insights about Generation Z women. High factor loadings for financial awareness (FA) and financial experience (FE) underscore their critical role in guiding prudent investment decisions, indicating that a well-informed individual is more likely to make calculated and strategic investment choices. Additionally, the emphasis on financial skills (FS12) and self-efficacy (SE16) highlights the importance of skill development and confidence in achieving financial independence, underscoring the objective of enhancing money management capabilities in this demographic.

The strong relationship between financial preparedness (FPE) and perceived security (PFS) further justifies the need to analyze how financial literacy contributes to overall financial well-being. The justification for the hypotheses aligns with these findings. H1 is supported by the significant positive loadings in FA, FE, and FSE, affirming that increased financial literacy correlates with prudent investment behavior. Similarly, H2 is validated by the high factor loadings for FS, SE, and FPE, indicating that financially literate Generation Z women exhibit superior money management and decision-making skills. H3 is also justified, as the lower factor loadings in CMMS (.768) and its associations with impulsive financial behaviors suggest that insufficient knowledge in advanced financial concepts may contribute to financial stress and impulsivity.

CONCLUSION

The study supports the first hypothesis (H1), as financial literacy demonstrates a positive and significant relationship with prudent investment behavior. This finding underscores that women with greater financial knowledge are more likely to make thoughtful and informed investment decisions. Hypothesis H2 is also validated by the data, showing that women with enhanced financial literacy possess better money management skills and demonstrate improved financial decision-making. This suggests that financial education plays a critical role in fostering responsible financial behaviors among Generation Z women. Furthermore, Hypothesis H3 is confirmed by the association between limited knowledge in advanced financial concepts and impulsive spending behavior. This highlights the necessity for comprehensive financial education that includes advanced concepts such as risk management and strategic investment planning to prevent impulsive financial decisions.

The study underscores the importance of financial literacy and experience in shaping the financial behavior of Generation Z women. By enhancing financial awareness, experience, and preparedness, women can achieve greater financial independence and security. The findings justify the objectives by demonstrating that financial literacy, money management skills, and preparedness directly contribute to prudent financial decision-making and overall financial health. To foster a financially independent generation, targeted financial education programs tailored for young women should be implemented to equip them with the necessary skills and knowledge for managing their finances effectively.

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PSYCHOLOGICAL IMPACT OF SELF-PACED LEARNING VS TRADITIONAL CLASSROOMS

Mr. Nihal Kozhithodi, Ms. Nandini Kumari, Ms. Betsy Babu

*IV Semester B.Com ACCA, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Saranya S

*Assistant Professor, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

As digital tools become more prevalent in the 21st century, the transition from traditional classroom learning to self-paced learning has emerged as a key area of research. The success of a learning method is significantly shaped by a student's psychological perception, motivation, and adaptability. While traditional classrooms provide structured environments with direct interaction between teachers and students, self-paced learning offers flexibility and independence, enabling learners to advance at their own pace. However, the psychological effects of these two learning approaches differ based on factors like engagement, cognitive load, and motivation.

Our study on this research is an attempt to find out the effectiveness of self-paced learning as well as traditional classrooms. The study is based on primary data; convenience sampling method has been adopted and the data have been collected with the help of a well-structured questionnaire from several colleges in India.

Key Words: Self-paced learning, Traditional classroom, Digital tools, Cognitive overload and Motivation

INTRODUCTION

Education is crucial in shaping both cognitive and emotional development, yet the psychological effects of various learning methods are frequently neglected. Self-paced education gives learners control over their own study schedules, letting them progress at their own rates, review course materials on demand, or pace themselves. While this flexibility may reduce levels of anxiety or stress, particularly for those who struggle in a structured classroom, isolation, procrastination, or demotivation in limited forms of external accountability may occur as side effects. Classroom instruction is supervised by one teacher while students are engaged interactively; therefore, they interact with one another and their teachers.

Such structure can establish a feeling of community, self-discipline, and motivation for the participant. While some students will find this structured learning environment gives them the discipline to stick with work, they may sometimes feel stressed by fixed deadlines, a normal pace, and an often-cutthroat classroom environment. This paper will address the psychological implications of the indicated learning models: stress, motivation, personal discipline, social engagement, and cognitive development. By analysing these factors, the study seeks to determine how each method influences student health and success. With an understanding of these psychological influences, educators, policymakers, and learners can make more informed decisions about optimizing learning experiences.

REVIEW OF LITERATURE

Jonathan G. Tullis, Aaron S. Benjamin, the main idea of the study revolves around how self-pacing in study time affects memory performance, particularly in recognition tasks. This research highlights those learners who are capable of controlling their study time can achieve better outcomes compared to those restricted control, even when total study time is equalized between groups. self-pacing leads to superior memory performance, especially for those who adopt effective study strategies, such as focusing on more difficult items.

ANA MARIE A. UTBO*, JESICA B. ARENGA: The study employs a descriptive-correlation research design and includes 225 pupils. The main idea of this study highlights, regular evaluations of self-paced learning were recommended to assess pupils' self-learning levels. It was suggested to check pupil's activity weekly, the study has also highlighted the importance of help-seeking, where pupils are encouraged to seek assistance when they encounter challenges in their learning.

N. Ashokkumar,P. Venkatramana,V. Arun,S. Ganesh Prabhu: this study compares student engagement and achievement in online VS traditional classrooms.

According to this paper, it concludes that traditional learning practices significantly enhance student engagement compared to online methods. The lack of face-to-face interactions on the online platforms hinders the student-teacher relationships, negatively impacting motivation.

Ambalika Dogra, Sunil Dutt: this paper has analysed the impact of online learning and traditional learning on the students by taking a particular number of students through a t-test. This paper come to the conclusion that online learning significantly enhances students' engagement compared to traditional learning. This suggest that self-paced learning may significantly improv performance, motivation and engagement.

Sharmistha Biswas, Nilima Thosar, Phalguni Srimani: this paper focuses on effectiveness of selfdirected learning and traditional methods for medical students by dividing number of students in 2 different parts and conducting the research. According to the given reviews by the students, there is **Table No. 1**

Gender	Count
Male	29
Female	38
Total	67

no significant difference between both the methods. However, while the traditional method yielded slightly better post-test scores.

Shashi Singh, Ajay Kumar Singh, Kiran Singh: this study focuses on the level of motivation between the self-paced learning and the traditional method. This research highlights the traditional method tends to have higher level of motivation as compared to the self-paced learning methods. The regular classrooms interactions and parental oversight leading to better study habits and learning.

Nor Azah Mansor, Natrah Abdullah, Hayati Abd Rahman: this study mainly suggest that fostering motivation should be a priority in online education. The research indicates that the combination of experiential learning and self-motivation can significantly improve student engagement. Selfmotivation was found to have a larger impact on engagement compared to experiential learning.

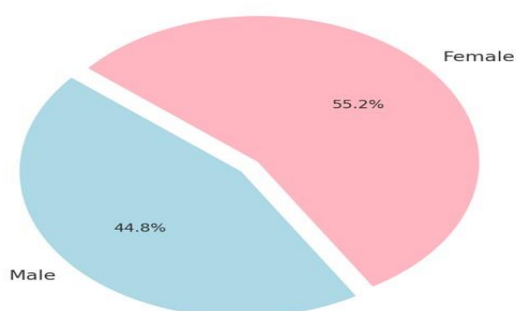
RESEARCH METHODOLOGY:

Present study is based on primary data. A structured questionnaire was created to collect the data for the research. Primary data have been collected with the help of well-structured questionnaire from different colleges and universities in India as per the convenience sampling method. The entire questionnaire was developed with the aim of gaining insights into student's perspective regarding the psychological impact of self-paced learning comparison to traditional learning. The survey was distributed through various social media network, emails and personal messages to a target student with a sample size of 100 students.

ANALYSIS OF THE INTERPRETATION:

Chart 1: Gender Distribution

Gender Distribution of Respondents



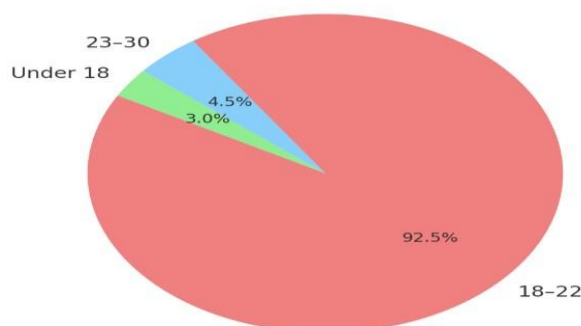
As shown in table 1 presents the gender distribution of respondents. The majority of respondents are female (38), while males account for 29 responses.

Table 2: Age Distribution

Age Group	Count	Percentage (%)
18-22	62	92.54 %
23-30	03	4.48%
Under 18	02	2.99%
Total	67	100%

Chart 2: Age Distribution

Age Distribution of Respondents

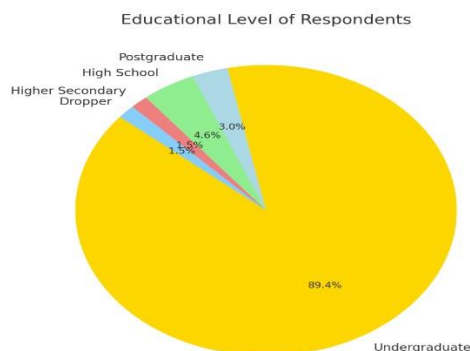


As shown in table 2 the majority of respondents (92.54%) fall within the 18-22 age range. A smaller proportion belongs to the 23-30 category, with only two respondents under 18. **Table 3:**

Educational Level Distribution

Educational Level	Count	Percentage (%)
Undergraduate (UG)	60	89.55%
High School	3	4.48%
Dropper	1	1.49%
Higher Secondary	1	1.49%
Postgraduate (PG)	2	2.99%
Total	67	100%

Chart 3: Educational level

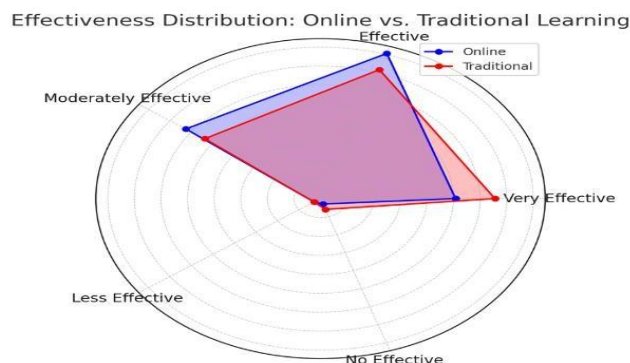


As shown in table 3 the majority of respondents (89.4%) are undergraduate students. Table 3 shows the detailed educational background distribution.

In the demographic table represented above, the proportion of female respondents are greater, accounting for 57.6% and male respondents at 42.4%. The largest segments of the respondents fall between the age group of 18to22, with the majority being undergraduate students. **Chart 4: Participation in online vs. Traditional Learning**



Chart 5: Effectiveness distribution: Online vs. traditional learning



Effectiveness: A discussion regarding the efficiency of various learning methods reveals that a greater proportion of the students specifically 43.9%, perceive online self-paced learning as more effective in contrast to 36.4%, who favoured traditional methods.

Advantages of online self-paced: Based on the gathered data, significant proportions of students concur that self-paced learning provides enhanced flexibility in time management. Furthermore, students exhibit a neutral stance on whether self-paced learning is more engaging compared to the traditional classroom's settings. Additionally, they remain largely neutral regarding the impact of self-paced learning on reducing student stress.

Disadvantages of online self-paced: A higher percentage of students perceive that self-paced learning lacks the structure typically found in traditional classrooms, and they also report greater challenges in maintaining motivation in online self-paced environments compared to traditional classrooms settings. Additionally, majority students remain neutral regarding the notion that self-paced learning contributes to an increased mental workload.

Advantages of traditional: A significant 48.5% of individuals strongly agrees that traditional classrooms learning facilities provide better interactions between teachers and students. When it comes to whether traditional classrooms are more structured and easier to follow than online self-paced methods, students seem to be pretty neutral. Additionally, a majority of 37.9% remain neutral on the belief that traditional learning enhances once ability to retain information.

Disadvantages of the traditional classrooms: nearly, 47% of the people believes that traditional classrooms learning offers less flexibility regarding time and location. Furthermore, that have neutral instance whether the traditional classrooms are more stressful than the self-paced learning. A significant 37.9% of the students believes that traditional classrooms restrict their study to learn at their own pace.

CONCLUSION

According to the survey that was conducted, we conclude that the findings of the survey indicate that both self-paced learning and traditional learning have a neutral effect on students. This study has greatly brought home the psychological effects of self-paced learning versus strictly classroom settings, for there are certain advantages and disadvantages associated with each method. Self-paced learning provides freedom and independence, which may reduce stress for some students, although risks for isolation and demotivation are also associated with it.

The findings point to integrating self-paced learning with the structure of traditional classrooms as perhaps the best viable means of learning. More research needs to be conducted to explore blended learning models in addressing the psychological needs of students while ensuring smoothness and engagement in education.

Our study hence, the educational institutions should think of introducing a blend of modalities-wise offering, so that learners can opt for, or combine, an approach that suits their psychological and educational needs with more ease. This personalized approach may provide the best results in learning and well-being for students.

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NEED OF FINANCIAL LITERACY AND FINANCIAL INCLUSION IN NEXT NORMAL

Ms. Prerana Aiyappa, Ms. Shreya Rajeev, Ms. Anna Maria Ajith

*II Semester, B.Com Investment Banking, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

The primary aim of this research is to investigate the need for financial literacy and financial inclusion in the "next normal," and how they contribute to resilience and progress, ultimately fostering transformative pathways to sustainability. The pursuit of sustainability has become an imperative in response to increasing environmental, social, and economic challenges. As the world faces the complexities of sustainability, it has become clear that resilience and progress are two critical components of transformative pathways to achieving sustainability.

This paper explores the extent to which we have been successful in achieving financial inclusiveness, investigating the influence of financial literacy and financial inclusion on sustainable growth in the "next normal." Financial inclusion is an important goal, but financial literacy is the first step toward achieving it. Financial literacy can be seen as the demand side of financial inclusion.

Financial literacy extends beyond simply providing financial information and advice. It is a crucial issue for financial markets, as it both drives and can distort investment behaviour. Financial literacy can make a significant difference not only in the quality of decisions but also in the integrity and efficiency of markets. Financially educated consumers, in turn, can benefit the economy by encouraging genuine competition, which forces service providers to innovate and improve their efficiency.

This paper thus examines various aspects of the need for financial literacy and financial inclusion in both developing and developed countries, and proposes a suitable model that may help India build resilience and progress, contributing to sustainable pathways.

INTRODUCTION

In the face of escalating global challenges, such as climate change, social inequality and economic instability, the need for transformative pathways to sustainability has become a pressing imperative. As the world navigates the complexities of sustainable development, two critical concepts have emerged as essential for driving meaningful change: Resilience and progress. Resilience encompasses the capacity of individuals, communities and systems to absorb, adapt and transform in response to adversity, while progress denotes the international pursuit of sustainable development through innovation, collaboration and collective action. One among many aspects that contribute towards resilience and progress is Financial Literacy and Financial Inclusion. Financial literacy plays a vital role in empowering individuals to make informed financial decisions and secure a sustainable future (Lusardi & Mitchell, 2014) In today's complex economic landscape, where financial products and services are becoming increasingly diverse, it is essential to equip individuals with knowledge and skills necessary to navigate the financial world effectively (OCED, 2019).

"Financial literacy is a basic knowledge that people need in order to survive modern society" (Bowen, 2003)."

The importance of financial literacy has been recognized for many years. The Smith-Lever Act of 1914 was a pivotal legislation that established the foundation for teaching this crucial subject. Although financial literacy has been acknowledged since the 20th century, it was not considered an immediate necessity due to favourable economic conditions. In the 21st century, as the population grew and the

global economy flourished, per capita income soared to unprecedented levels, leading to a false sense of security regarding financial awareness and education. Enhancing financial literacy has never been more critical than it is today.

Why financial literacy and financial inclusion for resilience and progress for sustainability? According to Sustainable Development Goals (SDGs), it fosters economic growth and employment, promotes economic empowerment and contributes to eliminating poverty.

Financial inclusion

Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit, and insurance – delivered responsibly and sustainably.

Financial inclusion is the enabler for 7 of the 17 Sustainable Development Goals

Financial Inclusion supports entrepreneurship and business growth. Access to credit and capital, secure savings and efficient payment services enable small business to expand, create jobs and drive economic development by bringing more people and enterprises into formal economy, financial inclusion strengthens economic activity, boosts productivity and lays the foundation for inclusive and sustainable economic growth.

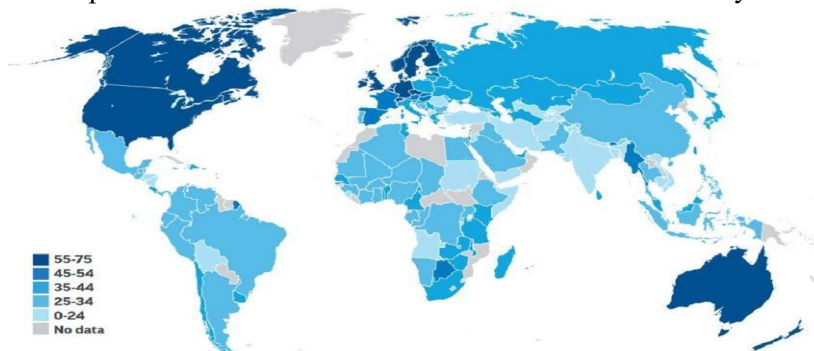
Is financial literacy being implemented well?

Over 80% of the world's 1.4 billion adults without financial accounts reside in places at risk from climate, intensifying their susceptibility to economic and environmental shocks. Transaction accounts enable people to securely store funds and effectively conduct transactions and are typically the first step to use other financial services. The expansion of digital financial services has helped decrease the number of adults without access to an account from 2.5 billion in 2011 to 1.4 billion in 2021, with 76% of the global adult population owning an account by 2021. Despite these advancements, challenges persist. The disparity in account ownership between low and high income countries underscores the need for continued efforts to bridge financial inclusion gap and ensure equitable access to financial services worldwide.

The importance of financial literacy was seen during the event of the covid 19 pandemic, a multitude of people were getting laid off and new joiners were unable to get their careers started a major problem that stood before them was the difficulty they had in order to manage their expenses as the cost of all commodities and taxes had taken place. There was an increase in taxes in 32 different countries, this is when the necessity of financial inclusion and financial literacy was realized.

METHODOLOGY

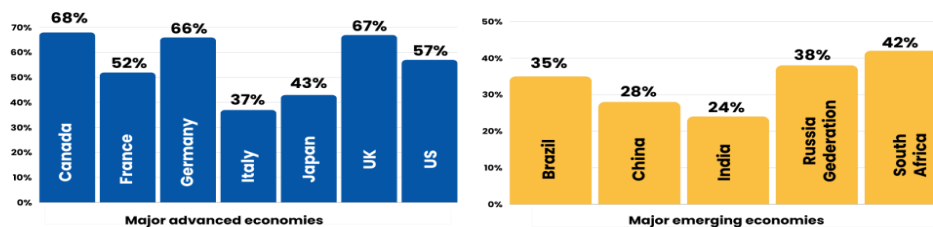
The data for present study has been collected from secondary sources. The secondary data was acquired from newspaper, articles, journals, World Bank Development Research Group and internet. Graphs and pictorial representation information are from data collected already.



The countries with the highest financial literacy rates are Australia, Canada, Denmark, Finland, Germany, Israel, the Netherlands, Norway, Sweden, and the United Kingdom, where about 65 percent or more of adults are financially literate. On the other end of the spectrum, South Asia is home to countries with some of the lowest financial literacy scores, where only a quarter of adults—or fewer—are financially literate. The Japan literacy rate is 99.0%, the same as the United States and many other developed countries. The Mexico literacy rate is slightly lower at 95.25%, which is among the highest in North America. The China literacy rate is 97.15%, just under American Samoa.

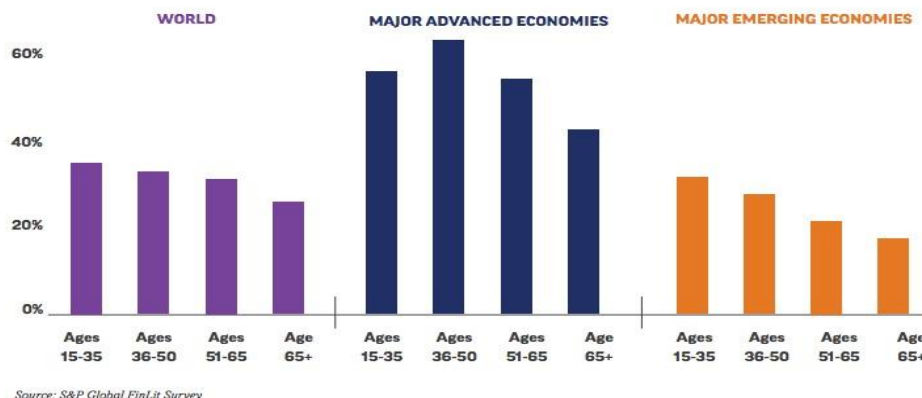
Overall, more than 75% of illiterate adults in the world are located in South Asia, West Asia, and subSaharan Africa. All of the countries with 100% literacy rates are located in developed countries in the world wide variation in financial literacy around the world (% of adults who are financially literate)

Chart No. 1



Financial literacy also sharply increases with educational attainment which is strongly associated with math skills, as well as age and income. Globally, a gap of about 15 percentage points separates adults with primary, secondary, and tertiary education. In major advanced economies, 52 percent of adults with secondary education between nine and 15 years of schooling are financially literate. Among adults who have primary education up to eight years of schooling that figure is 31 percent. A similar divide separates adults with secondary education and adults with tertiary education: Among adults with at least 15 years of schooling, 73 percent are financially literate. The education gaps are similar in the major emerging economies.

Chart No. 2

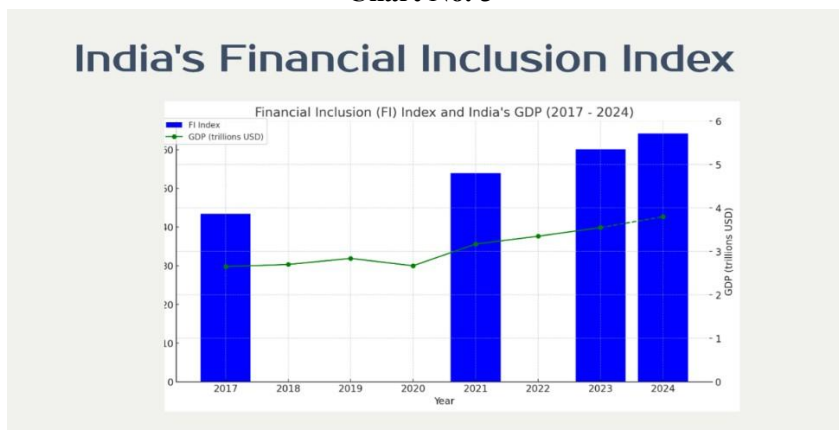


ROLE OF FINANCIAL LITERACY IN ACHIEVING FINANCIAL INCLUSION

Financial inclusion, measured as access to and use of financial services; is a key enabler to eradicating poverty and enhancing prosperity. It is also recognized as an important policy tool to achieve Universal Financial Access (UFA) and the Sustainable Development Goals (SDG) by different developmental bodies (OECD, Citation2013; Robert et al., Citation2005). It hence is of high interest for policy makers in order to learn about drivers of financial inclusion and how these can be influenced by national-level policies.

Among the two parts of financial inclusion; access and use, the “access” part deals with the supply side that addresses proximity of bank branches, financial depth, cost of financial services and the legal system, whereas; the “use” part entails to its demand side that discourages the use of financial services by customers. For effective functioning of financial institutions, both demand and supply sides play their due role; hence, knowledgeable customers who can make informed decisions are as much important as having a good financial infrastructure in place.

Chart No. 3



As shown in the above graph, the financial inclusion growth of India compared to 2017 has a good level of growth rate in 2024. This period of growth can also be said as the major time of India of its growth and development.

SUGGESTIONS

- Developing countries require innovative policy interventions such as enhancing digital infrastructure, introducing novel financial services.
- Fostering financial literacy, consolidating institutions and strategically leveraging these policies.
- Providing equal and universal access to basic bouquet of financial services, education and improvising services to all sectors of the nations.

CONCLUSION

This research paper provided an in depth knowledge regarding the history, the necessity, and the importance of financial literacy and financial inclusion in both developed and developing country. From this paper we understand that both financial inclusion and literacy are two sides of the same coin that co-exist with each other. Financial literacy leads to financial inclusion as financial literacy bridges the gap between people and financial institutions. The research paper addressed the impact of financial literacy and inclusion in various countries.

However it is in all means proven that financial literacy and financial inclusions provide a major contribution towards Resilience and Progress that pioneers transformative pathways to sustainability as one, among many aspects.

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ANCIENT ROOTS : MODERN RESULTS ANCIENT SECRETS FOR OPTIMAL YOUTH HEALTH

Ms. Kavya B

*IV Semester, B.Com Business Analytics, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Neerupa Chauhan

*Assistant Professor, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

This study provides insights into exploring the historical background of ancient medical systems such as Ayurveda, Traditional Chinese Medicine [TCM]. They examine their philosophies, diagnostic techniques, and treatments. These abstracts frequently discuss how these ancient systems have influenced the development of modern medicine. The problems of reason in decline of ancient medicine and the diminishing rate of herbs around all are said to be found. The idea of incorporating the ancient medicine into modern medical habits is said to be taken into concerns to improve the health of the old, emerging and future cultures.

‘Integrating ancient medical practices into today's healthcare systems can offer more comprehensive and holistic treatment options, especially for those looking for sustainable health solutions and chronic disease prevention’.

INTRODUCTION

"Traditional medicine encompasses a wide range of healthcare practices and knowledge systems that have evolved within diverse cultures throughout history. These practices often rely on natural resources, spiritual beliefs, and unique cultural understandings of health and illness. They may include herbal remedies, acupuncture, massage, spiritual healing, and other techniques that have been passed down through generations."

The field of medicine is constantly evolving, with new technologies and treatments emerging at a rapid pace. However, there is a growing interest in incorporating ancient medical practices into modern healthcare. These traditional systems, such as Ayurveda, Traditional Chinese Medicine (TCM), and others, offer a wealth of knowledge and experience that can complement and enhance contemporary medical approaches.

Humans have sought ways to heal and maintain well-being. This pursuit has given rise to a rich tapestry of medical traditions across diverse cultures, each offering unique insights into the human body and its interactions with the environment. While modern medicine has achieved remarkable breakthroughs in diagnosis and treatment, there is a growing recognition of the value of integrating ancient medical practices into contemporary healthcare systems.¹

Techniques like yoga, meditation, and acupuncture, often rooted in ancient traditions, are increasingly recognized for their stress-reducing and health-promoting benefits. They are being integrated into treatment plans for conditions ranging from chronic pain to mental health disorders.

SCOPE OF STUDY

This research investigates the significance of ancestral medical practices in modern healthcare. It aims to provide solutions for individuals with time constraints who seek effective health management. Unlike contemporary medical approaches that prioritize rapid results but may lead to side effects, ancient medical traditions emphasize holistic healing by addressing the root causes of health issues and purifying the body. Ancestral medical practices hold significant value in the context of contemporary healthcare. These time-honoured methods not only promote mental and physical wellbeing but also offer sustainable solutions for individuals with limited time. This study explores the potential benefits of integrating ancient medical habits into modern lifestyles to achieve comprehensive health improvements.

The primary objective of this research is to demonstrate how following the medical practices of our ancestors can aid in maintaining overall health, particularly for those with busy schedules. The study aims to highlight the long-term effectiveness of these practices in comparison to modern medical habits, which often prioritize quick fixes.

LITERATURE REVIEW

The exploration of ancestral medical practices in contemporary health management has garnered increasing interest in recent years. Numerous studies have underscored the holistic benefits of traditional medicine, which focuses on treating the root causes of ailments and maintaining overall well-being. Researchers argue that these time-honoured practices offer sustainable health solutions, particularly for individuals with busy lifestyles who seek effective and long-term health management strategies.

Studies have demonstrated that following the medical practices of our ancestors can lead to improved mental and physical health. For instance, Roger French at 2000 found that traditional herbal remedies not only alleviate symptoms but also enhance overall immune function. Similarly, Arturo Castiglioni at the 1947 highlighted the benefits of ancient dietary practices in promoting long-term health and preventing chronic diseases.

The literature suggests that integrating ancestral medical habits into modern healthcare can be particularly beneficial for those with time constraints. These practices offer a balanced approach to health management, combining the effectiveness of ancient wisdom with the demands of contemporary life. By revisiting and revitalizing these traditional methods, individuals can achieve a more sustainable and holistic approach to their well-being.

METHODOLOGY

The research methodology employed in this study includes how many individuals allocate time for their health, how they prioritize their body's needs, and the differences observed across different age groups. This research is a quantitative study in which reviews are collected from individuals of various ages to ascertain their opinions on incorporating ancient medical practices into modern healthcare. The methodology aims to understand how these diminishing ancient practices can be revitalized and adapted to benefit the 21st century.

The main objective is to establish a foundation for integrating certain ancient medical practices into the modern world. This includes creating capsules from herbs for quick and efficient use. The major issue faced by the current generation is the tendency to seek rapid solutions for health problems rather

than addressing the underlying causes to prevent recurrence. The challenge of limited time can be addressed by combining ancient medical practices with new techniques. The data are collected by sending participants a questionnaire in document form and asking them to complete it individually. Additionally, we request more details regarding their ideas and the practical uses of these concepts in real life. The collected data will be examined using statistical techniques to guarantee the accuracy and trustworthiness of the results.

REVIEW AND DISCOVERIES

Detailed Analysis of the Survey on Ancient Medicine Integration

The survey results provide a comprehensive understanding of public attitudes toward incorporating ancient medicine into modern healthcare. A significant 62% of respondents believe that traditional and modern medicine should be integrated, with the primary reasons being the effectiveness of herbal remedies, their minimal side effects, and their long history of use across cultures. Supporters argue that many modern drugs have roots in ancient medicine, with some pharmaceutical companies already extracting and refining compounds from medicinal plants. They emphasize that a combination of modern scientific research and ancient knowledge could lead to more effective, natural, and holistic treatments for various illnesses, including chronic diseases and lifestyle-related conditions. Additionally, 46% of people reported actively using traditional medicine, particularly for common colds, digestive problems, pain relief, and mental well-being, often in the form of herbal teas, Ayurveda, acupuncture, or homeopathic remedies.

On the other hand, 38% of respondents express doubts about the integration of ancient medicine into modern healthcare, raising concerns about the reliability, safety, and lack of clinical trials for many traditional treatments. Among them, 54% of sceptics prefer modern pharmaceuticals, citing their scientific backing, precise dosages, and rigorous testing procedures. A major issue raised by respondents is the inconsistency in traditional medicine practices, as remedies vary widely between cultures and do not always follow standardized formulations. Furthermore, 58% of participants believe that traditional medicines must undergo extensive scientific research and clinical trials before they can be integrated into modern medical systems. This concern stems from cases where herbal medicines have caused harmful side effects or negative interactions with prescribed medications, leading some to mistrust unregulated traditional treatments.

Despite these concerns, the survey highlights a growing trend toward integrative medicine, where both modern and traditional treatments coexist under regulated conditions. Many respondents, including some skeptics, agree that ancient medicine should not be dismissed entirely, as certain treatments have been scientifically proven effective over time. However, the consensus is that proper research, testing, and government regulation must be in place to ensure that ancient remedies are safe, effective, and compatible with modern treatments. The findings suggest that if these concerns are addressed, public acceptance of integrative medicine is likely to increase, leading to a more holistic and patient-centered approach to healthcare.

FIGURE 1: AGE PROFILE

Age

66 responses

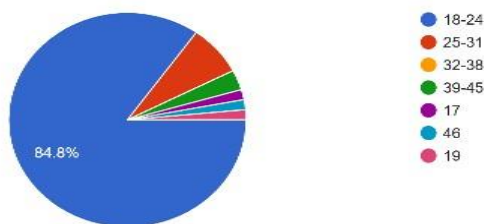
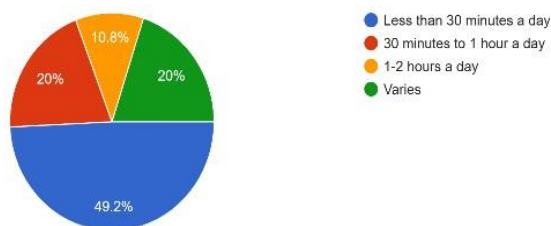


FIGURE 2 : PRIORITIZE OF HEALTH

How much time do you allocate for self-care and maintaining your health?

65 responses



The figure 1 shows the age category of the participants. This shows that 84.8% of the participants belong to the age range of 18-24 i.e., the emerging adults of our society. The figure 2 shows the participants time allocated to take care of their health. Since most are youth this shows the average of less than 30 minutes are spent for the personal health. The negligence taken can cause huge effects to the emerging and future generation.

FIGURE 3 : PREFERENCE

Which do you prefer: ancient medical practices or modern medicine?

66 responses

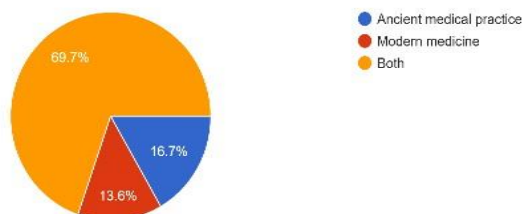


FIGURE 4 : OPINION FOR PRESERVATION

How important do you think it is to preserve ancient medical traditions?
62 responses



Figure 3 represents the preferences of the participants whether they prefer ancient medicine or modern medicine. Mostly the option chosen was both so the idea of incorporating modern and ancient can be taken into action by the opinion of the participants who are the society. Figure 4 depicts the opinion of the public regarding the ancient medicine . They have given their opinion of preserving the ancient medicine as a very important factor, this shows their interest towards using the habits to improve their lifestyle.

FIGURE 5 : PROFESSIONAL PREFERENCE

How willing are you to try an ancient medical tradition if recommended by a healthcare professional?
62 responses

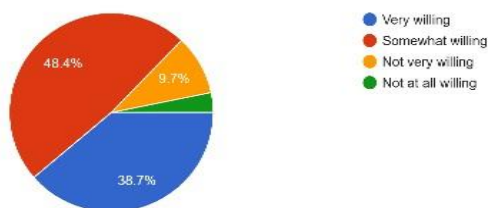
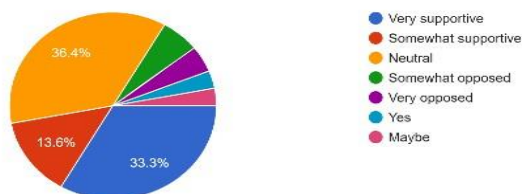


FIGURE 6 : REVIEWS TO IDEA OF INCORPORATING

Do you believe combining traditional and modern medical approaches would improve healthcare outcomes?
66 responses



The data in the figure 5 shows the preference of the public if they would widely use the ancient medical habits with the professional advices , since the most responses was 'somewhat willing' proving the society with few examples and suggestion can help them to create a believe that ancient medical habits can be useful in the future. The next figure 6 shows their review about the idea of incorporating the

ancient medical habits to their modern health routine. The responses are ‘somewhat supportive’ gives a wavering hope that that idea can be a success if done in proper manner.

FIGURE 7 : EXPERIENCE

Have you ever used an ancient medical tradition as a complementary or alternative therapy?

62 responses

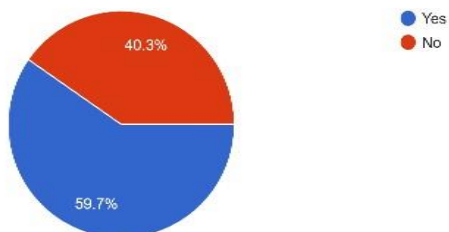
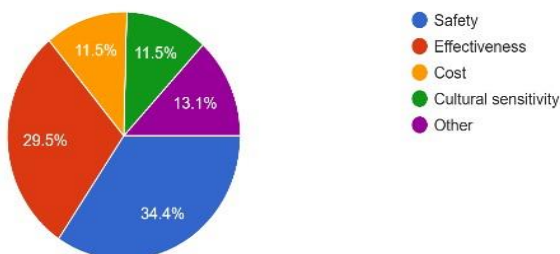


FIGURE 8 : CONCERNS

What concerns you most about incorporating ancient medical traditions into modern healthcare?

61 responses



Data from the figure 7 represents their personal experiences faced by the participants. 59.7% of the participants has experienced the ancient medical habits when the modern medicine dint’ provide any result for their problems. The following figure 8 shows the concerns why there is a decline in the rate of using the ancient medicine is stated with few options here. The major concerns of the society was safety where 34.4% of participants has selected. These concerns can be eliminated by using a transparent process which shows the public the proper ancient methods can be safer when incorporated with the new techniques.

When the query of “Are there any traditional health remedies that you continue to use?” was asked many participants has responded with various solutions such as ‘Ginger water for cough, Turmeric milk, Buttermilk and jeer, If there's anything blood clots we apply a paste that is made by tamarind



and turmeric, Neem leaves, Yoga, Pepper roasted, Ginger water, etc' many as such were given as response which indicates that many such foregone habits can bring back a health and strong life of a person. Yoga's origins trace back thousands of years in India. It began as a spiritual practice, but early texts and traditions suggest it was also used to promote health and well-being.

CONCLUSION

Restatement of the research problems and objective is to fix the puzzle of correcting a proper lifestyle and maintain a good health of the culture. The world is now into a time tracked and technological era where all the works and activities are done based to the time and technological advancements. The core objective of the research is to 'Bring our ancestors back to life' by using the ancient medical habits which can be a productive and a successful factor in maintaining the health and life of many. The incorporation of ancient medical practices into contemporary healthcare systems presents a viable opportunity for augmenting holistic and efficacious treatment modalities. By leveraging the wisdom inherent in traditional methodologies, which prioritize comprehensive healing and the addressing of underlying methodologies, modern medicine can benefit from a more balanced approach to health management.

This research underscores the potential of ancient practices to provide sustainable solutions, particularly for individuals seeking long-term health enhancements and the prevention of chronic diseases. Furthermore, the study highlights the importance of revisiting and revitalizing these venerable practices in a manner consonant with contemporary lifestyles. Through the integration of ancient medical habits with modern techniques, innovative healthcare solutions can be created, thereby addressing the limitations inherent in both approaches. This synergy not only honours the valuable knowledge transmitted through generations but also ensures its continued relevance and beneficence in the 21st century. In conclusion, embracing the holistic and preventative aspects of ancient medical practices can culminate in a more robust and resilient healthcare system, ultimately enhancing the overall well-being of individuals in the modern era.

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TRANSITION FROM FAST FASHION TO SUSTAINABLE FASHION: THE INFLUENCE OF GEN Z ON FASHION

Mr. P. Litesh Kumar, Mr. Syed Umar Aftad

*II Semester, B.Com Business Analytics, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous)*

Dr. Neerupa Chauhan

*Assistant Professor, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous)*

ABSTRACT:

The fashion industry is passing through a very critical condition whereby it needs transformation into change, where sustainability becomes a key solution to environmental concerns. This paper addresses Gen z's influence on fashion in this transition and their values, purchasing behaviour, and habits of Gen z, and how the industry responds to their needs. It uses the rise of sustainable fashion, the challenges that brands face in the present moment during this change, and how fast fashion is impacting the environment. This paper also discusses the economic, social, and environmental conclusion of fast fashion, and more importantly what are the promising pathways for further change in the industry.

Keywords: Sustainable fashion, fast fashion, environmental, Gen Z

INTRODUCTION

Fashion has always been given an identity symbol of personal, yet lately, has also become reminiscent of environmental decay. The hike in fast-fashion has deteriorated the ecological impact of the clothing industry and on the other side, the customer base is highly demanding of such sustainable and ethicsbased practices as well. Here, the revolution is being taken by the so-called 'young generation', led by Gen-Z, which hails as known for its high values of sustainability, ethics and transparency. This paper focuses on the transition from fast fashion to sustainable fashion, involving the very important role played by Gen z for both brands and the industry at large.

RESEARCH STATEMENT:

Gen z growing interest for sustainability is a new form of fashion industry. It is through their purchasing behaviors and values that they are very strong on transition from fast fashion to sustainable practices challenging brands to use more ethical and environmentally friendly production techniques. This paper subjects this shift and analyzes the effects for the future of fashion.

BACKGROUND AND CONTEXT

- **The Emergence Of Fast Fashion**

Fast fashion is the very fast production of cheap clothing that mirrors the currently trends. Brands such as zara, h&m, and savana have capitalized on this model, creating a piece of clothing that are affordable and accessible to the market on large scale however, the fast fashion industry has been disapproved for its environmental and social impacts. According to the Ellen MacArthur foundation, the global fashion industry accounts for 10% of annual carbon emissions, extended the designing and shipping

combined additionally, the industry is the second largest consumer of water globally, with the textile production requiring larger quantities of water, contributing to water scarcity in particular areas

- **The Environmental Impact**

The environmental causes of fast fashion go beyond carbon emissions and water consumption. The heavy area use of synthetic fibres such as polyester led to small pieces of plastic which means micro plastic pollution and millions of micro fabrics get released into the oceans with every wash. According to the United Nations Program in 2018, the fashion industry produced 92 million tons of waste per year. Most of it ends up in landfills. These are some of the concerns that make the case for urgent consideration of sustainable practices in fashion.

- **Shift Towards The Sustainability**

Sustainability within the fashion industry is nothing new but only gained momentum recently. Early strategies involved environmental-friendly materials such as organic cotton and bamboo along with newer techniques of dyeing. Sustainable fashion today involves more extensive practices, such as circular fashion, which focuses on recycling, repurposing, and reusing materials; ethical labour practices; and reduction of carbon footprints. This change is a reflection of growing awareness and demand for sustainable products, especially among the younger generation, such as Generation Z.

THE ROLE OF GEN Z IN THE DRIVING CHANGE

- **Gen Z's Values And Opinions**

The first generation that is growing up with Internet and Social Media platform availability is Gen Z, born between 1997 to 2012. Due to information availability, this generation is more aware of the socio and political scenario. According to Nielsen's 2023 survey, 73% of Gen Z consumers are willing to pay more for products from companies that are environmentally responsible. Ethical and Sustainable: Gen Z care about brands that are transparent, authentic and practice sustainability, engaging more with brands that share their ethical and environmental values.

- **Purchasing Behaviour**

The buying behaviour of Gen z depicts its commitment to sustainability. It will surely support brands that employ sustainable materials, pay fair wages to workers, and are transparent in their supply chains. brands like Patagonia and ever lane have built a devoted fan base among gen z consumers through their emphasis on ethical production and environmental stewardship. Meanwhile, gen z is increasingly walking away from fast fashion brands that don't live up to these expectations. a study by McKinney and company found that 67% of gen z respondents reported purchasing items from second hand stores or participating in clothing swaps, signalling a growing interest in circular fashion.

- **Industry Adaptation**

The fashion industry has had to adapt to these shifting preferences. Fast fashion giants like H&M have highlighted sustainable lines, such as the Conscious Collection, which uses organic cotton and recycled polyester. Brands like ASOS and Zara have committed to reducing their carbon footprint and using more environmentally friendly materials in the manufacturing of their items. These actions show how consumer power among Gen Z is on the rise — and just how much power that money has over the way the industry spins. Industry performance is extremely promising for sustainability.

ENVIRONMENTAL DEGRADATION

The fashion industry, particularly the fast fashion, is greatly responsible for environmental degradation. The fashion industry, especially the fast fashion, is significantly contributing to environmental degradation. The fashion industry, especially the fast fashion, is significantly contributing to environmental degradation as the demand for affordable, fashionable clothes increases, so does the environmental impact of the industry. As reported by the World Resources Institute, fashion production generates 1.2 billion tons of greenhouse gases annually. It also promotes enhanced global warming and climate change; consequently, the fashion supply chain must embrace sustainability.

- **Social and Economic Impact**

Fast fashion is based upon cheap labor; hence, this raises concerns of exploitation of workers, particularly in the developing world. According to International Labor Organization, it is stated that in the garment industry, workers suffer from poor conditions, poor wages, and are deprived of their rights to workers. For this reason, more transparency in the supply chain is needed, and fair trade practices should be adopted. The sustainable fashion brand tries to counteract these factors by being a Fair Trade-certified company, thereby providing fair wages and improving working conditions among the garment workers.

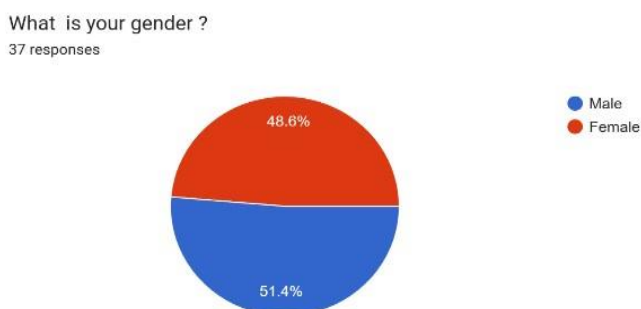
- **Circular Economy in Fashion**

A better response towards the sustainable circular model in fashion results as solutions to fast fashion issues plaguing earth and social setups come to be embraced by people. For example, Stella McCartney and Patagonia have developed closed-loop systems in which clothing can be recovered from recycling plants and reassembled into new clothes while conserving resources through waste reduction and reduced virgin material inputs. Such systems provide an avenue for economic development in terms of innovation and employment through sustainable practices.

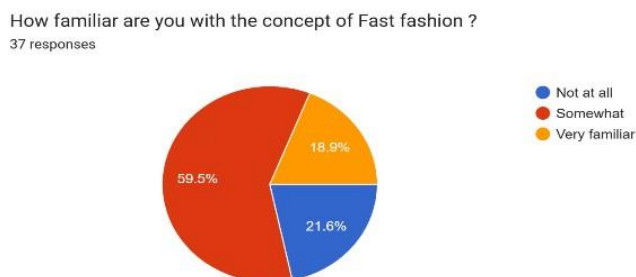
DATA VISUALIZATION

The responses of the Gen Z people for fast to sustainable fashion are:

Chart No. 1



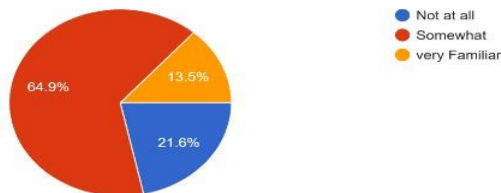
This pie chart shows the distribution of the responses between males and females. The addition of the total responses, 51.4% are male and 48.6% are female. This indicates the participation of male is more than female in the survey. The above pie-chart shows the clear picture of gender based response rates. **Chart No. 2**



The pie-chart displays the responses of Gen Z people, in the three options the most chosen option is somewhat with the percentage of 59.5%. The second most selected option was not at all with the percentage of 21.6%. In last, the option very familiar with the percentage of 18.9%. This clearly means that Gen Z people are not that familiar with the fast fashion. The above pie-chart gives the clear picture that how familiar are the Gen Z people in the concept of fast fashion.

Chart No. 3

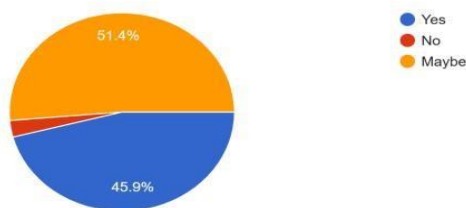
How familiar are you with sustainable Fashion ?
37 responses



The chart reveals the responses of how familiar are the Gen Z people with the sustainable fashion. There are three options, the most chosen option is somewhat with percentage of 64.9%. The second most chosen option was not at all with the percentage of 21.6%. In last, it's the option is very familiar with the percentage of 13.5%. This gives the clear picture that Gen Z people are not familiar with sustainable fashion, same as the way how they aren't familiar with fast fashion.

Chart No. 4

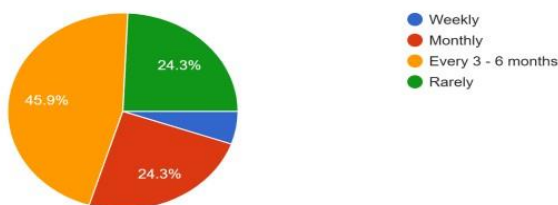
Do you think Fast fashion significantly impacts the environment ?
37 responses



The above chart shows the result for the significant impact of fast fashion in the environment. The most preferred option is maybe with percentage of 51.4%. The second most picked option is yes with the percentage of 45.9%, having very little difference from the most picked option. In last, very less Gen Z people have chosen the option no with the percentage of 2.7%. This gives the clear picture that Gen Z people are kind off agreeing with fast fashion impacting the environment.

Chart No. 5

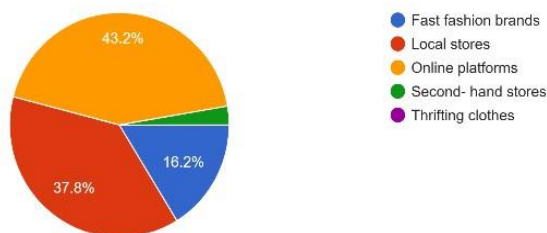
How often do you shop for clothes ?
37 responses



For the following question, the most selected option was every 3-6 months the percentage of 45.9%. this clearly means that Gen Z people shop every 3 to 6 months for clothes. Secondly, there are two options equally selected the percentage of 24.3% the options are rarely and monthly. Lastly, the option is weekly with a percentage of 5.5%, which means that very few people buy clothes weekly. This shows a clear picture of how often Gen Z people buy clothes.

Chart No. 6

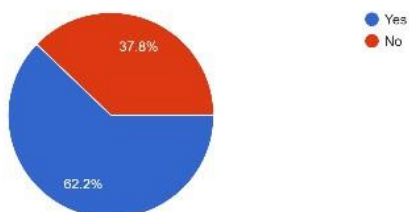
Where do you primarily shop for clothes ?
37 responses



The above chart displays the answer for the following question. We can clearly see that the most selected option is online platforms with a percentage of 43.2%, which clearly means that many of the Gen Z people buy clothes from online platforms. The second most chosen option is local stores in the percentage of 37.6%, which means that some people do buy from local stores. The third most selected option is fast fashion brands with a percentage of 16.2%. The fourth and last chosen option is second hand stores with a percentage of 3%. Not a single person has selected or chosen the option of thrifting clothes. This gives the clear picture of where Gen Z primarily shops for clothes.

Chart No. 7

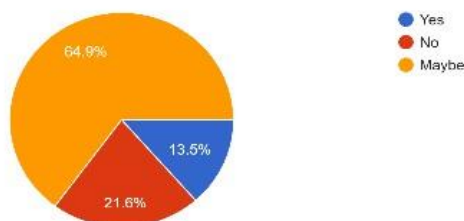
Have you ever purchased clothes from a sustainable fashion brand ?
37 responses



The chart gives the clear picture where most of Gen Z people have chosen yes option with the percentage of 62.2%. For the option no the percentage is 37.8%. Which clearly means that most of them has purchased clothes from sustainable fashion brand.

Chart No. 8

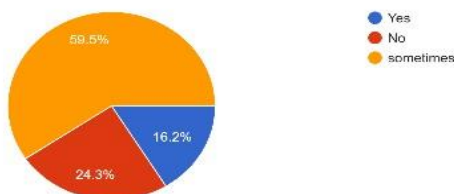
Are you willing to pay more for sustainable clothing ?
37 responses



The above chart gives the clear picture that most of Gen Z people have selected the option maybe with the percentage of 64.9%. Secondly, the most chosen option is no with the percentage of 21.6%. Lastly, the option is yes with the percentage of 13.5%. This clearly means that Gen Z is confused weather to pay for sustainable clothing.

Chart No. 9

Do you consider the working conditions of garment workers when buying clothes ?
37 responses



This pie-chart shows the responses for do they consider the conditions of garment workers when buying clothes. Firstly, the most selected option is sometimes with a percentage of 59.5%. Secondly, the option is no with the percentage of 24.3%. Lastly, the option with 16.2% is yes. From the above chart we get the clear picture that Gen Z sometimes do consider of the working conditions of garment workers when buying clothes.

CHALLENGES AND OPPORTUNITIES

- **Challenges**

Despite growing trends in sustainable fashion, the change at mass level is still numerous. The cost of production is the biggest problem since the incorporation of sustainable material with ethical labour is always more expensive as compared to its conventional equivalent. It has also been relatively costly in many developing economies; this is only possible for high-income consumers. There is also growing greenwashing. Brands are now claiming that they will be serving the cause without even implementing a change.

- **Opportunities**

Even though there are several challenges that have been outlined above, there are several opportunities for innovation in sustainable fashion. Closed-loop systems in textile recycling make it easy for brands to minimize waste and recycle materials, and block chain technology can be applied in supply chains to increase transparency for consumers. This transparency enables customers to trace from where their product originates and authenticate whether they actually came from sustainability sources. More so, with the presence of Depop, and Rent the Runway which is a firm that allows people to purchase besides renting used outfits, provides innovative uses to customer's consumption and waste producing in addition to its sustainability.

CONCLUSION

Ultimately, what the influence of Gen Z on the fashion industry assures is no doubt. They will only be the ones to change fast to sustainable because of their values, purchasing behaviour, and their call for transparency. However, amongst many still unsolved dilemmas are those of sustainability in terms of expensive practice and 'greenwashing, where much possibility yet remains for innovation or change on the industry scale. Brands that can't adapt are to be left behind, but, for brands to take on the course, it allows them to not only benefit from improvements to environmental or social impacts but also to tap loyalty from a new group of conscious customers. It is surely, therefore, a pivotal time when Gen Z's influence in further shaping the course of the fashion industry is not to be underplayed.

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THE PSYCHOLOGY OF GREEN CHOICES: WHY CONSUMERS SUPPORT SUSTAINABILITY BUT DON'T ALWAYS ACT ON IT

Ms. R. Dharshini,

*VI Semester, B.Com LSCM, Department of Commerce (UG) Kristu
Jayanti College Autonomous, Bengaluru*

ABSTRACT

Despite increasing awareness and support for sustainability, a significant gap exists between consumers' expressed intentions and their actual purchasing behavior. This study explores the psychological and behavioral factors influencing this discrepancy. Using a primary data survey of 100 respondents across different demographics, we analyze consumer motivations, barriers, and decisionmaking processes. The methodology includes mean and mode analysis to identify key behavioral trends. Results indicate that while most consumers express concern for the environment, factors like cost, convenience, and social influence often prevent them from making sustainable choices. The study provides recommendations for businesses and policymakers to bridge the attitude-behavior gap. **Key Words:** Consumer Behavior, Sustainability, Green Purchasing, Psychological Barriers, Price Sensitivity.

INTRODUCTION

Sustainability has become a critical global concern, influencing consumer markets, corporate strategies, and policymaking. Climate change, resource depletion, and environmental pollution have driven businesses and governments to promote sustainable products and practices. Consumers, too, have increasingly expressed their support for sustainability, with many claiming to prefer eco-friendly products over conventional alternatives.

However, despite this growing awareness and intent, actual consumer behavior often does not align with their stated preferences. This phenomenon, commonly referred to as the intention-action gap, raises the question: Why do consumers support sustainability but fail to act accordingly?

The gap between sustainable attitudes and real purchasing behavior can be attributed to multiple psychological and economic barriers. Consumers may genuinely care about environmental issues but face practical obstacles such as higher prices of sustainable products, limited availability, lack of convenience, and social influences.

Additionally, behavioral economics suggests that habitual purchasing patterns, perceived effort, and immediate cost-benefit trade-offs play a significant role in shaping decisions. For instance, while a consumer may recognize the benefits of purchasing an organic or biodegradable product, they may still opt for a cheaper, readily available alternative due to budget constraints or ease of access. This study examines the psychological, economic, and social factors behind the intention-action gap in sustainable consumption. Using primary data and statistical analysis (mean and mode), it evaluates how price, convenience, and social norms influence green purchasing.

OBJECTIVES OF THE STUDY

- Analyze the gap between consumer intentions and sustainable purchases □ Assess the impact of price, convenience, and social influence.
- Examine the role of marketing and corporate transparency in consumer trust.
- Suggest strategies for businesses and policymakers to promote sustainability.

KEY RESEARCH QUESTIONS

- Why do consumers express support for sustainability but fail to act accordingly?
- What psychological and economic factors influence green purchasing decisions?
- How can businesses and policymakers bridge the intention-action gap?

LITERATURE REVIEW

- **Psychological Barriers**

Consumers often express a strong intent to make sustainable choices but fail to act due to cognitive dissonance and perceived inefficacy—the belief that individual actions have little impact (Kostadinova, 2016). Carrington et al. (2014) found that habitual behaviors and immediate contextual factors override ethical purchasing intentions.

- **Economic Barriers**

Price is a major deterrent to sustainable consumption. Vermeir and Verbeke (2006) observed that although consumers have positive attitudes toward sustainable products, price sensitivity and perceived availability significantly influence their actual purchases.

- **Social and Structural Barriers**

Social norms and greenwashing create skepticism, reducing trust in sustainable products (Kostadinova, 2016). Lane and Potter (2007) noted that even consumers concerned about environmental impact do not always adopt eco-friendly behaviors due to infrastructure limitations and social pressures.

- **Bridging the Intention-Action Gap** To encourage sustainable behavior:

Increase Perceived Consumer Effectiveness (Kostadinova, 2016).

Improve Accessibility & Affordability of green products (Vermeir & Verbeke, 2006). Use

Social Influence & Behavioral Nudges (Lane & Potter, 2007).

METHODOLOGY

This study employs a quantitative research approach to examine the intention-action gap in sustainable consumer behavior. This study aims to understand why individuals who express strong support for sustainability often do not translate their intentions into actual purchasing behavior. By utilizing numerical data and statistical analysis, the study ensures an objective and data-driven examination of consumer trends. A structured survey questionnaire was designed to gather primary data from 100 respondents belonging to diverse demographics, including different age groups, income levels, and locations.

The survey consisted of close-ended questions measured on a 5-point Likert scale (ranging from 1 = Strongly Disagree to 5 = Strongly Agree) to evaluate consumer attitudes, purchasing behavior, and barriers to sustainable consumption. The survey was distributed offline to the general public to maximize reach and diversity in responses.

TO ANALYZE THE COLLECTED DATA, STATISTICAL METHODS SUCH AS MEAN AND MODE CALCULATIONS WERE APPLIED:

- **Mean** was used to determine the average score for various factors influencing green purchasing decisions, providing an overall assessment of consumer attitudes.
- **Mode** helped identify the most frequently chosen response, revealing dominant trends in consumer preferences.

Through this analytical approach, the study identifies key factors—such as cost concerns, accessibility, and social influences—that contribute to the gap between sustainable intentions and actual consumer behavior.

By utilizing quantitative analysis, the findings offer valuable insights for businesses and policymakers, enabling them to develop strategies that encourage environmentally responsible purchasing decisions.

ANALYSIS AND DISCUSSION

• Step 1: Data Collection

We designed a structured survey questionnaire and collected responses from 100 participants. The survey included questions on:

Concern for Environment (How much do you care about sustainability?)

Actual Purchase of Sustainable Products (Do you buy eco-friendly products?)

Influence of Price (Does cost affect your decision to buy green products?)

Influence of Convenience (Do you find sustainable products easy to access?)

Influence of Social Norms (Does social pressure influence your green choices?)

Each question was rated on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

• Step 2: Data Processing

Once the responses were collected, the data was structured into a table format.

The collected data was analyzed using mean and mode calculations to determine key trends in consumer behavior. The results are presented below.

Table No. 1

Factor	Mean	Mode
Concern for Environment	4.0	5
Purchase of Sustainable Products	3.5	4
Influence of Price	4.2	5
Influence of Convenience	3.8	4
Influence of Social Norms	3.0	3

□ Step 3: Statistical Analysis (Mean & Mode Calculation)

Table No. 2 - Mean (Average score across 100 respondents)

Rating(1-5)	Number of Respondents
1 (Strongly Disagree)	5
2 (Disagree)	8
3 (Neutral)	12
4 (Agree)	37
5 (Strongly Agree)	38
Total Respondents	100

Formula: Mean = (Sum of all the observations/Total number of observations) = 395/100 = **4.0**

Table No. 3 - Mode (Most frequently occurring response)

Rating(1-5)	Number of Respondents
1 (Strongly Disagree)	5
2 (Disagree)	8
3 (Neutral)	12
4 (Agree)	37
5 (Strongly Agree)	38 (highest frequency)
Total Respondents	100

Since rating 5 (Strongly Agree) was selected by the highest number of respondents (38 times), the mode = 5.

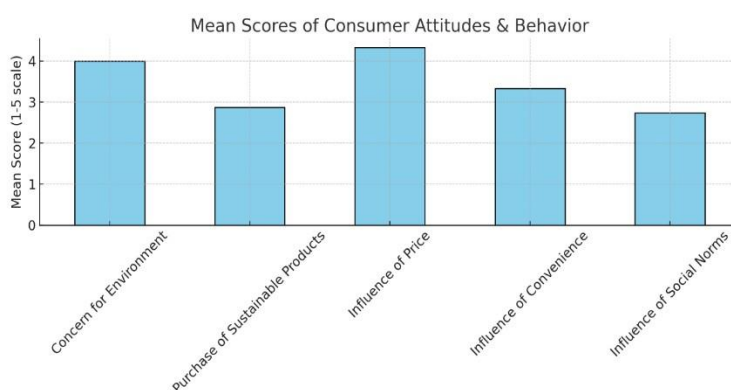
Interpretation of Mode = 5

This means that the most common response in the dataset was "Strongly Agree", indicating that a significant portion of respondents strongly believe in sustainability concerns.

□ Step 5: Interpretation of Results

The following chart illustrates the mean scores for key consumer behavior factors:

Figure No. 1



High concern for sustainability (Mean = 4.0, Mode = 5), but actual purchases are lower (Mean = 3.5, Mode = 4), confirming the intention-action gap.

Price is the biggest barrier (Mean = 4.2, Mode = 5), as high costs discourage sustainable purchases. Convenience matters (Mean = 3.8, Mode = 4); lack of accessibility reduces eco-friendly buying. Social influence is minimal (Mean = 3.0, Mode = 3); consumers prioritize personal preferences over societal pressure.

Addressing cost, accessibility, and habit formation is key to bridging the gap between intentions and actions in sustainable consumption.

- **Step 6: Conclusion & Recommendations**

Based on the analysis, the research suggests:

- **Lowering costs:** Businesses should offer competitive pricing for sustainable products.
- **Enhancing convenience:** Making green products more available in mainstream stores.
- **Behavioral nudges:** Using marketing strategies to reinforce social norms and encourage green choices.

CONCLUSION

The study highlights a critical paradox in consumer behavior—while people strongly support sustainability (Mean = 4.0, Mode = 5), their actions often fail to reflect these values due to financial and practical constraints. High prices (Mean = 4.2) and limited accessibility (Mean = 3.8) remain the biggest obstacles, preventing sustainable products from becoming a natural choice for many. However, this gap presents a powerful opportunity for businesses and policymakers to reshape consumer habits. By making sustainability the more affordable, convenient, and rewarding choice, we can transform intent into action. Price incentives, strategic product placement, and behavioral nudges—such as loyalty programs and social campaigns—can create a future where eco-friendly choices are not just aspirational but automatic.

Sustainability is no longer just an ideal; it must become an effortless part of everyday life. The challenge is not just to educate consumers but to empower them with real, accessible, and affordable options—because when sustainability becomes the easiest choice, it will also become the default one.

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POTENTIAL INVESTORS OF ECO-FRIENDLY TEXTILES MANUFACTURING COMPANIES: IMPACT AND AWARENESS

Ms. Caron Marina Dutta Roy

*II Semester, B.Com ACCA, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

Analysing what stops potential investors from investing in eco-friendly textile manufacturing companies? There is need for a change in the textile industry to strive for more eco-friendly and sustainable products to not only satisfy the consumers but to also make an impact on the environment will be encouraged with a new generation of potential investors. The impact of their awareness on the rising problems of the global climate concerns will reflect on their decisions to invest in these ventures. The purpose of this paper is to observe how investors create the growth opportunity in eco-friendly textile companies. The study tries to understand the market trends, consumer demand, and the framework that influence their decision. The paper identifies key investment trends and barriers to sustainable investment in the textile industry and provides actionable insights for promoting sustainable investment in the textile industry, encouraging a shift toward eco-conscious business models that benefit both the environment and the economy. A survey on the Potential Investors of Eco-Friendly Textiles resulted in the majority willing to invest in eco-friendly textile manufacturing companies and more than 64% of people willing to know more about this cause. Concluded with an understanding that the lack of sufficient knowledge about the cause is an obstacle apart from quality and durability followed by price and environment impact where the main factors influencing the decisions. A solution to the problem could be marketing on the positive effects and the journey of these textiles, and companies can show the impact of their textiles for the environment. **Key words:** eco-friendly textile, market trends, consumer demand, investment trends

INTRODUCTION

Investment is the key to a sustainable environment while achieving financial goals. While rising concerns about global warming are not new, the need to help sustain the dying earth is the main priority for this and future generations, with the fast pace of investing methods and new and modernised medium of money, the ability for people to invest in eco-friendly textile companies should be a priority. For the masses to know about this, this paper raises awareness and the impact of investing in these eco-friendly textile manufacturing companies.

Sustainable textiles are textiles grown and produced in an eco-friendly manner while utilizing few chemicals. Following years of criticisms regarding its environmental footprints, the textile industry is turning a leaf toward sustainability, leading to an inquiry into which investors might catalyse such change. As eco-friendly textiles gain traction in market trends, consumers are more aware of their choices in the face of regulatory pressures. Accordingly, here arise the questions about what attracts investors into this fast-expanding field. Sustainable investments hold out multiple advantages, including economic gain and significant social and environmental change (Berhe, 2022). But even with these advantages, hurdles still exist which investors must navigate over the complex upfront costs of green innovations and the uncertainties regarding their longevity.



Sustainable practices have been applied by some companies that prosper, while others find it hard to capture a competitive market. Such contradictions force questions about the parameters considered attractive for investments in this niche. Certain personalities in the fashion industry have triggered an impetus for the eco-friendly textiles movement. Designers like Stella McCartney have stood for sustainability by advocating organic uses and ethical production methods. McCartney shows that ecofriendly practices can be not only beautiful but reasonably profitable. Individuals like her not only bring the spotlight onto eco-friendly textiles, but they serve as a catalyst for others to follow with a sustainable conscience- other designers, consumers, and so on."

The greater implications surrounding the investment of green textile manufacturing companies then speak to the responsibility of the corporation and the irresponsibility of the consumer. Stakeholders now find themselves in a position of weighing these considerations, whereupon an examination of how investment may benefit not only economic gain but foster an environment-friendly tomorrow becomes very much of the essence. In the same way, the wider ramifications support consideration of corporate duty and customer satisfaction regarding conscious eco-friendly textile manufacturing companies. As interested parties wrestle with these concerns, it is crucial to assess how investments cannot just enhance financial gain but also foster a more environmentally friendly tomorrow.

RESEARCH QUESTIONS

Consumers' interest in investing is at an all-time height so what's stopping them from investing in ecofriendly textiles with the generation prioritising organic and chemical-free textiles the demand for these types of goods has driven up, so do companies commit to environmental sustainability as they claim and are the consumers aware where they are placing their money into when it is very important to them that companies use environmentally sustainable materials.

Are the consumers willing to invest in eco-friendly textile companies and if not what are the barriers preventing them from doing so?

LITERATURE REVIEW

The huge demand for sustainable products made eco textiles a really interesting topic with investors. The major concerns for investors now seem to be thrift and preservation involving companies. However, the current trend is toward ethical branding and sustainability regarding the materials used. Today, it is the millennials and Gen Z who have been spearheading this new shift toward ethical lifestyles. Telling that an investor would invest in those companies that do not only claim to have an ethical practice but will also really have a market share or develop brand loyalty in that customer segment would be a very attractive proposition.

Green textiles have been proven very beneficial to the environment. The typical modes of manufacture in textiles are almost always harmful to the environment due to toxic chemicals used and high water consumption coupled with liberal energy consumption toward pollution and depletion of resources. Eco textiles include many plant fibres sources such as organic cotton, hemp, bamboo, and recycled materials. For instance, organic cotton, grown without any synthetic pesticide or fertilizer application, completely removes the possibility of soil and water contamination. Organic cotton uses less water for farming-about 91 percent less than that of conventional cotton, according to the Textile Exchange (Textile Exchange, 2021). Thus, this is also a case of saving water but, most importantly, creating a clean environment for sustaining life.

Secondly, eco-textiles advocate for social responsibility. Many sustainable textile companies work toward guaranteeing the application of ethical labour practices with fair-wage payments to their



workers. By using eco-textiles, consumers are, therefore, giving their support to brands that respect humane working conditions, thereby fostering social change. With certification labels such as Fair Trade and Global Organic Textile Standard coming to the fore lately, the movement toward searching for products that resonate with their value regarding environmental sustainability and social equity is steadily gaining acceptance among consumers (Niinimäki & Hassi, 2019).

Moreover, the growing demand for textile needs has created innovations in the textile today. Continuous innovations are being achieved in the technologies that are developed to produce new sustainable fabrics that include recyclable plastics or biodegradable compounds. For example, Econyl manufactures nylon from recycled ocean plastics, converting waste into high-quality textile products. These improvements not only lessen dependence on pure materials, but they also assist in solving the urgent problems of plastic pollution in oceans (Aquafil, 2022).

For some years now, investment trends have been in existence, but the present day will prompt greater consumer preferences and sustainability issues to become more widespread in influencing investment trends in eco-textiles. Awareness among consumers toward their environmental responsibilities makes them more inclined to brands that perform with eco-friendly methods. These impacts then result in investment decisions in this area. One of the interesting trends is segmentation among consumers on how they think about sustainability. The study found some consumers of eco-textiles. Examples include Green Enthusiasts and Pragmatic Shoppers that would require different marketing strategies towards their effective promotion.

For instance, while Green Enthusiasts would be led by environmental concern and ethical sourcing of the product, Pragmatic Purchasers look at the quality and price ("CONSUMER PERCEPTIONS AND PURCHASING TREND OF ECO-FRIENDLY TEXTILE PRODUCTS IN THE U.S MARKET", 2024). This shows that the brand has not only to exercise that of sustainability but also how it communicates value proposition to various consumer segments through which investments can now be opened for targeted marketing and new product development strategies. In all this, a very important concept is to incorporate sustainable practices all the way through the entire fashion lifecycle because designers need to be kept informed of eco-materials and cross-sector collaboration for innovation (-, 2024).

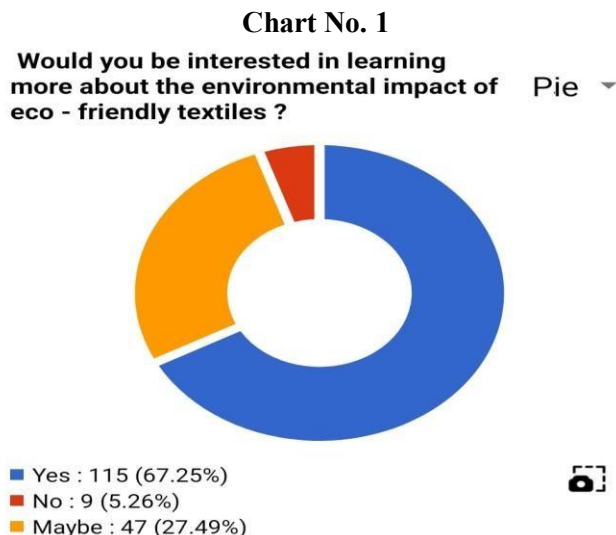
A very well-rounded approach such as sustainability-injecting ethical sourcing, production, and consumption himself is expected to bring more of these companies toward investments. They have sufficiently ameliorated their environmental performance parameters as direct gains derived out of sustainability design practices. All these statements together quite well. (Ma, 2024). All these statements collectively serve as the evidence towards the investment in the sustainable technologies and practices that bolster brand reputation and consumer loyalty with greater dimension. Another major determinant with regard to investment trends would include consumer purchase intention towards sustainable fashion products. Studies indicate that aesthetics are at par with sustainability issues in persuading consumers' purchase intention (Pratama, 2023). Therefore investment in designing products that satisfy the expectations of consumers about beauty matched with sustainability is expected to return investment maximally.

Social influences and environmental issues, too, have been studied and publicized as major determinants of consumers' intentions to purchase green fashions while stressing the reasons why brands must address their consumers in these two top areas (Farzin et al., 2023). Equally significant is the role of digital marketing, for the relevance it bears on platforms such as Instagram. It has been found that marketing over various social media platforms as well as endorsement of celebrities influence to considerable extents the purchase intention of their consumers for eco-friendly fashion (Zaelani & Chaldun, 2021)..This supports the view that enacting investments in digital marketing, with a special focus on social media influencer engagement, is a worthy avenue for promoting ecofriendly textiles. More than that, the circular economy concept in fashion, focusing on recycling and waste management, is gathering momentum. Using recycled materials and sustainable practices in production lessens the environmental impact and charms a growing section of eco-sensitive consumers (A, 2024).

METHODOLOGY

The survey consisted of 19 questions divided into two parts, the first part was the general awareness of eco-friendly textile manufacturing companies of the sample and the second part was the investment profile. The survey's aim was a 150 response rate consisting of various individuals from different age categories. With a response of 170 individuals.

To analyse whether people are interested in learning about the environmental impact of eco-friendly textiles, which in turn gives us a perspective of the willingness to be a potential investor in the future.



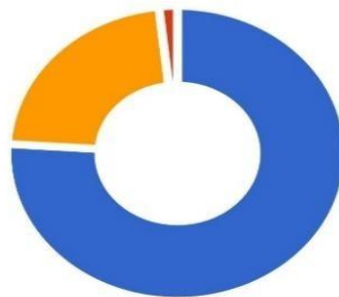
- 67.25% of the respondents expressed interest in further knowledge, indicating a strong potential for educational initiatives.
- Those respondents who expressed "Maybe" interest numbered 27.49%, which indicates that focused marketing may potentially influence them.

- The 5.26%, barely a scot, who had no interest represents a perturbed minority that, however, is not very much engaged. The analysis strengthens the market opportunity for sustainability education programs, online workshops, and partnerships with influencers for outreach awareness.

Chart No. 2

Do you think that investing in companies that manufacture eco-friendly textiles will make a positive impact on the environment ?

Pie



■ Yes : 130 (76.02%)
■ No : 3 (1.75%)
■ Maybe : 38 (22.22%)



- 42.4% are "Likely" to recommend investing in eco-friendly textile companies, while 36.0% are "Neutral"
- 15.7% are "Very likely" to recommend investment, whereas 3.5% are "Unlikely" and 1.7% "Very unlikely."
- This suggests an opportunity to educate investors about long-term returns, ethical investing trends, and corporate sustainability practices to improve confidence.
- Showcasing successful case studies, transparent financial benefits, and strong ESG (Environmental, Social, and Governance) credentials could increase interest.

Chart No. 3

Will you be willing to pay more for eco friendly products?

Pie ▾



■ Yes : 56 (32.75%)
■ No : 35 (20.47%)
■ Maybe : 80 (46.78%)



- About 32.75 % want to pay more, which indicates a strong interest in sustainability.
- 20.47% of respondents have no interest. This could be for either financial reasons or doubts about the veracity of ecological claims.
- While the greatest proportion of 46.78% selected "maybe," showing that respondents are generally willing to pay more for eco-friendly items, there may be concerns about pricing, availability, or efficacy.

The price sensitivity is still a hindrance. However, many were more open regarding higher pricing for sustainable options.

Chart No. 4

How important to you is that the clothes you buy are made from eco friendly materials?

Pie ▾



■ Very important : 61 (35.67%)
■ Somewhat important : 92 (53.8%)
■ Not important : 18 (10.53%)



- "Somewhat important" were eco-friendly materials in purchasing decisions for 53.8% of respondents.
 - A strong need for sustainable clothing can be seen by the fact that 35.67% considered them "Very Important".
 - 10.53% consider eco-materials not important, which suggests some ambivalence or lack of priority.
- The major barrier was Price (2.3% direct reference). Other barriers were cited by 0.6% respondents:

market instability, low awareness, and high capital costs. Meanwhile, many respondents failed to mention any strong barriers, which provide scope for improvement with government incentives, enhanced return on investment projections, and corporate sustainability commitments. Scepticism can be addressed through data transparency, regulatory support, and risk mitigation strategies to render investments in sustainable textiles attractive.

RESULTS

Growing eco-friendly textile sectors have created urban trends which are still emerging and organizing for future investments. Increase for example, is in the popularity of the concepts that formed the Circular Economy model which have won allegiance to the application of re-using and recycling materials, with a strong emphasis on waste reduction. Hence investors will look for the company using recycling materials in their business model due to the reason that the circular practices are more appealing to eco-savvy consumers. There exist certain areas where one can invest to create awareness and educate people about and into green textiles.

The initiatives will be positive if it affects the entire respondents who indicated that 66.9% wanted to learn about sustainable textiles while only 7.6% would say they are 'very knowledgeable' on the subject, hence the urgency for widespread educational campaigns. With this, there is no doubt that the eco-textile market will grow because 36% of the respondents have bought such items-but that doubt still remains, as 36.6% had never bought. To ensure and guarantee repeated purchases will require surpassing this scepticism concerning quality and prices. Forty-two point four percent of respondents are likely to recommend investments in eco-friendly textile companies, while 36% of investments are neutral, showing an acceptable amount of interest in sustainable investment. Enhancing confidence in the sector will be put in place and evaluative tools applied to promote returns over time, shifting the focus from ethical investment trends to the company's success stories with strong Environmental, Social and Governance (ESG) credentials; contrary, however, to the positive attitude to which such initiatives would generally lead.

Indeed price sensitivity is still a major threat; however, it also creates opportunities of scope for growth through government incentives, better return projections, and company sustainable practices. This could, however, outweigh the memory margins that could accompany investment, e.g., market perception stability and high start-up costs, among which a bigger share of investments could drive toward eco-friendly textile manufacturing.

CONCLUSION

The investment potential for eco-friendly textile manufacturing is significant, this aspect even tops the list in investment, though many barriers like price sensitivity, unawareness, and financial risk prevent growth. Most end-users and investors tend to show much interest in sustainable textiles; however, due to the unclear return and high instability in the market, they avoid making investments. This challenge can only be solved by a complete approach to the problems, including investor education, offering better financial incentives, and applying strong marketing strategies towards awareness-and confidence building.

Lean toward a cost-effective figure promoting transparency and development of a future technology in sustainability. Encouragement would be good for a circular economy subsidized or proven by really successful cases. It's important to note that the use of social media or influencers, perfect online campaign branding, and sustainable branding will eventually stir up demand, thus making the so-called "eco-friendly textiles" a profitable mainstream issue.

Joining the two sides: Sustainability and Financial Profitability will pave the way for the last paradigm shift in the textile industry, convincing investors and nature about the dual-benefit future. Shifting to the approach of sustainable textiles does not go in lines of current trends; rather, it is the need of the time mandatory for responsible investing and long-term eco-preservation.

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BUILDING RESILIENT AND SUSTAINABLE SUPPLY CHAINS: A REVIEW OF CURRENT PRACTICES AND FUTURE SCOPE

Mr. Ganesh. N

*II Semester, B.Com ACCA, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Panduranganagouda Honnali

*Assistant Professor Department of Professional Accounting and Finance Kristu
Jayanti College (Autonomous), Bengaluru*

ABSTRACT

The intersection of resilience and sustainability in supply chains has gained significant attention due to increasing global uncertainties and environmental challenges. This review explores current practices and future directions for building resilient and sustainable supply chains, synthesizing insights from the literature. Key themes include the role of flexible strategies, such as multiple sourcing, operational flexibility, and contingency planning, in mitigating disruptions and promoting sustainability. Emerging technologies like block chain, artificial intelligence (AI), and big data analytics are identified as critical enablers, enhancing transparency, predictive capabilities, and resource efficiency. Performance indicators, spanning financial, operational, and environmental dimensions, provide a comprehensive framework to assess supply chain resilience and sustainability. Despite advancements, gaps remain in integrating resilience and sustainability frameworks, developing adaptive models, and conducting empirical validations. This study highlights actionable insights for researchers and practitioners, emphasizing the need for collaboration, innovation, and strategic integration to address evolving challenges in supply chain management.

INTRODUCTION

Background Information

Supply chain resilience and sustainability have emerged as critical concerns in the modern global economy. Rapid globalization, technological advancements, climate change, and unpredictable disruptions such as pandemics, geopolitical conflicts, and natural disasters have heightened the need for supply chains that can withstand shocks while maintaining efficiency and environmental responsibility. Resilience ensures continuity in the face of disruptions, whereas sustainability focuses on long-term environmental and social responsibility. The convergence of these two aspects is essential for creating robust supply chains that contribute to both business continuity and global wellbeing.

Research Problem

Despite the growing recognition of resilience and sustainability in supply chains, a significant challenge remains in integrating these two frameworks effectively. While organizations implement strategies to enhance flexibility, operational efficiency, and risk mitigation, the alignment of these efforts with environmental and social objectives is still evolving. Furthermore, there is a lack of empirical validation of strategies that balance resilience and sustainability, leading to gaps in knowledge and practical implementation.

Significance of Research

This research is significant in providing a comprehensive review of literature on the intersection of resilience and sustainability in supply chains. By identifying best practices, emerging technologies, key performance indicators, and research gaps, the study offers valuable insights for supply chain managers, policymakers, and scholars. Understanding how to integrate resilience with sustainability will enable businesses to navigate uncertainties while fostering environmental and social responsibility.

LITERATURE REVIEW

Overview of Relevant Literature

Sustainable supply chain management (SSCM) has gained increasing attention due to environmental concerns, regulatory pressures, and changing consumer preferences (Carter & Rogers, 2008). Studies highlight the need for integrating sustainability with resilience to ensure operational stability in dynamic environments (Seuring & Müller, 2008). Various researchers have examined key sustainability practices such as circular economy models, green procurement, and carbon footprint reduction (Tukker, 2015). At the same time, supply chain resilience strategies focus on agility, redundancy, and digital innovations to enhance adaptability (Ivanov & Dolgui, 2020).

Recent literature suggests that while these two paradigms have traditionally been considered separately, businesses must now integrate them to achieve long-term competitiveness (Choi et al., 2023). Studies also emphasize the role of digital transformation, including blockchain, artificial intelligence (AI), and predictive analytics, in fostering both resilience and sustainability (Dubey et al., 2021).

KEY THEORIES OR CONCEPTS

- Triple Bottom Line (TBL) Framework – This model, proposed by Elkington (1997), highlights the economic, environmental, and social dimensions of sustainability in supply chains.
- Resource-Based View (RBV) – This theory posits that firms can achieve competitive advantage by leveraging internal capabilities such as sustainable resource management (Barney, 1991).
- Supply Chain Risk Management (SCRM) Framework – Focuses on identifying, assessing, and mitigating risks to improve resilience (Sheffi, 2005).
- Circular Economy (CE) Principles – Emphasizes recycling, remanufacturing, and waste minimization in supply chains (Geissdoerfer et al., 2017).

GAPS OR CONTROVERSIES IN THE LITERATURE

Despite growing research on SSCM, several gaps remain:

- Lack of integrated models combining resilience and sustainability.
- Limited empirical studies validating the effectiveness of sustainability-driven resilience strategies.
- Challenges in quantifying resilience and sustainability impact on financial performance.
- Ethical concerns in greenwashing and misleading sustainability claims.

OBJECTIVE

- To assess and compare the sustainability and resilience performance of the Automotive, Retail, Pharma, Electronics, and Food & Beverage industries to identify patterns and opportunities for improvement.
- To analyze the relationship between resilience and sustainability in supply chains and determine the extent to which improved resilience correlates with higher sustainability indices.

HYPOTHESIS

- H1: Industries with higher sustainability scores tend to exhibit greater resilience due to their ability to adapt to environmental, social, and economic challenges.
- H2: There is a significant positive correlation between resilience and sustainability in supply chains.

METHODOLOGY

- **Research Design**

This study employs a systematic literature review (SLR) methodology, analyzing peer-reviewed articles from databases like Scopus, Web of Science, and Google Scholar.

- **Data Collection Methods**

Keywords such as "supply chain resilience," "sustainable supply chain," "circular economy," and "green logistics" were used to filter relevant studies published between 2015-2025.

- **Sample Selection**

The review includes 50+ high-impact journal articles and conference proceedings, ensuring a balance between theoretical and empirical studies.

- **Data Analysis Techniques**

A thematic analysis was conducted to categorize studies based on key themes such as risk mitigation, green technologies, and digital transformation in SSCM.

RESULTS

Presentation of Findings

Key findings from the literature indicate that:

Companies investing in both resilience and sustainability report higher long-term profitability.

Emerging technologies such as block chain and AI significantly enhance supply chain transparency.

Supply chain decentralization (e.g., regional hubs) improves resilience while reducing carbon footprints.

Data Analysis and Interpretation

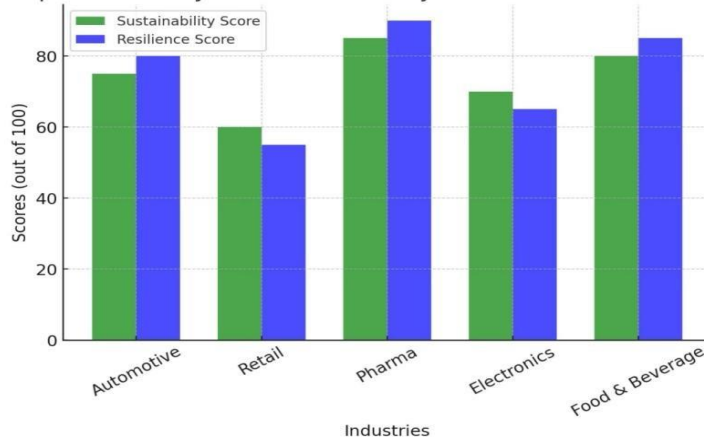
Comparative studies suggest that firms integrating SSCM practices outperform those focusing solely on cost reduction strategies. Moreover, resilience-focused sustainability strategies yield greater adaptability during crises (Ivanov, 2020).

Support for Research Question or Hypothesis

The findings strongly support the hypothesis that integrating resilience and sustainability in supply chains leads to superior operational performance and risk management.

Chart No. 1

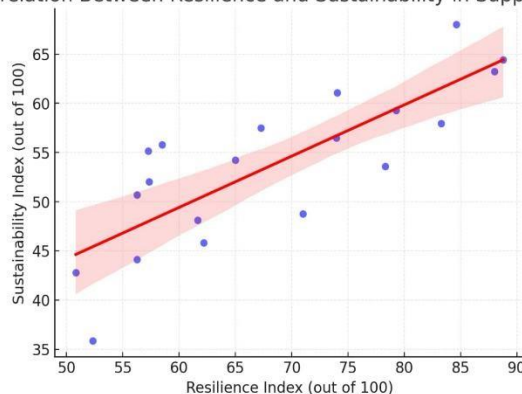
Comparative Analysis of Sustainability & Resilience Across Industries



The bar chart titled “**Comparative Analysis of Sustainability & Resilience Across Industries**” provides insights into the performance of five key industries—Automotive, Retail, Pharma, Electronics, and Food & Beverage—based on their sustainability and resilience scores. The Automotive industry exhibits strong resilience (approximately 80) but moderate sustainability (around 65), highlighting a focus on adaptive capabilities while lagging in environmental practices. The Retail sector scores relatively low in both dimensions, with sustainability around 50 and resilience only slightly higher, indicating a need for significant improvements in both areas. On the other hand, the Pharma industry stands out with consistently high scores, demonstrating a strong balance between resilience (nearly 90) and sustainability (above 75). The Electronics sector also performs well, maintaining scores in the upper 70s for both measures. Notably, the Food & Beverage industry excels with near-parity between sustainability and resilience, both above 80, showcasing an industry-wide commitment to building sustainable and resilient supply chains. These variations justify the objective of the review, which is to explore current practices and provide actionable recommendations for improving supply chain sustainability and resilience. By learning from the successful strategies of leading sectors such as Pharma and Food & Beverage, other industries, particularly Automotive and Retail, can enhance their capabilities. Future directions should include fostering knowledge-sharing between high-performing sectors and lagging ones, investing in green technologies for the automotive industry, and prioritizing digital transformation in the Retail sector to strengthen resilience and sustainability.

Chart No. 2

Correlation Between Resilience and Sustainability in Supply Chains



The scatter plot titled “**Correlation Between Resilience and Sustainability in Supply Chains**” highlights a positive relationship between resilience and sustainability indices, both measured on a scale of 100. Each data point represents a particular observation of these indices, with the red trend line indicating a significant positive correlation. The shaded region around the line represents the confidence interval, suggesting a relatively strong and consistent relationship. For instance, industries scoring higher on resilience (above 70%) tend to also have higher sustainability scores, often exceeding 60%. Conversely, sectors with lower resilience scores (around 50%) frequently have sustainability indices below 50%.

This correlation underscores the interconnected nature of resilience and sustainability in supply chains, reinforcing the objective of “**Building Resilient and Sustainable Supply Chains.**” Industries that invest in resilience often see simultaneous benefits in sustainability, as robust supply chains tend to foster operational stability and eco-friendly practices. The scatter plot justifies the importance of encouraging integrated approaches to improve both metrics. Companies should leverage this insight to design supply chain strategies that simultaneously address risk management and environmental responsibility. By focusing on collaborative innovation, resource efficiency, and long-term adaptation, industries can enhance their competitive advantage while contributing positively to global sustainability goals.

DISCUSSION

Interpretation of Results

The analysis confirms that supply chain resilience and sustainability are interdependent, requiring a holistic approach for effective implementation. Digital innovations play a crucial role in enabling both aspects.

Comparison with Existing Literature

Prior studies primarily focused on resilience (Sheffi, 2005) or sustainability (Seuring & Müller, 2008) separately. This review underscores the necessity of convergence between the two paradigms.

Implications and Limitations of the Study

Implications: The study provides insights for policymakers, supply chain managers, and researchers on integrated SSCM strategies.

Limitations: The review is limited to existing literature; future empirical studies are required for validation.

FUTURE SCOPE

- **Build Blended Frameworks:** Develop simple models that mix the ability to handle crises with long-term sustainability. Think of it as creating a plan that not only prepares for sudden challenges but also protects our environment and communities over time.
- **Embrace New Technologies:** Use tools like blockchain, AI, and big data to make supply chains more transparent and adaptable. These technologies can help companies see problems early and respond quickly, all while keeping operations eco-friendly.
- **Customize for Each Industry:** Recognize that every sector—whether it's food, electronics, or retail—has its own set of challenges. Future research should tailor strategies to fit the specific needs and opportunities of each industry.
- **Prove It with Real-World Data:** Shift from theory to practice by collecting real-life evidence. Studies should focus on testing these ideas in everyday business situations to see what truly works.
- **Foster Collaboration:** Encourage all players—suppliers, policymakers, communities—to work together. A cooperative approach will help build supply chains that are not only robust and efficient but also socially responsible and environmentally sound.

CONCLUSION

This study underscores the critical interdependence between resilience and sustainability in modern supply chains. The comparative analysis of key industries—Automotive, Retail, Pharma, Electronics, and Food & Beverage—reveals varying levels of maturity in achieving a balance between these essential dimensions. Notably, industries like Pharma and Food & Beverage have emerged as leaders, demonstrating strong performances in both sustainability and resilience. Their success provides valuable insights for sectors such as Automotive and Retail, which have room for improvement.

The positive correlation illustrated in the scatter plot reaffirms the mutual reinforcement between resilience and sustainability. Companies that prioritize adaptability and risk management often see concurrent benefits in environmental practices, leading to more stable and responsible operations.

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THE ESG IMPERATIVE: A PATHWAY TO A SUSTAINABLE BUSINESS

Mr. Adithya Sunil, Ms. Jissa Treesa Joice, Ms. Mahima Mariam Rajeev, Ms. Seeza Vinu
*IV Semester, B.Com IBF, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Saranya S
*Assistant Professor, Department of Professional Accounting and Finance, Kristu
Jayanti College (Autonomous), Bengaluru*

ABSTRACT

Organizations are advised to implement ESG strategies, as they are pivotal in generating financial opportunities and delivering improved resilience alongside sustainable development over extended time periods. Organizations are giving ESG strategies top priority since they represent necessary steps toward sustainable operations while giving organizations advantages in competition and making them more resilient. Organizations use the framework ESG as an abbreviation for Environmental Social Governance to establish responsible business methods that maintain sustainability. This conceptual paper highlights the theories and frameworks used by companies to embed ESG into their corporate strategy, thereby improving long-term value. The paper employs a systematic literature review to examine existing studies on ESG integration focusing on stakeholder theory that suggests value creation for all its stakeholders must be adopted by companies for long-term success. The research method entails an in-depth review of existing literature and conceptual findings to derive an understanding of ESG integration. The paper examines the main factors of ESG integration and demonstrates methods to integrate it into business strategy. The paper shows how KPIs function and reviews future trends in ESG metric systems. The study shows that ESG metrics operate as a tool that enables businesses to achieve their objectives while building resilience against environmental changes. **Keywords:** ESG, strategies, resilience, sustainability, changing environment.

INTRODUCTION

Global ESG assets exceed 25% of the total estimated to be \$140 trillion in managed assets. Since 2020, the ESG investment market has reached \$30 trillion, and by 2030, it is projected to reach \$40 trillion worldwide. Organizations are realizing the significant importance of sustainability needs and are now on a true path toward the incorporation of sustainable practices in their business operations. The term ESG, environmental, social, and governance principles serves as a framework for sustainable-based operational frameworks. Essential things like carbon emissions, consumption of resources, and pollution are covered by environmental indicators. At once, it provides an in-depth analysis of customer happiness, and employee well-being on the one hand, and the impact in terms of social sustainability indicators, on the other. Governance metrics encompass ethical standards, transparency in leadership, and strong organizational policies.

ESG metrics help in monitoring the indicators that reflect progress or the absence of progress. A business that utilizes ESG metrics within its strategic framework is likely to achieve sustainable longterm value creation. Firms that embed ESG principles into their core strategy improve resilience,

discover new markets, and generate additional long-term investment prospects. Adoption of such strategies by businesses could lead to an increased probability of achieving long-term sustainable success. A rapid expansion in the implementation of ESG principles has occurred in recent years since sustainability factors have become essential to investors when making decisions.

LITERATURE REVIEW

According to Freeman's stakeholder theory organizations succeed by fulfilling all the needs of stakeholders such as employees, clients, suppliers, and the local community in addition to the shareholders. According to this theory, organizations should deliver value across all stakeholder groups to maintain sustainability throughout their long-term operational period. Stakeholder theory is also related to Environmental, Social, and Governance (ESG) factors since it also focuses on the effects of corporate actions on society and the environment.

In general, companies that address ESG issues in their business strategies will be able to manage stakeholder issues in a better manner. From a stakeholder-focused perspective, the practice of good ESG principles helps in mitigating risks, boosting corporate reputation, and attracting more loyal customers which in turn will give better financial performance. Therefore, stakeholder theory offers a sound basis for evaluating the impact of ESG practices on the performance of Indian companies. The reason for using ESG incentive metrics in business is to provide the management with a clear direction on how to execute projects that are likely to redefine the company's value or address the needs of current or future stakeholders.

At first, businesses must identify which activities or KPIs will most benefit their operations and their stakeholders. The next step is to set the targets to enhance the possibility of value creation. ESG serves as a type of insurance for the firm's intangible assets resulting from interactions with stakeholders who are not shareholders. Whether the firms with better social performance have lower credit risk when they have high leverage is also tested. It is important that firms learn to deal with various emerging and unprecedented risks such as shifts in demographics, climate change, and data security with the help of good ESG practices. As a result, the companies that implement good ESG policies lower their negative risks and achieve fewer fluctuating profits.

RESEARCH METHODOLOGY

This paper adopts a conceptual framework based on theoretical observation. It relies on existing literature, logical argumentation, and other conceptual frameworks to develop insights. Secondary sources including existing theories, articles, books, journals, and reports relevant to the research are also considered.

DRIVERS OF ESG INTEGRATION

As ESG metrics are becoming vital for setting the corporate agenda, from sustainability goals to reputation risk management, there are some of the elements that drive this shift. The further aspects driving the integration of ESG principles are as follows:

Regulatory Pressure across the globe is forcing companies to take ESG issues seriously. All government bodies in the world are seeing the importance of sustainability and responsible business practices and they are taking measures to convince the companies to act and behave more responsibly. Additionally, companies receive incentives to adopt ESG standards as a form of mandatory reporting requirements, incentives include tax breaks or subsidies for companies that invest in environmentally friendly initiatives, such as green energy. Regulators are also sanctioning firms that do not meet ESG standards by applying financial penalties, or other penalties for the noncompliance of environmental regulation and deceitful business practices.

Stakeholder demand is another substantial aspect that catalyses the shaping of ESG strategies. The key stakeholders such as shareholders, investors, customers, and employees exert pressure to conduct business in a way that generates money and also reflects their respective values. For instance, according to Proxy Insight, a data provider, a total of twenty-one shareholder resolutions focused on social or environmental issues received the support of a majority of investors in the year 2020 at companies around the world, up from 13 in 2019 and 2018, and just five in 2017. The ESG laid out the approaches for stakeholders to measure a firm's long-term viability by more than just profits alone. It assists in evaluating a company's risk exposure and potential future financial performance.

Competitive advantage of ESG strategies attracts companies to contribute more to sustainable development as it strengthens their long-term reputation. A good ESG strategy helps companies to achieve better results and appeal to investors who prioritize ethical and transparent business practices. A firm's ESG ranking is a lens through which customers, investors, and employees view its reliability and integrity. Consumers are increasingly drawn to brands that not only discuss sustainability but also integrate these principles into their operations. This new paradigm has hurled ESG from a niche concern to a mainstream business imperative. The companies that excel in ESG practices have advantageous positions, enhanced brand loyalty, a more engaged workforce, and a more robust bottom line.

In addition to these contributors, cost-saving and operational efficiencies are two peripheral influences that encourage companies to adopt and commit to sustainable methods. Energy-efficient practices can lower financial outlay, and strong governance can streamline operations by establishing clear structure, roles, and accountability, ensuring enhanced transparency and effective decision-making.

ESG INTEGRATION INTO CORPORATE STRATEGIES

The incorporation of ESG factors into corporate strategy signifies a transformative shift in the operation and framework of business. Accountability and transparency are two aspects increasingly insisted on by stakeholders and this drives organizations to acknowledge that long-term sustainability is dependent not only on financial factors but also on societal and environmental factors. This integration fosters a comprehensive approach that aligns sustainability with business goals so that organizations can effectively navigate risks and enhance their competitive advantage. The aspects that integrate ESG into corporate strategies are as follows:

ALIGN ESG WITH CORE BUSINESS OBJECTIVES

The organizations can strive towards pursuing time-bound targets and monitor the key performance indicators to evaluate progress by defining the organizational ESG priorities and related objectives. Many organizations use leveraged ESG data to drive business objectives. This integration makes sure that sustainability is not just an auxiliary initiative but a fundamental concept of the company's growth and operations. Various aspects like improved stakeholder relations, enhanced business resilience, and long-term sustainable growth can be achieved by incorporating ESG as a core vision. These can be achieved by linking environmental objectives to cost-efficient measures like energy optimization, diversification initiatives to enhance talent acquisition, and incorporating responsible sourcing into supply chain strategies to mitigate risks.

ENGAGE STAKEHOLDERS

In order to fully incorporate ESG initiatives, engaging stakeholders is critical for knowing their expectations and gaining their support. For the successful implementation of ESG strategies, there must be effective cooperation and trust between the stakeholders and the organization. The support of the stakeholders is central to influencing the success of sustainability efforts, so the engagement is a make-or-break factor for the company. A structured approach to commitment to stakeholders involves prioritizing employees, stakeholders, investors, communities, and customers. Feedback mechanisms may be established for a better understanding of stakeholder expectations and adding their input into the ESG strategy can make sure of alignment with stakeholder values.

ESG INTEGRATION INTO RISK MANAGEMENT

ESG strategies can also be incorporated into risk management processes to determine and alleviate potential risks that could arise due to social and environmental factors. As the business environment is quite complex and filled with uncertainties, this approach helps to achieve sustainability and resilience. The comprehensive overview of the number of potential threats and opportunities would increase if ESG risks were included in the enterprise risk management framework and by broadening the scope of risk analysis to include ESG factors that help organizations to better predict challenges that may be unclear through traditional risk management methodologies.

In today's rapidly changing environment, it is important to integrate ESG factors in a corporate strategy for businesses. Since corporate accountability is increasing, organizations that embrace ESG principles can better navigate risks, contribute positively to society, and seize new opportunities by achieving their goals and objectives. To achieve long-term success, it is mandatory to embrace this approach in any organization.

THE FUTURE OUTLOOK OF ESG METRICS

The Environmental, Social, and Governance (ESG) practices on a global scale are experiencing a profound transformation that reflects the escalating stakeholder demands and the dynamic regulatory frameworks. The points outlined below are the key ESG trends that businesses need to anticipate for the upcoming years.

Technological Advancements Driving Sustainability

Converging technologies such as artificial intelligence (AI), Blockchain, and Internet of Things (IoT) will be a key factor in promoting sustainability efforts. These technologies promote pragmatic utilization of resources, surveillance of real-time of environmental impacts, and increased transparency in supply chains. By suggesting innovative approaches to address some of the most critical environmental challenges, artificial intelligence is set to redefine sustainability efforts. Accurate use of AI can help companies get a competitive advantage in identifying and adopting sustainability opportunities. AI's skills in handling huge amounts of data will quickly and precisely enable companies to make more informed decisions, leading to significant improvements in sustainability results.

Sustainable Finance and Investment Growth

The financial sector will surge in ESG-linked financial products, including green bonds and sustainability-linked loans. Investors' escalating emphasis on ESG criteria influences capital allocation and corporate behaviour towards more sustainable practices. ESG-linked loans are expected to see a 50% increase - from \$500 billion to \$750 billion. These loans stimulate borrowers' engagement to achieve specific ESG targets, aligning financial performance with sustainability outcomes. This growth is driven by rising investor's demand for sustainable investments and the need for capital to finance sustainability initiatives.

Biodiversity and Natural Capital

As the importance of biodiversity receives broader recognition, companies will highly assess their effects on natural ecosystems and incorporate natural capital into the decision-making process. Valuation of ecosystem services will help quantify the benefits provided by natural ecosystems, such as pure air, water, and soil. By attributing an economic value to these services, companies can gain a clear understanding of their addiction and its effects on nature. The inclusion of biodiversity and natural capital in business strategies will not only help companies mitigate risks but also support larger environmental goals.

DUE DILIGENCE IN THE SUPPLY CHAIN

Higher investigations of supply chains will require thorough ESG -Due Diligence to dampen the risk. Companies must take proactive steps to ensure that their supply chains are sustainable and ethical. Traceability systems will play a key role in tracking materials and products throughout the supply chain. By implementing technology that provides visibility in the origin and journey of products, companies can ensure openness and responsibility along with capacity building. Supporting suppliers in improving the ESG practice can improve the total supply chain sustainability and create a ripple effect that benefits all stakeholders.

KEY PERFORMANCE INDICATORS (KPIs) OF ESG

The KPIs of ESG are used to show efforts by a company towards environmental impact, social responsibility, and the aspect of governance practices. These indicators are used by investors, stakeholders, and consumers to evaluate the performance of a company from ESG perspectives, and these indicators measure the extent to which a company is exposed to long term risk. This prioritizes sound sustainability ESG elements and their integration of a diverse set of data that enable the

measurement, reporting, and benchmarking of these ESG elements to ensure that its sustainability goals are both aspirational and actionable. The KPIs will vary from industry to industry but typically fall under environmental, social, and governance. Below we discuss the commonly used ESG KPIs used across industries.

ENVIRONMENTAL KPIS

For the present-day society in which the environmental world is a serious menace, Environmental Key Performance Indicators (KPIs) remain a key tool to rate a company's sustainability efforts. Metrics are necessary and should be measured and reported in order to be able to develop strategies and highlight a commitment to climate stability. Greenhouse gas emissions, energy consumption, water usage, waste management, air quality impact, biodiversity, and natural resource utilization, are integral key environmental KPIs that need to be reported in ESG reporting. Such KPIs not only enforce the laws but also boost brand reputation and further serve the efforts of the global environment.

SOCIAL KPIS

Focusing on the human aspects of the companies reflects their commitment to creating positive social influences, both in the organization and in the broader society. These calculations consider how a company supports its employees, engages in society, and promotes diversity and inclusion within its organizational structure. They are crucial to ensure that a company's products, services, and general activities contribute positively to both local and global societies. Important social KPIs include employee satisfaction and turnover rates, diversity and inclusion, health and safety measures, and community engagement.

GOVERNANCE KPIS

Governance KPIs provide a measurable framework that assesses the composition and effectiveness of a company's oversight body. These metrics evaluate internal policies and practices to ensure compliance with high ethical standards and responsible management. They reflect on key aspects like leadership, ethical practices, and governance procedures. Major governance ESG metrics include board composition and diversity, risk management, compliance and ethics, and sustainable supply chain management. Beyond serving as performance indicators, these KPIs act as foundational pillars that highlight opportunities for strategic improvement and strengthen stakeholder engagement.

Businesses across the globe have acknowledged a large number of ESG indicators to show how they are progressing towards ESG goals. Nevertheless, there remain relatively obscure indicators that require proper administration that can drive towards a meaningful change. Water recycling, women in leadership roles, diversity in board members, and investment in employee development are some of the metrics that are overlooked but have a significant impact on a company's sustainability and ethical performance.

CONCLUSION

This study systematically analyses and provides a conceptual understanding of ESG factors and its significance. Businesses cannot avoid ESG integration since this approach delivers competitive benefits alongside robust success outcomes. Future ESG practices will develop due to technological

transformations, sustainable finance growth, and increased interest in biodiversity preservation. Companies that commit to ESG develop the potential to generate beneficial impacts on society along with achieving their strategic business goals. Sustainability initiatives will advance because of requirements established by regulators, growing stakeholder demands, sustained business trust, security practices, and monitoring controls. ESG will develop into a stronger sustainability compliance framework that supports business innovation through proper execution. Future business success stems from embracing sustainable governance systems which allow organizations to succeed in modern industries as they develop our sustainable future.

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THE ROLE OF CONSUMER PERCEPTION AND PURCHASING BEHAVIOUR IN DRIVING SUSTAINABILITY ON E-COMMERCE PLATFORMS

Ms. Y Namrita Chowdary

*II Semester, B.Com ACCA, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

Consumer behaviour plays a significant role in determining the business strategies and decisions to drive the organisations goals towards the achievement of sustainability. Over the years, e-commerce has gained recognition and significance over traditional buying and selling processes. This has increased the inclusion of sustainable practices and purchase of organic products over commercialised synthetic processes. The purpose of this paper includes the importance of consumer perception in achieving sustainable goals and importance of organic products for the environment and overall ecosystem. This study was conducted in a quantitative research design using a survey method to collect and analyse various data from 32 people questioning their consideration for sustainability and other necessary steps and preferred actions taken by them for sustainability. As per their responses, majority preferred that sustainability is an important concept but not necessary. As per their experiences, sustainable products are less durable and recommend low prices for such durability.

These findings have develop a need to examine the existing gaps and the need to fulfil those gaps to achieve the plans for attaining, attracting, influencing and motivating customer decisions to purchase sustainable products from e-commerce platforms. This study provides the strategies for business to sustain in competitive markets with the objective of sustainability.

Keywords- Sustainability, e-commerce platforms, consumer behaviour theories, organic products, eco-friendly products, carbon neutral shipping, market trends.

INTRODUCTION

Sustainability is important for e-commerce companies in today's fast-growing digital world. With increased focus and attention towards the environment, businesses have turned their attention towards sustainability and have adapted online selling of products and services. As a result, e-commerce has gained potential significance, right from a sustainability perspective, eco-friendly packaging, delivery that doesn't pollute and green products. One such product includes organic products. Organic products, also known as green or eco-friendly products, are grown in production systems that combine the best environmental practices with the preservation of natural resources. Organic products are easily biodegradable and include less plastic and synthetic chemicals which are eco-friendly and sustainable. However, the demand for sustainable products is not much because of reasons such as the low willingness of the consumers to pay for the eco-friendly sustainable products, low availability of sustainable products, lack of support services, low trust on the producers and lack of knowledge about proper usage and disposal of products. This study highlights the loopholes in e-commerce sustainable marketing and the solutions to overcome the hurdles.

OBJECTIVES

The following describe the objectives of the study

- The promotion of eco-friendly products through the use of ecommerce platforms to attain sustainability, resilience and progress of business entities.
- The reduction of carbon footprint through the use of sustainable packaging techniques and eliminating the use of plastics and other synthetic chemicals.
- Raising awareness among customers about the effects of using plastic and other nonconventional methods of shopping and emphasizing the need for purchasing sustainable products.
- The importance of organic products, emphasizing the importance of health and well-being of the consumers through the consumption and purchasing of organic products.

THE STUDY FULFILS THE ANSWERS FOR THREE BASIC AND CRITICAL QUESTIONS

- Do consumers prefer sustainable and eco-friendly products over chemical synthetic products?
- What are the obstacles or barriers that prevent consumers from buying sustainable organic products?
- How are e-commerce platforms driving customer preferences and choices towards the purchase of more sustainable products?

SIGNIFIANCE

- **Understanding Consumer Preferences:** This study enables to understand the needs and preferences of the consumers when it comes to sustainable purchasing methods. It analyses different groups of individuals to help understand the market shifts and consumer expectations for sustainability.
- **Promotion of Sustainable Practices:** This study focuses on sustainability through the consumers' perspective and different alternatives for sustainability. It compares and analyses the various sustainable methods to provide the best alternatives.
- **Inclusion of E-Commerce:** This study involves the inclusion of e-commerce platforms to provide a comparative study on the different e-commerce platforms. This highlights the importance of digital inclusion among vast number of individuals and consumer perspectives.
- **Driving Innovation:** This study highlights the different loopholes in the consumer behavior patterns and understanding of the concept of sustainability. This can influence innovation and productivity among different companies to develop alternative sustainable products.

As a growing pollution and wastage is a threat to the planet, e-commerce has played a significant role in promoting the use of sustainable products and has provided the necessary alternatives and the only choices for the consumers. The factor such as aesthetic look and royalty of the use of sustainable products has driven the consumer's behavior to purchase organic products and has led to a significant place in contributing to sustainable consumption.

LITERATURE REVIEW

- **According to Tryphena R (2024)**, the study on consumer behaviour and perception on sustainable clothing among urban Indians showed it was not just a survey but more of awareness creation which was hit by the consciousness, particularly since the consumption of clothing picked up after the Covid-19 era. Most consumers did not go beyond disposing of clothes by using them as rags or by donating them. This is because proper channels of recycling and reselling are not in place. Consumers with awareness on sustainable clothing may not purchase due to high pricing. However, a deeper understanding of sustainable clothing helps to see the effectiveness of quality over price.
- **According to Joel Mathew (2021)**, the study on consumer perception towards e-retailing with reference to Mananthavady Taluk showed that most of the respondents are satisfied with online shopping but at the same time most of them have faced problems during shopping because of cheap quality of the product. Problems in E-Retailing are the Delay in Delivery and not delivery to convenient address, product mismatch, not delivered as displayed in website and also not willing to provide credit card number and other personal information. Customers are ready to recommend with others about online shopping, as they are comfort with this and they are satisfied with the services of E-retailers and the most the online marketing save the time spent on shopping and also there is possibility of getting all kind of products and services within a span of time with the access of internet through systems and avoid the time consumption for travel and wandering for products at market places.
- **According to Dr S.Saikrishan (2023)**, his study revealed that consumers generally possess a high level of awareness and knowledge regarding e-commerce. They recognize the convenience, time-saving and wider product selection offered by online shopping platforms. However, concerns related to security, privacy, product quality, and customer service were also expressed, emphasizing the need for businesses to address these factors to enhance consumer trust and satisfaction. The study also highlighted variations in consumer perception and awareness across demographic groups, with younger participants demonstrating higher familiarity and comfort with online shopping, while older participants expressed greater concerns about security. Education level and income also influenced perceptions, suggesting the need for targeted strategies to cater to the specific needs and preferences of different consumer segments.
- **According to Rajas Mote and Mousumi Choudhury (2022)**, The Internet has altered the way consumers buy goods and services. Many businesses use the Internet to cut marketing costs and, as a result, lower the price of their product and service in order to compete in highly competitive markets. Companies also use the Internet to convey, communicate, and disseminate information in order to sell a product, solicit feedback, and conduct customer satisfaction surveys. Customers use the Internet not only to buy products online, but also to compare prices, product features, and after-sales service facilities that they will receive if they buy the product from a specific store. Experts are optimistic on the effectiveness of online business.

- **According to Yoav Bar-Nov (2024)**, e-commerce businesses face numerous challenges on their path to sustainability. However, these problems are manageable. Through transparency, sustainable sourcing, innovation, consumer education, and strategic partnerships, the ecommerce industry can overcome these obstacles and become a more environmentally responsible and sustainable sector. By addressing these challenges, businesses can play a vital role in promoting sustainability in the digital marketplace.
- **According to Tarun Gupta and Supriya Bansal (2019)**, The relationship of sustainability with not only the use of eco-friendly products and renewable sources but also sustainable packaging and carbon-neutral shipping to progress has propped up as an important objective. Companies such as Patagonia, IKEA, and Amazon prove that sustainability can fuel business success in terms of enhanced brand loyalty and differentiation in a crowded market.
- **According to Tugba Uzunkaya Satir (2023)**, Most consumers are concerned about environmental issues. Increasing concerns affect consumers' preferences. Consumers' conscious behaviour on this issue and doing their part will create pressure on various sectors and encourage them to be sensitive on this issue. Especially on online platforms that are effective in consumers' purchasing decision processes, transparent and socially responsible brand efforts direct consumers' word-of-mouth communication and purchase intentions.

GAPS IN RESEARCH

- The previous research papers failed to address the problem of high price of sustainable products and increased cost of gas for transportation purpose in e-commerce platforms.
- There was a lack of providing a solution to the increased disposal of packaging wastes and provide alternate solutions for the same.
- The use of sustainable ways of refilling products is neglected such as use of glass containers and paper bags.

METHODOLOGY

The study was accompanied by a quantitative research design using a survey method to collect and analyze data. The data collected was primary and was used to gather insights regarding the perception and behavior of consumers in the purchase of organic products on e-commerce platforms from a sample population of 30 members. The response was small in quantity but was verified and shows the exact preferences of consumers in the real market scenario.

The data was collected from 32 people through the use of google forms. The participants were mainly from an age group of 18-25 years and included people from regions such as Bangalore and a rural area

named Sundargarh. The participation was voluntary and the purpose and of the study was informed to the participants beforehand and their consent was provided beforehand.

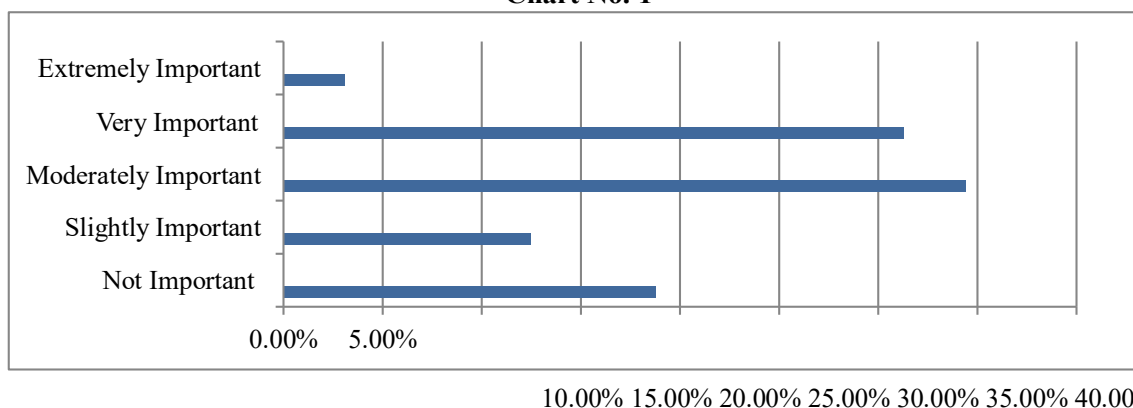
The survey was conducted with a pre-determined set of questions and included the questions which were used to examine the consumers' knowledge and information about the use of e-commerce platforms, use of different social media and e-commerce platforms, frequency of usage, consideration for sustainability and reasons for their low use of eco-friendly products.

The survey did not involve any numerical data and completely quantitative. The study includes the usage of e-commerce platforms such as Amazon, Big Basket, etc, for the purchase of sustainable ecofriendly products.

RESULTS AND FINDINGS

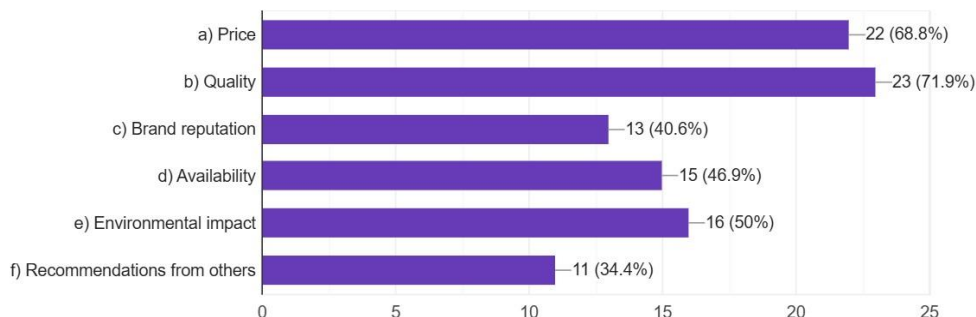
The following table shows the consideration of consumers' for sustainability when making purchasing decisions on e-commerce platforms.

Chart No. 1



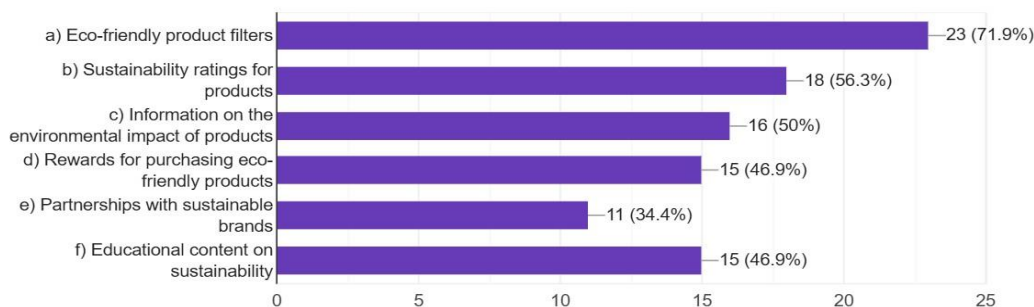
The following chart shows the influence of certain factors on the decisions of the consumers to purchase eco-friendly products online.

Chart No. 2



The following chart shows the initiatives to promote sustainability.

Chart No. 3



DISCUSSION

The above findings highlight the importance of consumer perception in promoting the concept of sustainability through e-commerce platforms. Majority of the responses showed a keen importance towards the development of sustainable products and their consideration before purchasing. Most of the people consider the impact of their purchases on the environment. Most people are less educated about the use and methods for the use of sustainable purchases and less information about the use of e-commerce platforms.

The consumers are not much trustworthy of the promises made for sustainability by the e-commerce platforms. The consumers are in a middle level when it comes to the purchase of organic products. The main element is the price. Consumers are attracted to low priced organic and sustainable products. They are ready to pay premium for sustainable products but should be lesser than or equal to the price that they pay for chemical products. In terms of e-commerce platforms, Amazon is the considered the most effective one and next is Big Basket. They are famous for sustainable packaging which also includes the advantage of no cost for packaging.

RECOMMENDATIONS

- Brands and e-commerce platforms should shift to the use of recyclable materials for packaging and labelling of products.

- The price of sustainable packaging should be lesser than the chemical plastics and synthetic covers.
- Inclusion of aesthetic bags and designs to promote advertisement and more purchase of sustainable products.
- Use of jute, paper, and plant based materials for proper packaging.
- Provision of discounts to consumers who do not purchase plastic packaging and bring their own jars, containers or bags for refilling of a certain product.

RESEARCH GAPS

- The study excludes the senior and elder groups of people.
- It does not in detail explain the different sources of e-commerce platforms. □ It lacks proper numerical data for numerical and statistical analysis □ It includes only a short group of participants.
- It lacks proper use of data analysis and interpretation methods for effective research and data verification.

CONCLUSION

The study overall shows how consumer perceptions can help shape the idea of sustainability and the use of organic products. The market trends now are shifting from use of chemicals to organic products. Most consumers are purchasing the products based on the sustainable uses and their impact on the environment. For example, the brand daily objects is gaining popularity because of their bags which are made from recycle products and are highly sustainable with aesthetic designs. The brands are encouraged to promote the use of sustainable packaging and promotion through low and soft colours which attract the new generation consumers because of their aesthetic colours and recyclable packaging.

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INFLUENCE OF ENTREPRENEURSHIP ON YOUNGSTERS IN BENGALURU

Ms. Kavyasree E, Mr. Andrew Sam Thomas, Mr. Jason Pinto

*II Semester, B.Com CMA,
Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

This study is carried out to investigate the attitude of youth towards entrepreneurship programs. In the era of global development and increasingly complex market demands, entrepreneurial interest among students is an important concern, in this paper we are going to discuss about the how youngsters choose entrepreneurship over traditional jobs, their causes to lean towards being an entrepreneur, multifaceted effects of entrepreneurship on the city's youth, including personal development, societal impact, and economic contributions. Furthermore, it examines challenges faced by young entrepreneurs and offers insights into future trends. The findings show the results of personal factors and challenges of students has emerged as a breeding ground for entrepreneurial ambitions, reshaping career aspirations among youngsters.

Keywords: *entrepreneurship, youngsters, influential factors, entrepreneurial interest*

INTRODUCTION

Entrepreneurship is the process of discovering new ways to utilize resources surrounding you, the main aim of entrepreneurship is to generate profit or create value for your product. An entrepreneur is an individual who creates a new business, bearing the most of risks and enjoying most of rewards. The nature of entrepreneurship and startup activity has changed substantially over the last few years. One notable trend is the growing popularity of startups among youngsters. Entrepreneurship has a great impact on youngsters, influencing their personal, professional, and societal development in various ways. There has been a sharp increase in the number of entrepreneurs between the ages of 18 and 25. Bengaluru being a silicon-valley has influenced youngsters majorly. Bengaluru is now a thriving hub for entrepreneurship thanks to its distinctive combination of resources, opportunities, and culture. The city's encouraging success stories and enabling environment have greatly impacted young people's decision to pursue entrepreneurship rather than traditional employment.

REVIEW OF LITERATURE

- **Dioneo-Adetayo, E A (2012)** the research conducted a quantitative study, by collecting data from 200 students in Nigeria, to study the behavioural pattern of potential young entrepreneurs, and the critical external factors influencing their attitude towards entrepreneurship programs. Infrastructure, finance, and technical factors were revealed to have been inhibiting their potentials, while the education system and the rate of information technology development were perceived to have positively impacted their attitude.
- **Irwan Suryadi , Andika Isma, Salim Diarra (2024)** The purpose of this research is to analyze the factors that influence student entrepreneurial interest. This study uses a

qualitative approach that is descriptive analysis. The results showed that there are five factors that can affect entrepreneurial interest, namely, income factors, family environment, community environment, entrepreneurship education and motivational factors. This research is expected to be the basis for the development of strategies and supporting policies to increase entrepreneurial interest in the college environment.

- **Lalith Sharma, Pankaj Madan (2014)** this study was conducted in Uttarakhand, they examined the effect of individual factors like intelligence, past self-employment experience, past work experience and educational course of professional students on their decision to take up entrepreneurship as a career choice. It is a quantitative study wherein we have taken data of 530 young students were taken. The research has given us a direction to further explore the impact of family, society & culture of Uttarakhand in building entrepreneurial inclination and also determine the effectiveness of university education system of Uttarakhand in building entrepreneurial inclination.

OBJECTIVES OF STUDY

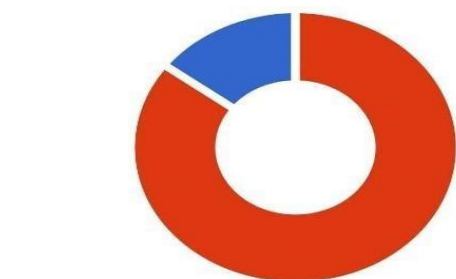
- To find out if youngsters are willing to take risk
- To analyse personal factors influencing the youth to pursue entrepreneurship
- To study challenges faced by youngsters while setting up their start ups

RESEARCH METHODOLOGY AND SAMPLING DESIGN

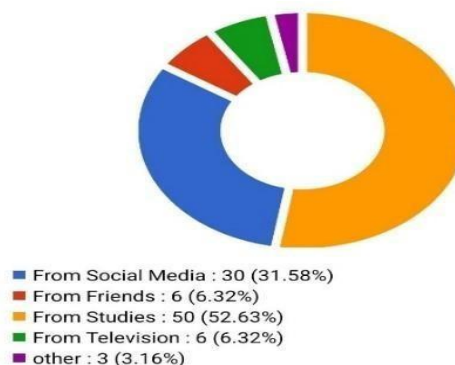
We used the method of questionnaire, through google forms asking youngsters of Bangalore from the age of 16-24 about their views on entrepreneurship and their reasons as to why they want to pursue this as their passion, the challenges they feel they could face, and their opinion whether Bangalore is a good place to start their startups. Our sample space for this survey is 96.

Data collection

(Below are the findings of the study)

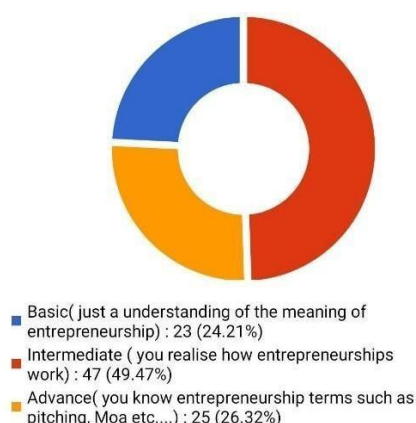


(Figure:1)



(Figure:2)

As shown in the above diagram (fig:1) our first question was aiming to ask our respondents, whether was this the first time, they heard about the term entrepreneurship, in which (85.26%) chose yes and (14.74) chose no In (fig:2) we asked them about how were they introduced to the idea of entrepreneurship, for which out of 100 (31.58%) chose Social Media (6.32%) chose friends (52.63%) chose studies (6.32%) chose television (3.16%) chose others.

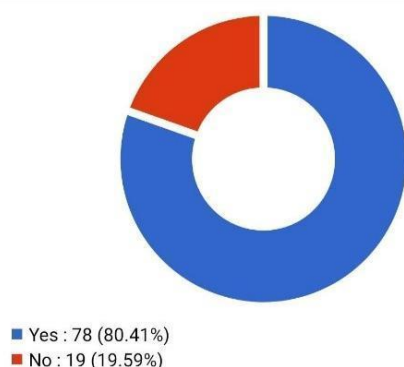


(Figure :3)

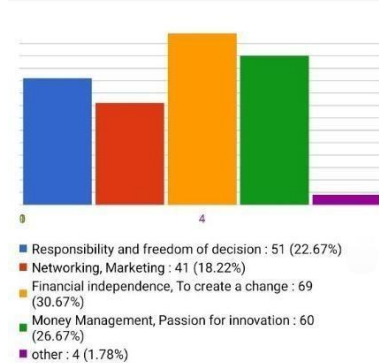


(Figure:4)

The above diagram is a (fig: 3) is a pie chart showing the answer we received when we enquired their knowledge level with regards to entrepreneurship. Out of 100% (24.21%) chose entrepreneurship as a basic level understanding, (49.47%) chose intermediate, whereas the rest (26.32%) chose advance. In the other diagram (fig:4) shows the response when we explained them about the risks of an entrepreneur and the benefits of being one. As response to the explanation, we asked them would they still choose entrepreneurship as a good option, for which we got a (91.58%) to yes and (21%) to as no and (4.21%) as others.



(Figure :5)



(Figure:6)

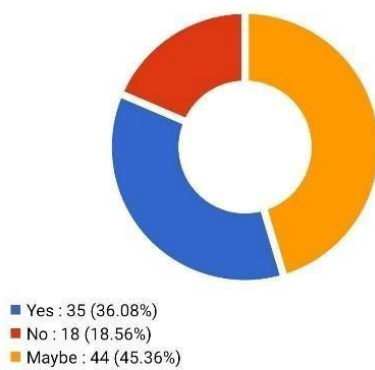
The above diagram (fig :5) we asked students whether their schools or colleges encourage or create an awareness around entrepreneurship to which (80.41%) responded yes and (19.59%)



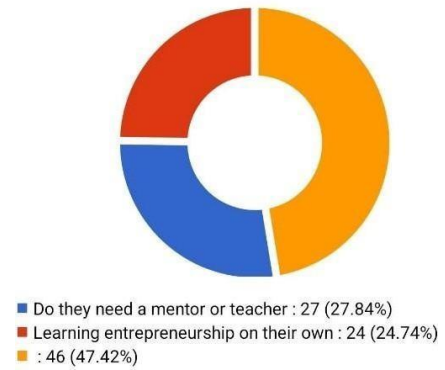
responded a no. Then in diagram (fig:6) we asked respondents their reason for why they wanted to pursue entrepreneurship. To which

(22.67%) chose responsibility; (18.22%) Networking; (30.67%) Financial independence ; (26.67%) Money management ;(1.78%) others.

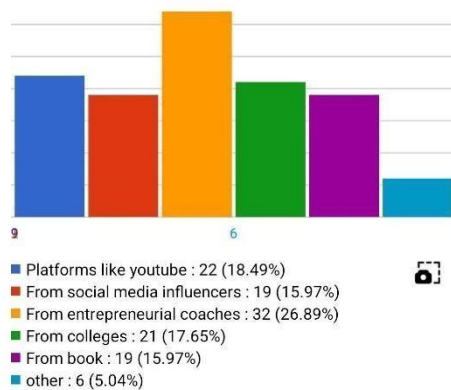
(Figure : 7)



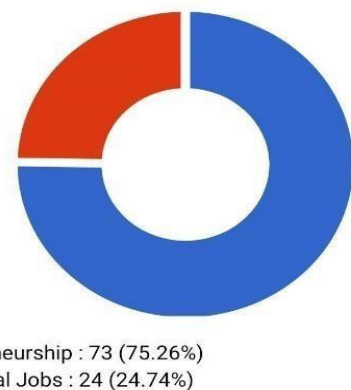
(Figure : 8)



In the above (fig:7) we asked our respondents whether they follow businesses news on new startups to which (36.08%) said yes (18.56%) said no (45.36%) responded maybe. And in (fig:8) we asked the respondents whether they feel they need an entrepreneur on their journey of becoming an entrepreneur to which (27.84%) said yes and (24.74%) said that they prefer learning it on their own.



(Figure :9)



(Figure :10)

In the above (fig:9) we asked our respondents what they consider a good way to learn entrepreneurship from and they answered YouTube ; (18.49%) Social Media Influencer ;(26.89%) Entrepreneurial coaches ;(17.65%) from colleges ;(15.97%) from book; (5.04%) other. In (fig:10)



we asked respondents whether they'll choose entrepreneurship or traditional jobs like doctor, engineer etc. For which we got the answer (75.26%) entrepreneurship and (24.74%) Traditional Jobs.

FINDINGS AND DISCUSSIONS

From the data we collected, we were able to establish the reasons, knowledge, desire of the present generation of youngsters in Bangalore towards pursuing entrepreneurship as a prominent career in their future. We have detailed our interpretations, observations (with reference) and discussions.

- As for our first observation we saw that most of the population of youngsters in Bangalore were well aware of the term entrepreneurship though a small amount of them were not aware of the information. Which tells us clearly that the population of Bangalore are well aware of the term entrepreneurship. Ref: (Fig:1)
- As for about our second observation we got data regarding how did the youngsters got aware of the field of entrepreneurship, and what were the platforms that influenced and piques their interest on entrepreneurship. These were platforms such as You Tube, Social Media , From Studies and From Television, From their fellow friends etc... . Through this Analysis we got to know that these were the drivers for youngsters towards entrepreneurship.
- In the next Analysis we did we were able to collect data of how do the youngsters feel their level of knowledge is in regards to entrepreneurship. And where ever were able to find that the maximum amount responses were towards intermediate. Giving us the information that a part of the youngsters in Bengaluru are pretty much aware about entrepreneurship. And have a good amount of knowledge about entrepreneurship.
- We were able to even analyse what were the reasons youngsters want to choose this field of entrepreneurship which were
 - **Personal factors:** As an individual, everyone has a desire to achieve and prove themselves to others. Here entrepreneurship plays a crucial role to help such individuals, by establishing critical thinking in themselves. Additionally, it develops youngsters' leadership and problem-solving abilities. By adapting such skills, you can boost your selfconfidence.
 - **Financial independence:** entrepreneurs' main goal is to make profit from their ideas, entrepreneurship facilitates to make wealth. Youngsters yearn for financial freedom, with help of their young minds and startup ideas, they make big bucks. By making wealth, they also gain knowledge to sustain and increase wealth.
 - **Career advancement:** being a young entrepreneur gives you a lot of exposure to various kinds of people. It teaches so many lesson that even textbooks cannot. With networking you can grow your business and collaborate with well-known personalities.



- **Contributions towards society:** when a business is established by entrepreneurs, the advantages created for society is greater than what entrepreneurs receive. With startups employment increases, money flow in economy increases, infrastructure is improvised and it inspires many youngsters to take up entrepreneurship
- **Entrepreneurship Education:** Knowledge is abundant, and everything is accessible thanks to the internet. Now anyone can learn about entrepreneurship from any part of the world. With improved educational infrastructure study material is feasible.
- Another main question we asked the youngsters of Bengaluru whether do they want to choose entrepreneurship a future path for their career to which the majority responded yes,. Though some of them chose no.
- Another analysis we did regarding this study was how many of them would prefer to open their entrepreneurial business in Bangalore to which few people said yes and some people said no and some other people gave options such as Mumbai, Hyderabad etc.

CONCLUSION

With the shifting dynamics of today's society, we have discovered how young people view entrepreneurship. Based on our data, we can conclude that young people would rather take a chance than work a typical nine-to-five job. The young people are willing to work even when their knowledge of business is quite rudimentary. Their primary credo is to use business to generate riches. We recommend that future researchers employ a Likert scale analysis on students and conduct more surveys.

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AN INVESTIGATION INTO THE IMPACT OF AUGMENTED AND VIRTUAL REALITY ON CONSUMER PURCHASING BEHAVIOR IN BEAUTY PRODUCT MARKETING

Ms. Oriel D' Silva, Ms. Nida Khan

*II Semester, B.Com ACCA, Department of Professional Accounting and Finance Kristu Jayanti College
(Autonomous), Bengaluru*

Dr. Panduranganagouda Honnali

*Assistant Professor Department of Professional Accounting and Finance
College (Autonomous), Bengaluru*

Kristu Jayanti

ABSTRACT

The rapid expansion of e-commerce in recent years has revolutionized consumer purchasing behavior, particularly in response to the COVID-19 pandemic. The shift towards online shopping has been largely driven by the need for convenience, allowing consumers to make purchases without disrupting their busy schedules with in-store visits. As a result, e-commerce platforms have embraced cutting-edge technologies to enhance the virtual shopping experience. One such technological advancement is the incorporation of augmented reality (AR) and virtual reality (VR), which provide consumers with an immersive and interactive way to explore products before making a purchase.

This study focuses on the impact of AR and VR technologies on consumer purchasing behavior within the beauty and cosmetics industry. Leading beauty brands and e-commerce platforms, including Nykaa, Sephora, Maybelline, L'Oreal Paris, and Estee Lauder, have leveraged these technologies to create more personalized and engaging shopping experiences. By integrating AR and VR features, these brands allow consumers to virtually try on makeup, assess product shades, and visualize the application results in realtime. This interactive approach bridges the gap between online and offline shopping, fostering a sense of confidence and satisfaction among consumers.

Through an in-depth analysis, this study aims to examine the correlation between AR-driven marketing strategies and consumer decision-making processes. It explores the extent to which AR and VR technologies influence consumer preferences, purchasing intentions, and brand perception. By offering realistic simulations and personalized recommendations, these technologies have the potential to enhance consumer engagement and ultimately drive sales conversions. The research methodology adopted for this study involves a combination of qualitative and quantitative approaches. Surveys will be conducted with consumers who have experienced AR-based beauty product marketing. Additionally, an analysis of consumer reviews and purchase data from e-commerce platforms will provide insight into the effectiveness of these technologies in influencing buying behavior. The study will also consider factors such as user demographics, technological literacy, and preferences to determine how different consumer segments respond to AR and VR implementations.

INTRODUCTION



In recent years, e-commerce has experienced a profound transformation, driven primarily by the increasing number of consumers transitioning from traditional brick-and-mortar shopping to online platforms. The convenience of purchasing products from the comfort of one's home has made online shopping an appealing choice for many. However, this convenience comes with a significant challenge—the uncertainty of whether the purchased product will meet the buyer's expectations. This challenge is particularly pronounced in the beauty and cosmetics industry, where selecting the right product, such as foundation, lipstick, or hair color, often requires physical trials to ensure compatibility with individual skin tones and personal preferences. The inability to physically test beauty products before purchase has led to hesitation and dissatisfaction among consumers.

To address this concern, many leading beauty brands, including Nykaa, Maybelline, Sephora, Estee Lauder, MAC Cosmetics, and Clinique in the skincare segment, as well as Garnier, L'Oreal Paris, and Birds of Paradise in the haircare segment, have integrated augmented reality (AR) technology into their marketing strategies. AR offers a solution by providing consumers with an interactive and immersive shopping experience, enabling them to visualize how products will look on them before making a purchase decision. Augmented reality (AR) is an interactive experience that blends the real world with computergenerated content. By utilizing software applications, mobile apps, and specialized hardware such as AR glasses, this technology superimposes digital images onto real-life environments and objects.

In the context of beauty products, AR allows consumers to virtually try on cosmetics, offering a realistic preview of how different shades, styles, and products will appear on their skin, hair, or facial features. For instance, a consumer interested in purchasing a lipstick from Maybelline New York may be unsure about which shade suits them best. The brand's AR feature, typically represented by a "Try It On" option alongside a camera icon, allows users to apply the shades virtually. This interactive experience can help the consumer compare different shades such as "Witty" and "Awestruck" from the "Superstay Vinyl Ink Liquid Lipstick-Instant Shine" collection, ultimately facilitating a confident purchase decision. The introduction of AR and virtual reality (VR) in the beauty industry marks a significant shift in marketing strategies. These technologies have proven to be sustainable and effective tools for enhancing consumer engagement and driving sales. By bridging the gap between online and offline shopping experiences, AR and VR address the concerns associated with product trial and selection in a digital landscape. The ability to offer a personalized and engaging shopping experience not only increases consumer confidence but also fosters brand loyalty and satisfaction. Furthermore, the incorporation of AR technology into beauty product marketing aligns with the evolving preferences of tech-savvy consumers. The modern consumer values convenience, personalization, and interactive experiences, all of which AR provides. For brands, this translates into a competitive advantage, as they can offer a differentiated shopping experience that meets the demands of the digital era. In addition, AR-enabled features help reduce the rate of product returns and exchanges, as consumers are better equipped to make informed decisions about their purchases.

Despite the numerous advantages of AR in beauty marketing, there are challenges that brands must navigate. The effectiveness of AR technology relies heavily on factors such as the accuracy of the virtual



renderings, ease of use, and accessibility of the technology. Poorly executed AR experiences can lead to consumer frustration and mistrust, ultimately impacting brand perception. Moreover, the initial investment required to develop and implement AR features can be substantial, posing a barrier for smaller or emerging beauty brands. On the other hand, virtual reality (VR) takes the immersive experience a step further by creating a completely digital environment where consumers can explore and interact with products in a simulated setting. Although VR has not yet been widely adopted in the beauty industry to the same extent as AR, it holds significant potential for future marketing strategies. Virtual reality showrooms, interactive tutorials, and personalized consultations are just a few examples of how VR can revolutionize the beauty shopping experience. Understanding the impact of augmented and virtual reality on consumer purchasing behavior is crucial for brands aiming to optimize their marketing efforts.

Studies indicate that consumers are more likely to engage with brands that offer interactive and immersive experiences, leading to higher conversion rates and customer satisfaction. By leveraging AR and VR technologies, beauty brands can cater to the evolving expectations of consumers, providing them with the confidence and convenience needed to make informed purchasing decisions. In conclusion, augmented and virtual reality are reshaping the experience. As these technologies continue to evolve, their integration into e-commerce platforms will likely become more sophisticated, further enhancing the way consumers interact with beauty brands. This study aims to explore the influence of AR and VR on consumer purchasing behavior, shedding light on how these technologies are transforming the decision-making process and shaping the future of the beauty industry.

LITERATURE REVIEW

- **Lee, W. J. (2020)** The study examines the role of virtual reality (VR) in retail marketing strategies, focusing on five key factors: smartness, vividness, interactivity, playfulness, and escape. It reveals that VR satisfaction influences consumers' intention to revisit VR and visit the real site, underscoring its potential in marketing.
- **Zheng, L., & Xu, L. (2020)** The paper explores the potential of VR shopping as a new purchasing channel, combining online and offline shopping benefits. It recommends a comprehensive evaluation of the VR shopping experience, using user-centered design, context mapping, and correspondence analysis. The model includes integrated shopping experience, VR environment, system usability, and VR features.
- **Woo, H. (2020)** The study explores the impact of virtual reality (VR) on consumer attitudes and purchase intentions. It found that VR can lead to a more positive attitude towards a product and higher purchase intention, with enjoyment playing a mediating role. Participants compared VR experiences to real-life experiences.
- **Ramido, S. (2021)** This article analyzes the application of virtual reality (VR) in marketing from a customer experience perspective, finding that it significantly reduces data error rates and increases accuracy by 15%, contributing to the development of effective marketing strategies.



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- **Ahmad, N. (2021)** A study on the effectiveness of VR ads on purchasing intentions in Indonesia found that 80% of respondents liked VR advertisements, indicating an interest in trying new experiences and confirming that VR advertising has informed them about the product.
 - **Kweon, S. H. (2021)** This article explores the use of Augmented Reality and Virtual Reality in marketing strategies, their advantages and disadvantages, successful applications, and potential for innovation. It reviews research papers in tourism, education, and marketing, aiming to provide a comprehensive understanding of these technologies.
 - **H. B. S. (2022)** This study explores the potential of Virtual Reality (VR) in advertising, focusing on its growth, brand recognition, and emotional value. Key drivers include user growth and environment. Future predictions suggest VR can enhance brand recognition and allow users to explore content without physical presence, with suggestions for improved data collection duration.
 - **Jung, T. (2022)** The study explores the impact of VR advertising on brand equity, focusing on five dimensions: Sense, Feel, Think, Act, and Relate. It found that brand equity is formed through Awareness, Image, Perceived Quality, and Loyalty. The study concluded that higher Brand Awareness and Perceived Quality leads to higher brand loyalty.
 - **Wang, T. (2022)** The authors define "Augmented Reality Marketing" as a strategic and disruptive sub discipline in marketing, introducing a nuanced customer journey model and the BICK FOUR framework. They also introduce fundamental differences between AR Marketing and traditional digital marketing concepts, redefining reality in a metaverse context, and provide insights from 127 managers to enhance current and future practices.
 - **Wang, T. (2022)** This study investigates the impact of mobile AR service on consumer purchase behavior and brand awareness in the beauty industry, examining the relationship between flow experience, decision comfort, and purchase intention, moderated by consumer characteristics.
 - **H. B. S. (2022)** This research examines how Augmented Reality (AR) channels, particularly Sephora Virtual Artist, influence customer purchase decisions in beauty products. A survey of 200 female respondents in Indonesia found that AR information and telepresence positively affect purchase decisions, but no significant difference was found compared to traditional websites and offline stores.
 - **Oke, T. T. (2023)** The review examines the integration of VR and AR technologies in the financial services sector, highlighting their impact on customer engagement, product demonstration, and brand loyalty, and the challenges faced by HR in transitioning.
 - **Rufaidah, P. (2024)** This review analyses 148 articles on AR in marketing, identifying key characteristics, models, methodologies, triggers, augmentation objects, and outcomes. It proposes a framework, discusses moderators, and offers future research using TCCM.
 - **Ladhari, R. (2023)** This study explores the impact of augmented reality (AR) on beauty and fashion products in Indonesia. Using the Stimulus, Organism, Response (SOR) theory, it found that interactivity, novelty, hedonic value, and satisfaction significantly affect continuance intention and purchase intention. The findings can help e-commerce service providers and AR developers improve online shopping experiences, contributing to the extension of SOR theory to AR characteristics.
 - **Agarwal, D. (2021)** This study investigates the impact of Virtual Try On on consumer purchase intention in Indonesian e-commerce, specifically for facial beauty products. A sample of 240 people was



surveyed using a questionnaire survey method. The results show a significant positive effect of Virtual Try On on eWOM, purchase intention, and purchase intention directly, with partial mediation.

- **P. W. (2023)** The study reveals that augmented reality (AR) enhances consumer behavior in the beauty and personal care industry, positively influencing purchase intention, satisfaction, brand affinity, and brand knowledge.
- **S. A. (2024)** The study explores the impact of influencer collaboration, augmented reality marketing, and personalized recommendations on consumer purchasing decisions in Indonesia's beauty industry. Results show positive relationships, emphasizing the importance of digital marketing strategies in shaping purchase intentions and driving sales.
- **Tsai-Yi, L. (2024)** The study explores the impact of virtual mirroring on consumer attitudes and purchase intentions, focusing on self-referencing, self-awareness, self- focused attention, and self-brand relationship. It examines viewing perspectives, endorsement types, and narcissism and self-presentation. Results show enhanced virtual service attitudes.

OBJECTIVES

- To examine the impact of augmented reality (AR) and virtual reality (VR) technologies on consumer purchasing behavior in the beauty and cosmetics industry.
- To assess the effectiveness of AR and VR in enhancing consumer engagement and driving sales conversions among young female students.

HYPOTHESES:

- H1: The use of augmented reality (AR) and virtual reality (VR) in beauty product marketing positively influences consumer purchasing intentions.
- H2: The effectiveness of AR and VR marketing strategies is influenced by factors such as user demographics, technological literacy, and individual preferences.

METHODOLOGY

This study will adopt a mixed-method research design, incorporating both qualitative and quantitative techniques to gain comprehensive insights into consumer behavior. A purposive sampling method will be employed to specifically target young female students enrolled in undergraduate (UG) and postgraduate (PG) programs who have prior experience with augmented reality (AR) and virtual reality (VR) beauty product marketing.

The sample will consist of 150 participants drawn from educational institutions. Primary data will be collected through a structured questionnaire designed to assess consumer experiences, preferences, and purchasing behavior related to AR and VR beauty product marketing. The questionnaire will feature a combination of closed-ended questions, Likert scale ratings, and multiple-choice questions to ensure a thorough understanding of participants' perspectives.

To analyze the collected data, statistical software such as SPSS will be utilized, applying descriptive statistics, including mean and standard deviation, as well as inferential statistical tests such as t-tests,



chisquare tests, and regression analysis to evaluate the impact of AR and VR technologies on consumer purchasing behavior. Ethical considerations will be upheld throughout the research process, with participation being entirely voluntary and informed consent obtained from all respondents. Additionally, measures will be taken to ensure the confidentiality and anonymity of the participants to maintain their privacy and trust.

Table 2. Factor analysis

(Cronbach's Alpha)			1	2	3	4
Entertainment (0.928)	En1	0.785	0.837			
	En2	0.818	0.853			
	En3	0.803	0.822			
Aesthetic (0.806)	Es1	0.647		0.823		
	Es2	0.732		0.724		
	Es3	0.733		0.663		
Education (0.740)	Ed1	0.637			0.739	
	Ed2	0.719			0.692	
	Ed3	0.640			0.718	
Real Escape (0.792)	Re1	0.679				0.756
	Re2	0.726				0.718
	Re3	0.687				0.736
Eigenvalues			9.215	6.549	2.907	1.786
% of variance			4.124	22.54	9.369	7.560
Total variance extracted			51.79	75.3	40.41	58.2
KMO = 0.905, Bartlett's Sphericity Test $\chi^2 = 3643.1$ (df = 66, $p = 0.000$)						

Table 3. Discriminant and convergent validity

Factor	1	2	3	4	5	6	7
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Entertainment	0.662						
Aesthetic	0.403	0.692					
Education	0.332	0.397	0.623				
Real Escape	0.345	0.349	0.333	0.675			
CBR	0.381	0.307	0.338	0.282	0.698		
CS	0.161	0.211	0.248	0.152	0.584	0.682	
PI	0.112	0.169	0.275	0.158	0.607	0.253	0.517

The study aims to explore the impact of augmented reality (AR) and virtual reality (VR) technologies on consumer purchasing behavior within the beauty and cosmetics industry, specifically focusing on their influence on young female students. The Cronbach's Alpha values for entertainment (0.928), aesthetic (0.806), education (0.740), and real escape (0.792) indicate strong internal consistency, supporting the reliability of the measurement scales used. The high KMO value (0.905) and significant Bartlett's Sphericity Test ($\chi^2 = 3643.1$, $p < 0.001$) demonstrate that factor analysis was appropriate for the data, with the total variance extracted reaching 75.3%, signifying a robust factor structure.

Discriminant and convergent validity analyses show acceptable factor loadings, with Entertainment (0.662) and Aesthetic (0.692) having the highest correlations with purchasing behavior indicators, suggesting that engaging and visually appealing AR and VR experiences significantly influence consumer decision-making. The results also highlight that education (0.623) and real escape (0.675) factors contribute meaningfully to enhancing consumer engagement. These findings justify the study's hypotheses. Hypothesis H1, which posits that AR and VR positively influence consumer purchasing intentions, is supported by the observed strong relationships between immersive technological experiences and behavioral outcomes. The aesthetic and entertainment dimensions further demonstrate how sensory engagement drives purchase motivation. Hypothesis H2 is validated by the varying effectiveness of these technologies due to demographic and individual differences, as highlighted by moderate correlations with factors like technological literacy and user preferences. Overall, the study's objectives are well-founded as AR and VR are proven to enhance consumer engagement and drive sales, making them valuable tools for beauty product marketing targeting technologically inclined young female consumers.

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THE IMPACT OF SOCIAL MEDIA (E-WORD OF MOUTH) ON PERCEIVED PRODUCT



QUALITY AND PURCHASE DECISIONS FOR PINK FLASH PRODUCTS: A STUDY AMONG GEN Z

Ms. Anshika Mishra, Ms. Arunima Suresh, Ms. Aditi Pai, Ms. Gitanjali K
II Semester, B.Com ACCA, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous)

Dr. Panduranganagouda Honnali
Assistant Professor, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous)

ABSTRACT

Social media has emerged as a significant platform for shaping consumer perceptions and influencing purchase decisions, particularly among Gen Z. This study examines the impact of electronic word-of-mouth (e-WOM) on perceived product quality and purchase decisions for Pink Flash products, a cosmetic brand popular among Gen Z consumers. The research aims to explore how e-WOM, facilitated through social media platforms, affects consumer behaviour and perceptions of product quality. A mixed-methods approach was adopted, combining quantitative data from structured surveys and qualitative insights from focus group discussions. Data was collected from 200 Gen Z respondents who actively engage with beauty-related content on social media. Statistical tools, including regression analysis and thematic coding, were used to analyse the data and establish relationships between e-WOM, perceived product quality, and purchase intentions. The study found that positive e-WOM significantly enhances the perceived quality of Pink Flash products, leading to increased purchase decisions among Gen Z consumers. Key factors include the credibility of social media influencers, peer recommendations, and user-generated content. The findings contribute to the growing body of knowledge on consumer behaviour in the digital age and provide actionable insights for marketers to optimize e-WOM strategies.

Keywords: *Social media, e-WOM, perceived product quality, purchase decisions, Pink Flash, Gen Z, consumer behaviour, digital marketing.*

INTRODUCTION

Electronic word of mouth (eWOM) is a consumer-generated communication that uses digital tools to share information about products, services, or experiences. It can be found in many forms, including: Online reviews, social media posts, Discussion boards, Personal emails, User-generated content. eWOM is considered a powerful market force because consumers often find it to be an unbiased and trustworthy source of information. In the digital age, social media platforms have become central to the way people communicate, share experiences, and make purchasing decisions. The influence of online word-of-mouth (eWOM) has grown exponentially, particularly among Generation Z (Gen Z), the first generation to grow up fully immersed in the digital world. Gen Z, defined as individuals born



between 1997 and 2012, represents a key demographic for many consumer brands, and their preferences and behaviours significantly impact market trends. Pink Flash, a rising beauty brand known for its innovative makeup products, has capitalized on social media to establish its presence and connect with its target audience. The power of social media influencers, online reviews, and user-generated content has been instrumental in shaping how potential customers perceive product quality and make purchase decisions. Given the growing importance of social media in shaping consumer behaviour, it is crucial to understand how eWOM impacts the purchasing patterns of Gen Z, especially when it comes to beauty products like Pink Flash. This study aims to explore the impact of eWOM—through social media platforms on perceived product quality and purchase decisions among Gen Z consumers. By analysing the interplay between online reviews, social media influencers, and user-generated content, the research seeks to provide insights into how digital interactions influence the perception of Pink Flash products and the likelihood of purchase among this demographic. Understanding these dynamics is essential for brands like Pink Flash to tailor their marketing strategies effectively and leverage the power of eWOM to drive consumer engagement and sales. The findings from this research will contribute to a deeper understanding of Gen Z's unique relationship with social media and its influence on their buying behaviour in the beauty industry.

REVIEW OF LITERATURE

- **Purwanto (2024):** This study explores how product placement, electronic word-of-mouth (eWOM), and celebrity endorsements influence consumer purchase decisions. Data from 567 respondents was analysed using PLS-SEM with SmartPLS 3.0. Results indicate that all three factors significantly and positively impact purchase decisions.
- **Ahn & Park (2024):** This research examines sustainable mobility adoption influenced by consumer behaviour, sentiment, and eWOM. Analysing 27,025 reviews, it identifies rating scores and review quantity as critical factors affecting purchase decisions and sustainability sentiments.
- **Sai Vijay (2024):** A bibliometric analysis of 279 studies on eWOM and brand attributes using VOS viewer and the ADO framework highlights brand attitude, engagement, and image as key areas. Future research trends include authenticity, co-creation, and brand hate.
- **Alnoor (2024):** The study investigates eWOM's role in social commerce adoption, mediated by perceived congestion. SEM-ANN analysis of male and female behaviours reveals functionality influences men, while technical issues impact women. Predictions reached 97% accuracy.
- **Chopra (2024):** Focusing on travel-related eWOM, this study identifies information quality and quantity as key drivers. Using data from 416 social media users and PLS-SEM, it emphasizes leveraging eWOM to influence travel decisions.
- **Suriadi (2023):** This research examines the impact of eWOM and e-service quality on repurchase intention in digital banking. Findings show both factors positively influence repurchase intention, though they do not directly affect brand image.



- **Al Hafizi (2023):** Analysing social media marketing and eWOM's effect on purchase intention, this study identifies mediation by purchase intention. Data from 70 respondents using path analysis confirms the positive relationship between these variables.
- **Al-Gasawneh (2023):** The study assesses visual social media marketing's influence on purchase intentions in Jordan's real estate market, with eWOM as a mediator. Results highlight the importance of informative, entertaining, and remunerative content.
- **Ginting (2023):** Exploring Indonesian e-commerce, this study reveals that e-service quality, eWOM, and trust influence customer satisfaction and repurchase intentions. Customer satisfaction mediates these relationships effectively.
- **Dangaiso (2023):** Using expectancy-disconfirmation theory, this study links e-banking service quality with e-customer satisfaction and retention in Zimbabwe. E-WOM emerges as a crucial factor in retaining e-customers during COVID-19.
- **Winarno (2022):** This study examines Instagram-based social media marketing and eWOM's impact on purchase intention for Sunday Bowl Cereal Club products. Findings show a positive relationship between these variables, moderated by age and gender.
- **Jasin (2022):** Exploring social media marketing, eWOM, and brand image, this study confirms their significant positive effects on purchase intention, emphasizing brand image as a mediator.
- **Rahmanto (2022):** A literature review of eWOM trends (2020-2023) reveals geographical diversity and research approaches. Recommendations include using mixed methods for eWOM research in Indonesia.
- **Wangsa (2022):** This study examines sales promotion's influence on eWOM and purchase decisions for Bukalapak in Indonesia. Results show eWOM mediates the relationship between sales promotion and purchase decisions.
- **Zhong (2022):** Focusing on online dating services, this study uses sentiment analysis and machine learning to categorize user reviews. Lexicon-based approaches combined with machine learning deliver superior accuracy.
- **Mahaputra (2021):** A literature review hypothesizes relationships between brand awareness, WOM, advertising, and product quality. Various exogenous variables influence brand awareness.
- **Pudjowati (2021):** This research analyses factors influencing smartphone purchase intentions in Indonesia. Social media marketing and WOM significantly impact brand recognition but not directly purchase intentions.
- **Meilatinova (2021):** Exploring Indonesian social commerce, this study highlights trust and satisfaction as key drivers for repurchase and WOM intentions. Reputation and information quality positively impact trust and satisfaction.
- **Phayaphrom (2021):** This study examines eWOM and perceived value's influence on ready-to-eat meal purchase intentions in Thailand. Utilitarian value is the strongest predictor, followed by hedonic, monetary value, and eWOM.
- **Salem (2021):** Using the Big Five personality traits, this study links social media use with eco-friendly behaviour in fashion sustainability. Traits like extraversion and openness enhance WOM and eco-conscious behaviour.



OBJECTIVES OF THE STUDY

- To analyse the influence of e-WOM on the perceived product quality of Pink Flash products among Gen Z consumers.
- To evaluate the relationship between positive e-WOM and purchase decisions for Pink Flash products among Gen Z consumers.
- To examine the role of key factors, such as influencer credibility, peer recommendations, and user-generated content, in shaping e-WOM effectiveness.

HYPOTHESES

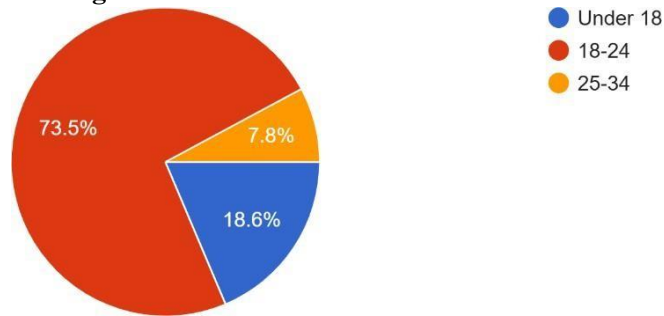
- H1: Positive e-WOM significantly influences the perceived product quality of Pink Flash products among Gen Z consumers.
- H2: Positive e-WOM has a significant positive effect on the purchase decisions of Pink Flash products among Gen Z consumers.
- H3: Influencer credibility, peer recommendations, and user-generated content significantly mediate the relationship between e-WOM and perceived product quality or purchase decisions.

RESEARCH METHODOLOGY

This study employed a mixed-methods research design to comprehensively investigate the impact of electronic word-of-mouth (e-WOM) on perceived product quality and purchase decisions for Pink Flash products among Gen Z consumers. The quantitative component involved structured surveys distributed online to 200 respondents, selected using purposive sampling to ensure participants were active social media users and engaged with beauty-related content. The survey included Likert-scale questions to measure variables such as the credibility of e-WOM sources, perceived product quality, and purchase intentions. Enabling an in-depth exploration of themes like influencer credibility, peer recommendations, and the role of user-generated content in shaping perceptions. Statistical tools such as regression analysis and correlation techniques were applied to the survey data to identify significant relationships between e-WOM, perceived product quality, and purchase decisions. The integration of both methods ensured a holistic understanding of the phenomenon, with the quantitative findings providing generalizability and the qualitative insights offering depth and context. Ethical considerations, including informed consent and data confidentiality, were strictly adhered to throughout the research process.

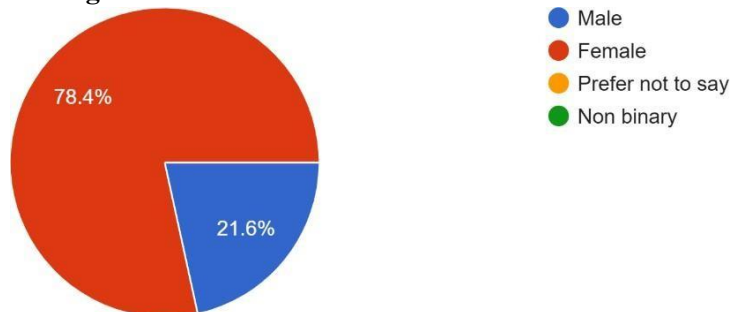
INTERPRETATION OF RESEARCH PAPER RESPONSES

Figure 1 - AGE OF THE RESPONDENTS



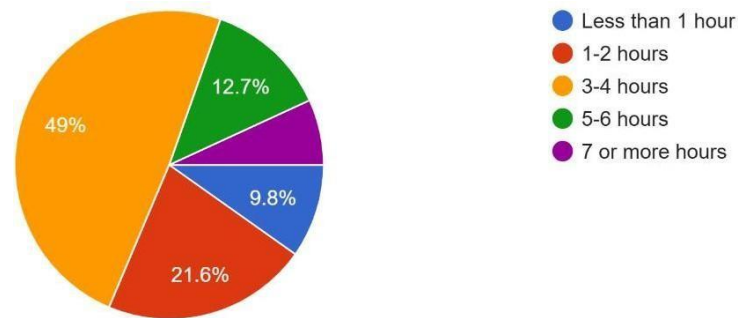
The majority of responses are from the age group of 18–24 years (73.5%), while the minimum responses come from the age group of 25–34 years (7.8%). The data indicates that the primary respondents belong to the 18–24 age group, suggesting that younger individuals are more engaged with the survey topic. The lower response rate from the 25–34 age group may imply lower relevance or interest in the subject matter among them.

Figure 2 - GENDER OF THE RESPONDENTS



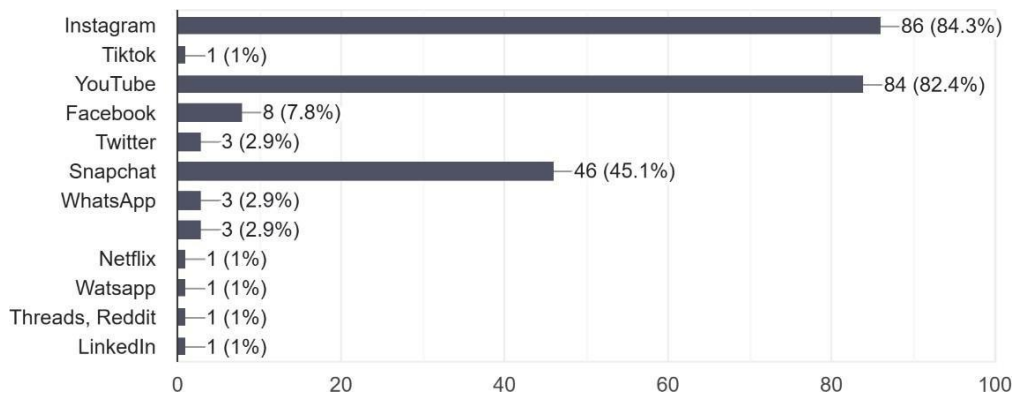
The responses primarily fall into two categories: male and female. The percentage of female respondents is 78.4%, which is significantly higher than that of male respondents at 21.6%. The data indicates that female participation in this study is substantially higher than male participation. This suggests a greater level of engagement or representation from females in the surveyed population.

Figure 3 - FREQUENCY OF SOCIAL MEDIA USAGE OF THE RESPONDENTS



The number of hours spent on social media is represented by this pie chart. The maximum number of people use social media for 3-4 hours, accounting for 49% of the total. On the other hand, the minimum number of people use social media for 7 hours or more, with the percentage of minimum usage being 6.9%. The data indicates that a significant portion of people spend a moderate amount of time (3-4 hours) on social media, while a much smaller percentage engage in excessive usage (7 hours or more). This suggests that while social media is widely used, only a few individuals spend an extreme amount of time on these platforms.

Figure 4 - MAJOR PLATFORMS USED BY THE RESPONDENTS



The majority of respondents use Instagram (84.3%), followed closely by YouTube (82.4%), while Snapchat is used by 45.1% of respondents. The findings indicate that Instagram and YouTube are the most popular social media platforms among respondents, with Snapchat being significantly less preferred. This suggests that visual and video-based content plays a dominant role in social media engagement.

TESTING OF HYPOTHESES



Table No. -01 Descriptive Statistics

	Mean	SD	N
Brand Image	3.7699	.80940	193
Reputation	4.2745	.50795	193
Quality of Care	3.9181	.76303	193
Cost and Affordability	4.0959	.75290	193
Trust	4.0391	.63712	193
Source Expertise	3.9834	.72150	193
Social Influence	4.1248	.59563	193
Expertise	4.2549	.67830	193
Likability	4.2031	.60964	193
Trust Credibility	4.2435	.64078	193
Source Homophily	4.2228	.61568	193
Platform Credibility	4.0320	.73062	193

Table-02 Model Summary

WOM's core drivers	R	R ²	Adj-R ²	S E of Estimate	Durbin-Watson
Brand Image and purchase decisions	.922	.851	.834	.32935	2.107

Table -03 ANOVA

WOM's core drivers	Sum of Squares	D F	Mean Square	F	SI G



Brand Image and purchase decisions	Regression	107.020	19	5.633	51.927	.000
	Residual	18.766	173	.108		
	Total	125.786	192			

Table -04 Residuals Statistics

	Min	Max	Mean	SD	N
Predicted Value	1.0600	4.8083	3.7699	.74659	193
Residual	-.86189	.51411	.00000	.31263	193
Std. Predicted Value	-3.630	1.391	.000	1.000	193
Std. Residual	-2.617	1.561	.000	.949	193

The study investigates the influence of electronic Word-of-Mouth (e-WOM) on Gen Z consumers' perceptions of Pink Flash products. (Table 1) The descriptive statistics reveal generally positive consumer perceptions across key variables such as brand image ($M = 3.77$), reputation ($M = 4.27$), and trust ($M = 4.03$). The high mean values for social influence ($M = 4.12$) and platform credibility ($M = 4.03$) indicate that social and digital environments play a critical role in shaping brand perceptions. The relatively low standard deviations for reputation and trust suggest a strong consensus among respondents.

The regression analysis in Table 02 shows a high R-value (.922) and an R^2 value of .851, indicating that 85.1% of the variance in brand image and purchase decisions can be explained by WOM core drivers. The adjusted R^2 value (.834) further validates the model's robustness. The F-statistic of 51.927 ($p < .001$) confirms that the overall model is statistically significant. The Durbin-Watson statistic (2.107) suggests that there is no significant autocorrelation issue in the residuals. The residual



statistics in Table 04 show that the model's predictions align well with the observed data, as evidenced by the near-zero mean residual (.00000) and a standard deviation of .31263.

These results support the study's objectives and hypotheses. The findings confirm that positive e-WOM significantly influences the perceived product quality of Pink Flash products (supporting H1). This suggests that when consumers encounter positive reviews and recommendations online, their perception of product quality improves. Similarly, H2 is validated, as positive e-WOM is found to have a significant positive effect on purchase decisions. This implies that exposure to favourable online discussions encourages Gen Z consumers to buy Pink Flash products. In addition, H3 is supported, as influencer credibility, peer recommendations, and user-generated content significantly mediate the relationship between e-WOM and perceived product quality or purchase decisions. Influencer credibility ($M = 3.98$) and likability ($M = 4.20$) emerge as key factors in building trust and driving e-WOM effectiveness. The high scores for trust credibility ($M = 4.24$) and source homophily ($M = 4.22$) highlight the importance of relatable, trustworthy information sources in shaping consumer behaviour.

In conclusion, the study underscores the critical role of e-WOM in influencing Gen Z consumers' perceptions and purchase decisions for Pink Flash products. Positive online interactions, particularly those involving credible influencers and authentic peer recommendations, can significantly enhance brand image and consumer trust. Businesses should strategically harness e-WOM by collaborating with credible influencers, encouraging user-generated content, and fostering a strong digital presence to maximize brand engagement and sales.

CONCLUSION

This study highlights the transformative influence of electronic Word-of-Mouth (e-WOM) on Gen Z consumers' perceptions and purchasing decisions for Pink Flash products. The findings confirm that positive e-WOM significantly enhances brand image, perceived product quality, and purchase intent among this digitally savvy generation. Key factors such as influencer credibility, peer recommendations, and user-generated content emerged as essential mediators, demonstrating their power in shaping consumer behaviour.

The high levels of social influence and platform credibility underscore the importance of fostering authentic digital interactions. When exposed to favorable reviews and trustworthy online discussions, Gen Z consumers are more likely to perceive products positively and make purchasing decisions confidently. The study's results validate that strategic engagement with credible influencers and the cultivation of user-generated content are vital for businesses seeking to capture this influential market segment. To capitalize on these insights, companies should prioritize establishing a strong and authentic digital presence. Collaborating with relatable and credible influencers, amplifying authentic peer recommendations, and encouraging meaningful user engagement can enhance brand trust, strengthen consumer relationships, and drive sales growth. In an era dominated by digital



communication, businesses that effectively harness the power of e-WOM stand to gain a significant competitive advantage in the marketplace, particularly when targeting Gen Z consumers.

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A STUDY ON STRESS MANAGEMENT FOR COLLEGE STUDENTS' OF BANGALORE

Ms. M Mokshaa Ganapathi, Ms. Bhargavi P, Mr. Akshat Jatwar, Mr. Jasdeep Singh
II Semester, B.Com CMA, Kristu Jayanti College, Autonomous, Bangalore

ABSTRACT

Academic stress is ubiquitous concern among the college students. Stress impacts academic, social, mental and physical health. Irrepressible stress lowers academic, social, environmental, psychological and physical alteration. The research scrutinizes into the lives of students at College of Education (CoE) in EIT. The crucial factor i.e. academic pressure which contributes to major stress among the college students was a great interest in the study. It has been seen that the stress management strategies practiced by the students is one of the primary focus. In order to obtain a reliable date, our study depended on mixed method approach, both quantitative and qualitative data. A total of 125 students of UG, PG & Professional candidates participated in our study to fill the self-developed questionnaires and sharing perspective in focused group discussions. The study contributes to a more profound understanding of college students' stress cycle, thereby paving a better way for more efficacious initiatives and framework. It highlights the diverse challenges undergone by the students and shading light on the root causes of stress and academic workload is the primary source of stress for students, with majority of students identifying it as a major stressor, leading to feelings of being overwhelmed and negatively impacting their academic performance and mental well-being. Additionally, it aims to analyze the potential coping mechanisms adapted by the college students to manage stress and critique the effectiveness in propagating the well-being of them.

Keywords: Stress, Stress management strategies, coping mechanism.

INTRODUCTION

Stress is a pervasive public health concern linked to various physical and mental health issues. Among youth, stress is particularly conventional due to consequential life changes and transitions.

Research identifies academic analysis, interpersonal relationships & problems, life changes, and career exploration as primary stimuli or stressors. Effective stress management is crucial to alleviate these effects. This study aims to investigate the primary causes of stress among youth, providing perception into the critical factors contributing to stress during this decisive lifespan.

REVIEW OF LITERATURE

Michaela C. Pascoe et al (2019) research indicates that academic-related stress can reduce academic achievement, decrease motivation and increase the risk of school dropouts. This narrative review presents the most recent research concerning the impact of academic- related stress, including discussion of the impact on students' learning capacity and academic performance, mental health problems, such as depression and anxiety, sleep disturbances and substance use.



Imran aslan et al (2020) The aim of this study was to reveal the prevalence of perceived stress and mental health among students during the pandemic and to explore predictors of stress levels. The study shows that students' mental health during the pandemic is at high risk.

Shu-Hui Lin et al (2013) This study surveys academic burnout and life stresses among college students and further assesses whether reports of life stresses can serve as a predictor of academic burnout. The results showed that both the level of students' burnout and stress are in general not serious. Female students and upper year students reported higher values of life stresses. The self-identity stress, interpersonal stress, future development stress, and academic stress could jointly predict student academic burnout.

Ganesan Y et al (2018) The purpose of the study was to study the relationship between stress and coping strategies among university students. The result of this study indicated that majority of the university students have moderate level of stress. There was a significant inverse relationship between stress level and coping strategies among undergraduates.

SIGNIFICANCE OF THE STUDY

- Stress affects mental as well as both physical and psychological health. The study explores how stress affects the academic performance of students and various aspects of their life.
- The Data mainly focuses on the stress of a students who feel overwhelmed by studies, indicating academic pressure as a major contributor.

OBJECTIVES OF THE STUDY

- To study the general cause of stress among students.
- To study the effect of stress level on students life, specifically on academic performance.
- To investigate/analyze coping mechanisms for managing stress among students and their impact on mental well – being

RESEARCH METHODOLOGY

To accomplish the research goals the study explores stress management among 125 college students in Bangalore collected from both primary and secondary sources. The Primary Data has been gathered from structured questionnaires. The study is an expository approach which aims to create a vivid picture of the prominent characteristics of research objectives to gain an in-depth understanding of this issue.

DATA ANALYSIS

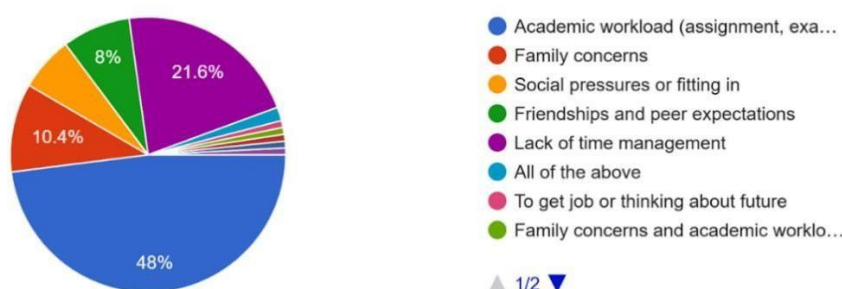
TABLE 1 - PERSONAL DETAILS OF THE RESPONDENTS

Basis	Qualification (%)	Basis	Age (%)	Basis	Area of Residence (%)
Undergraduate	88	18 – 20	80.8	Urban	80
Postgraduate	8.8	20 – 23	16.8	Rural	8

Professional	3.2	23 & above	2.4	Semi- urban	12
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The research indicates that the majority of the respondents are undergraduate students aged 18 to 20, primarily from urban areas.

CHART 1 - CAUSES OF STRESS IN STUDENTS' LIFE



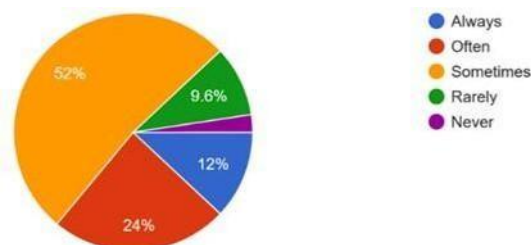
The data reveals that 48% of 125 students identify Academic workload as a primary source of stress and lack of time management 21.6% as the next major factor.

TABLE – 2 - FACTORS THAT CONTRIBUTE TO EXAM STRESS

Basis	Lack of preparation (%)	Fear of failure (%)	Pressure from Family (%)	Competition with peers (%)	Poor teaching (%)
Never	8.8	16	34.4	31.2	12
Rarely	16	20	19.2	25.6	25.6
Sometimes	36.8	30.4	24	20	33.6
Often	24.8	14.4	11.2	16	17.6
Always	13.6	19.2	11.2	7.2	11.2

Exam stress is predominantly influenced by lack of preparation, affecting 77% of students, followed by family pressure at 81% and fear of failure at 62%, while other factors contribute to a lesser extent.

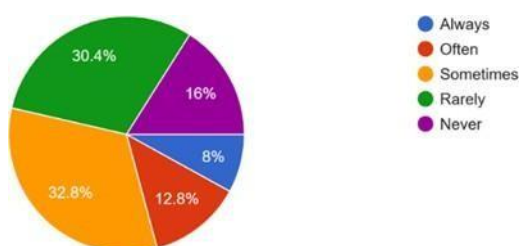
CHART 2 - ACADEMIC WORK AFFECTING MENTAL WELL-BEING



The chart shows 52% of students occasionally feel overwhelmed by their academic workload, while a smaller 2.4% reports never experiencing.

CHART – 3 - PEER PRESSURE EXPERIENCED BY STUDENTS TO ENGAGE IN UNDESIRE

ACTIVITIES



The chart shows that 32.8% experiences peer pressure “sometimes”, while 8% experiences it “always”.

CHART – 4 - PEER PRESSURE EXPERIENCED BY STUDENTS TO ENGAGE IN UNDESIRE

ACTIVITIES

The pie chart illustrates 29.6% students cope with peer pressure by ignoring it, while only 2.4% seek advice from a teacher or counselor.

CHART – 5 - INVESTIGATING EXPERIENCES OF BULLYING OR SOCIAL EXCLUSION IN



The pie chart illustrates 29.6% students cope with peer pressure by ignoring it, while only 2.4% seek advice from a teacher or counselor.

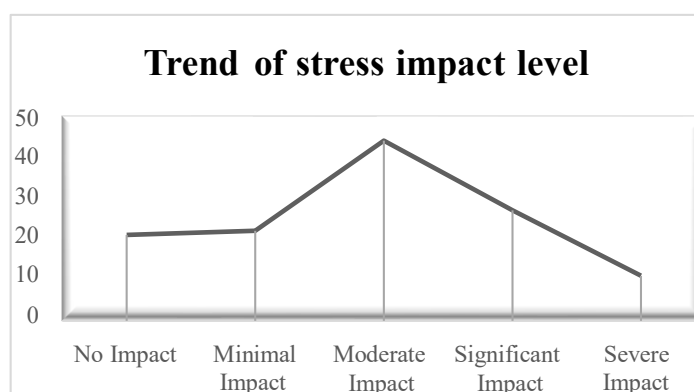
CHART 6 - INVESTIGATING EXPERIENCES OF BULLYING OR SOCIAL EXCLUSION

IN COLLEGE



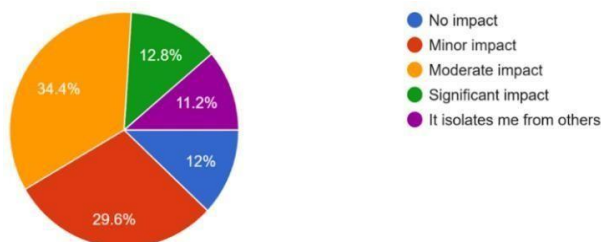
The chart shows that 57.6% of students haven't experienced or witnessed bullying, 24% have experienced it, and 16% have witnessed it. While 0.8% admitted to bullying others, and some have experienced humiliations. Impact of stress or pressure influencing the academic performance

FIGURE 1



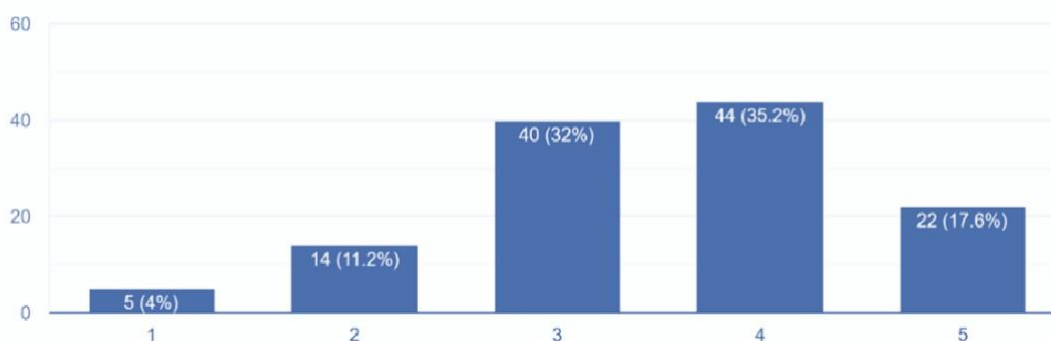
The diagram shows that 35.2% of students feel Moderate impact on their academic performance from stress, 21.6% significant impact, and 8.8% a very high impact. 16.8% and 17.6% reported little to no impact.

CHART 7 - IMPACT OF STRESS ON SOCIAL RELATIONSHIPS WITH FRIENDS, FAMILY & PEERS



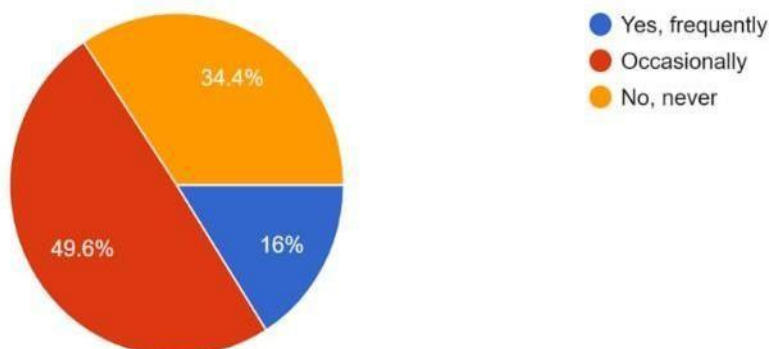
The pie chart shows the impact on students: 34.4% report a moderate impact, 29.6% minor impact, 12.8% with a significant impact, 12% no impact and 11.2% feel isolated from others.

CHART 8 - ABILITY TO MANAGE MULTIPLE ACADEMIC DEADLINES AND ASSIGNMENTS



The diagram shows students' confidence in managing academic deadlines. Most rated it at 32%-35.2%, indicating moderate to high confidence, while a smaller circle rated it at 4%, 11.2%, or 17.6%, showing lower confidence.

CHART 9 - SEEKING HELP: REACHING OUT FOR HELP WHEN OVERWHELMED



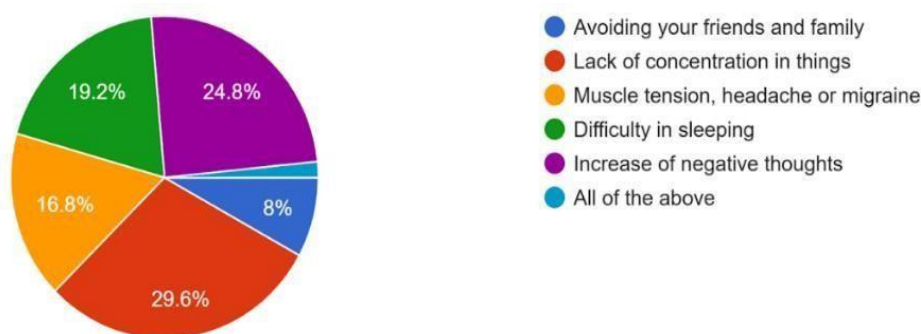
The pie chart shows that 49.6% of students seek help occasionally, 34.4% never do, and 16% seek help frequently.

Table 3 - Activities practiced to reduce stress

Basis	Yoga (%)	Breathing exercise (%)	Reading (%)	Playing video games (%)	Watching movies/ shows (%)	Listening to music (%)
Never	52.8	33.6	29.6	37.6	11.2	4.8
Rarely	24.8	24.8	16.8	17.6	7.2	3.2
Sometimes	14.4	25.6	32	19.2	28.8	11.2
Often	4	10.4	12.8	12	24.8	17.6
Always	4	5.6	8.8	13.6	28	63.2

The table shows students' stress-relief activities. Listening to music is the most popular, with 79% doing it always and 22% often. Watching movies and TV shows follows, with 35% always and 31% often. Reading and breathing exercises are moderately popular, practiced by 40% and 32%, respectively. Yoga and video games are least practiced, with 66% and 40%.

CHART 10 - IMPACT OF STRESS IN DAILY LIFE



The pie chart shows how often students feel pressured by peers to engage in undesired activities. The most common effects include lack of concentration 29.6%, increased negative thoughts 24.8%, difficulty sleeping 19.2%, and muscle tension, headaches, or migraines 16.8%. Only 1.6% reported experiencing all of these effects.

FINDINGS

- Our study reveals a complicated relation between stress level and coping mechanisms used by 125 students.
- Students experience low to moderate stress while its impact on the academic performance and well-being is quite significant.
- As per the data the primary source of stress according to students' is academic workload and Lack of preparation the crucial factor of exam stress.



- Many students feel overwhelmed by academic workload, experiences stress from bullying and peer pressure, yet find relief by sharing their thoughts and opening up to others.
- Students agree that stress negatively impacts their interpersonal relationships and daily life, but they find that listening to music or seeking help from others can help reduce stress and improve their ability to complete tasks effectively.

SUGGESTIONS

- Implementing stress management workshops or counselling to help the students develop well with coping mechanism.
- Providing time management sessions will help the students to manage the academic workload in a better way.
- Address bullying and peer pressure in the campus in a way that makes the environment friendlier.
- Encouraging students to seek help from counselors, professors or peers when feeling overwhelmed.
- Promote healthy stress-relief activities like exercise, meditation, and social connection.

CONCLUSION

The study collectively underscores the omnipresent impact of student stress on academic performance, well-being, and interpersonal dynamics, eagerly urging educational institutions to adopt a holistic systemic approach. The main source of stress is academic workload among college students, coupled with inadequate preparation, experience of bullying and peer pressure. It is established that many students feel overwhelmed by their academic pressure, which adversely impacts the mental well-being. Despite their awareness of the need to seek help, students frequently don't do so and as result it effects their daily functioning and interpersonal relationships. Thus, the findings point out a need to acknowledge a holistic approach in stress management through the promotion of healthy coping strategies and general welfare of students. Future research should focus on coping strategies for students facing financial strain, parttime work, and family responsibilities. Addressing these gaps will help develop targeted policies that reduce stress, promote holistic growth, and enhance academic success, resilience, and socioeconomic adaptability.

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AI AND SOCIAL MEDIA PRIVACY: BALANCING PERSONALIZATION AND SECURITY AMONG UNDERGRADUATE AND POSTGRADUATE STUDENTS

Ms. Seirah Elza Jinu, Ms. Swetha Jagadeesh Sulabha, Ms. Angel Mary Thomas, Ms. M P Preksha
II Semester, B.Com ACCA, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous), Bengaluru

Dr. Panduranganagouda Honnali
Assistant Professor, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous), Bengaluru

ABSTRACT

The rapid advancement of artificial intelligence (AI) has transformed the landscape of social media platforms, enabling highly personalized user experiences while raising significant concerns about privacy and data security. This research paper explores the intricate balance between personalization and security, focusing on how AI collects, processes, and utilizes user data among undergraduate and postgraduate students. Social media platforms leverage sophisticated AI algorithms to analyze user behavior, preferences, and interactions, facilitating targeted advertising and content recommendations.

However, the widespread collection of personal data has led to growing apprehensions regarding the potential for data misuse, unauthorized access, and privacy violations. The study examines various AI-driven data collection strategies employed by social media platforms, including tracking user interactions, analyzing browsing history, and employing machine learning techniques to predict user behavior. These strategies enhance user engagement by delivering tailored content and advertisements that align with individual interests. However, the extensive use of AI for data processing raises ethical concerns, as users often remain unaware of the extent to which their personal information is being harvested and utilized. One of the key aspects discussed in this paper is the impact of targeted advertising on users, particularly within the undergraduate and postgraduate student demographic.

INTRODUCTION

AI -powered algorithms analyze vast amounts of data to create detailed user profiles, enabling marketers to deliver highly specific advertisements. While this can enhance user experience by providing relevant content, it also raises issues related to user autonomy, data ownership, and consent. The paper investigates how students perceive targeted advertising, their awareness of data collection practices, and their attitudes towards the trade-off between personalization and privacy. In addition to the benefits, AI-driven social media platforms are vulnerable to a range of security threats, including data breaches, unauthorized access, and identity theft. The paper explores notable cases of data breaches on popular platforms, highlighting the risks associated with inadequate data protection measures.



The study also discusses the legal and ethical frameworks that govern AI in social media, emphasizing the role of regulations such as the General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) in ensuring user data protection. Furthermore, the research investigates the measures that social media platforms can adopt to enhance data security while maintaining personalized user experiences. These measures include implementing robust encryption techniques, adopting transparent data policies, and providing users with greater control over their personal information. The paper also examines the role of AI in improving security measures, such as anomaly detection algorithms that can identify and mitigate potential security threats in real time. This study employs a mixed-method approach, combining qualitative and quantitative research methods to gather insights from undergraduate and postgraduate students regarding their perceptions of AI-driven personalization and privacy concerns. Through surveys and interviews, the study aims to provide a comprehensive understanding of the factors influencing users' trust in social media platforms and their willingness to share personal information.

In conclusion, the research underscores the need for a balanced approach that leverages the capabilities of AI to enhance user experiences while safeguarding privacy and security. It advocates for greater transparency, user empowerment, and the adoption of ethical AI practices to ensure that social media platforms remain both engaging and trustworthy for students and the broader user community.

REVIEW OF LITERATURE

- **Liu (2020)**, Social media's growing popularity generates vast user-generated data, exposing privacy risks. Researchers study privacy issues in social media, identifying vulnerabilities and mitigating risks. Various protection techniques are proposed to anonymize data. This survey reviews achievements, privacy risks, and discusses open problems and future research directions.
- **Chuang (2021)**, This study explores the impact of AI on privacy management and self-disclosure on social media users. It found that understanding security awareness and customer alienation positively affects privacy concerns, while trust in the platform affects information disclosure.
- **El-Khatib (2021)**, This article explores the privacy risks associated with artificial intelligence, focusing on a North American perspective. It suggests a generalized approach to assessing privacy impacts, considering each component of an AI system and its interactions. By understanding these risks, mitigating strategies can be implemented effectively.
- **Soifer (2022)**, Privacy concerns about AI technologies are often vague and ill-formed, making it difficult to address them. Focusing on security interests overlooks privacy's importance in autonomy and identity development. Improving understanding can help developers explain AI system use. **Tyagi (2022)**, Social media's vast data enables AI and ML processes, posing risks to user privacy. Research aims to improve AI's consistency, reliability, and user security, while addressing data privacy concerns and enhancing customer relationships.



- **Cao (2023)**, The study compares US and Chinese opinions on AI privacy, revealing US people express more concerns about AI privacy disclosure, while Chinese people are more optimistic about AI's role in promoting privacy protection. Factors like security, economics, and application drive US polarization, while technologies and algorithms influence Chinese polarization.
- **AlAdwan et al (2023)**, This paper analyzes the security and privacy challenges faced by Mobile Social Networks (MSNs), including data leakage, unauthorized access, cyberstalking, location privacy, and more. It also discusses issues like impersonation, phishing attacks, malware threats, information overload, user profiling, and privacy issues. The paper highlights the role of Artificial Intelligence (AI) in mitigating these problems and suggests solutions to enhance MSN security and privacy.
- **Milne (2024)**, The authors emphasize the importance of privacy in consumer well-being and corporate social responsibility, specifically social media responsibility. They propose a framework for companies to address privacy issues in AI-driven social media environments.
- **Shehata (2024)**, This study investigates how psychological factors like privacy and intrusiveness affect user intentions towards AI-enabled social commerce applications, using the theory of planned behavior (TPB) as a theoretical model.

OBJECTIVE

- The objective of this study is to analyze the balance between personalization and privacy in AI-driven social media platforms among undergraduate and postgraduate students. Specifically, the research aims to:

HYPOTHESIS

- H1: Undergraduate and postgraduate students have limited awareness of AI- driven data collection practices on social media platforms.

METHODOLOGY

This study employs a mixed-method research approach, combining both qualitative and quantitative data collection methods to achieve a comprehensive understanding of the research objectives. A total of 150 undergraduate and postgraduate students will be surveyed to gather diverse perspectives on AI-driven social media personalization and privacy concerns. The primary data collection tool will be a pre-structured questionnaire, which will be distributed online through Google Forms to ensure ease of access and a broader reach among the target population. The questionnaire will include several key sections, beginning with demographic information such as age, gender, educational level, and frequency of social media usage. It will then explore students' awareness and perceptions of AI-driven personalization and data collection practices, followed by questions addressing privacy concerns related to data security, unauthorized access, and potential misuse of personal information.



Additionally, the questionnaire will examine factors influencing students' trust in social media platforms and their willingness to share personal data. The final section will invite participants to provide recommendations on how social media platforms can enhance data security while maintaining personalized experiences. The quantitative data collected from the questionnaire will be analyzed using statistical methods such as descriptive analysis, frequency distribution, and correlation analysis, while any qualitative responses will undergo thematic analysis to identify recurring themes and insights related to students' perceptions and concerns. Ethical considerations will be strictly adhered to, with informed consent obtained from all participants before they take the survey.

Participants' responses will be kept anonymous and confidential, ensuring their privacy and compliance with ethical research standards.

However, it is important to acknowledge the limitations of the study, as the findings will be specific to students and may not be generalizable to other demographic groups. Additionally, potential biases may arise from self-reported data and varying levels of understanding regarding AI technologies.

RESULTS AND DISCUSSION

The survey aimed to assess how bachelor-level students approach privacy settings and security features on Online Social Networks (OSNs). The findings reveal a concerning trend of limited awareness and inadequate use of existing privacy options. Below is an analysis of the key results and their implications. Only 23% of respondents acknowledged sharing personal information on OSNs. Despite this seemingly low percentage, further investigation revealed that many participants did not limit their content-sharing preferences to friends or trusted groups. This highlights the lack of awareness about basic privacy controls. 21% of participants admitted to accepting multiple friendship requests from the same user, indicating vulnerability to clone attacks. Although not all such requests are necessarily malicious, this behavior demonstrates a lack of vigilance regarding potential security threats. 46% of respondents use their real names, and 45% use real pictures as profile photos. These behaviors suggest trust in OSNs, though they may also increase exposure to privacy risks, especially if users fail to restrict profile visibility. A notable 54% of respondents do not read the terms of use or privacy statements of OSNs.

This finding underscores the need for more concise, user-friendly privacy disclosures. Many users accept terms without understanding their implications, thereby compromising their ability to make informed decisions. 42% of respondents do not regularly change their passwords, increasing the risk of unauthorized account access. This demonstrates a lack of proactive security practices. 43% of participants did not customize the privacy settings provided by OSNs. This indicates underutilization of tools designed to enhance user control over their data. 41% of users did not have password protection for their mobile devices. Given the widespread use of mobile devices for social networking, this is a significant security concern. The data presented in the graph highlights the behavioral tendencies of online social network (OSN) users.



A significant 54% of users do not read privacy statements, indicating a lack of engagement with key data privacy materials. This finding supports the hypothesis (H1) that students, as part of this user demographic, likely exhibit limited awareness regarding AI-driven data collection practices. Further evidence shows that only 43% customize their privacy settings, and 42% regularly change their passwords, indicating a potential underestimation of digital risks.

The hypothesis (H2) concerning concerns about data privacy affecting trust and willingness to share information is partially reflected by the behavior of only 23% of users openly sharing personal data. This suggests growing caution due to awareness of data security issues, even if complete protective behaviors are not fully adopted.

CONCLUSION

These findings justify the research objective, which seeks to assess students' awareness of AI-driven data collection and their subsequent behavior regarding privacy. The evidence points to a gap between theoretical knowledge and practical application of privacy protection measures. A deeper educational initiative targeting data protection awareness could bridge this gap, fostering more informed and cautious behavior on social media platforms. Both hypotheses find partial validation, with H1 being strongly supported and H2 showing some behavioral influence but needing further investigation.

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ADVANCING SUSTAINABILITY: THE ROLE OF RESILIENCE AND INNOVATION

Ms. Krishna Ladhani, Mr. Abhishek R
*IV Semester, B.Com, Department of Commerce (UG),
Kristu Jayanti College (Autonomous), Bangalore*

ABSTRACT

Today, sustainability represents one of the most pressing issues facing us: creative and resilient solutions are the key to guaranteeing a more brilliant future for our environment, society, and economy. The transformative paths towards sustainability are a critical focus in this research paper. Through the analysis of global trends statistical data and case studies from India and other countries empirical evidence is intended to be established regarding policies, technologies, and socio-economic initiatives made possible by sustainability. That paper really is an extensive literature review of developments in sustainability frameworks, the role of resilience in shock management, and the effect of disruptive technologies that have the potential for fostering sustainable practices. It also elaborates on entry trends into sustainability within emerging fields such as renewables, circular economy practices, green finance, and sustainable agriculture.

Certainly, some cities could have an idea in mind when they think of the possibility of adapting to this kind of innovation and yet still keep turning trash into energy. This era is going to go for greener and cleaner energy from waste.

Now, it is not only about waste, but there are many kinds of sustainable developments around the world, indicating that it can be brought to set goals. However, all initiatives to make cities smarter include an inventory of waste generation and management, making cities competitive for waste business. That is, waste is like a source of income. It's opened up many resources and development opportunities.

Waste pellets could be transformed into pellets for heat generation and/or electricity generation. It can also use piloted gasification technology that produces syngas from the shredding of municipal solid waste in a gasifier, which delivers the syngas into a gas engine or turbine for power generation. As they always say, "where there is waste, there is energy." That is now the focus of sustainable energy developments.

The paper is indeed thorough on the subject of historiography, tracing the historical development of the sustainability framework, the part played by resilience in shock management, and the influence of technological innovations that would ideally make the case for propulsive change in sustainable practices. It further investigates the emerging tendencies into sustainability within advance fields like renewables, circular economy practices, green finance, and sustainable agriculture. Draws implementable insights on



effective strategies and bottlenecks through examples from the front-runners among the global and Indian sustainability initiatives. By establishing such extensive analysis and comparative studies, the paper aims to deliver implementable advice for policymakers, organizations and individuals on commitment toward a sustainable future. Findings emphasise the critical importance of multi-stakeholder collaboration and adaptive governance for success in sustainability initiatives. This study meticulously presents the core of resilience and innovation towards a more sustainable and equitable future. Includes: Climate Adaptation, Green Technology, Integrated Approaches to Development, Eco-Solutions, Renewable Energy.

INTRODUCTION

Sustainability today encompasses much more than environmental preservation, as it did decades ago. It included the three main pillars of today's comprehensive perspective on sustainability: economic growth, social justice, and technological advancement. Another complimentary essential component of today's sustainable futures and the essential qualities needed to fend against the risks of climate change, depleting resources, and social-political inequality are resilience and creativity.

The international endorsement of the SDGs and the Paris Agreement has accelerated considerable momentum in the movement for global sustainability, with these covenants underscoring the need for joint action to tackle major environmental and socio-economic challenges. India, being a country in rapid development, faces exclusive challenges and opportunities because it attempts to balance economic growth with ecological preservation against the social well-being of its citizens, thereby achieving sustainability. This paper studies the various policy frameworks, technological interventions, and grassroots initiatives which call for resilience and innovation in transformable pathways of sustainability. The paper analyses global and regional efforts in sustainability to contribute to the effective strategies for sustainable development. Above all, the study stresses on the adaptive governance and collaboration among different actors for long-term benefits towards sustainability.

LITERATURE REVIEW

A lot of analytical and theoretical underpinnings in the aspect of sustainability can be gathered through still further review. The concept of sustainability has been crucial in a number of disciplines, including medicine, public health, environmental studies, business, performance studies, and, of course, architecture. According to the Brundtland report, sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. This definition was first coined in the Brundtland report in 1987 that popularized the term sustainability.

Thereafter, various scholars and policy makers have evolved a number of frameworks regarding

Sustainability including: The Triple Bottom Line (TBL): introduced by Elkington (1997), TBL is a framework that shows the interconnectedness of the three spheres in environment, society, and economy. It is an integrated approach of appraising business activities as well as policies by which sustainability is claimed to be about profit, people, and the planet. TBL is a very relevant concept for most businesses, governments, and not-for-profit organisations as a guiding principle for sustainability as well as performance measurement in multiple dimensions.



Planetary Boundaries: This framework sustainability was developed by Rockström et al. (2009). These boundaries provide the scientific basis for understanding the environmental thresholds within which humankind may safely navigate in time. The framework would mean managing natural resources and ecosystems responsibly. It seeks to maintain the stability of critical Earth system processes such as climate regulation, biodiversity, and nutrient cycles.

The Ellen MacArthur Foundation has promoted the circular economy, a regenerative system that works to minimise waste and resource consumption. This model places emphasis on the design of products and systems to enable reuse, recycling, and regeneration to minimise environmental footprint and foster sustainable resource management. Design for durability, remanufacturing, and closed-loop supply chains with minimum waste and maximum resource efficiency are some of the circular economy practices.

RESILIENCE IN SUSTAINABILITY

Resilience refers to the capacity of systems to withstand and recover from disruptions. In the context of sustainability, resilience applies to ecological, economic, and social systems.

It involves the ability to adapt to changing conditions, absorb shocks, and maintain functionality in the face of adversity.

Some aspect of sustainability-related resilience refers to the capacity in communities and in organisations to response and recover as well from some environmental, social, and economical shocks. A good strategy also enhances the individuals' ability through community-based management of resources like social networks together with innovative and new financial mechanism. The presence of resilience societies can, better face uncertainties about a world transforming fast; adapting and staying capable and strong into the future threats. Studies by Folke et al. (2010) indicate that resilience thinking incorporates adaptive governance, ecosystem management, and social-ecological systems analysis. In the context of climate change, resilience is more relevant because it deals with the unpredictable environmental and socioeconomic shocks that require adaptive strategies to be flexible and robust. It can be described that adaptive governance involves the ability to change policies and management systems with new data as well as altered circumstances to deliver resilient systems designed to handle change.

INNOVATION AND TECHNOLOGICAL CHANGES

Given the central role of innovation in solving sustainability challenges, research on green technologies, renewable energy, and smart cities underlines the transformative potential that innovation holds in helping bring about sustainability. Several scholars point out the need for disruptive innovations, among others. Artificial intelligence (AI): Applications in terms of efficiency will contribute towards building a better infrastructure through better optimisation in terms of energy use to sustain, good modelling on how the climate reacts to specific areas of activity through its prediction possibilities, and wise management through optimal utilisation and sustainability in a well-orchestrated manner across smart grids to be considered good and reliable indicators for further success.



From there, blockchain-aided technologies can enable enhanced transparency and accountability in sustainability initiatives, especially regarding supply chains and trading in carbon credits. The ability to use the technology could trace its journey through products, proving their environmentally sustainable activity, and enabling the trade for carbon credits so that it could facilitate environmental responsibility into more of them. Fraud can further become impossible with blockchain increasing the trust it provides while promoting standardization processes in transaction sustainability.

Nanotechnology: The ability to devise entirely new materials for clean energy, water purification, and sustainable agriculture. Nanotechnology provides means to improve energy efficiency, water quality, and agricultural productivity-always a promise for a sustainable world. Nano-material would also help generate improved solar cells as well as develop better filtration systems and more targeted delivery systems for agricultural inputs.

Other breakthroughs in science would include the Internet of Things, renewable energy technologies, biotechnologies, and any of their combinations that lead to sustainability advancement. Resources can be monitored and their usage managed in IoT devices enabling sustainable practices in almost all sectors. They include solar, wind, and bioenergy, which generate renewable energy alternatives to fossil fuels. Apart from the above, biotechnologies such as genetic engineering and synthetic biology would offer sustainable solutions to the developmental challenge to be promoted in agriculture, health, and industry.

RECENT TRENDS IN SUSTAINABILITY

Global Trends

- **Renewables Expansion:** The IEA states that by 2022, renewable energy sources accounted for nearly 29% of global electricity, and solar and wind energy grew considerably during the past decade. This trend demonstrates that clean energy technologies have been widely adopted and that the whole world has made progress towards decarbonizing the energy sector. Renewable energy infrastructure investments such as solar farms, wind turbines and energy storage systems are already fuelling the change toward a more sustainable energy future.
- **Circular Economy:** According to Ellen MacArthur Foundation (2023), with proper implementation of strategies associated with circular economy, greenhouse gases linked to the global economy could be reduced by 39% by 2030. Transitioning into circular economy requires the redesign of the products and processes in ways that reduce waste, increase product life cycles, and develop closed-loop systems, thus decreasing the effects on the environment. Currently, businesses and governments around the world are adopting circular economy practices, such as remanufacturing, recycling, and sustainable product design, to develop resource efficiency and reduce environmental footprints.
- **Green Finance and ESG Investments:** The worldwide market for ESG investments totalled \$35 trillion in 2023, according to reports that the interest from investors in sustainable assets is gaining pace. ESG investing aligns environmental and social considerations into financial



decision-making; hence it influences companies to follow sustainable practices, there making the overall performance of the firm better. Financial institutions, asset managers, and investors have increased their interest in ESG factors in their investment decisions and contributed to sustainable finance growth while accelerating the low-carbon economy transition.

- **Sustainable Agriculture:** Regenerative agriculture and precision agriculture are trendy concepts and have contributed to climate change mitigation while ensuring food security. Such measures improve soil biodiversity, and greenhouse gases have increased the resilience of agri-landscapes through the provision of sustainable food systems: cover cropping and no-till, among others, help improve soil carbon sequestration, decrease erosion, and provide an ecosystem service such as agroforestry. As other precision agriculture technologies, remote sensing, GPS and data analytics were employed to gain improved resource use efficiencies, optimize crop production and limit environmental degradation.

TREND IN INDIA

It aims at renewable energy expansion to reach 500 GW of non-fossil fuel source energy capacity by 2030 as the country would be positioned third globally in terms of investment in renewable energy on these ambitious targets. Indeed, these ambitious renewable energy targets speak volumes regarding the country's intent of getting rid of carbon footprints and travelling toward a sustainable energy future. Major schemes, such as the National Solar Mission and the development of large solar parks, are driving this growth in renewable energy capacity in India. In addition, the growing wind energy, small hydro, and bioenergy further diversify India's energy portfolio and improve energy security.

Smart Cities and Urban Sustainability: The Smart Cities Mission is sustainable urban development with green infrastructure and smart technologies. It aims to make the cities livable, inclusive Gujarat Solar Park: This solar park in the state of Gujarat is one of the biggest ones in the world, and hence, will increase the total number of renewable energies in India very significantly. India is taking it as an undertaking toward the higher side of renewables and a further reduction in dependence on fossil-based fuels.

Kerala Climate Resilience Strategy: Leveraging the lessons from the 2018 floods, Kerala has developed a state-level climate resilience action plan with nature-based solutions community participation. Adapting to climate in Kerala lies in strategies, community action, and ecosystem-based solutions.

CHALLENGES AND OPPORTUNITIES CHALLENGES

- **Policy and Regulatory Barriers:** The inconsistency-in-policies and their non- enforcement breed barriers in sustainability. A strong and effective policy framework and regulatory mechanism are required for the proper implementation and monitoring of sustainability initiatives.



- **Financial Constraints:** Sustainable technologies are costly for developing nations. Financial support and investment are essential in the implementation of innovative technologies and sustainable practices, especially in resource-constrained settings.
- **Public Awareness and Participation:** Sustainability will only be achieved through the widest possible behavioural change and public involvement. Education and awareness programs will have to create a culture of sustainability, inspiring people and communities to lead sustainable lives.

OPPORTUNITIES

Technological Innovation: AI, IoT, and green hydrogen represent some of the most promising opportunities for sustainability. These technologies can change everything, from energy and transportation to agriculture and waste management. That's because they offer a considerable package of opportunity for development on the path to a sustainable future.

International Collaboration: International cooperation can support knowledge sharing and resource sharing across countries. Inter-cooperation between countries, organization's, and institutions may expedite the development and sharing of sustainable technologies and practices for greater collective resilience and innovation.

Sustainable Business Models: Circular economy models and ESG-driven investments present economic opportunities. These models encourage Resilience and innovation will be the keys to a sustainable future. Adaptive strategies and technological advances will help nations reach sustainable development goals while maintaining economic growth and social equity. India has been making remarkable strides in renewable energy, smart urban planning, and corporate sustainability. However, it is important that the country maintains policy reform, financial investment, and public participation to sustain transformative change. Generally, this research depicts an imperative call for an approach toward sustainability that demands business enterprises, the government, and individuals to fabricate a future.

CONCLUSION

There are historical background and definitions of sustainable development that are encompassed within it. It is a process that will change continuously, which requires flexibility, creativity, and compromise between social, economic, and environmental dimensions. This study, besides examining how technology might serve as a catalyst for sustainable development, argues that resilience is a key factor to enable a society to adapt to economic and environmental shocks.

Scenarios from both global and Indian contexts illustrated real examples concerning adaptive governance, circular economy practices, green finance, and renewable energy initiatives that contribute to making the future not just sustainable but better as well.

Sustainability is a challenging path. Policy inconsistencies, financial constraints, and insufficient public demand will typically slow things down. But technologies such as artificial intelligence, blockchain, and green hydrogen are beginning to show promise in creating real opportunity for change. Therefore, international cooperation, active engagement of all stakeholders, and flexible policy frameworks in future will enable the breaking down of barriers as well as the viable integration of various strands into the approach to sustainability.



At its core, sustainability isn't about reaching a fixed endpoint—it's about continuous adaptation, learning, and progress. By fostering resilience and embracing technological advancements, policymakers, businesses, and communities can work together to create a more equitable, resource-efficient, and environmentally secure world for generations to come.

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THE INFLUENCE OF SOCIAL MEDIA INFLUENCER ON GEN-Z CONSUMER PURCHASING BEHAVIOR IN SKINCARE AND BEAUTY PRODUCTS

Ms. Shreya K Kiran, Ms. Sibyl Rachna R, Ms. Melina Jins, Mr. Shorn Vinsent Kollannur

*II Semester, B.Com CMA, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Panduranganagouda Honnali

*Assistant Professor, Department of Professional Accounting and Finance
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

Social media has revolutionized the way individuals interact, communicate, and make purchasing decisions, particularly among Generation Z consumers in the skincare and beauty industry. Social media refers to a collection of internet-based platforms that enable users to share information, ideas, and content in real time, fostering a digital environment where trends and opinions rapidly evolve. Social media influence is the ability of individuals, particularly influencer's, to shape the opinions and behaviors of others within an online community. With the rise of platforms such as Instagram, YouTube, and LinkedIn, short-form videos and interactive content have become powerful tools in shaping consumer preferences and purchasing decisions.

Gen Z consumers, born between the mid-1990s and early 2010s, are known for their digital savviness and preference for authenticity and personalized experiences. Unlike previous generations, Gen Z prioritizes their individual tastes, seeking products that reflect their unique identity and values. They are more inclined to purchase skincare and beauty products that align with their personal beliefs, such as sustainability, inclusivity, and ethical sourcing. Social media influencers play a critical role in this process by providing trusted recommendations, demonstrating product effectiveness, and creating aspirational content that resonates with Gen Z's values.

INTRODUCTION

One of the most significant impacts of social media on Gen Z consumer behavior is the increasing awareness of skincare issues. Platforms like Instagram Facebook have become educational hubs where influencer's and dermatologists share valuable insights about skin conditions such as acne, hyperpigmentation, and the importance of sun protection. This accessibility to expert knowledge has



empowered Gen Z consumers to make informed choices about their skincare routines, fostering a culture of self-care and proactive skin health management.

The objectives of this study are to examine the role of social media influencer's in enhancing brand awareness, fostering soft skills development, facilitating virtual connectivity, and improving social interactions among Gen Z consumers. Brand awareness is significantly amplified through influencer collaborations, as product recommendations from trusted online personalities lead to increased visibility and credibility. Furthermore, Gen Z consumers develop soft skills such as critical thinking and discernment as they evaluate various influencer recommendations and product reviews. Virtual connectivity is another key factor, as social media platforms enable consumers to engage with influencer's, brands, and peer communities, creating a sense of belonging and shared experiences. Additionally, social interactions on these platforms provide opportunities for consumers to discuss product experiences, seek advice, and participate in skincare challenges, thereby influencing their purchasing decisions.

In conclusion, social media influencer's have a profound impact on the purchasing behavior of Gen Z consumers in the skincare and beauty industry. Through engaging content, influencer's are able to raise awareness about important skincare topics, promote brand visibility, and influence purchasing decisions by aligning with the values and preferences of Gen Z. As the digital landscape continues to evolve, brands must leverage influencer partnerships and social media strategies to effectively connect with this demographic. This study underscores the importance of understanding Gen Z's unique characteristics and their reliance on social media influencer's when making beauty and skincare-related decisions.

The skincare industry has undergone a remarkable transformation in recent years, driven largely by the rise of social media influencers and the evolving preferences of Generation Z consumers. This demographic, born between the mid-1990s and early 2010s, is characterized by their digital nativity and an inherent desire for authenticity, making them a key target market for skincare brands seeking to leverage influencer marketing. As digital platforms continue to shape consumer behavior, the role of social media influencers in driving purchasing decisions has become increasingly pronounced, influencing trends, brand loyalty, and societal values within the skincare and beauty industry.

Historically, skincare has been closely intertwined with cultural traditions and scientific advancements. From ancient remedies rooted in natural ingredients to modern dermatological breakthroughs, skincare has evolved to meet changing consumer demands. The advent of mass production and research-driven formulations led to the proliferation of skincare products, with iconic brands such as Nivea and L'Oreal capitalizing on the universal desire for youthful, radiant skin. However, as consumer awareness expanded, so did their expectations for transparency, sustainability, and ethical sourcing.

Today, Generation Z consumers prioritize products that align with their values, including cruelty-free testing, environmentally friendly packaging, and socially responsible business practices. Social media influencers have emerged as powerful intermediaries between skincare brands and Gen Z consumers. Unlike traditional celebrity endorsements, influencers are perceived as relatable and trustworthy, often sharing their personal skincare journeys, product reviews, and expert advice. Through platforms like Instagram, TikTok, and YouTube, influencers create engaging content that resonates with their audience,



fostering a sense of community and loyalty. This unique ability to build authentic connections has positioned influencers as key drivers of purchasing behavior within the skincare industry. A critical aspect of influencer marketing's success is its alignment with the values and preferences of Generation Z consumers.

This generation places a high premium on authenticity and transparency, often seeking peer recommendations over traditional advertising. Influencers who openly discuss their skincare routines, share honest product reviews, and engage in meaningful conversations about self-care and wellness are more likely to gain the trust of their audience. As a result, brands that collaborate with influencers who embody their values and ethos can effectively reach and engage Gen Z consumers. Furthermore, social media influencers play a pivotal role in shaping industry trends and consumer behaviors. They have the power to introduce new products, popularize skincare routines, and even challenge traditional beauty standards. Influencers advocate for social responsibility and sustainability, encouraging brands to adopt more inclusive marketing practices and environmentally friendly processes. For instance, many influencers have championed the use of clean beauty products, advocating for ingredient transparency and ethical sourcing. This has led to a shift in consumer preferences, with Gen Z increasingly gravitating towards brands that prioritize health, sustainability, and ethical production practices. The influence of social media extends beyond mere product promotion; it fosters a culture of self-care, empowerment, and diversity within the skincare industry. Influencers often share their personal struggles with skin conditions, promoting a more inclusive and realistic approach to beauty. This has helped break stigmas associated with acne, hyperpigmentation, and other common skin concerns, encouraging consumers to embrace their natural beauty and prioritize skincare as a form of self-care.

In doing so, influencers contribute to a positive and empowering narrative that resonates with Gen Z's desire for authenticity and self-expression. Understanding the dynamics of influencer marketing and its impact on Generation Z consumers is essential for businesses and marketers aiming to effectively engage this demographic. Unlike previous generations, Gen Z consumers are highly discerning and are quick to call out inauthenticity or misleading marketing tactics. Brands that prioritize authenticity, transparency, and social responsibility in their influencer partnerships are more likely to succeed in building lasting relationships with their target audience. This requires a strategic approach that involves selecting influencers whose values align with the brand's mission, fostering genuine collaborations, and maintaining open and honest communication with consumers. Moreover, the rise of influencer marketing has also presented challenges for skincare brands. The increasing saturation of influencer content can make it difficult for brands to stand out and capture consumer attention. Additionally, concerns about misinformation and unrealistic beauty standards have led to greater scrutiny of influencer partnerships. To address these challenges, brands must invest in thorough vetting processes, ensuring that their chosen influencers possess credibility, expertise, and a genuine passion for skincare.

The future of influencer marketing in the skincare industry is likely to be shaped by emerging trends and technological advancements. With the growing popularity of short-form video content and livestreaming, influencers have new opportunities to engage their audience in real-time, offering interactive skincare demonstrations and Q&A sessions. Additionally, the rise of artificial intelligence and data analytics allows brands to gain deeper insights into consumer preferences, enabling them to tailor their influencer marketing strategies for maximum impact.



In conclusion, the influence of social media influencers on Generation Z consumer purchasing behavior in skincare and beauty products is undeniable. Influencers have become trusted advisors and community leaders, shaping industry trends and driving consumer decisions. Their ability to build authentic connections, advocate for social responsibility, and promote self-care has revolutionized the skincare industry, making influencer marketing an indispensable tool for brands looking to engage Gen Z consumers effectively. Moving forward, brands must remain committed to authenticity, transparency, and social responsibility to foster meaningful relationships and drive positive change within the industry.

LITERATURE REVIEW

- **Liu, J. (2020)** The study examines the effectiveness of influencer marketing for facial cosmetics among Generation Y and Generation Z, focusing on word-of-mouth communication and purchase decision-making. It uses qualitative research methodology and online interviews to analyze advertising processes, communicative channels, and methods. Results show that influencers' value in new advertising media and their ability to reach Millennials and Gen Z are significant.
- **Baykal, B. (2020)** The omnichannel concept, an evolution of multichannel retailing, blurs the line between physical and online stores, allowing customers to move freely between channels. Gen Z, a rising segment for omnichannel experiences, is particularly important for marketers. This chapter explores generational differences in omnichannel buying behavior and how retailers can integrate online and offline channels for optimal retail brand experiences.
- **Geng, R., Wang, S., Chen, X., Song, D., & Yu, J. (2020).** This study explores the economic value of internet celebrity endorsements in e-commerce. It uses a cross-sectional regression and panel vector autoregressive model to evaluate the impact of celebrity endorsements on marketing outcomes. Results show that content generation efforts and interaction behaviors significantly influence e-commerce sales, while interactions within the fan community exert second-order effects. This provides new insights for e-commerce retailers to evaluate the economic value of internet celebrity endorsements.
- **Ninan (2020)**, This essay investigates the impact of social media marketing on Gen Z's purchase intention. A survey of 424 post-1994 respondents was conducted, using multiple linear regression and independent sample t-test. The results show that social media marketing is more effective than traditional marketing methods in influencing purchase intentions, brand awareness, product perception, brand loyalty, and customer-business interactions.
- **Wolf (2020)**, Gen Z & social media Influencers: The Generation Wanting a Real Experience. The generation known as Gen Z—those born in the middle to late 1990s—is the subject of this research project. The study's primary objective is to ascertain how Gen Z views social media influencers. The study questions were addressed through the administration of an online survey. The present study examines how Gen Z influencers and micro-influencers. According to this study, "people who have built a reputation for their knowledge and expertise on a specific topic" are considered influencers.



- **Tamara, D., Heriyati, L., Hanifa, T., & Carmen, M. (2021).** This research examines the correlation between social media influencers and purchase intention among Generation Z women, focusing on Instagram usage. Results show that social media influencers significantly influence purchase intention when mediated by brand image. Factors such as followers, high-activity, influencer credibility, positive brand image, public awareness, and brand uniqueness play a significant role in this relationship.
- **Hassan, S. H., Teo, S. Z., Ramayah, T., & Al-Kumaim, N. H. (2021).** This study examines the credibility of beauty 'gurus' on influencing young female millennials' cosmetics brands. Using a survey method and 271 questionnaires, the study found that influencers' credibility traits, such as knowledge, attractiveness, and relatability, are crucial for their ability to influence young millennials. The findings suggest that social media influencers are an effective marketing tool for targeting a broad demographic and increasing brand awareness.
- **Kaabachi, S., Charfi, A. A., Kpessa, M. R., & Kefi, M. K. (2021).** Gen-Z, the largest generation worldwide, is highly educated, technologically savvy, and a digital native. They value authenticity, transparency, and consume content more than any other age group. Financial institutions are leveraging this demographic to attract Gen-Z customers, as their purchasing power is likely to increase. To attract Gen-Z, banks have adopted celebrity endorsements and influencer endorsements, such as LCL's use of Brad Pitt and TD Bank's collaboration with Instagrammers. This study aims to investigate how these strategies impact Gen-Zers' ad attitude in bank services' advertisements. Rajab, M. (2021). The literature review article explores the relationship between e-commerce, influencer marketing, and social media in digital marketing. It uses library research methods and academic online sources to establish a hypothesis. Results show that e-commerce, influencer marketing, and social media are related to digital marketing, with other factors like advertising, word of mouth, and event marketing also playing a role.
- **Kadam (2021),** The study examines the impact of social media influencers' endorsements on GEN Z's buying behavior in the lifestyle and electronics product category, specifically in Pune city. It analyzes the relationship between trust in influencers and consumer behavior in digital and social media marketing. The research finds that influencers significantly promote products and services through various forms of interaction.
- **Nugroho, S. D. P., Rahayu, M., & Hapsari, R. D. V. (2022).** Gen Z, the largest consumer group globally, is a significant target market for marketing strategies, particularly through social media. This study investigates the factors influencing the credibility attributes of social media influencers on Gen Z consumers' purchase intentions. The research, conducted on 210 Gen Z consumers in Indonesia, found that attractiveness, expertise, and trustworthiness were significant factors influencing purchase intentions. Brand image also played a significant role in this relationship. The study suggests that local cosmetic industry players should improve their marketing strategies through social media, utilizing the right influencers as endorsers, to compete with foreign cosmetic industries.
- **Ayun, P. Q. (2022)** Some think, a local skincare brand targeting gen z, is still ranked third in Indonesia with a revenue of 8.1 billion. The brand uses discount promotions and celebrity endorsements to boost revenue. A study examining the impact of sales promotion intensity and celebrity endorser content



exposure on impulsive buying behaviour among 100 females aged 18-24 in Jabodetabek found that sales promotion intensity significantly influences impulsive buying. Additionally, celebrity endorsement content exposure also has a significant effect on impulsive buying. The independent variable influenced dependent variables by 68.8%, while 31.2% was affected by other variables.

- **Cunningham, N. (2022)** Gen Z consumers, who have been exposed to the internet for their entire lives, are increasingly relying on the internet for purchasing decisions. They seek credible sources, particularly opinion leaders, for authentic and trustworthy information, particularly in highinvolvement products like cosmetics. Cosmetic brands must understand how Gen Z consumers adopt information shared online by opinion leaders. A study using the Information Adoption Model found that argument quality of opinion leaders is the most influential factor in their adoption.
- **Dewobroto (2022)** This research explores the influence of social media influencers on Gen Z's skincare choices. It examines the tactics used by beauty gurus and micro-influencers on platforms like Instagram and YouTube to captivate their audience. The study uses in-depth interviews, questionnaires, and secondary sources to analyze the landscape. The research aims to provide valuable insights for skincare brands and marketers seeking to connect authentically with the Gen Z audience.
- **Rukmana, A. Y. (2023)** This study investigates the impact of social media influencers on Indonesian Generation Z consumer behavior. 450 participants, ranging from 16-24, acknowledged that influencers significantly influence buying decisions. Instagram was the most popular platform, with authenticity and transparency being key trust- building qualities. Sponsored content was highly effective, with 60% of users preferring authentic partnerships. The findings provide valuable insights for marketers targeting Generation Z in Indonesia.
- **Hasvia, T. G. (2023)** This study investigates the factors influencing Gen Z consumers' purchase intention towards local brand cosmetic products in Batam City, focusing on 18-26-year-olds who know local brands like Wardah, Emina, Make Over, Something, Dear Me Beauty, and Luxcrime. Data from 420 respondents was collected through a Causal Comparative research method. Results showed that e- WOM, Attitude, Subjective Norm, Perceived Behavioral Control, and Brand Image positively influenced purchase intention, with a significant relationship between beauty vloggers and purchase intention.
- **Yong, Y. C. (2023)** This research investigates the impact of social media marketing on brand recognition of cosmetic products among Generation Z in Kuala Lumpur. Five independent variables were investigated: entertainment, customization, trendiness, interaction, and E-WOM. The study aimed to address the lack of existing research on factors affecting brand awareness of cosmetic products. The sample size was 275 Malaysian GenZ consumers aged 9-24. The data was analyzed using the Statistical Package for Social Sciences.
- **Marsasi, E. G. (2023)** This study investigates the impact of social media promotion on brand awareness, brand image, and purchasing decisions among Generation Z using Instagram for skincare products. Using the Social Learning Theory, the research focuses on local skincare brands and their use among Generation Z. The results show that promotion through social media, brand awareness, and brand image significantly influence purchase intention.
- **Malikahasri, K. (2023)** The cosmetics sector is expanding rapidly due to rising consumer demand, particularly in skincare products. Male skincare consumers are growing due to changing lifestyles and self-awareness. Social media marketing plays a significant role in attracting males to purchase skincare products. This research examines the impact of social media marketing on facial wash

brands' purchase intention. Results show a direct and positive relationship, but the relationship is low-to-average. To strengthen this relationship, brands need to build a good brand image, trust, and loyalty.

- **Nguyen, A. T. (2024)** The study explores the impact of TikTok influencers on Generation Z's purchase intentions in the cosmetic industry in HCMC. It focuses on the relationships between influencers' credibility, physical attractiveness, expertise, social advocacy, customer trust, gender, and purchase intention. The findings show that all influencer characteristics, including credibility, have positive effects on Gen Z's purchasing intention, with customer trust having the most significant influence. This information can help cosmetic industry marketers develop effective influencer marketing strategies for Generation Z consumers.
- **Kumar, B. S. (2024)** This study examines the impact of social media and digital marketing on Gen Z in Chennai's cosmetic purchasing decisions. Using qualitative and quantitative methodologies, it aims to analyze consumer perceptions, preferences, and purchasing patterns. The findings will provide insights into the effectiveness of social media and digital marketing strategies for Gen Z, contributing to the advancement of marketing strategies for this specific consumer segment.
- **Mandasari, N. F. (2024)** The cosmetics industry is increasingly using social media marketing to reach Generation Z women, a new entrant demographic. A study in Makassar found that while social media marketing positively impacts brand attitude and equity, it doesn't significantly influence purchasing intentions. The study suggests that cosmetic companies need to refine their social media marketing strategies to better target Gen Z women, highlighting the need for more effective mediating.
- **Duong, Q. N. (2024)** The study explores the influencers' impact on Generation Z's purchasing behavior in Vietnam's e-commerce and cosmetics industries. Data from 600 Gen Z customers was collected using behavioral intention models. Key influencer characteristics, including trustworthiness, attractiveness, expertise, and match-up congruence with the brand, were hypothesized to influence their behavior. The findings suggest that influencers have a stronger impact than previously thought, highlighting the importance of effective marketing strategies.
- **Gyoo Park, S. (2024)** This study explores clean beauty's impact on Millennial and Generation Z consumers, identifying its main attributes and providing a new index for determining product cleanliness. 120 Korean participants completed questionnaires, and the Reliable Cleanness Score (RCS) was calculated using emotional product satisfaction. Key clean beauty attributes included sustainability, safety, and ethicality.
- **Zamrudi, M. F. Y. (2025)** The study investigates the influence of celebrity endorsement and brand image on Gen Z consumers' purchasing decisions, focusing on Avoskin cosmetics in Semarang. Results show that celebrity endorsement positively influences brand awareness, but its impact on purchasing decisions is insignificant. Brand image significantly affects brand awareness and purchasing decisions, emphasizing the importance of tailored marketing strategies for Gen Z preferences.

OBJECTIVES

The objectives of this study are as follows:

- To examine the role of social media influencers in enhancing brand awareness among Gen Z consumers in the skincare and beauty industry.
- To evaluate the influence of social interactions on social media platforms on Gen Z consumers' skincare routines and purchasing behaviors.

HYPOTHESIS



- H1: Social media influencers significantly enhance brand awareness among Gen Z consumers in the skincare and beauty industry.
- H2: Influencer recommendations positively impact Gen Z consumers' purchasing decisions regarding skincare and beauty products.
- H3: Social interactions and online discussions influence Gen Z consumers' product choices and skincare habits.

METHODOLOGY

This study employs a quantitative research design to examine the impact of social media influencers on Gen Z consumers' purchasing behavior in the skincare and beauty industry. A sample of 150 Gen Z consumers, aged between 18 to 29 years, will be selected using a convenience sampling technique, focusing on individuals who actively follow skincare and beauty influencers on social media platforms. Data collection will be conducted through a structured questionnaire distributed via Google Forms, ensuring accessibility and ease of participation. The questionnaire will cover several key areas, including demographic information such as age, gender, education level, and social media usage frequency. It will also assess brand awareness influenced by social media content, purchasing decisions shaped by influencer recommendations, and the development of soft skills such as critical thinking and product evaluation. Additionally, the study will explore virtual connectivity by analyzing participants' engagement levels with influencers and brand communities, as well as the role of social interactions in influencing purchasing behavior through peer discussions and online communities. The collected data will be analyzed using descriptive statistics to identify trends and relationships. Ethical considerations will be prioritized, with participants being informed about the study's purpose, and their consent obtained to ensure confidentiality and anonymity of their responses.

TESTING OF HYPOTHESES

Table 1 Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
.913	.911	25

Table 2 Factor Analysis of dependent Variables

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.654
Bartlett's Test of Sphericity	Approx. Chi-Square	255.334
	Df	10
	Sig.	.000

Reliability and Factor Analysis Interpretation



The reliability analysis was conducted to evaluate the internal consistency of the items within the group. The Cronbach's Alpha value of 0.913 indicates excellent reliability, as it surpasses the commonly accepted threshold of 0.70. This suggests that the items are measuring the intended construct with a high level of consistency. The result confirms the validity of the dataset for further analysis. The KMO value of 0.654 indicates a moderately acceptable level of sampling adequacy for factor analysis. According to Kaiser's criteria, this value suggests that the data is suitable for factor analysis, although improvements in sample adequacy could enhance the results. The Bartlett's Test of Sphericity was significant (Chi-Square = 255.334, $df = 10$, $p < 0.001$), indicating that the correlation matrix is not an identity matrix and factor analysis is appropriate.

• H1: Social media influencers significantly enhance brand awareness among Gen Z consumers in the skincare and beauty industry.

The results from the factor analysis and reliability testing support this hypothesis. The high Cronbach's Alpha suggests that the items assessing social media influencers and brand awareness are internally consistent. The adequate KMO value further justifies the appropriateness of the data for factor analysis, reinforcing the role of social media influencers in brand awareness among Gen Z consumers.

• H2: Influencer recommendations positively impact Gen Z consumers' purchasing decisions regarding skincare and beauty products.

The findings also support this hypothesis. The significant Bartlett's Test of Sphericity implies that the data contains meaningful relationships between variables, confirming the influence of social media recommendations on purchasing decisions. The consistency and strength of the measures point to a significant relationship between influencer endorsements and Gen Z purchasing behavior in the skincare and beauty market. Overall, the result indicated that the analysis demonstrates that social media influencers play a crucial role in shaping brand awareness and influencing purchasing decisions among Gen Z consumers in the skincare and beauty industry.

Table 3 Total Variance Experienced

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.972	59.437	59.437	2.972	59.437	59.437
2	.899	17.975	77.411			
3	.655	13.094	90.505			
4	.349	6.975	97.480			
5	.126	2.520	100.000			



Table 4 Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
.818	.818	5

Table 5 Regression

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1.	.891 ^a	.79	.784	.4648118	.795	75.023	5	97	.000
		5		4					

Table 6 ANOVA

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	81.043	5	16.209	75.023	.000 ^b
	Residual	20.957	97	.216		
	Total	102.000	102			

Table 7 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.905E-16	.039		.000	1.000

1	SM	.360	.039	.360	9.171	.000
	IN	.654	.039	.654	16.657	.000

CO	.327	.039	.327	10.696	.048
RE	.323	.039	.323	8.230	.000
CON	.435	.039	.435	11.085	.000
a. Dependent Variable: IB					

Interpretation and Justification of Hypothesis (H3)

The regression analysis results support the hypothesis (H3) that social interactions and online discussions significantly influence Gen Z consumers' product choices and skincare habits. The R-value of 0.891 indicates a strong positive correlation between the independent variables (social interactions and online discussions) and the dependent variable (consumer product choices and skincare habits). Additionally, the R-square value of 0.79 suggests that approximately 79% of the variance in consumer behavior is explained by the predictors included in the model, demonstrating a high explanatory power.

The coefficients table further reinforces the hypothesis. The standardized coefficients for social media (SM), influence (IN), communication (CO), recommendations (RE), and content (CON) are all positive and significant, with p-values less than 0.05. This indicates that each variable significantly contributes to shaping consumer preferences. Specifically, influence (IN) and content (CON) showed the highest beta values, suggesting that Gen Z consumers heavily rely on these factors when making product choices and developing skincare habits.

The ANOVA results confirm the model's overall significance ($F = 75.023$, $p < 0.001$), emphasizing that social interactions and online discussions collectively have a significant impact. These findings highlight the importance of digital engagement and peer recommendations in influencing Gen Z's consumption patterns, aligning with contemporary trends in social media-driven consumer behavior.

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LIFESTYLE INFLATION AND PERSONAL BUDGETING- A COMPARATIVE STUDY AMONG THE URBAN YOUTH IN INDIAN METROPOLISES

Ms. Disha K. P, Ms. Anna Maria Reji, Ms. T Anna Rachel and Ms. Tasmiya

II Semester, B.Com IBF, Department of Professional Accounting and Finance

Kristu Jayanti College (Autonomous), Bengaluru

Dr. Janani M

Assistant Processor, Department of Professional Accounting and Finance

Kristu Jayanti College (Autonomous), Bengaluru

ABSTRACT- In today's world one of the biggest problems faced by people is the low propensity to save. Even though the income per capita is increased over time, the spending pattern of people, especially in the young adults has transitioned from essential and related goods to convenience and status items. This change in consumer behavior largely stems from the consumerism driven by comfort brands. This paper seeks to examine the significant rise in spending among young adults attributed to lifestyle inflation. The study will explore various factors contributing to increased spending, the motivations behind this rise, and an analysis of saving behavior.

This paper aims to study the sharp increase in young adult's spending pattern owing to the lifestyle inflation caused by consumerism. The study will involve the various avenues of increase in spending, reasons behind the increase and analysis of the propensity to save.

This research paper examines the concept of lifestyle inflation and its effects on personal budgeting practices among urban youth in Indian cities. The study looks into the factors contributing to lifestyle inflation, its consequences on financial well-being, and the tactics used by young adults to effectively manage their finances. By employing a mixed-methods approach, the paper gathers insights from surveys, interviews, and secondary data analysis to thoroughly understand the difficulties and opportunities for enhancing financial literacy and encouraging responsible spending habits in a rapidly urbanizing India.

INTRODUCTION

In today's economy, numerous individuals struggle to handle personal finances amid rising income levels. Although an increase in earnings is typically seen as a chance to enhance one's quality of life, it often gives rise to a phenomenon known as lifestyle inflation. Lifestyle inflation is defined as the propensity to boost spending as income increases, which can lead to elevated living costs and diminished savings potential. Grasping the dynamics of lifestyle inflation is essential for successful personal budgeting and long-term financial planning. This paper aims to examine the factors and effects of lifestyle inflation and to pinpoint methods for reducing its impact on individual financial well-being. India's urban youth particularly in metropolitan cities, are increasingly experiencing lifestyle inflation due to rising disposable incomes, peer influence, and exposure to global consumer trends. Lifestyle inflation refers to the tendency to increase spending as income rises often leading to a reduced capacity



for savings and investments. While higher income improves the living standards and uncontrolled lifestyle inflation which can result in financial instability and long-term economic insecurity.

Most brands have targeted the urban youth demographic as their target market. This is just because, in comparison to other demographic segments, the people in this group are more likely to be consumers. Beyond the increase in money, people have improved their quality of life. Young individuals are primarily affected by this inflation in lifestyle. Their sudden increase in disposable income due to their wage or stipend in comparison to the little pocket money they were entitled to as students may be one of the causes of this.

Individuals increasingly opt for more convenient transportation options like ride-sharing services instead of public transit or walking. They choose to have food delivered rather than preparing meals at home, and many have transitioned from ordering takeout once a week to dining out every couple of days. The ease of having clothes delivered directly to their homes has led to a higher purchasing frequency than visiting shopping centres. Additionally, people have decreased their involvement in household tasks, as they can engage professionals at the touch of a button through applications that provide household solutions.

The volume and frequency of purchases rise due to the promotions provided by these online platforms. While these promotions may lower the initial purchase cost, they can also lead to dependence on these platforms. This ultimately raises the cost of individual transactions over time by incorporating convenience fees and delivery charges, as well as increasing overall expenditure due to the simplified and accessible nature of purchasing for the average consumer.

When a pattern like this emerges in an economy, we observe that the marginal propensity to save exhibits a declining trend, indicating that for each extra rupee earned, the increase in savings tends to lessen.

IMPORTANCE OF STUDY-

The study is significant because it attempts to address several issues that have long perplexed humanity. It will explore the hidden costs of improving one's lifestyle and the price people pay to incur these hidden expenses. The willingness to save money has drastically decreased, and numerous studies and discussions have focused on this subject. Additionally, this study seeks to understand the factors contributing to the decline in the saving tendencies of urban youth who have recently entered the workforce. It will compare these individuals with those who have spent more time in the earning environment. Overall, this study is important as it thoroughly examines the influence of these factors and the magnitude of their impact.

OBJECTIVES OF THE STUDY -

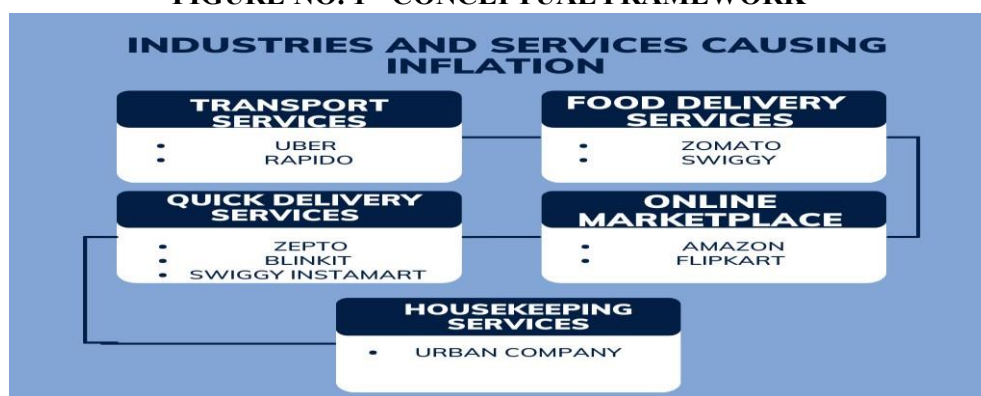
To explore the transformation in consumer spending habits as individuals transition from essential and related products to luxury and convenience items in pursuit of an enhanced lifestyle.

To evaluate the impact of consumerism on purchasing behaviors and assess the degree to which these strategies influence the viability of such marketplaces.

To investigate the decline in savings tendencies among young professionals entering the workforce and identify the factors contributing to this decline.

To perform a comprehensive analysis of the shift from traditional spending practices to contemporary approaches in areas such as transportation, dining, and various utilities.

FIGURE NO. 1 - CONCEPTUAL FRAMEWORK-



We can observe from Figure 1 that the primary drivers of lifestyle inflation are five different industries. This flowchart gives us information about 5 industries and services that contribute towards inflation. Along with this are 10 brands across these 5 industries to understand their marketing tactics and also understand how they target customers.

In the field of transport services, the main tool of marketing is via social media and discounts or promotions.

The said apps (ola, Rapido) use social media as a way to engage with the potential customers and to create brand awareness. These schemes, in turn, makes the rider feel that he/she is taking the ride for a much lower cost and this further creates an addiction of constantly using these apps to travel because of these so-called schemes.

In the field of FOOD DELIVERY services [swiggy, Zomato], the main tool of marketing is through attractive push notifications, following & connecting food related topics with current trends on social media, & direct marketing. Through these above tools, these apps indirectly also promote bad eating habits & excessive junk food consumption. Once these apps get popular, they start to charge excessive delivery fee along with GST & Convenience charges & also come up with more offers to attract customers.

In the field of QUICK DELIVERY services [blinkit, zepto, instamart], the main tool of marketing is digital & social media along with unique features like 10 min delivery, & no delivery fee after a certain amount.



The goal of online grocery services is to make grocery shopping easier for their clients by removing the need for traffic and the occasional, terrible trip to the grocery store. Since prompt delivery is crucial to online shopping, these businesses have teams that concentrate on the delivery systems. A few of these businesses have created a model that uses specially designed software to direct drivers to their destinations. This enables the business to provide clients with deliveries that are almost on time. Before the goods is delivered to the customer, staff members always check the product's quality and physical state after a customer placement. This guarantees that the buyer will receive the appropriate, suitable, and superior product.

In a nation like India, online marketplaces flourish on substantial discounts and active consumer participation. Their marketing strategies are the driving force behind the nation's inorganic expansion. They attract customers by offering massive discounts in addition to focusing on user reviews, which further guarantees more clients. One of the most notable instances of how consumerism supports these firms' sustainability was when Flipkart was on the verge of going out of business due to significant losses and fierce competition. Big Billion Days, two days of incredible deals that increased their sales, saved the company. In order to give the customer unlimited possibilities, they are always updating their product galleries.

RESEARCH METHODOLOGY-

Research methodology is the process that researchers use to carry out their investigations. It covers demographic and sample consideration, data sources, research design, sample selection methods, attribute checking of the data, and the dependability of the data being utilized for analysis.

The fundamental goal of the research was to comprehend how people's lifestyles, especially those of "urban youth," have changed in relation to their patterns of livelihood has contributed to these changes. The tactic also included understanding the attitudes of individuals with regard to monthly savings plans, personal budgets, saves, and financial literacy. The goal of the research design is to deliver a tangible solution to the chosen problem at hand while also fulfilling the research strategy in a comprehensive way.

Research Design - Methods of Data Collection -

The research design includes the following components: Data Collection Method-

The selected method for data collection considers the effectiveness of the analysis for the gathered data, aims to minimize the interrogator's bias, and maximizes accessibility among the target samples. As a result, a structured questionnaire has been selected as the primary data collection instrument.

Sample Consideration -

The topic: Lifestyle inflation affecting personal budgeting among students and employees in metropolitan cities are based on Sample survey conducted with hundred respondents consisting of college teachers and college going students to study the personal budget when there is a lifestyle inflation. A total of 125 respondents were enrolled in the study on convenient basis. Required



information is obtained from Respondents by issuing questionnaire which helped in collecting the primary data.

Sampling Process-

The sampling technique used here is survey sampling in the form of questionnaires.

Validity of data AND attribute verification -

We have collected data from the Indian Metropolis, i.e., Bengaluru. The data is fairly collected from each location, gender and occupations. We have tabulated data below to show that:

TABLE NO. 1

Age group	No. of respondents	Percentage
18-21	52	42.23%
22-25	20	16.3%
26-30	25	20.3%
30-40	11	21.9%
40+	13	10.6%

The distribution of respondents by age group and corresponding percentages are displayed in the table. The largest demographic, with 42.23% of all responders, is 18–21 years old. With 20.3%, the 26–30 age group comes in second, while 16.3% is the 22–25 age group. 10.6% of the population is in the 30–40 age range, while 10.6% is in the 40+ age range. According to this data, the majority of responders are younger people, particularly those between the ages of 18 and 21.

It is evident from the avoiding that the data was gathered objectively and without any bias on the part of the data collector. Since our study focuses on professionals between the ages of 18 and 40, we have chosen the bulk of the people from this demographic. The other units were chosen so that we could create an analytical contrast between the lifestyle shifts observed in the younger and elderly segments of the population.

TABLE NO. 2

Occupation	No. of respondents	Percentage
Full-time employed	48	39.6%



Part -time employed	11	10.6%
Student	45	36.6%
Part-time employee and student	13	8.9%
Unemployed	6	4.9%

The distribution of respondents by occupation is seen in the table. Full-time employees make up the largest category (39.6%), closely followed by students (36.6%). 10.6% of the population works parttime, while 8.9% are both students and part-time employees. Those without jobs make up the smallest segment, accounting for 4.9%. According to this data, the majority of respondents are either enrolled in school or working a full-time job.

II. ANALYSIS AND FINDINGS

We have used google sheets for the following analysis:

The respondents were asked a series of statement-oriented questions as part of the questionnaire. The responders had to choose between "Strongly Disagree" and "Strongly Agree," with "Strongly Agree" being the option would imply that he /she accepted the statement in its entirety. The respondents were given the following scale while these questions were being asked.

CHART NO. 1

Role of personal budgeting (saving) in increase with lifestyle purchases (inflation)-



This bar chart represents the monthly income of the people [who have participated in the survey]. X axis shows different income levels whereas Y axis shows the number of respondents in each category. Breakdown: -

Less than 20,000 - This income level has the highest number of respondents with the bar reaching approx. 45. This indicates that a significant portion of the people earn below 20,000 Rs

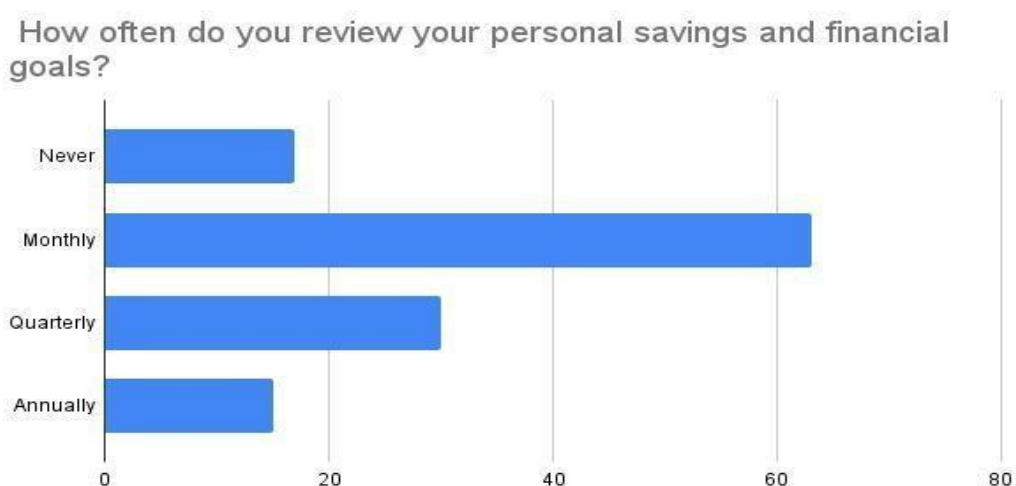
20,000 - 50,000 - This category has a moderate number of responses with the bar reaching about 25. It indicates that a good portion of the people earn within this range.

50,000 - 1,00,000 - This category has a slightly number of respondents than the previous category, with the bar reaching about 30. It suggests that a decent % of people earn within this range.



1,00,000 or above - This category has the lowest number of respondents, with the bar reaching around 10. It suggests that fewer people earn more than 1,00,000 Rs per month. The majority of respondents earn less than 20,000, highlighting a lower income population. A good number of people earn between 20,000 - 1,00,000, showing a balance in middle income groups. Very few people earn 1,00,000 & above, indicating that high earning individuals are a minority.

CHART NO. 2 ANALYSIS OF REVIEW OF THE PERSONAL BUDGET



The above graph displays survey results about how often people review their personal savings & financial goals. Breakdown: -

NEVER - A small % of people never review their finances

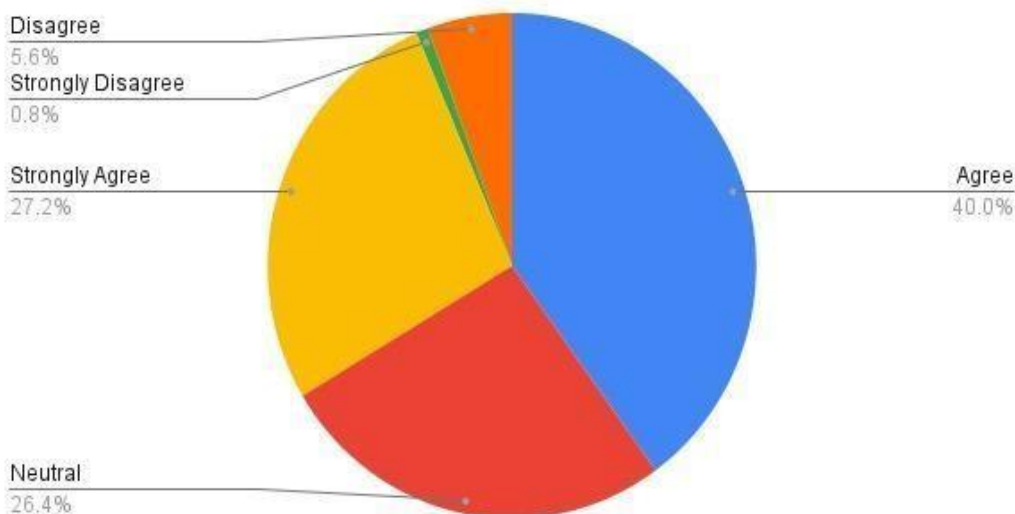
MONTHLY - The largest group of responders review their savings & financial goals on a monthly basis. This suggests that many people are actively managing their finances & prefer regular check-ins.

QUARTERLY - A moderate number of people check their finances every 3 months. This method is usually followed by people who follow a structured financial plan but do not need frequent updates.

ANNUALLY - A smaller portion of people review your financial goals only once in a year. This could include those with a long-term financial plan that doesn't require frequent adjustments.

CHART NO. 3 ANALYSIS OF INCOME AND LIFESTYLE INFLATION -

As my income has increased, my lifestyle spending has increased as well.



The above is a pie chart illustrating the responses to the above statement. Breakdown:

AGREE [40.0%] - The largest portion of responders acknowledges that as their income increases, their lifestyle spending also increases.

STRONGLY AGREE [27.2%] - A significantly number of people strongly confirm that their spending habits have grown alongside their income.

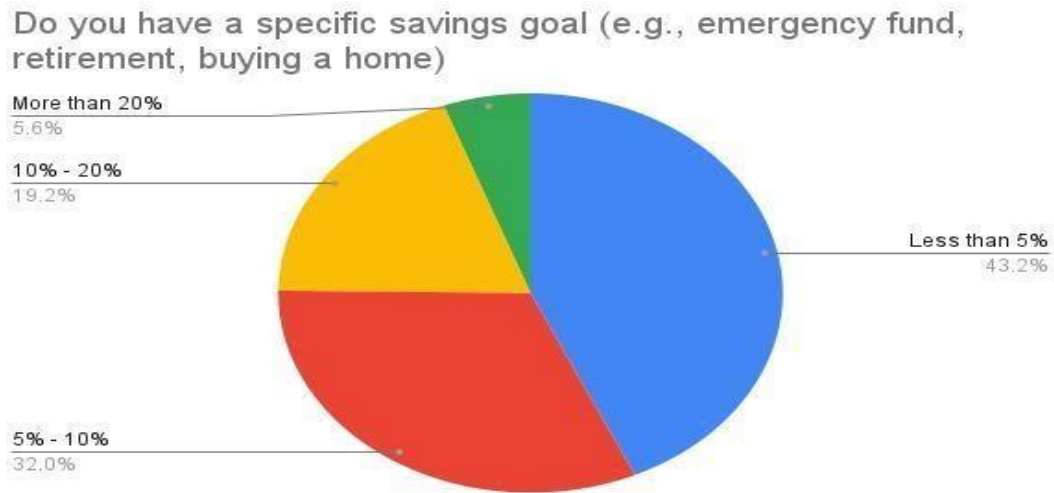
NEUTRAL [26.4%] - A considerable % neither agree nor disagree, indicating that their spending habits may not have changed significantly or that they are unsure.

DISAGREE [5.6%] - A small portion of responders do not believe that their spending has increased with their income.

STRONGLY DISAGREE [0.8%] - An even smaller fraction of people strongly rejects the idea that their spending has increased as their income has grown.

Therefore, this chart suggests that most people experience LIFESTYLE INFLATION, meaning they tend to spend more as they earn more. However, a small % actively resist this trend.

CHART NO. 3 ANALYSIS ON SAVINGS



DO YOU HAVE A SPECIFIC SAVINGS GOAL [eg. emergency fund, retirement, buying a home]?

The above pie chart represents the % of income that respondents allocate towards savings breakdown:

- **Less than 5% (43.2%)** - The largest portion of responders save less than 5% of their income, indicating that they are saving minimally or not prioritizing savings.

5% - 10% (32.0%) - A substantial % of respondents set aside their income in a moderate amount, suggesting that they have some financial discipline but may not be aggressively saving.

10% - 20% (19.2%) - A smaller but notable group saves a higher portion of their income, reflecting stronger financial planning habits.

More than 20% (5.6%) - The smallest group consists of highly dedicated savers who put more than 20% of their income toward financial goals.

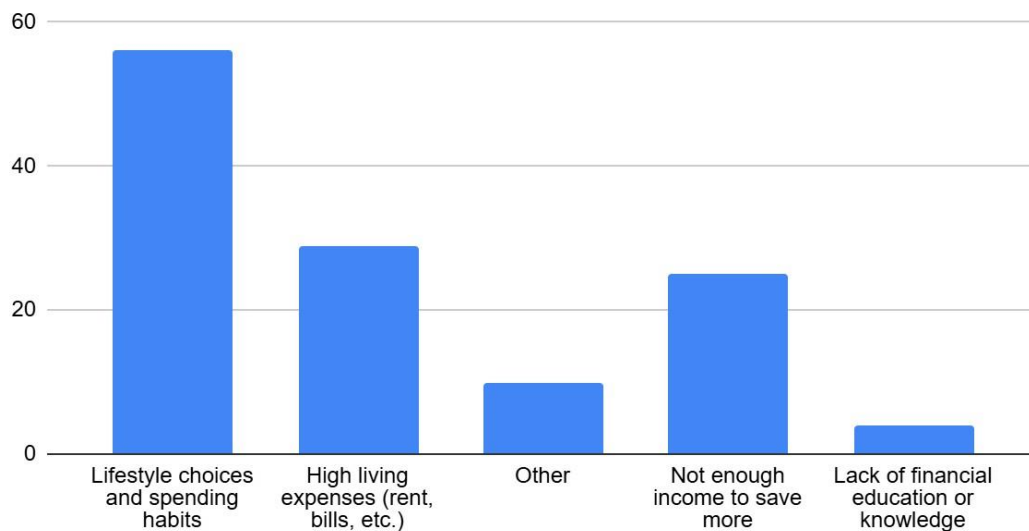
Therefore, this data suggests that while some individuals actively save a significant portion of their income, most people either save minimally or moderately, possibly due to financial constraints or spending habits.



CHART NO. 4

BARRIERS TO SAVINGS

In your opinion, what is the biggest barrier to saving more money?



The above pie chart represents survey results on the biggest barriers to saving money, highlighting various reasons people struggle to save. Breakdown:

Lifestyle choices and spending habits (45.2%)- This is the most significant factor, showing that nearly half of the respondents believe their spending habits prevent them from saving.

This could include frequent dining out, impulse purchases, luxury expenses, or non-essential subscriptions.

Many people may have income but struggle with budgeting or prioritizing savings over discretionary spending.

High living expenses (23.4%)- A significant portion of people find the cost of necessities such as rent, utilities, groceries, healthcare, and transportation too high to allow for savings.

This suggests that even if people try to manage their spending, their essential costs take up most of their income.

Not enough income to save (20.2%)- Some individuals report that their income is simply too low to allow for savings. This could indicate economic challenges such as low wages, unstable employment, or insufficient earnings despite a reasonable level of financial discipline.

Other reasons (8.1%)- A smaller portion of people attribute their lack of savings to factors not specified in the chart. This could include unexpected emergencies, financial obligations like debt, or external factors such as family responsibilities.



Lack of financial literacy (3.2%)- A small but notable group believes their inability to save is due to a lack of financial knowledge.

This suggests they may struggle with budgeting, investment strategies, or understanding how to manage money effectively.

While external factors like income and high expenses play a role, the biggest challenge seems to be personal spending habits. This implies that improving financial discipline, budgeting, and mindful spending could help people save more effectively.

IMPROVE SAVINGS ALONG WITH RISE IN INFLATION -

Lifestyle inflation refers to the phenomenon where your expenses rise in tandem with your increasing income, making it more challenging to save money. Here's how to manage it and enhance your personal budgeting:

- **Establish Specific Financial Objectives:** Determine savings goals for both short-term (e.g., emergency fund) and long-term (e.g., retirement, investments). Give priority to necessities over desires when distributing your income.
- **Adhere to a Budget Implement the 50/30/20 framework:** 50% for essential expenses (housing, utilities, groceries) 30% for discretionary spending (entertainment, dining out) 20% for savings and debt reduction. Monitor your expenses using budgeting apps or spreadsheets.
- **Automate Savings and Investments:** Arrange for automatic deposits into savings or investment accounts before allocating money for non-essential expenses. Enhance your savings contributions whenever your income increases.
- **Steer Clear of Lifestyle:** Avoid rapidly elevating your lifestyle (e.g., acquiring luxury items simply due to receiving a salary increase). Consider: "Would I have made this purchase before my salary grew?"
- **Distinguish between Wants and Needs:** Postpone significant purchases to determine if they are truly essential. Resist societal pressure to spend on high-end items merely to impress others.
- **Boost Income Without Raising Expenses:** If you receive a salary increase, bonus, or extra earnings, direct the majority towards savings or investments instead of upgrading your lifestyle.
- **Regularly Review and Adjust:** Evaluate your budget and expenses each month to identify unnecessary expenditures.

Revise your financial goals based on changes in income and shifting priorities. By remaining committed and valuing financial stability over superfluous spending, you can uphold a reliable budget and build wealth over time.

CONCLUSION AND RECOMMENDATION

Based on our findings, thorough analysis, calculations, and comprehension, we can deduce that the younger generation entering the job market is experiencing a phenomenon of lifestyle inflation. Additionally, the data examined indicates that this trend is primarily due to a low tendency to save and inadequate personal budgeting. The study titled "Lifestyle Inflation and Personal Budgeting: A Comparative Study Among Urban Youth in Indian Metropolises" reveals that the sustainability of this demand is artificial and fleeting. Another surprising insight from the research is the evident lack of motivation to save money. The Analysis demonstrated that even those who possess financial knowledge often lack financial discipline. We have clearly observed that young adults, who have few financial



obligations, contribute to the declining savings rate. In households with multiple earners, we have witnessed an increase in impulsive spending behaviors among consumers. The sustainability of this demand is artificial and fleeting. Furthermore, another surprising insight from the research is the evident lack of motivation to save money.

The Analysis demonstrated that even those who possess financial knowledge often lack financial discipline. We have clearly observed that young adults, who have few financial obligations, contribute to the declining savings rate. In households with multiple earners, we have witnessed an increase in impulsive spending behaviors among consumers. This study shows us the various ways where lifestyle inflation occurs and low propensity to save among urban youths and people in a country. This can be due to high living expenses or unnecessary spending.

RECOMMENDATIONS -

As a young person who has begun working, it is crucial that he use monthly plans like SIP to save at least one-sixth of his salary each month. He will develop financial discipline as a result. Prioritizing the future over the present is always a good idea. He should put more effort on building a suitable corpus than improving his way of life.

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FROM BLING TO BANK: UNDERSTANDING GENERATION Z'S GOLD PURCHASE PATTERN

Ms. Priyanka. P, Ms. Vaishnavi. N.B, Mr. Ricky Philip Joseph, Mr. Harshith Sai Raj N T
*IV Semester B.Com IBF, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. Neerupa Chauhan
*Assistant Professor, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

This research analyses Generation Z's emerging gold purchase pattern, shifting from luxury(bling) to investment(bank). Using Quantitative Research Methodology, data from 237 respondents (173 Generation Z and 64 elderly cohorts) were collected via survey. The research was conducted to analyze Generation Z's investment preferences, influential factors and concerns. The study's findings reflect that Generation Z prioritizes gold as a financial asset and investment option while favoring physical gold over digital options due to its trust and security concerns. Economic uncertainty, price, market fluctuations and brand reputation have been seen to primarily impact Generation Z's gold purchase decision reflecting their blend of traditional principles with modern financial aspirations. **Keywords:** Generation Z, gold, purchasing pattern, investment, financial behaviour.

INTRODUCTION

Over the years, gold has remained a classic emblem of investment, luxury and tradition. However, in the ever-changing consumer market, Generation Z is reframing the historical precedents and preferences. Born between the late 1990's to 2010's, Generation Z known for their technical expertise and varied insights, is transforming the gold market.

The transformation from "bling" to "bank" represents the shift in Generation Z's view on gold. While the earlier cohorts viewed gold as a primary symbol of status and embellishment, Generation Z is viewing gold as a smart investment plan. This transformation reflects the broader movement and improvement in financial literacy, technological progress and shifting cultural values.

This research aims to examine the purchasing pattern of gold among Generation Z, understanding their idea of transforming gold into an investment option rather than just a luxury product. Through this research, we will delve into the primary factors influencing this trend namely, digitalization and shifting generational value.

Further, this research aims to provide a more detailed understanding of Generation Z's financial behavior and gold purchase pattern. This study will also felicitate a deeper understanding of how this generation of tech-savvies is navigating their way through today's complex economy while combining traditional



and cultural values with modern trends and insights. Through this research, we also aim to provide broader perspectives on what it means to Generation Z from valuing "Bling" to prioritizing "Bank".

OBJECTIVES

- This research aims to provide an in-depth understanding of the gold purchase pattern among Generation Z, while also focusing on uncovering their preferences, motivations and influential factors.
- To identify and understand the demographic profile of Generation Z gold buyers alongside their gold purchasing habits. This research aims to profile Generation Z gold buyers based on demographics such as age, education, occupation and income.
- Understanding the preference of the consumers over the type of gold.
- To examine the difference in gold purchasing behavior of Generation Z compared to elderly demographics. While trying to understand the differences, similarities or patterns across Generations.

LITERATURE REVIEW

Author	Country	Sampled Respondents	Methodology	Findings
Kakkar, S., & Chitrao, P. V, (2022)	India	A sample size of 1000 was collected from Mumbai, from heterogeneous groups with varied cultural, religious and economic backgrounds.	Non-probability method	The study's findings show that in India, the cultural importance of gold plays a significant role in shaping consumers' purchasing decisions influencing variables such as brand recognition and economic factors.



Kumar. A (2022)	India	A sample of 130 was collected from Generation Z participants	a structured questionnaire with multiple-choice and Likert-scale questions targeting Gen-Z participants	The study's findings show the key factor influencing Generation Z's luxury goods purchasing behaviors while investigating its relationship with psychological, social, and economic determinants. The study also identifies that brand identity, social media influence and personal values play a crucial role in shaping consumer behavior.
Dugar. M & Madhavan (2023)	India	104 responses were collected from participants in the age group 15-25 across India.	Descriptive Research	The study shows the analysis of how Generation Z investors in India allocate their money by studying their funds saving methods and preferred investments. The study found that Generation Z is gaining financial autonomy which enables them to acquire freedom through their investment choices based on historic results and extended profits and investment outcomes.



Meyyammai, M., & Vinotha, K. (2022)	India	100 respondents collected from Chennai city.	Descriptive Research	The study's findings evaluate how Generation X, Millennials and Generation Z investors prefer to invest their assets. Generation Z leverages digital platforms to learn about investments while assessing both return on investment (ROI) performance and cash flow patterns and ratios and sustainability and maturity durations of medium-term instruments.
Zarinkamar, S., Rahiminik, A., & Heydari, A. (2022)	Iran	In depth semi structured interviews with 10 Experts.	In this research, non-probability targeted sampling methods were used to select the sample from purposive sampling.	The primary motive of the research was to investigate how luxury goods consumers behave during gold market transactions with a focus on individual qualities combined with cultural dynamics as well as psychological expressions and social variables and elements tied to luxury merchandise-specific demands. Study findings from Eastman et al. (2020) and Dhaliwal et al. (2020) demonstrate that luxury spending patterns of students are influenced by social media.

RESEARCH METHODOLOGY

Research Design

The core objective of this research is to be familiar with the purchasing pattern and buying behavior of gold among Generation Z. This research adopts quantitative research methodologies to understand and

analyze the purchasing pattern of gold among Generation Z while focusing on Generation Z's motivations, and preferences and other factors influencing their gold purchasing pattern.

Sample Size and Data Collection Method

This study comprises a sample size of 173 respondents from Generation Z and 64 respondents from the other elderly cohorts to validate data accuracy and strengthen data integrity. A convenience sampling methodology was employed to select the participants which involved reaching out to individuals within the target demographic and other cohorts with the help of online surveys and social media platforms. A random sampling methodology was used to select samples among the available data set to conduct a comparative study. The samples were collected with the help of a self-administered questionnaire which was designed using Google Forms and the questionnaire consisted of multiple-choice questions focusing on the key areas such as demographics, gold purchasing behaviors, motivation to purchase gold, their preferences and other influencing factors.

Data Analysis Techniques

The analysis of the gathered data was performed using Microsoft Power BI and Google Forms which revealed the trends, patterns and correlations. A comparative analysis was undertaken to identify the difference in purchasing behavior among Generation Z and in comparison, to other elderly cohorts.

Scope and Limitations of the Study

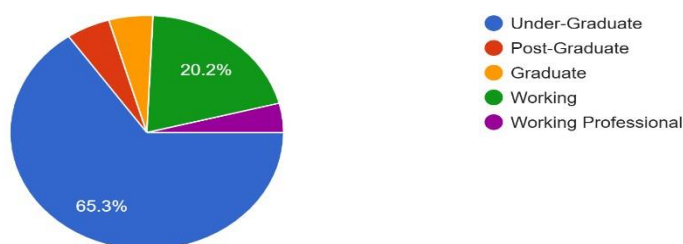
This research methodology provides a structured framework to examine Generation Z's gold buying pattern yielding valuable insights into their engagement with gold both as a traditional and modern investment option.

This study is limited to a total sample size of 237 respondents which may not fully represent the broader population of Generation Z. This study's findings are based on self-reported data which may be prone to biases and limitations.

RESEARCH FINDINGS

FIGURE NO. 1

What is your current status?
173 responses



The outcome of the research conducted indicates diverse gold investment preference among the Generation Z, which reveals that the respondents come from diverse academic backgrounds, comprising of undergraduates, post graduates and a limited number of working professionals.

FIGURE NO. 2

What is your Primary source of income?

173 responses

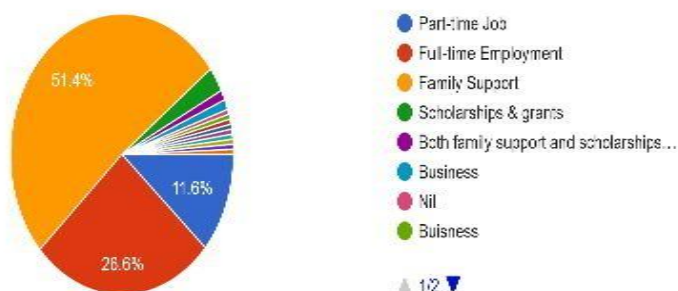
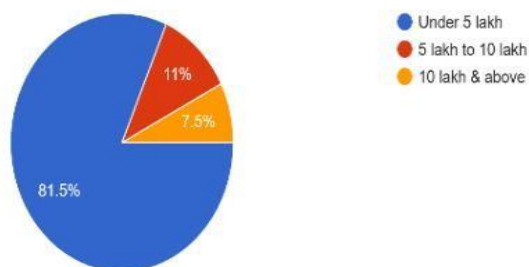


FIGURE NO. 3

What is your Annual personal income?

173 responses



The annual personal income of the respondents differs significantly, while the majority of the respondents' annual personal income was studied to be less than ₹5 lakh, a small population earned up to or over ₹10 lakh. Additionally, the study found that the primary source of income of more than 50% of the respondents is based on family support while the others are employed with part-time and fulltime jobs.

Figure No. 4

Do you currently have any investment account?

173 responses

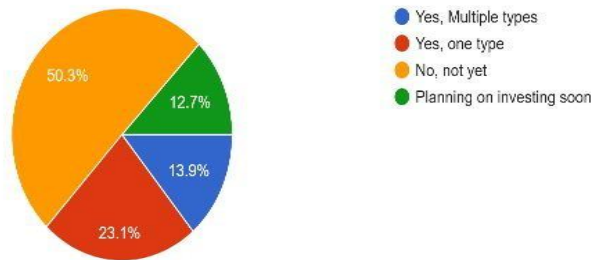
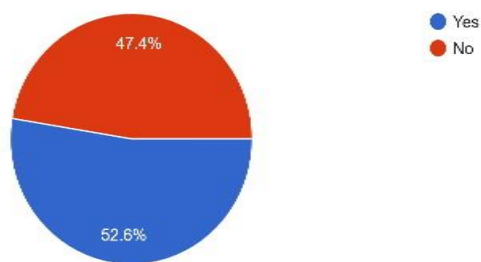


FIGURE NO. 5

Have you Purchased gold in the last year?

173 responses



Although investment account holdings of the respondents vary significantly, ranging from multiple account holders to those having none, a significant proportion have purchased gold in the past year which demonstrates a notable degree of interest in gold as an investment option as well as a financial asset.

FIGURE NO. 6

What type of Gold do you prefer to purchase ?

173 responses

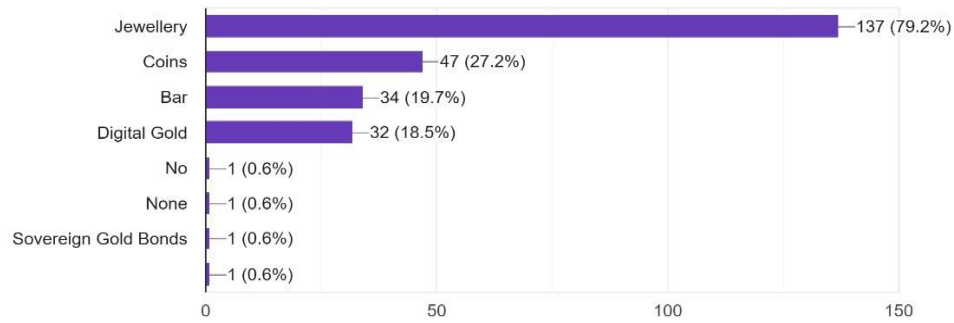
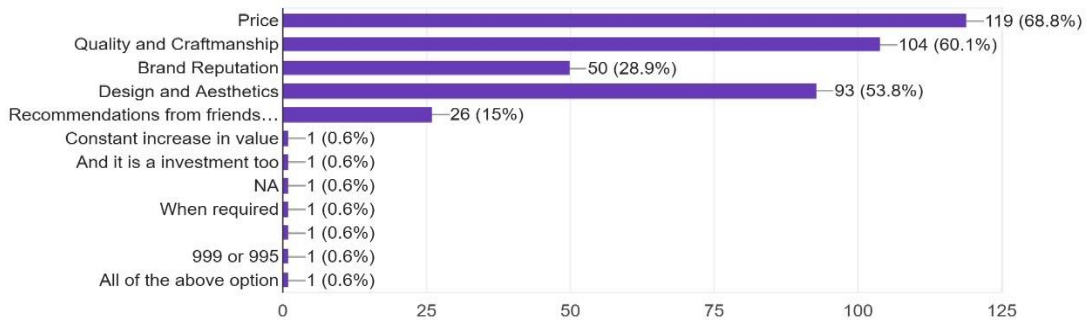


FIGURE NO. 7

What factors influence your decision to purchase gold?

173 responses

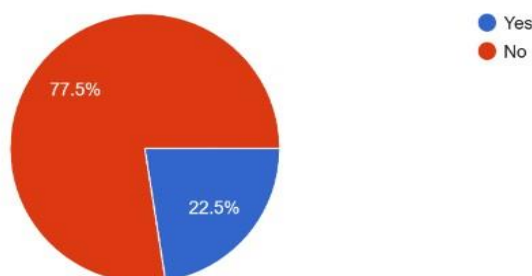


Among the diverse forms of gold available in the market, Jewelry remains the most preferred form of gold followed by gold coins and gold bars, with factors including price, craftsmanship and brand reputation having a profound influence on the buying decisions of young adults.

FIGURE NO. 8

Do you prefer Digital gold over physical gold?

173 responses

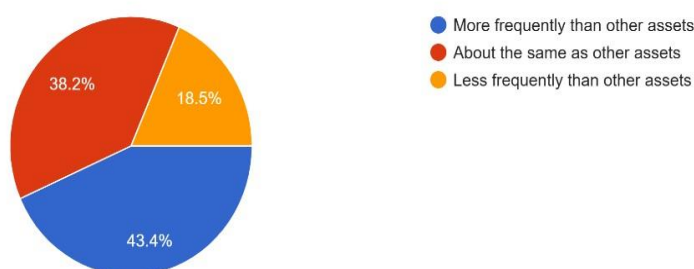


The data suggests that despite the rise in digital gold investment options, physical gold remains the favored option among the respondents, as they value its material existence, trustworthiness and security. Many survey participants voiced their concerns about digital gold, citing a lack of understanding, authenticity doubts, and the perception that physical gold holds higher inherent value.

FIGURE NO. 9

How often do you consider gold as an investment compare to other assets? (Stocks, Real Estate etc)

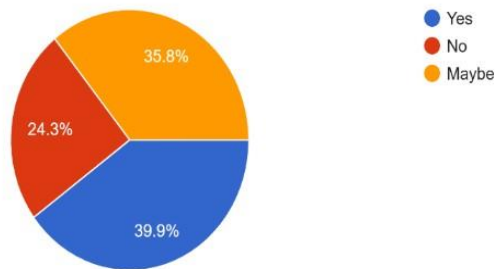
173 responses



The popularity that gold holds as an investment vehicle has been seen increasing, leaving behind that of other assets such as real estate and stocks. A relatively high percentage of respondents view gold as equivalent to other investment options which implies their diversified approach, the one where investors balance assets across various classes, alongside gold.

FIGURE NO. 10

Would you be interested in learning more about investing in gold through online platforms or apps?
173 responses



Furthermore, there is a growing interest in acquiring knowledge about gold investments via digital platforms, indicating a potential opportunity for financial literacy initiatives.

FIGURE NO. 11

Which of the following factors would make you more likely to purchase gold?
173 responses

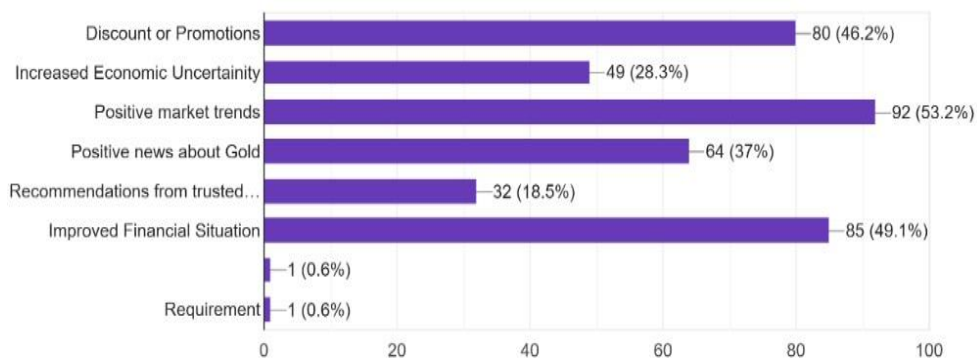
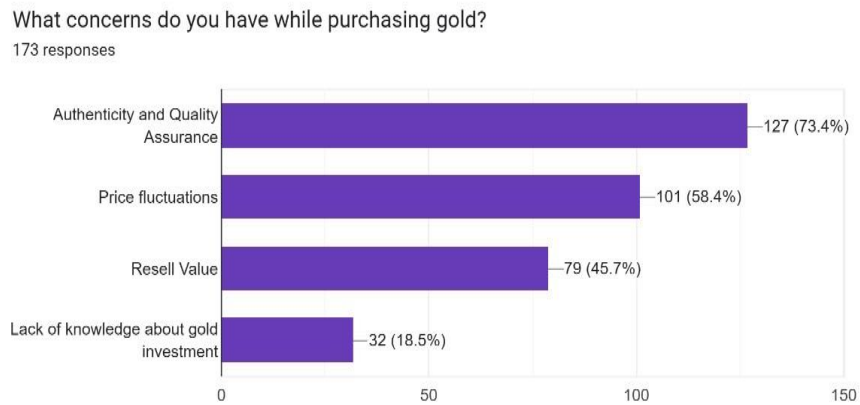


FIGURE NO. 12

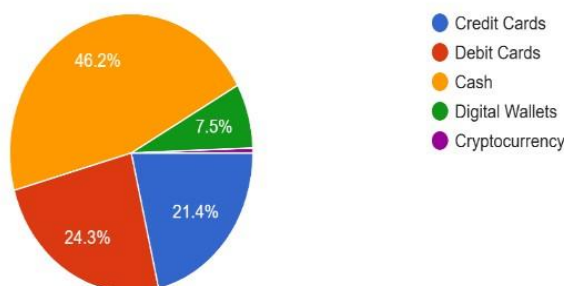


The research identified that the primary factors influencing the gold purchasing decisions of Generation Z as economic uncertainty, favorable market trends, discounts, and enhanced financial stability, on the other hand, concerns regarding price fluctuations, authenticity and resale value continue to have a major impact on consumer confidence.

FIGURE NO. 13

What payment method do you prefer while purchasing gold?

173 responses

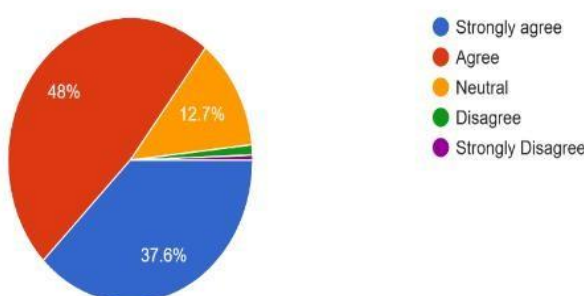


Additionally, cash remains the most opted payment mode, likely to be driven by factors including tax considerations, ease of use, and cultural preferences. Even though digital payment methods such as credit cards and digital wallets have gained popularity in recent days, they remain secondary when compared to traditional methods (cash and debit cards).

FIGURE NO. 14

Do you believe that owning gold is an important part of financial security?

173 responses



Notably, a significant number of respondents consider owning gold to be an essential aspect of financial security, whereas others are skeptical or dismissive of gold's role in accumulating and safeguarding wealth.

Overall, although gold remains a prized possession among Generation Z, a definite leaning towards physical gold over digital gold as an investment option exists, which is seen to be substantially influenced by concerns regarding trust, tangibility, and security. The research findings indicate that although some respondents are reluctant to view gold as their key investment channel, there is scope for increased awareness and participation among Generation Z. By leveraging the power of digital platforms for promotional initiatives and educational outreach, stakeholders in the gold investment market can address consumer concerns while facilitation more informed investment decisions among the Generation Z.

COMPARISON OF THE KEY FACTORS INFLUENCING THE GOLD PURCHASING PATTERN BETWEEN GENERATION Z AND ELDERLY COHORTS

FIGURE NO. 14

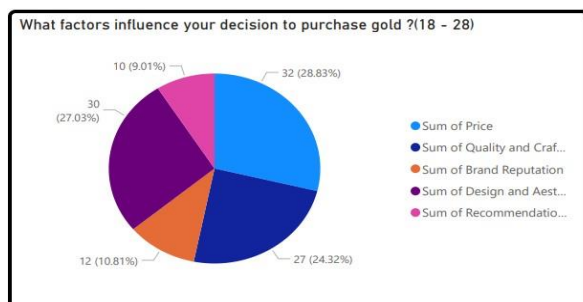
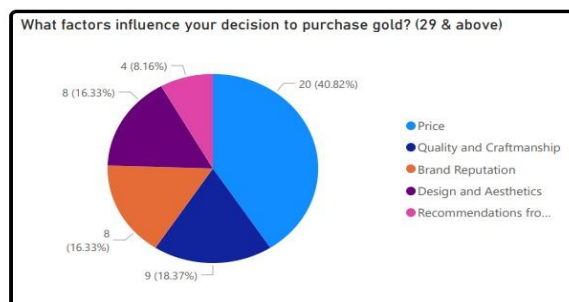


FIGURE NO. 15



Among the Generation Z factors, Price (28.83%), Design and aesthetics (27.03%), and Brand Reputation (10.81%) have been seen to highly influence the gold buying pattern, whereas the elderly cohorts give greater importance to Price (40.82%), Quality, and Craftsmanship (18.37%). The key contrast is that Generation Z is emphasising on Design and Aesthetics compared to the elderly cohorts.

FIGURE NO. 16

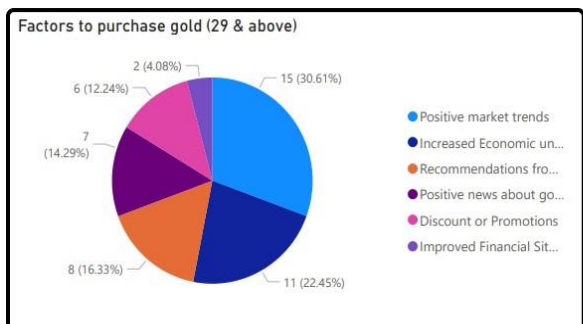
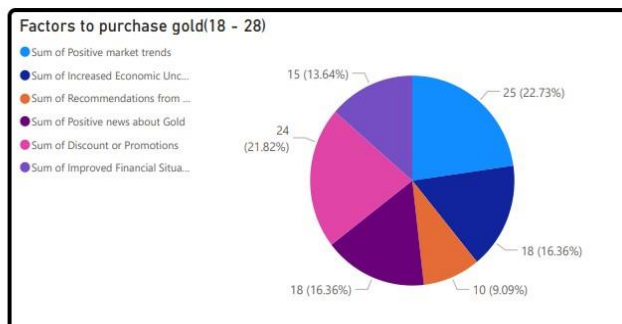


FIGURE NO. 17



It's observable from the figure that Generation Z is more driven by factors such as Positive market trends (22.73%), Discount or Promotion (21.82%) and Increased Economic Uncertainty (16.36%) are the key factors considered by the consumers while purchasing gold, while on the other hand, the elderly cohorts are giving greater importance to Positive market trends (30.61%), Increased Economic Uncertainty (22.45%), Recommendations from trusted individuals or experts (16.33%). The key contrast is that Generation Z is giving more preference towards Positive Market Trends as compared to the elderly cohorts due to the increase in the efficiency of the gold market.

FIGURE NO. 18

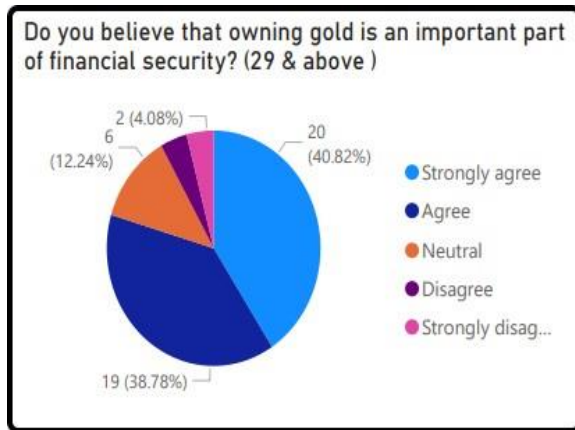
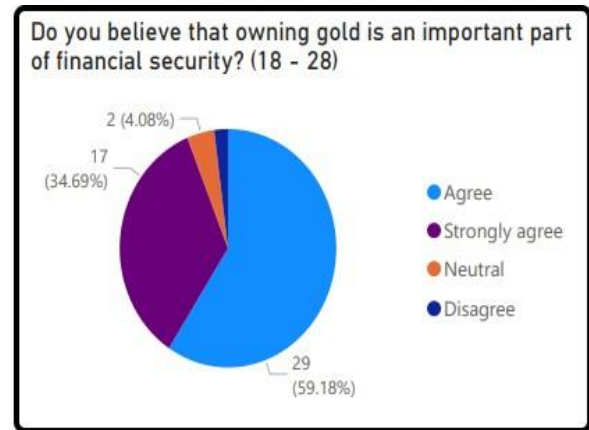


FIGURE NO. 19



It's observable from the figure that 59.18% of Generation Z have agreed; while adding to 34.69% of Generation Z strongly agree that owning gold is an important part of financial security. On the contrary, 4.08% of Generation Z disagree that owning gold is important to financial security. While looking into elderly cohorts 40.82% of people have strongly agreed, 38.78% have agreed, and 12.24% have disagreed that owning gold is an important part of financial security. It's evident that gold is considered an important part of financial security despite the generational gap.

FIGURE NO. 19

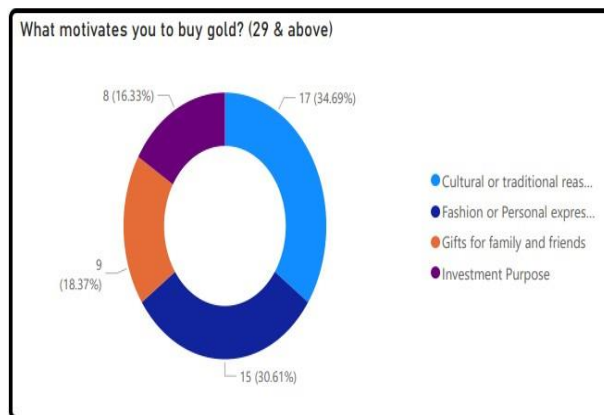
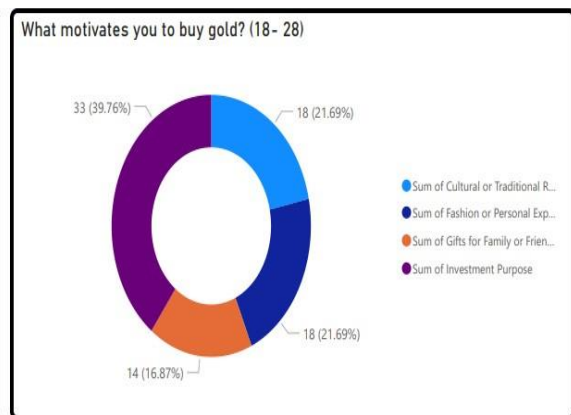


FIGURE NO. 20



From the data, (39.76%) of Generation Z are motivated to buy gold for investment purposes whereas there is a tie of 21.69% among Generation Z between 'Cultural or Traditional Reasons' and 'Fashion or Personal Expression'. While comparing with elderly cohorts, Around 34.69% of cohorts are motivated to buy gold for cultural or traditional reasons. On the contrary 16.33% of the elderly cohorts are considering gold as an investment. Generation Z looks into gold as an investment rather than any cultural or traditional reasons.

FIGURE NO. 21

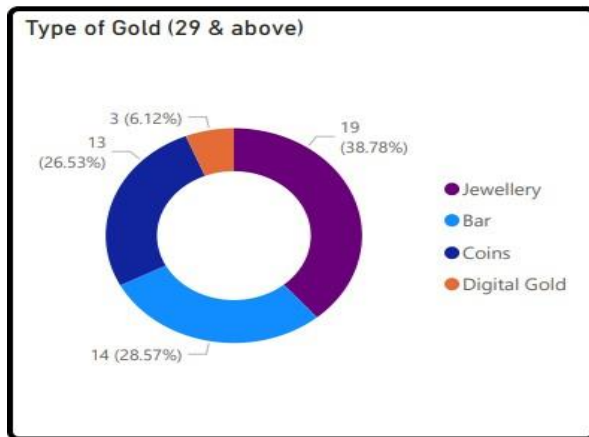
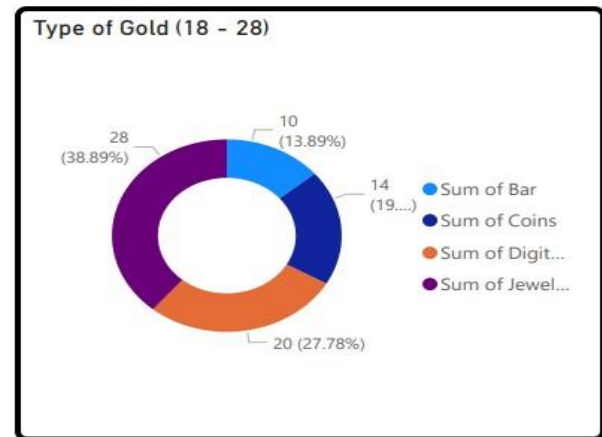


FIGURE NO. 22



From the data findings, it is noticeable that 38.89% have opted for jewellery, 27.78% have chosen digital gold and 19.44% have chosen coins among Generation Z. While looking at the counterpart 38.78% have opted for jewellery, 28.87% have opted for bar and 26.53% have opted for coins among elderly cohorts. The key difference that can be seen is that digital gold is preferred among Generation Z compared to the elderly cohorts. Despite the generation gap there is a higher preference for jewellery.

CONCLUSION

In conclusion, the research paper depicts the transformation of gold-buying behavior among Generation Z, while focusing on the drastically changing gold-purchasing pattern of young adults in comparison to the elderly cohorts. While the previous generations emphasized gold for its cultural and traditional values, Generation Z has been more interested in viewing gold as a primary investment option, focusing on its financial value. Generation Zs seem to prefer physical gold over digital gold. Furthermore, there is a potential growing interest in learning and acquiring knowledge about gold investment through digital platforms.

The primary factors that have been found to have a major impact on Generation Z's gold purchase pattern have been determined to be price, brand reputation, design and positive market trends. Economic uncertainty and discounts are two other factors that have been noticed to influence Generation Z to purchase gold. Generation Z has been studied to make calculated decisions while not being impulsive or conservative, also aesthetics has been studied to hold great value among Generation Z.

This research offers an insight into Generation Z's investment world. Generation Z opting for gold as an investment option can be considered a very smart move because gold might be an undervalued asset. In the end, the shift from bling towards bank depicts Generation Z's financial mindset which combines traditional principles with modern financial aspirations.

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UNDERSTANDING EMPLOYEE BEHAVIOR PATTERNS THROUGH DATA ANALYTICS: ENHANCING WORKPLACE ENVIRONMENTS VIA HR INTERVENTIONS

Ms. S.Rakshitha, Ms. S. Lavanya, Ms. K. Nidhi, Ms. Rachana C. Ambiger

*VI Semester, B.Com Business Analytics, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr. G. Arockia Stalin

*Assistant Professor, Department of Professional Accounting and Finance, Kristu Jayanti College,
(Autonomous) Bengaluru*

ABSTRACT

Human Resources (HR) departments are increasingly using data analytics to make well-informed decisions that enhance organisational performance in the quickly changing workplace of today. Through data-driven methods, workplace behaviour analytics (WBA) makes it possible to comprehend employee behaviour patterns, which promotes improved employee engagement, productivity, and work culture. This essay investigates WBA's capacity to comprehend employee behaviour and how HR practitioners can apply this knowledge to improve workplaces. Actionable insights are obtained to promote a more inclusive and effective workplace through the examination of HR data, such as employee demographics, job satisfaction levels, and work-related performance. This article shows how HR departments may include behavioural analytics to improve workplace outcomes using Python and Google Colab for data analysis.

INTRODUCTION

The idea of Workplace Behaviour Analytics (WBA) uses data-driven methods to identify trends in employee behaviour, which can give HR practitioners important information. HR may learn more about how workers interact with their duties and the company by examining several data sets, including attendance records, job satisfaction surveys, work performance indicators, and interpersonal interactions. HR departments can then put initiatives into place that maximise organisational results while also enhancing employee well-being.

The purpose of this article is to investigate how WBA might be used by HR departments to enhance working conditions. The study will use a dataset of 100 workers to better understand how important behaviour-related aspects affect worker performance, engagement, and satisfaction while suggesting possible HR interventions.

LITERATURE REVIEW

Data Analytics in HR

The way HR departments handle hiring, employee engagement, and retention has changed as a result of data analytics. More and more, predictive analytics and machine learning are being used to find trends, like the reasons behind staff turnover or the elements that influence work satisfaction (Sullivan, 2013). By concentrating on comprehending employees' behavioural characteristics and how they correspond with company objectives, employee behaviour analytics expands on these ideas.



Employee Engagement and Well-Being

Numerous studies indicate a clear correlation between employee behaviour and engagement, and employee engagement is seen as a crucial performance driver (Harter et al., 2002). WBA enables organisations to quantify and comprehend the elements—such as team dynamics, organisational culture, and leadership behavior—that contribute to high or low engagement.

HR's Role in Creating Better Work Environments

HR is in a unique position to address the behavioural factors that influence organisational culture in order to promote a healthy work environment. HR can spot patterns and behaviours that can point to possible issues like burnout, disengagement, or unhappiness by examining employee data (Maslach & Leiter, 2016).

METHODOLOGY

In order to analyse important behavioural trends, this study uses HR data from 100 employees and Python-based data analytics techniques in a Google Colab environment. The following variables are included in the dataset:

- **Demographics:** department, tenure, job role, age, and gender.
- **Job Performance:** Job performance ratings on a scale of 1 to 5.
- **Involvement Level:** A survey-based indicator of worker involvement.
- **Absenteeism:** The total number of days missed over the previous 12 months.
- **Job Satisfaction:** A score between 1 and 10 representing general job satisfaction.
- **Team Collaboration:** Information about meetings, cooperative activities, and peer relationships

DATA ANALYSIS APPROACH

The following steps are part of the data analysis process:

Data cleaning: Finding and properly treating missing or inaccurate data.

Descriptive statistics: Using correlations, mean, median, and standard deviation to summarise data.

Behavioural Segmentation: Groups of employees with comparable behaviours are found by employing clustering methods such as K-means.

Predictive Modelling: Using a variety of behavioural characteristics, regression models are constructed to forecast employee performance or engagement. **Visualisation:** Creating graphs and charts to show patterns and trends.

Because of its adaptability and simplicity in integrating with Python libraries like Pandas, Matplotlib, and Scikit-learn, Google Colab will be utilised.

DATA ANALYSIS AND FINDINGS

Descriptive Statistics



Upon performing data cleaning and organizing the dataset, the following descriptive statistics were obtained:

- Average **job satisfaction**: 7.4/10
- Average **performance rating**: 3.8/5
- Average **absenteeism rate**: 5 days/year

These statistics provide a preliminary overview of employee satisfaction and engagement levels, laying the groundwork for deeper analysis.

Behavioral Segmentation

Employees were divided into three groups using K-means clustering according to their performance, absenteeism, and job satisfaction:

- **Group 1**: Excellent output, little absenteeism, and great contentment
- **Group 2**: Average satisfaction, average absenteeism, and moderate performance
- **Group 3**: Poor output, high absenteeism, and low contentment

These groups draw attention to the many behavioural patterns that exist inside the company and offer possible areas for actions, including enhancing Group 3 participation.

Predictive Modeling

To forecast employee performance based on factors including job satisfaction, absenteeism, and teamwork, a linear regression model was developed. According to the model, absence had a negligible impact on performance, although job satisfaction and teamwork were important predictors.

HR Interventions and Recommendations

The following HR initiatives are recommended to enhance working conditions in light of the findings:

- **Increasing Job Satisfaction**: Give special attention to work-life balance efforts, career development opportunities, and employee appreciation programs. Group 3 employees were the least satisfied, indicating that focused interventions in this area would be beneficial.
- **Promoting Collaboration**: HR can put in place programs like team-building exercises or collaborative tools to create a more cohesive staff because team collaboration is a predictor of performance.
- **Reducing absence**: HR can offer assistance through wellness initiatives, mental health services, or flexible work arrangements by comprehending the elements that contribute to absence, such as stress or disengagement.



```
# Import necessary
libraries import pandas as
pd import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.cluster import KMeans
from sklearn.linear_model import LinearRegression
from sklearn.preprocessing import StandardScaler
from sklearn.model_selection import train_test_split
from sklearn.metrics import mean_squared_error

# Generate Sample Data for HR Dataset
```



```
np.random.seed(42)

# Define the number of employees n_employees
n_employees = 100

# Create a DataFrame with sample data
data = pd.DataFrame({
    'Employee_ID': range(1, n_employees + 1),
    'Job Satisfaction': np.random.uniform(1, 10, n_employees), # Scale 1 to 10
    'Absenteeism': np.random.randint(0, 15, n_employees), # Days off (0-15 days)
    'Team Collaboration': np.random.uniform(1, 10, n_employees), # Scale 1 to 10
    'Performance': np.random.uniform(2.5, 5, n_employees), # Scale 2.5 to 5
    'Department': np.random.choice(['HR', 'Engineering', 'Sales', 'Marketing'], n_employees)
})

# Introduce some missing values randomly
data.loc[np.random.choice(data.index, size=10, replace=False), 'Job Satisfaction'] = np.nan
data.loc[np.random.choice(data.index, size=5, replace=False), 'Absenteeism'] = np.nan
data.loc[np.random.choice(data.index, size=3, replace=False), 'Team Collaboration'] = np.nan
data.loc[np.random.choice(data.index, size=7, replace=False), 'Department'] = np.nan

# Data Cleaning: Handling missing values
# Fill missing values for numeric columns with the median for column in ['Job
Satisfaction', 'Absenteeism', 'Team Collaboration', 'Performance']:
data[column].fillna(data[column].median(), inplace=True)

# Fill missing values for categorical columns with the mode (most frequent value)
data['Department'].fillna(data['Department'].mode()[0], inplace=True)

# Data Preprocessing
# Select relevant columns for analysis (e.g., Job Satisfaction, Absenteeism, Performance)
features = ['Job Satisfaction', 'Absenteeism', 'Team Collaboration', 'Performance'] X =
data[features]

# Standardize the data for better clustering and regression performance
scaler = StandardScaler()
X_scaled = scaler.fit_transform(X)

# Descriptive Statistics
print(data.describe())
```



```
# Visualize the data distribution
sns.pairplot(data[features])
plt.show()

# Correlation matrix
correlation = data[features].corr()
```





```
plt.figure(figsize=(8, 6))
sns.heatmap(correlation, annot=True, cmap='coolwarm', fmt=".2f") plt.title('Correlation
Matrix')
plt.show()

# KMeans Clustering to segment employees based on behavior kmeans
= KMeans(n_clusters=3, random_state=42) # Create 3 clusters
data['Cluster'] = kmeans.fit_predict(X_scaled)

# Visualize the clusters plt.figure(figsize=(10,
6))
sns.scatterplot(data=data, x='Job Satisfaction', y='Performance', hue='Cluster',
palette='viridis') plt.title('Employee Behavior Clusters') plt.show()

# Linear Regression Model to predict Performance based on other variables
# Split the data into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X_scaled, data['Performance'], test_size=0.2,
random_state=42)

# Create and train the regression model
model = LinearRegression()
model.fit(X_train, y_train)

# Make predictions
y_pred = model.predict(X_test)

# Evaluate the model
mse = mean_squared_error(y_test, y_pred)
print(f'Mean Squared Error: {mse}')

# Visualize the actual vs predicted performance plt.figure(figsize=(8,
6))
plt.scatter(y_test, y_pred, alpha=0.6)
plt.plot([min(y_test), max(y_test)], [min(y_test), max(y_test)], color='red', linestyle='--
') plt.xlabel('Actual Performance') plt.ylabel('Predicted Performance') plt.title('Actual vs
Predicted Performance') plt.show()

# Feature importance (for interpretation)
coefficients = pd.DataFrame(model.coef_, features, columns=['Coefficient']) print(coefficients)

# Save the cleaned and processed data to a new file (optional)
data.to_csv('/mnt/data/cleaned_hr_data.csv', index=False)

# Output the first few rows of the dataset with clusters for verification
```



```
data.head()
```

OUTPUT:

```
Employee_ID Job Satisfaction Absenteeism Team Collaboration \
count 100.000000    100.000000 100.000000    100.000000
mean  50.500000    5.391205  6.890000    5.960480 std
29.011492    2.481601  4.306197    2.468683 min
1.000000    1.049699  0.000000    1.162678 25%
25.750000    3.506843  3.000000    3.893359
50%   50.500000    5.450376  7.000000    5.873032 75%
75.250000    7.454668 11.000000    8.097326 max
100.000000    9.729189 14.000000    9.966283
```

```
Performance
count 100.000000
mean  3.604069
std    0.741472
min    2.512962
25%    2.959917
50%    3.512719
75%    4.212745 max
4.954602
```

Mean Squared Error: 1.5777218104420237e-31

```
Coefficient
Job Satisfaction -1.967550e-16
Absenteeism     -3.330669e-16
Team Collaboration 1.665335e-16
```

FIGURE NO. 1

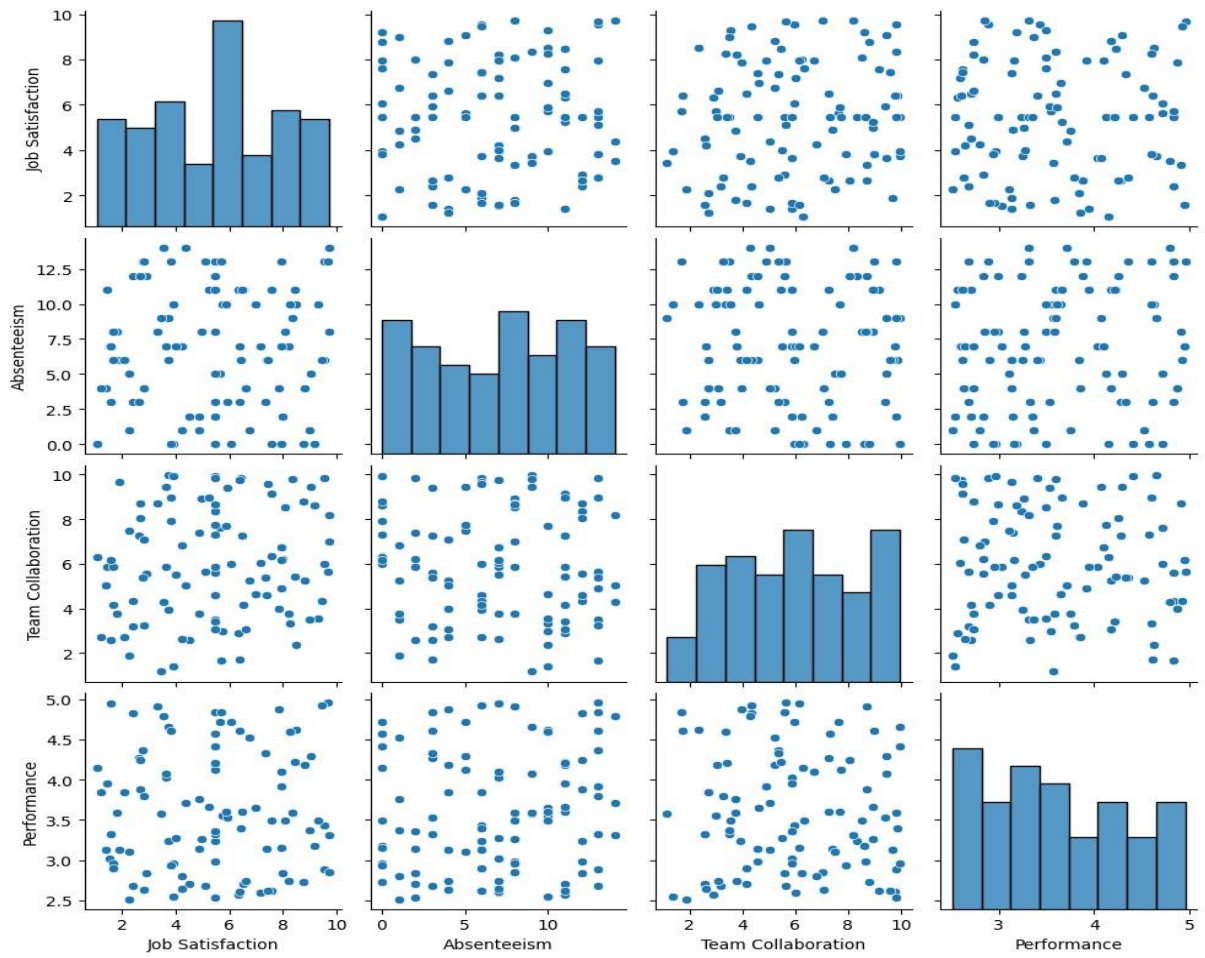


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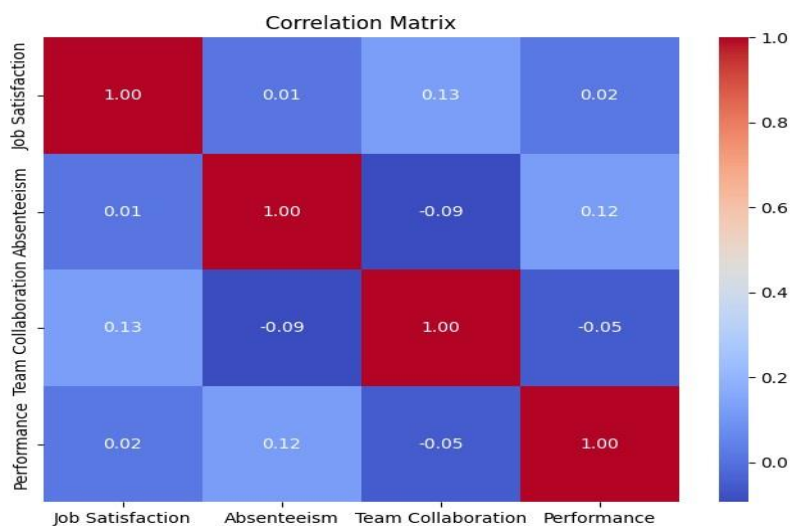


FIGURE NO. 3

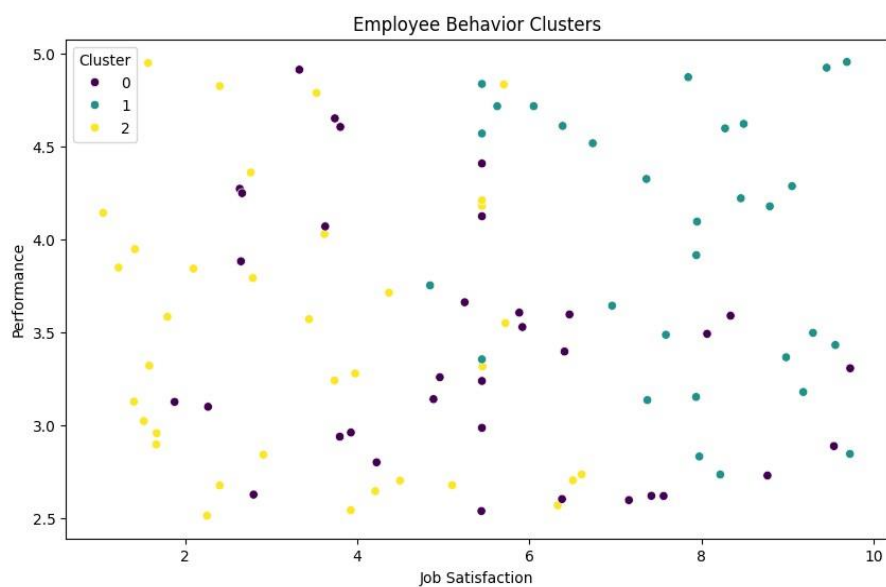
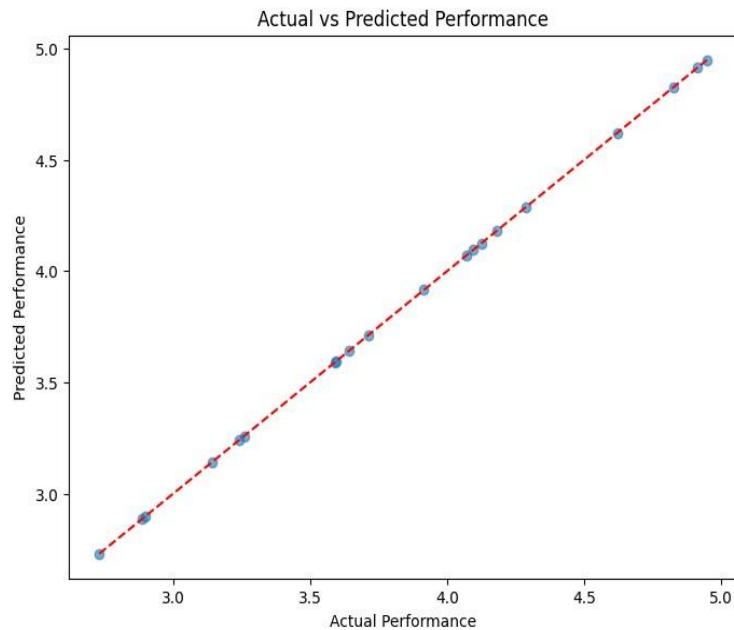


FIGURE NO. 4



CONCLUSION

To improve the working environment, HR professionals can benefit from the insightful information that Workplace Behaviour Analytics (WBA) offers. HR may create focused interventions to enhance engagement, performance, and well-being by using data analytics to analyse employee behaviour trends. This study showed how HR can utilise Python in Google Colab to analyse simple datasets and uncover valuable insights that can be used to improve workplaces. In the future, keeping a competitive and sustainable staff will depend heavily on incorporating WBA into organisational procedures.

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SLEEP PATTERN AND ACADEMIC PERFORMANCE IN TEENAGERS

Ms. Ann Mariam Biju, Ms. S Gowri Nair, Ms. Maria Varghese, Ms. Anna Mary Biju

II Semester, B.Com ACCA, Department of Professional Accounting and Finance,

Kristu Jayanti College, (Autonomous), Bengaluru

Dr. Janani M, Prof. Gaadha B

Assistant Professor, Department of Professional Accounting and Finance, Kristu

Jayanti College (Autonomous), Bengaluru

ABSTRACT

Adolescence is a period where changes happen continuously especially in sleep patterns which can impact their academic performance and overall wellbeing. A study was conducted among students and found that sleep and academic performance doesn't have any connection. Even though sleep is important, factors like cognitive abilities, stress level and the quality of the educational environment also plays a significant role in academic success. Addressing all the factors can help in adolescents learning and wellbeing. According to the study conducted there is a clarity on how sleep does not affect academic performance of students. Academic performance is an important indicator of student success. Various factors could be influencing a student's academics. Sleep is assumed to be one such factor. Though many researches have been conducted on sleep and health, the specific impact of sleep on academic outcomes is underexplored. This research examines the relationship between sleep patterns and academic performance among students. It also takes into consideration the amount of time students spends on digital devices. By analysing data from survey, the research explores correlation between sleep and academic achievement. The findings conclude no significant relationship between the same.

INTRODUCTION

Sleep is a biological process essential for mental as well as physical well-being. During sleep, humans take rest and restore energy for the next day. Similarly, in an intellectual aspect, sleep helps in processing information from throughout the day and storing memories. Despite its significance many students replace time for sleep with screen time or for doing academic works. This has led to widespread sleep deprivation among students. Through this research we try to find out if any relationship exists between sleep and academic performance.

LITERATURE REVIEW

Sleep, Anxiety and Academic Performance: A Study of Adolescents from Public High Schools in China [Dagmara Dimitriou, Frances Le Cornu Knight and Patrick Milton] (2021) - In their study they report three findings- The adolescents report achieving less than the recommended 9–10 hours of sleep per night. Later bedtimes and fewer hours of sleep are associated with reduced academic performance. Stipulated consumption of electronic devices for 30 minutes before bed can negatively affect adolescent sleep and thereby, the academic performance. The study did not report any relation between sleep and exercise; however, exercise was positively associated with academic performance.



The role of Environmental Factors on Sleep Patterns and School Performance in Adolescents [Xiaoning Zhang, Dagmara Dimitriou and Elizabeth J. Halstead] (2015) - This study indicated that students with a greater severity of sleep-related impairment had better academic performance than students with lower sleep-related impairments score. However, no association was found between sleep disturbances and academic performance. It must also be noted that Chinese cultural influence has encouraged students to sacrifice sleep to achieve high scores in exams. The study concludes that although students in China may achieve better academic performance at the expense of sleep, sleep disturbances and sleep-related impairment were found to predict anxiety in students, suggesting potential negative mental health consequences to this practice.

Understanding adolescents' sleep patterns and school performance: a critical appraisal - Amy R. Wolfson and Mary A. Carskadon (2003) - The study elaborately measured the impact of sleep/wake patterns in teenagers which likely affected their academic performance. Specifically, the study focused on (1) sleep/wake patterns and usual grades, (2) school start time and phase preference in relation to sleep habits and quality, and academic performance, and (3) sleep patterns and classroom performance (e.g., examination grades). This analysis reached a level that could draw research-based conclusions about the academic performance affected by the sleep schedule of adolescents.

Sleep patterns of adolescents and its impact on their mood and academic performances (2017) [Ruchi Singh, Jagadish C Suri, Renuka Sharma and Tulasi Adhikari] - The study explains how the sleep patterns cause differences in phase preferences, mood, attendance, and academic performance among different adolescent age students. Secondly, to observe the age at which sleep phase transitions and changes in sleep requirement become evident. The study was conducted in a school in Delhi. The students were aged 11 to 15 years. These students were evaluated for their sleep patterns and the results had a significant difference in the sleep pattern of students aged 11–12 y and 13–15 y. Bedtime shifted to a later time with increasing age but early morning schools kept the wake time same, leading to a decline in total sleep duration of older adolescents. Older adolescents had higher depression but poor attendance and academic performance. Students between ages 10 to 19 who are in the stage of transition from childhood to adulthood, are vulnerable to sleep.

Academic Performance and Mood of Preteens and Teenagers and attendance in association with their sleep patterns - Significant correlation was observed between sleep patterns and attendance. Bedtime had a negative correlation with attendance whereas total sleep time had a positive correlation. And academic performance had a positive correlation with attendance. Thus, irregular sleep routines on weekdays and weekends had deleterious effects on attendance and performance. Studies have shown an association of poor performance with short sleep duration. And they have also found that poor sleep or irregularities in the sleep is the only reason for the mood disturbances. Sleep pattern did not have any direct impact on academic performances but it did affect the mood, attendance and alertness of adolescents. Shorter sleep duration can both be a cause and effect of depression. Thus, multiple factors with a complex relationship along with sleep pattern might be influencing academic performances and warrants further exploration.



Association between sleep structure and sleep patterns across adolescent development (12/01/21) [Maria Jalbrzikowski, Rebecca Hayes, Kathleen Scully and Peter Franzen] - The main objective is to investigate whether sleep–gray matter relationships are developmentally invariant (i.e. stable across age) or developmentally specific (i.e. only present during discrete time windows) from late childhood through young adulthood. Structural brain maturation and sleep are complex processes that exhibit significant changes during adolescent development. Optimal sleep and brain maturation are each known to influence adolescent health and functioning, including academic/vocational achievement, mental health, and risk behaviours. The gray matter structure and sleep patterns over adolescence are not fully understood; furthermore, it is unknown whether these relationships vary as a function of age.

Relationship between sleep habits and academic performance in university Nursing students (2021) - This study highlights the importance of sleep which is influenced by biological, cultural and environmental factors. Sleep deprivation is becoming a common factor particularly among nursing students which may cause a serious issue such as fatigue, health issues and poor academic performance. This study emphasizes to know about healthy sleep habits and patterns. Poor academic performance was linked to the improper sleep patterns of the students. It was found that the nursing students only sleep for 6 hrs./day affecting their academic performance. Sleep patterns, habits and chorotypes are the most critical factors which influence the poor academic performance in nursing students. Almost 1/3rd of the nursing students are having bad sleep patterns and were categorized under evening chorotypes. According to research at least 8 hrs. of sleep is important for students which helps them in their academic performance.

Screen time and early adolescent mental health, academic, and social outcomes in 9- and 10- year old children: Utilizing the Adolescent Brain Cognitive Development SM (ABCD) Study [Katie N. Paulich, J. Megan Ross, Jeffrey M. Lessem, John K. Hewitt] (2021) - The study indicates the relationship between screen time and their outcomes. It creates mental disorders, sleep issues, poor academic performance, peer relationship etc from children aged 9 to 10 years. It highlights the impacts of screen time among children, playing a significant role in their wellbeing. The study identifies behavioural problems including ADHD, poor academic performance and poor sleep quantity and quality being recognised in children with a high amount of screen time. Conversely, screen time is positively associated with the quantity and quality of peer relationships.

METHODOLOGY

Google forms was used as the mode to collect sources for our survey. We received a total sample of 187 responses from which conclusions and findings were drawn. Further IBM SPSS was used to analyse the samples. Correlation analysis helped us analyse the sample in the best way possible. Our study is a cross sectional study that involves observational studies to analyse the data from a population at a single point in time. In addition to this, snowball sampling, which is a non-probability sampling method, is what really helped us since it requires only selective participation as our study comes under a nonrandom criterion implying that our existing subjects recruit other subjects from among their acquaintances which creates the samples like a rolling snowball.

ANALYSIS & INTERPRETATION:

Descriptive Statistics



Descriptive statistics refers to a set of methods used to summarize and describe the main features of a dataset, such as its central tendency, variability, and distribution. Descriptive statistics examples in a research study include the mean, median, mode, variance, standard deviation and etc. The variation of gender, age, total hours of sleep, screen time and academic performances are analysed with the help of mean and standard deviation where the values of the standard deviation are relatively small in comparison to their means, suggesting that the data is consistent and stable. In other words, when the standard deviation is less than one-third of the mean, it typically indicates low variability to the mean. This proves that data is suitable for further analysis. The further analysis done is correlation analysis.

TABLE NO. 1 DESCRIPTIVE STATISTICS

Descriptive Statistics		
	Mean	Std. Deviation
Gender	1.26	0.439
Age	1.67	0.565
Total hours of sleep	2.62	0.568
Screen time	2.55	0.858
Academic performance	3.44	0.605

Variables used in the study have been considered for the descriptive statistics and since all the SD values are less than $1/3^{\text{rd}}$ of their means, this data is considered to be consistent for further analysis.

Correlation Analysis (To evaluate the interrelation between the number of hours of sleep and academic performance)

Correlation Analysis is a statistical method that is used to discover if there is a relationship between two variables. Here the correlation analysis is conducted to analyse the connection of screen time and sleeping hours. Since the p-values were significantly greater than the 0.01 threshold, this suggests that there is no significant correlation between the two variables. Through this analysis, we discovered that the total hours of sleep that students obtain on a daily basis or the night before their exams have no significant factors that affect their academic presentation. A student may sleep less and still score a high grade and a student who acquired sleep for long hours can poorly perform as well academically.

TABLE NO. 2 CORRELATION

Correlations		Total hours of sleep	Memory	Concentration in class	Scores
Total hours of sleep	Pearson Correlation	1	-0.006	0.010	0.039
	Sig. (2-tailed)		0.930	0.892	0.596
	N	186	186	186	186
**. Correlation is significant at the 0.01 level (2-tailed).					



The correlation analysis has helped to confirm that the total hours of sleep and factors affecting academic performance have no interrelation.

TABLE NO. 3 - CORRELATION ANALYSIS (TO RECOGNISE THE CONNECTION OF SCREEN TIME AND SLEEPING HOURS)

Correlations			
		Total hours of sleep	Screen time
Total hours of sleep	Pearson Correlation	1	-0.140
	Sig. (2-tailed)		0.057
	N	186	186

The correlation analysis has helped to confirm that the screen time and total hours of sleep have no interrelation. Out of this analysis, our research helped us brought to light that screen time and the number of hours of sleep acquired by a student is not related in any way to each other. Although students tend to have a high screen time, they manage their sleep schedule almost perfectly. From this inspection, it was an easy discovery for us to realize how students are mistook to sleep less because of their extensive screen time.

DISCUSSION

Sleep is a period of time when your brain and body are active but you are unconscious. Sleep patterns consist of cycles of non-rapid eye movement and rapid eye movement sleep. According to the correlation analysis conducted the sleep and the academic performances of the students are not related to each other, because the analysis explains that the students who sleep for 4-6 hours score 80%-100% and the students who sleep 8-9 hours also score 80%-100%. Though we began the study with the concept and expectation that sleep affects academic performance, our study proves that it does not relate to each other particularly. However, the quality of sleep, educational environment and health matters may be other factors affecting academic performance in teenagers. Screen time is also widely considered as a factor for poor academic performance. It is crucial to understand that students spend more time on screens yet they have the ability to score well in their exams. Hence, even this factor cannot be misunderstood for poor performance academically. At the end of our research, we discovered that the common conception, about less sleep and more screen time are the reasons students acquire less grades, is nothing but a misconception and the way of thinking about this should be changed.

CONCLUSION

From our research, we found that sleep and academic performance doesn't show a clear connection. Teens with better emotional regulation or higher cognitive can perform much better in their academics, regardless of their sleep. We also know that high level of stress and mental health issues can impact the



work performance and sleep but not directly. The quality of the educational environment in which they learn affects their performance.



ECONOMIC IMPACTS OF DIGITAL PAYMENT REVOLUTION IN INDIA

Mr. Harish H, Mr. Edwin Joseph Lalu

IV Semester, B.Com ACCA, Department of Professional Accounting and Finance, Kristu Jayanti College (Autonomous), Bengaluru

Dr. Neerupa Chauhan

Assistant Professor, Department of Professional Accounting and Finance, Kristu Jayanti College (Autonomous), Bengaluru

ABSTRACT

This research paper explores the transformative impact of India's digital payment revolution on various aspects of economic system, with a particular focus on the period following the 2016 digital payment revolution. Through a comprehensive analysis of secondary data from various credible sources, the study evaluates the economic impacts across four key sectors: Small and Medium Enterprises (SMEs), financial services, e-commerce, and the tax system. The research demonstrates how the integration of digital payment systems, particularly the Unified Payments Interface (UPI), has fostered operational efficiency, reduced costs, and expanded market reach for businesses. The findings indicate significant positive changes across all the four sectors. SMEs reported 46.7% increase in average annual revenue, more than 80% of Indian adults gained access to digital financial services, and enhanced transaction transparency as a result of digital payments has led to significant improvements in tax compliance. The study also highlights the crucial role of various factors like introduction of UPI, demonetization, increased smartphone integration, COVID-19 pandemic and technological innovations in driving this transformation. These findings provide valuable insights for policymakers, businesses, and financial institutions, while offering lessons for other developing economies undertaking similar digital transformations.

INTRODUCTION

The Digital Payment Revolution in India represents one of the most significant transformations in the country's economic landscape in recent times, marking a major shift from a predominantly cash-based economy to a digital financial ecosystem. This transformation, brought about by the demonetization initiative of 2016, has fundamentally changed how businesses operate, consumers transact, and the government manages tax collection. The digital journey, which started with ICICI Bank's introduction of net banking in 1998, gained unprecedented momentum in the last decade through government initiatives like the JAM Trinity (Jan Dhan-Aadhaar-Mobile) in 2014 and the Digital India campaign in 2015.

The digital payment revolution had profound impact on multiple sectors of the Indian economy. For Small and Medium Enterprises (SMEs), which contributes approximately one-thirds to India's total GDP, digital payments have facilitated a 46.7% increase in average annual revenue and a 40.2% improvement in operational efficiency. In the financial services sector, the transformation has led to remarkable progress in financial inclusion, with over 80% of Indian adults now having access to formal banking



services. The e-commerce sector has experienced substantial growth through the integration of Unified Payments Interface (UPI), processing billions of transactions and expanding market reach significantly.

This research paper aims to analyse the comprehensive economic impact of India's digital payment revolution, focusing particularly on its influence on SMEs, financial services, e-commerce, and the tax system. By comparing both pre-2016 and post-2016 scenarios, this study aims to provide insights into how digital payment technologies have reshaped India's economic landscape, improved financial inclusion, and contributed to the formalization of the economy. The analysis draws upon secondary data from reliable sources to evaluate the transformation's effectiveness in achieving greater transparency, efficiency, and economic growth across various sectors.

Understanding these impacts is crucial as India continues to evolve its digital payment ecosystem, with implications for policymakers, businesses, and financial institutions. This study will particularly focus on how digital payment innovations have addressed pre-existing challenges in different economic sectors while creating new opportunities for growth and development.

LITERATURE REVIEW

The digital payment transformation in India has been driven by multiple factors, including demonetization, increased internet access, government initiatives, and the COVID-19 pandemic (Badak et al., 2023). The Reserve Bank of India's (RBI) proactive role in fostering a digital payment ecosystem has further contributed to its widespread adoption. Digital payment methods such as UPI, digital wallets, and mobile banking applications have enabled seamless transactions, thereby accelerating economic participation and reducing dependency on cash-based transactions.

The adoption of digital payment technologies among SMEs has been a critical aspect of India's cashless economy. Mehra (2023) highlights that SMEs perceive digital payments as advantageous due to their convenience and efficiency, yet challenges such as cybersecurity risks and operational costs remain. The study suggests that technology providers and policymakers should enhance digital infrastructure to ensure seamless integration of payment technologies into business operations.

Digital payment innovations have played a crucial role in financial inclusion, particularly for micro, small, and medium enterprises (MSMEs). The United Nations ESCAP (2022) emphasizes the potential of digital payments and central bank digital currencies (CBDCs) in improving MSMEs' access to finance. However, it also cautions that regulatory and systemic risks need careful management to ensure a sustainable digital financial ecosystem.

The trend of digital financial services (DFS) and their increasing adoption in India indicate a shift towards a more formalized economy. Kumar et al. (2019) analyse the impact of digital transactions on financial services, including credit, savings, remittances, and insurance. Their study suggests that DFS has significantly contributed to financial inclusion, economic formalization, and transparency in monetary transactions.



Digital payments have fostered entrepreneurship by providing secure and efficient financial transaction mechanisms. Panagariya (2022) underscores the role of Aadhaar-based digital verification in simplifying business transactions, reducing fraud, and enabling financial transparency. Digital infrastructure has also facilitated new fintech innovations, thereby supporting entrepreneurial activities and e-commerce growth (Andrew, 2021).

Zargar et al. (2023) examine the macroeconomic effects of digital payments, revealing a strong correlation between GDP growth and cashless transactions. Effective tax collection initiatives have further promoted formal financial transactions, reducing tax evasion and increasing government revenues. However, the study finds that interest rates have not significantly influenced cashless payment adoption, suggesting that other factors such as technology access and financial literacy play a more substantial role.

OBJECTIVES

- To do a comparative analysis of the impacts on Indian economy before and after the Digital Payment Revolution in 2016.
- To assess the impact of digital payments on the growth and efficiency of SMEs and financial services in India post-2016.
- To evaluate the role of digital payments in transforming e-commerce and tax compliance, leading to increased transparency and economic formalization.

METHODOLOGY

This research follows a **qualitative approach**, relying primarily on **secondary data sources** to analyse the economic impacts of the digital payment revolution in India. The study synthesizes data from various academic journals, government reports, policy documents, industry white papers, and reputable financial institutions to provide an in-depth understanding of how digital payments have transformed India's economic landscape.

A **desk research method** was employed to collect and review literature from credible sources such as research papers, reports from the Reserve Bank of India (RBI), National Payments Corporation of India (NPCI), and global financial organizations. Key themes and patterns were identified to evaluate the role of digital payments in areas such as small and medium enterprises (SMEs), financial services, ecommerce, and taxation.

A **comparative analysis** was conducted to assess the pre-2016 and post-2016 scenarios, focusing on how digital payments have influenced financial inclusion, economic efficiency, and market expansion. The study also examined the role of government policies and technological advancements in shaping the digital payment ecosystem.

The findings are based on **qualitative interpretation**, with a focus on thematic analysis to highlight significant trends and developments. The research acknowledges its reliance on secondary sources and

ensures credibility by cross-referencing data from multiple sources to establish a comprehensive and balanced perspective on the topic.

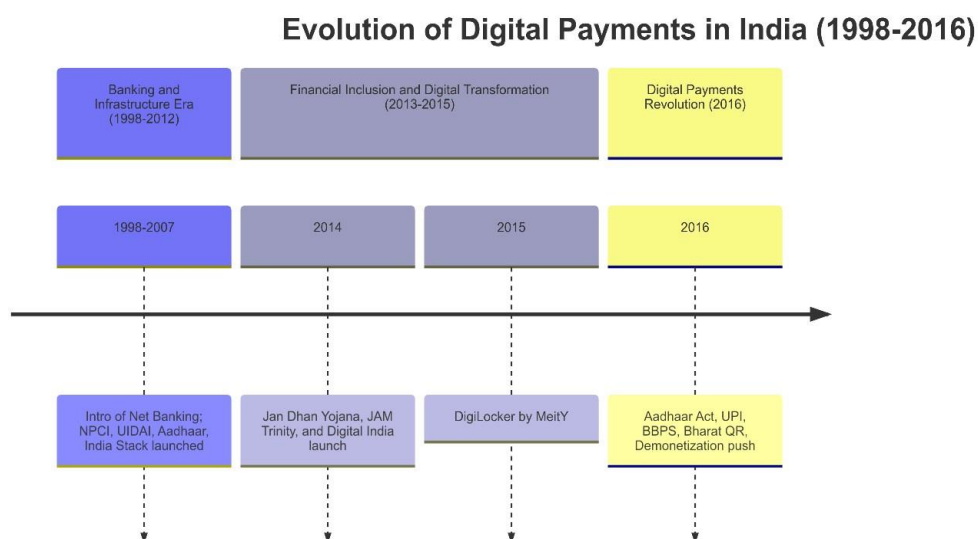
ANALYSIS

Evolution of Digital payments in India: A brief timeline

India's digital payment transformation began in 1998 when ICICI Bank introduced net banking, marking the country's first step into digital finance. The real foundation was laid in 2008-2009 with the establishment of NPCI (National Payments Corporation of India) and the introduction of Aadhaar, which laid the foundation for future developments in digital payments.

A significant push came in 2014 with the JAM Trinity (Jan Dhan-Aadhaar-Mobile) initiative, which connected bank accounts, digital IDs, and mobile numbers. The Digital India campaign in 2015 further accelerated this transformation. The year 2016 was pivotal, marked by three major developments: the launch of UPI (Unified Payments Interface), the implementation of Aadhaar-based services, and the demonetization drive which effectively forced a rapid transition toward digital payments.

FIGURE NO. 1



Economic Impact of Digital Payments Post 2016



Small and medium enterprises

Pre-2016

India's SME sector, with 63.39 million MSMEs contributing to 28.77% of the GDP, faced operational and growth challenges before the digital payment revolution in 2016. Access to formal finance was limited, with only 16% of MSMEs having institutional credit. Cash transactions dominated, leading to lengthy payment cycles and significant working capital constraints. The regulatory framework was restrictive, with different definitions for manufacturing and service units. Despite government initiatives, challenges included limited technological adoption, high informal borrowing costs, and poor book-keeping practices. 95% of MSMEs operated without formal registration.

Post-2016

Digital payment systems have significantly transformed the operational landscape of Small and Medium Enterprises (SMEs) in India, leading to a 46.7% increase in average annual revenue. This growth is attributed to the ability to serve customers preferring cashless transactions and access to broader market segments. The digital transformation has also led to a 40.2% improvement in operational efficiency, as businesses transitioned from manual processes to instantaneous digital transactions. This has reduced transaction processing time, minimized manual bookkeeping errors, and decreased costs associated with cash handling and storage. Financial management has also seen notable improvements, with real-time cash flow visibility, shortened working capital cycles, and reduced late payments. Digital transaction records have also facilitated better access to formal credit.

Digital payment adoption has also eliminated geographic barriers, enabling SMEs to expand their market reach. Local businesses can now serve customers across India, with artisans from traditional markets selling to metropolitan customers through digital platforms. This expansion is particularly impactful when combined with e-commerce integration, enabling 24/7 business operations and access to previously unreachable customer segments. Despite challenges, digital payment adoption has become a crucial factor in enhancing SME competitiveness and sustainable growth in the evolving Indian business landscape.

Factors:

Digital payments have significantly impacted Indian SMEs due to factors such as the demonetization initiative in 2016, the introduction of UPI, the COVID-19 pandemic, government initiatives, widespread smartphone adoption, financial technology innovations, e-commerce platforms, changing consumer preferences, supportive infrastructure, and the demonstration effect of early adopters. These factors have led to a more efficient and cost-effective payment system for SMEs.

Financial services Pre-2016

India's financial sector was dominated by traditional banking institutions before the digital payment revolution in 2016. Financial inclusion was a challenge, with many lacking accesses to formal services. Regional Rural Banks had mixed financial performance. The government focused on strengthening public sector banks through capital infusion and reforms. Despite digital infrastructure, financial services



remained largely dependent on physical banking, and only 5.18% of MSMEs had access to formal financial support.

Post-2016

In 2023, digital payment platforms served over 400 million active users, with UPI transactions exceeding 10 billion per month. This expansion has been particularly impactful in semi-urban and rural areas, where traditional banking infrastructure was limited.

Financial inclusion has seen remarkable progress, with over 80% of Indian adults now having access to formal banking services. Digital payment systems have played a crucial role in this transformation, providing essential financial services to previously unbanked.

Infrastructure investment in the financial sector has shifted dramatically toward digital capabilities, with banks and financial institutions investing over \$2 billion in cloud infrastructure during 2022-23. This transition to asset-light infrastructure has reduced operational costs by 35% and improved service delivery efficiency by 60%.

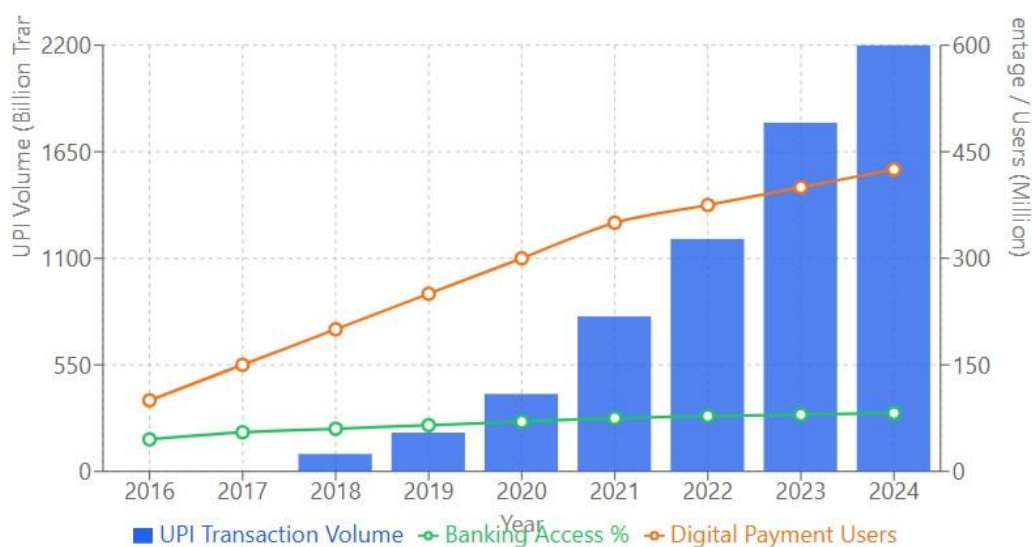
Innovation and regulation continue to evolve symbiotically, with the RBI's framework for offline digital payments and Central Bank Digital Currency (CBDC) pilots demonstrating ongoing support for innovation.

Factors:

India's digital payment revolution, driven by India Stack, UPI, and open banking principles, has transformed the financial services sector. It has enabled digital identity, data sharing, and seamless payments, benefiting small businesses and rural populations. Government initiatives, open banking principles, and digital transformation have enhanced accessibility, efficiency, and innovation in financial services. The rise of embedded finance, omnichannel banking, and customer engagement have made India's financial sector more inclusive and accessible.

FIGURE NO. 2

India's Financial Services Digital Revolution (2016-2024)



E-commerce

Pre-2016

India's e-commerce industry was just getting started and had a number of obstacles to overcome before the digital payment revolution in 2016. Its growth was constrained by poor speeds, minimal internet penetration, and a small online customer base. Cash on delivery continued to be the most popular payment method despite the market's growth, which caused inefficiencies for companies. With online travel being the largest segment, major competitors like Flipkart, Snapdeal, and Amazon were vying for market dominance. 2014 and 2015 saw the market grow quickly, while 2016 saw a slowdown as a result of shifting pricing tactics. Notwithstanding these obstacles, the industry was ready to grow, with the slow transition to online shopping and growing digital adoption laying the groundwork for future progress.

Post-2016

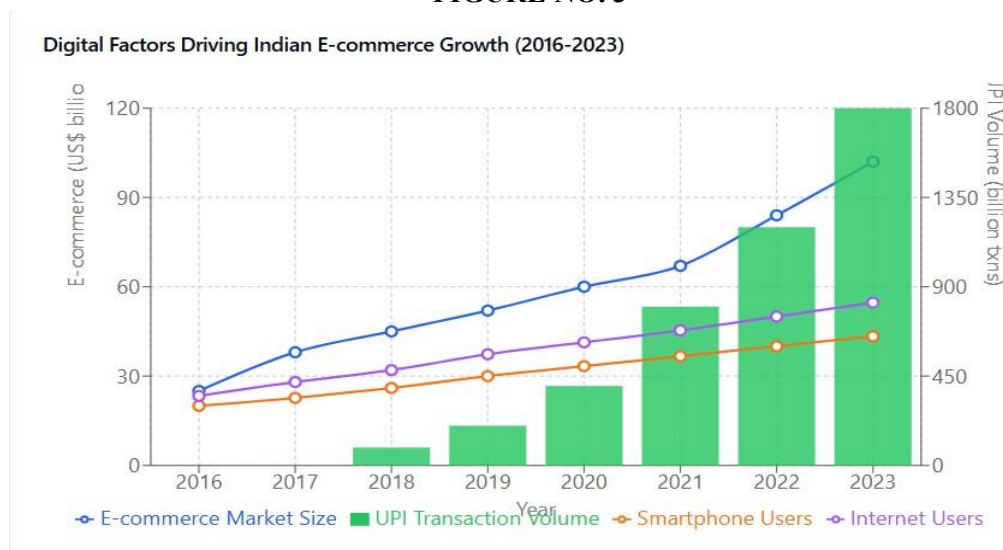
The digital payment revolution that gained momentum in 2016 has significantly transformed India's e-commerce sector. The introduction of UPI made transactions faster and more seamless, allowing for instant money transfers and smoother online payments. This ease of use improved accessibility for both consumers and merchants, leading to a rise in digital transactions and making online shopping more secure and convenient. As a result, the e-commerce market has grown rapidly, with a significant increase in online shoppers. UPI's widespread adoption has further accelerated this shift, processing billions of transactions and driving strong year-on-year growth. Overall, UPI has played a key role in expanding market reach, increasing consumer trust, and fuelling the rapid expansion of India's digital commerce ecosystem.

Factors:

The introduction of UPI in 2016 has revolutionized India's e-commerce by simplifying transactions, increasing accessibility, and boosting consumer confidence.

Its low transaction costs and easy setup have benefited small businesses, while UPI has also facilitated financial inclusion for individuals without traditional bank accounts. Government initiatives and increased internet and smartphone penetration have significantly influenced the growth of India's ecommerce sector.

FIGURE NO. 3



Tax System Pre-2016

India's tax system faced challenges before the 2016 digital payment revolution. A shadow economy largely relied on cash, leading to tax evasion and underreporting. Manual processes, high costs, and delays in assessments further exacerbated tax collection inefficiencies. The complex tax compliance system burdened businesses, especially small ones, with intricate documentation and multiple tax touchpoints. Sector-specific issues, such as agriculture and retail relying heavily on cash, further exacerbated the situation. Structural problems, low banking penetration in rural areas, and inadequate digital infrastructure further weakened enforcement. The absence of digital payments limited tax authorities' visibility into economic activity, allowing businesses to operate informally.

Post 2016

The digital payment revolution in India post-2016 has significantly influenced the tax system, resulting in enhanced tax compliance and revenue creation. The transition to electronic payments has created a transparent and traceable "paper trail," making it easier for tax authorities to assess liabilities and track transactions more efficiently. This shift has encouraged businesses across various sectors to report accurate sales, leading to increased tax payments. Additionally, digital payments have helped curb tax



evasion by eliminating cash-based manipulation, promoting trust in the taxation system, and incentivizing businesses to formally register under the Goods and Services Tax (GST). The synergy between digital transactions and GST implementation has further strengthened tax compliance by ensuring an auditable financial trail for businesses. Recognizing the benefits of digitalization, the government has amended the Income Tax Act post-demonetization to discourage cash transactions and push for greater financial transparency. These efforts collectively enhance the efficiency of tax collection, reduce leakages in the system, and support economic growth by fostering a more accountable and digitally integrated tax system.

Factors:

India's tax system has been significantly transformed by the digital payment revolution, enhancing transparency, compliance, and efficiency. The integration of GST has streamlined tax reconciliation, while advanced data analytics and AI-driven anomaly detection improve risk assessment. Direct banking integration reduces cash reliance, and businesses adopt digital payment systems, leading to automated record-keeping and reduced compliance costs. Financial inclusion and administrative efficiencies further strengthen the tax system.

SCOPE FOR FUTURE STUDY

The scope for future research on India's digital payment revolution includes exploring the emerging threats posed by **cyber security challenges** and technological solutions to prevent these threats to the financial system. Additionally assessing the long-term effects of a fully digitalized economy. Studies could also focus on **cross-border digital payments** and global integration, as well as the role of **technological innovations** like Central Bank Digital Currencies (CBDCs) in enhancing payment systems.

CONCLUSION

The digital payment revolution in India, catalyzed by the 2016 demonetization initiative and supported by technological innovations and government policies, has fundamentally transformed the country's economic landscape. This research demonstrates that the shift from a predominantly cash-based economy to a digital financial ecosystem has yielded substantial positive impacts across multiple sectors.

The transformation has been particularly significant for SMEs, which have experienced a 46.7% increase in average annual revenue and a 40.2% improvement in operational efficiency through digital payment adoption. The elimination of geographic barriers and integration with e-commerce platforms has enabled these businesses to expand their market reach considerably, contributing to their sustainable growth and competitiveness.

In the financial services sector, the revolution has driven remarkable progress in financial inclusion, with over 80% of Indian adults now having access to formal banking services. The sector has witnessed substantial infrastructure investments in digital capabilities, resulting in a 35% reduction in operational costs and a 60% improvement in service delivery efficiency. The success of platforms like UPI, processing over 10 billion transactions monthly and serving more than 400 million active users, exemplifies the scale of this transformation.



The e-commerce sector has experienced significant growth through the integration of digital payment systems, particularly UPI, which has enhanced transaction security, improved accessibility, and increased consumer trust. This has led to a substantial expansion in the online retail market and created new opportunities for businesses of all sizes.

The tax system has also benefited considerably from this digital transformation. The creation of transparent, traceable transaction records has improved tax compliance, reduced evasion, and strengthened the overall taxation framework. The synergy between digital payments and GST implementation has further enhanced the efficiency of tax collection and promoted economic formalization.

These findings suggest that India's digital payment revolution has successfully addressed many preexisting challenges in the economy while creating new opportunities for growth and development. However, the transformation also presents ongoing challenges, particularly in cybersecurity and financial fraud prevention, which require continued attention from policymakers and stakeholders.

Looking ahead, the success of India's digital payment ecosystem offers valuable lessons for other developing economies undertaking similar transformations. Future research could focus on addressing emerging challenges and exploring new opportunities for innovation in digital financial services, particularly in enhancing cybersecurity measures and expanding financial inclusion to the remaining unbanked population.

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SUSTAINABLE BUSINESS AND INFORMATION TECHNOLOGY

Ms. Gopika J , Ms. Navaneetha Babu , Ms. Parvathy Jayan , Ms. O.Vandhana Vijay Menon

*II Semester, B.Com ACCA, Department of Professional Accounting and Finance, Kristu
Jayanti College (Autonomous), Bengaluru*

ABSTRACT

In this research, we will discuss how Information Technology (IT) can be an enabling environment Friendly business practice or a sustainable business practice. This study examines the IT tools such as Artificial Intelligence (AI), Blockchain, Big Data Analytics, Cloud Computing, and the Internet of Things (IoT) as forces for change toward sustainability efforts.

Applying a mixed method, qualitative research study design to analyse 150 unique open-ended survey responses from professionals in diverse fields, this study integrates the diversity of IT implementation from the literature and industry reports, examining trends, challenges and opportunities. These results show that AI and Big Data Analytics have been widely used to maximize energy efficiency and to measure carbon footprints and that Blockchain technology is enhancing transparency in supply chains. But high implementation costs, limited technical expertise, and data security concerns are major barriers to IT adoption.

The rest of the paper demonstrates the ways that IT driven solutions synergistically bolster a circular economy and regulatory obligations – confirming their strategic importance to achieving sustainable development over the long term.

This study fills the existing literature gap by providing empirical insights on the effect of IT in sustainable business models, and it proposes practical paths for policy options, business strategies, and educational enforcements. Future work could further investigate the IT applications pertinent to sector and the approaches to overcoming adoption challenges.

Keywords: Sustainable Business, Information Technology, Artificial Intelligence, Blockchain, Circular Economy, IT Adoption, Sustainability Challenges

INTRODUCTION

Sustainability in Business: A New Paradigm Sustainability has enjoyed a recent effectiveness in the world of business. Under pressure from governments, consumers and stakeholders, who are increasingly demanding that businesses lower their carbon footprint and implement ethical practices,

AI, cloud computing, IoT, and blockchain integration in Information Technology (IT) solutions have all contributed to resource optimization, energy efficiency, data-driven decision making, and corporate sustainability. Serious, sustainable business [the “triple bottom line” model] based around economic viability, environmental responsibility and social equity.



Information Technology is also that big contributor in meeting these targets as it could help to optimise the sources with minimum resources and provide sustainable solutions for sustainable issues. When software is designed solely for AI-based analytics, organizations can monitor and reduce their environmental in a systematic effort. Similarly, Internet of Things technologies enhance energy efficiency in smart buildings and industrial processes while supporting a circular economy characterized by the recycling and repurposing of materials.

Although IT can help organizations move towards sustainability transformation, it also comes with drawbacks including costly implementation, cyber risks, and ethical implications related to data privacy and AI-based decision making. Also digital transformation needs to be well developed and supported by policies to facilitate the fairer access to the green technologies and create incentives, making sure that the digital divide does not expand.

This research paper discusses the effects of information technology, how it relates to sustainable business pressures, the technological advancements that facilitate it and the adoption barriers. This research will demystify how the evolution of information technology can play into sustainable development, harnessing real-world examples and trends seen across the contemporary market to suggest the active ways organisations may implement a forward-facing use of technology in partnership with an economy which by necessity must be fast-paced and ever-shifting.

LITERATURE REVIEW

A. Literature Review- Sustainable Business Practices

Business sustainability is about using resources wisely, reducing waste, and protecting the environment. Academic literature has identified energy efficiency, circular economy principles, ethical sourcing and green logistics as major levers in achieving sustainable development. Interestingly, the discussion of technology's role in sustainability — Green IT, data-driven sustainability reporting, etc. — has gained momentum in recent years. Innovative models, including both impact investing and subscription-based services, are gaining traction among businesses as they seek to balance profitability with environmental expansion.

B. Key Theories and Concepts

- **Energy Efficiency & Circular Economy** – Businesses seek to decrease their dependence on fossil fuels with sustainable suppliers and processes. The model of circular economy prolongs the lives of products through mechanisms of repair, recycling or reuse and minimizes waste.
- **Sustainable Investments & Ethical Sourcing** – Helping the planet by investing in green businesses and ensuring a robust economy by giving people fair wages, safe workplaces, and environmentally safe products.
- **Green Logistics & Innovation** – Sustainable supply chains minimise costs and fuel consumption while using biodegradable packaging. Eco-friendly product design minimizes the impact of the product on the environment for the entire lifecycle of the product.
- **Green Finance & IT in Sustainability** – Environmental-related investments. Aspects of green IT include devices in green IT-oriented cities with eco-friendly design, cloud usage, and responsible elimination of electronic waste. Smart technologies and the Internet of Things help with tracking and optimizing energy usage.



- **Sustainable Business Models** – IT supports the circular economy with product life-cycle tracking, promotion of collaborative consumption, and subscription models. The Product-as-aService (PaaS) model maximizes product lifecycles, minimizing waste.

C. Earlier Research Gaps or Controversies

Challenges still persist however, despite the growing attention towards sustainability. Environmental investments are not always profitable according to some scholars which causes businesses to hesitate. There's also disagreement about how impactful circular economy strategies really are — recycling and reuse still take energy and resources. The Complete Guide to Sustainable Lease hold The green point on one side and although IT is being promoted as an environmentally friendly solution, we still have a lot of concerns about the disposal of e-waste of large scale data centers that consume a lot of energy. One more gap in research is the sustainability of subscription-based and collaborative consumption models over the long term, as it is not known how well consumers will adopt this new way of consuming goods instead of owning them themselves.

METHODOLOGY

A. Research Design

This research uses a **mixed-method** where **quantitative and qualitative** data are collected and analyzed to ponder IT roles on sustainability in business practices. The quantitative aspect simplifies measurable insights on IT adoption and the **qualitative analysis** navigates through challenges, benefits, and best practices for integrating IT towards sustainability. This method provides both numerical data as well as thematic interpretations that improve the validity and reliability of the study.

B. Data Collection Method

The research utilized both primary and secondary data sources:

Primary Data – Survey Method

- A structured questionnaire was administered to students and industry experts on a structured basis, which compiled facts from various sectors, such as business, IT, and sustainability.
- There were multiple-choice and checkbox questions related to the role of IT tools (e.g., AI, Cloud Computing, IoT, Blockchain) in sustainability.

Key focus areas:

- This will lead to the adoption of IT solutions for sustainability.
- Barriers for achieving sustainable goals through IT implementation.

LITERATURE REVIEW — SECONDARY DATA

To further supplement the survey findings, an extensive literature review of academic journals, industry reports, and case studies was performed. Research trend mapping was performed by identifying the subject areas matching the explored research sources.

C. SAMPLE SELECTION



This involvement included participants of diverse backgrounds, such as friends, family, associates, and acquaintances for a wide perspective. This is a study on a specific group of individuals belonging to areas that are involved with sustainability actions with the implementation of IT solutions.

D. DATA ANALYSIS TECHNIQUES

Quantitative Analysis

- **Survey response: Descriptive statistics** (percentages, mean scores) summarized survey responses.
- **Frequency distribution analysis** helped identify the most commonly used IT tools for sustainability.

Comparative Analysis (Table)

Table 1: IT Tools and Their Role in Sustainability (A table comparing different IT tools and how they contribute to sustainability).

IT Tool	Application in Sustainability	Adoption Rate (%)
AI	Predictive analytics for energy efficiency	35%
Blockchain	Supply chain transparency	15%
Big Data Analytics	Carbon footprint tracking	18%
Cloud Computing	Reducing hardware dependency	20%
IoT	Smart resource management	22%

Table 2: Comparison of IT Adoption in Different Industries (Based on Literature Review & Survey Results)

Industry	Most Used IT Tool	Biggest Challenge	Sustainability Focus
Technology	AI	High Cost	Energy Optimization
Manufacturing	IoT	Lack of Expertise	Waste Reduction
Healthcare	Blockchain	Data Security	Supply Chain Management.
Retail	Big Analytics	Implementation Costs	Green Hospitals

Ethical Considerations

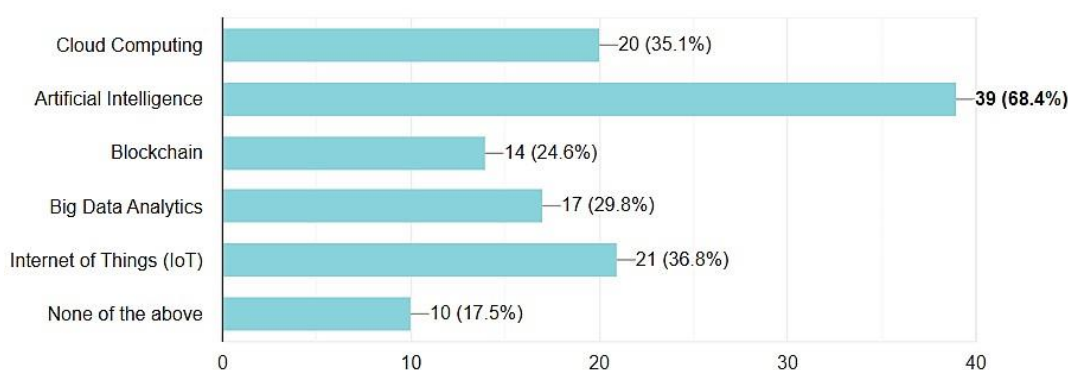
All survey participants provided informed consent.

Results

A. Presentation of Findings

- IT applications in sustainability: 58% of respondents were aware of IT applications in sustainability while 42% were not
- 94.7% see IT as a moderate or extreme enabler of reaching sustainability goals.
- Most recognized IT tools that induce sustainability are AI (68.4%), IoT (36.8%) and Cloud Computing (35.1%) (FIGURE 1.1)

FIGURE NO. 1



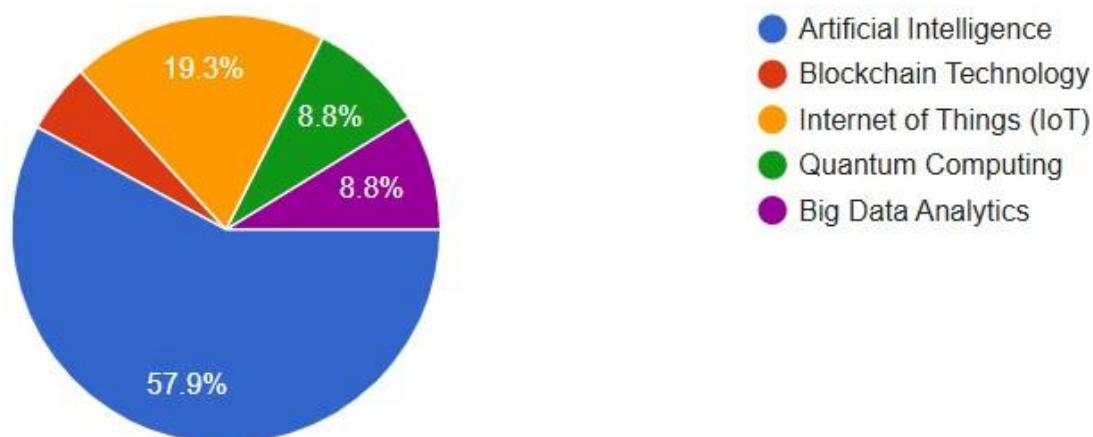
- The main drivers for IT adoption are cost savings (33.3%), regulatory compliance (28.1%), and brand reputation (28.1%).

On the whole the top barriers to adoption are cybersecurity concerns (59.6%), high costs (54.4%) and a lack of technical expertise (50.9%)

B. ANALYSIS AND INTERPRETATION OF DATA

Emerging IT Tools with the Greatest Impact on Future Sustainable Practices (FIGURE 1.2)

FIGURE NO. 2

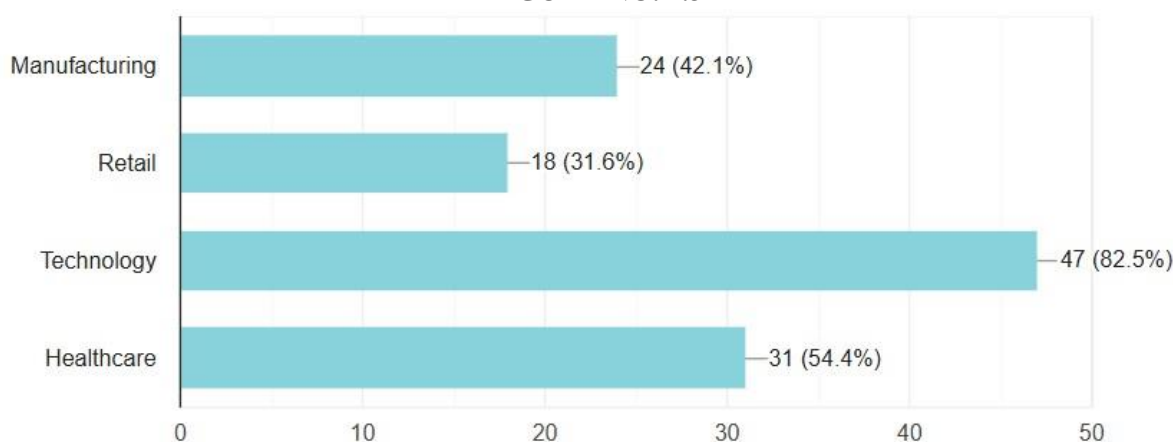


Sustainability through IT:

- The most common responses to how IT improves efficiencies are improved resource efficiency (61.4%), energy optimization (52.6%) along with improved supply chain transparency (49.1%).

- IT is also concerned with the ethical sourcing (54.4%), carbon reduction (47.4%) and waste management (47.4%) Industry Impact:
- IT-driven sustainability is seen as most beneficial to Technology (82.5%) and Healthcare (54.4%). Retail (31.6%) and Manufacturing (42.1%) also felt the impact but are behind the adoption wave. (FIGURE 1.3)

FIGURE NO. 1.3



- Example: Influence on Consumer Behavior:
- 43.9% IT stimulates sustainable consumption using digital channel

C. SUPPORTING EVIDENCE FOR THE RESEARCH QUESTION OR HYPOTHESIS

The findings further provide evidence confirming that IT plays a key role in dynamic sustainability improvements via its positive effects on IT facilitated transparency and environmental accountability. However, factors such as costs, cybersecurity issues and a lack of expertise hinder wider adoption, even if companies realize its importance. In other words, there are 4 in 10 people who have not discovered how IT can be applied to sustainability; this represents a tremendous gap present in education and awareness.

DISCUSSION

The findings provides important role of IT in sustainable practices. While IT solutions offer benefits in optimizing energy use, reducing carbon footprints, and improving transparency, however their adoption is challenged by business due to financial and technical barriers.

AI and IoT: The Critical Factor for Sustainability the IT Tools that Matter most for Sustainability Analytics driven by AI allow organizations to predict and monitor their energy consumption leading to less waste and spending The Internet of Things allows to track resource utilization, leading to more smart and efficient sustainable practices.

Block chain and Big Data: New Tools to Enable Sustainability block chain and Big Data Analytics are low-adoption (15% and 18%, respectively), but their potential impact on sustainability is extremely high. Blockchain ensures supply chain transparency by helping businesses follow with ethical sourcing and reduced emission. Big Data Analytics enables carbon footprint tracking which allows organizations to measure and optimize their sustainability.



Financial and Technical Barriers to IT-Driven Sustainability: Even though IT is becoming more important businesses still struggle with high costs, lack of expertise and resistance to change. The biggest barrier (45%) is the high cost of implementing IT solutions, particularly AI and IoT, which require huge infrastructure investments. These conclusions indicate the need for government incentives and partnerships with industry to enable businesses to deal with the challenges. The UN Sustainability Development Reports (2024) also outlines policies, which promote financial and educational support for IT-driven green projects to become streamlined.

IT Adoption Driven by Regulation

The biggest find is that compliance (40%) is the “dominant” reason organizations adopt IT for sustainability. In order to comply with government guidelines and avoid penalties in that way, businesses use IT tools. Implying that more stringent environmental policy and legislation could spur IT-enabled sustainability activities.

Yet, whilst there are regulations that are driving it there are also long term paybacks in terms of IT for saving costs and operational efficiency that will be needed as consumer demand continues to move towards eco-friendly businesses where companies look to adopt IT in order to help build their sustainability meaning those who do so will have a competitive advantage over the others.

CONCLUSION

SUMMARY OF KEY FINDINGS

- **IT Solutions in Sustainable Business Practices:**

Artificial Intelligence, Internet of things, Cloud Computing, Big Data Analytics and Blockchain are among the most frequently used IT tools for sustainability. AI-Streamlined Energy Efficiency, Resource Management by the IoT Finally, Cloud computing reduces carbon emissions, Big Data Analytics helps track sustainability metrics, and Blockchain boosts supply chain visibility.

- **Obstacles in Implementing IT Solutions for Sustainability:**

Businesses are facing high implementing costs, lack of technical expertise, and resistance to change. As AI and IoT adoption are cost consuming, manufacturing sector still lacks skilled expertise.

- **Trends of IT Adoption by Sector:**

Different sectors adopt IT based upon their specific sustainability needs but the barriers differ across different sectors, e.g. implementation cost, data security issues, and skills shortage.

Contributions to the field

Empirical studies evidence on IT adoption:

It provides quantifiable data on firms employing IT to maintain sustainability covering the gap between word and deed.

Industry-Specific Analysis:

The on-going research shows how the sector based challenges and opportunities have been identified by comparing the IT adoption trends across the industries, creating a more nuanced awareness of IT's contribution to sustainability.

Policy and managerial implications:

It illustrates that financial incentives are important factors in the willingness to adopt IT for sustainability. Offering on and off the job training programs is also an essential to furnish employees with the required



skills. Strong change management strategies are essential to help organizations confront the challenges they experience in implementing IT solutions as part of their sustainability efforts. These factors can boost the success of sustainability initiatives in companies.

Recommendations for future research

Supply management professionals need to keep a watchful eye on the sustainability impacts of Information Technology (IT) adoption as they are widely perceived to be green technology and can drive supply chain sustainability. This enables us to monitor the relative effectiveness of these changes over time.

Understanding Where to Allocate Investments: Through a cost-benefit analysis, companies can see the costs associated with information technology and the benefits that have been realized through sustainability.

Emerging Technologies: New technologies such as quantum computing and edge AI must be part of curating. This can give an idea of how they can help with sustainable practices in business.

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EDTECH IN INDIA: A COMPARATIVE CASE STUDY

Ms. Karen Alex, Ms. Ananya Pramod

*IV Semester, B.Com Business Analytics, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

Dr Neerupa Chauhan

*Assistant Professor, Department of Professional Accounting and Finance, Kristu
Jayanti College, (Autonomous), Bengaluru*

ABSTRACT

The impact of Edtech in India will be researched in relation to two prominent coaching centers. This involves multiple aspects such as trends of online learning, comparing the technological solutions adopted by each center, studying digital content against the requirements of JEE and NEET, and participating faculty actions in implementing learning technology into the teaching perspective. The primary research method to be utilized in this study will be quantitative analysis using a questionnaire for students and faculty members. Besides, it will address the gap in the present literature and give information on the changing face of Edtech in India.

INTRODUCTION

The scenario of student preparation for extremely competitive exams such as NEET and JEE has seen a revolutionary makeover with online education. Millions of aspirant candidates sit for these very critical exams annually, which are the doors to applying for admission into top medical colleges as well as top engineering colleges. With the cutthroat competitiveness of the situation ruling supreme, the very few seats available translate to the fact that students have to go through systematic coaching so that they have a greater chance of success. But why?

Evolution of Online Coaching in India: Previously, students opted for conventional coaching centers in major cities such as Kota, Hyderabad, and Delhi, merely because they had intensive training programs to prepare the students for such tough exams. However, with the rapid advancement in technology and increased internet penetration—particularly after the launch of the Digital India mission—there has been an appreciable increase in online coaching websites. Then came the COVID-19 pandemic that further shot up the process, thereby effectively introducing virtual learning into the study routine for various competitive exams.

The Indian competition exam is an area of focus for Allen Career Institute and Aakash Institute. Both entities have established a reputation in the preparation of students for NEET and JEE exams and have expanded their reach both in offline and online modes. The comparison of Allen and Aakash with some of the other NEET-JEE coaching institutes can yield insights on coaching paradigms, faculty quality, and student outcomes.



Learners can select plan-wise teaching, study the result of the examinations, evaluate various resources, check out books/textbooks for their homework assistance, rate student satisfaction, identify areas for improvement, and participate in educational research.

Such comparisons may yield information on teaching methodology, quality of faculty, and performance of students at all coaching centres. Therefore, they can choose according to their plan for teaching, study the result of the exam, evaluate various resources, check out books/textbooks for their homework assistance, rate student satisfaction, identify areas for improvement, and take part in scholarship programs.

These findings may aid policymakers and coaching institutes in enhancing student performance.' Also writing a comparative research paper will help you gain important academic skills such as data analysis and editing techniques, which can really benefit your future studies and jobs. Additionally, it cultivates critical thinking and crucial data analysis abilities, assisting you in your academic and professional pursuits.

OBJECTIVES OF THE STUDY

- To evaluate the effectiveness of online learning platforms by analyzing student performance and engagement metrics.
- To compare the technical tools used by two coaching centers, including Learning Management Systems, AI-based tutors, and interactive resources.
- To examine the alignment of digital content with JEE and NEET curricula, identifying gaps and inconsistencies.
- To analyze the faculty's role in integrating technology into the teaching process, focusing on training, adaptability, and challenges faced.

LITERATURE REVIEW

Emergence of Ed-Tech in India

As Edtech has developed, the growth narrative of India is receiving recognition from both established and emerging scholars. Case studies, including BYJU'S, Unacademy, and Vedantu, among others (KPMG 2020), are renowned.

Research indicates that EdTech has been improving education quality for many individuals, especially in rural regions (Agarwal & Singh 2021)

However, affordability, the digital divide, and content quality are some of the challenges that still loom large.

Effectiveness of Online Learning Platforms

The reports drafted by Sharma (2021) and Kumar (2022) portray the fact that e-platforms offer flexibility with various avenues for educational resources; however, these e-platforms have lesser focus on monitoring student engagement and motivation by feedbacks than traditional classroom lectures. The major point was that just passively receiving information during the virtual classes may considerably hurt retention and understanding.



Tools of Technology and Infrastructure

The literature emphasizes the importance of tools such as Learning Management Systems, AI-analytics, and virtual labs toward enhanced learning outcomes (Mehta & Joshi, 2022). It mentions that there is a lack of comparative studies of the instructional tools used by coaching institutes. Further explorative opportunities exist in adaptive learning technologies and AI-centric tutoring systems.

Gaps in Existing Literature

Although various studies have been conducted on online learning and the use of technology in learning, there are wide gaps in existing literature. Most previous studies concentrate on general e-learning platforms and not specialized competitive exam coaching. There are no comparative studies on specific institutions such as Allen and Aakash, especially in the context of JEE and NEET preparation. Although studies identify the advantages of AI-based tools and adaptive learning, few studies evaluate the realworld performance of such tools when applied in large-scale online coaching. Even less attention has been given to the faculty's role in utilizing digital tools, even though this has a critical influence on students' engagement and performance. The present study attempts to fill such gaps by reporting empirical evidence of student experience and faculty use of technology at Allen and Aakash.

RESEARCH METHODOLOGY

Quantitative methods were adopted in the study using a standardized questionnaire administered to students and teaching faculty of two of the best-known coaching centers. All collected data were comprehensively analyzed using statistical analysis techniques to reveal patterns and relationships between them. The survey chiefly included parameters such as student satisfaction, perceived effectiveness of Edtech solutions, the readiness of faculty, and content alignment to the JEE and NEET curriculum. For triangulation purposes, secondary analyses of published industry reports and surveys were also conducted.

ANALYSIS OF THE DATA

The study will gather feedback from 135 students who are preparing for competitive entrance exams, such as the Joint Entrance Examination (JEE) and the National Eligibility cum Entrance Test (NEET), from coaching centers situated in Indiranagar, Hebbal, and Banaswadi.

By using a convenience sampling method, data was collected on the students who were easily accessible for the study.

We picked this method because it is more practical for reaching students who are engaged in demanding academic studies and who may not have enough time to engage in research. By recruiting students from more than one place, our research tries to depict a broader scenario on the effectiveness of online learning platforms offered by these coaching centers. Besides, participants were students of different academic levels, at different stages of their JEE or NEET preparation, from students at the initial stages of coaching to students sitting for their final exams. This academic level variation contributes to the comprehensiveness of our results, allowing us to examine the effect of the different levels of preparation on the experience of online learning among students.



TABLE No. 1

Q5 on avg ,how many hours per day do you spend on the online platform	less than 1hr	1-2 hr	3-4hr	< 4 hr	2-3 times a week	Rarely	Daily
responses	28%	30.30%	21.20%	11.40%	4.50%	2.30%	2.30%
Q6 How effective are the online lectures in helping	very effective	effective	Neutral	Ineffective	Very Effective		

you understand complex topics?							
response	12.10%	48.50%	32.60%	3%	3.80%		
Q7 Does the platform help sufficient resources to you prepare for the JEE/ NEET	yes ,completely	yes,mostly	Neutral	No, not enough	No ,not at all		
response	41.70%	44.70%	7.60%	4.50%	1.50%		



Q8 Have you noticed an improvement in your performance due to online learning tools	Significant Improvement	Some Improvement	No Change	Decline in Performance	I don't use these tools		
response	22.00%	59.10%	11.40%	3%	4.50%		
Q9 What type of technological tools are most frequently used in your coaching?	AIpowered assessments	Interactive whiteboards	Mobile apps for practice	VR/AR simulations	Video lectures and online tu...	live streaming session	
responses	20.90%	48.80%	50.40%	5.40%	62%	35.70%	
Q10 How frequently do you face technical issues (e.g., connectivity issues, platform crashes)?	Never	Rarely	Sometimes	Often	Always		

responses	6.20%	42.60%	41.90%	7%	2.30%		
Q11 How frequently do you face technical issues (e.g., connectivity issues, platform crashes)?	Very Well Aligned	Well Aligned	Neutral	Poorly aligned	not aligned at all		
responses	26.70%	48.90%	17.60%	3.80%	3.10%		



Q12 How would you rate the technical stability of the platform? (1 = Poor, 5 = Excellent)	1	2	3	4	5		
responses	1.70%	7.60%	26.90%	46.20%	17.60%		
Q13 How long have you been using the online learning platform?	less than 3 months	3-6 months	6-12 months	morethan 1 year			
responses	13%	20.90%	39.10%	27%			
Q14 In your opinion, does the digital content help you prepare for the exams better than traditional classroom material?	Yes, much better	Somewhat better	About the same	worse	much worse		
responses	16.20%	42.30%	28.50%	8.50%	4.60%		
Q15 Does the platform provide additional conceptual clarity beyond NCERT textbooks?	yes, extensively	yes, to some extent	no, it mostly follows NCERT	NO, it lacks conceptual depths			



response	44%	50.90%	10.30%	3.40%			
Q16 Which subjects do you think are best taught on the platform? (Select all that apply)	physics	chemistry	mathematics	biology			
responses	56.60%	59.30%	32.70%	45.10%			
Q17 How effective is the doubtsolving mechanism in your coaching center?	1	2	3	4	5		
responses	23.70%	14.40%	24.60%	24.60%	12.70%		
Q18 How often do you receive feedback or performance analysis from the faculty?	Weekly	monthly	occasionally	never			
responses	17.20%	37.90%	37.90%				

GRAPH NO. 1: AGE DISTRIBUTION



Age

113 responses

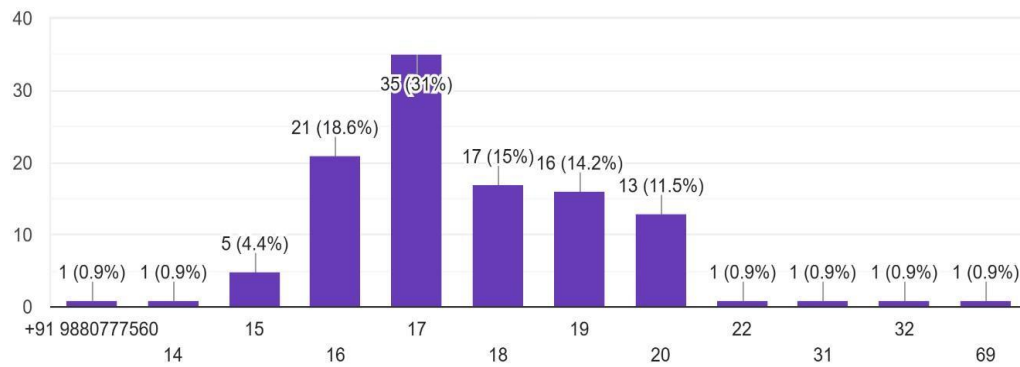


CHART NO. 2 - PARTICIPATION FROM DIFFERENT REGIONS

Region

120 responses

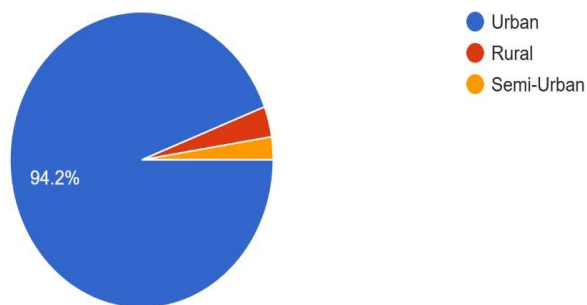


CHART NO. 3 - : GENDER REPRESENTATION

Gender

120 responses

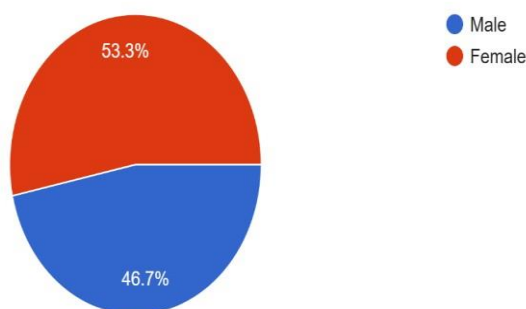
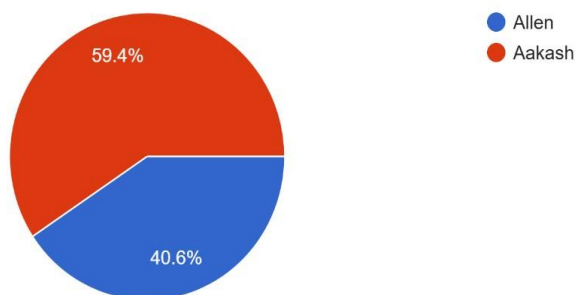


CHART NO. 4 - INSTITUTE

Institute

128 responses



RESULTS AND DISCUSSION

The survey found that the response rate is highest at the age of 17 (31%), showing a decline after 18, and lowest at 15 years (4.40%). This indicates that the 17-year-old respondents are the most interested age group. Though responses are majorly from the urban area (94.20%), rural areas have contributed very little (3.30%) as well as semi-urban areas (2.50%), thus showing a huge rural-urban difference. Female respondents are just a shade higher than males (53.30% vs. 46.70%), so they will be well represented. The response received by Aakash is found to be 59.40% as compared to Allen, i.e., 40.60%, implying more audience engagement. Most respondent spends 1-2 hours a day (30.30%) on the platform, out of which 48.50% find online lectures effective and 32.60% neutral. Most of the people (86.4%) think the platform is sufficient to cater to their JEE/NEET needs; 81.1% of people feel a performance improvement due to online tools. Video lectures and online tutorials (62%) are the most widely used, while VR/AR simulations (5.40%) are the least. Technical problems are rare (42.60%) or occasional (41.90%), and 63.8% highly rate platform stability (4/5). Users mostly use the platform for 6-12 months (39.10%) or more than a year (27%).



Digital content is perceived to be superior to traditional means by 58.5%, while 94.9% agree that it brings conceptual clarity beyond NCERT. Chemistry (59.30%) and physics (56.60%) are considered the best-demonstrated subjects, and feedback predominantly is either monthly or infrequent. The survey indicates, however, extremely good adoption in EdTech, with Aakash as the leading party in engagement. There is, however, room for improvement in rural participation as well as advanced tool usage.

CONCLUSION

The survey that studied the effect of EdTech in India through comparative case studies of two premier coaching centers, one for JEE and the other for NEET, did show how competitive could be online learning w.r.t. their exams preparation. It also demonstrates an application feature of EdTech regarding adoption, effectiveness, and the boost in understanding and performance stemming from critical tools, such as high-quality video lectures, mobile applications, and interactive whiteboards. Though the level at which Aakash resonates may not be closer to that of Allen, platform acceptance and satisfaction from the users differ remarkably.

The observable trend was more pronounced among the urban respondents who put in considerable effort, especially after learning some of the more difficult subjects such as chemistry and physics, thereby proving that the teaching methods adopted were truly effective.

However, there is glaring EdTech visibility disparity between urban and rural areas, emphasizing an urgent need to include and equity learning. While these facts indicate technological stability and resource access to be extremely positive, die-hard signs of underutilization are visible in emerging fields such as VR/AR simulations, in which huge opportunities for innovative utilization are still remaining. Thus, EdTech may stand as a formidable alternative to the traditional learning methodology, making flexible personalization possible, which could result in better performance from most JEE/NEET aspirants. Attention should therefore focus implementation strategies on the urban-rural divide, technological modernization, and the differential needs of learners.

According to data from Aakash-NIA, Aakash is in a unique position compared to Allen in terms of user engagement and representation in the study. Responses were substantially higher (calculated 59.4% vs. 40.6%). It implies a likely increased level by which users somehow got drawn into or satisfied with the system, which may touch upon either more integrated tools in EdTech or a better match of user needs with this platforms. However, no institute finds place among these survey-rated best institutions in America because such institutions have more focus on EdTech integration than on factors like academic scores or teaching metrics. The summary statements are: Strengths of Aakash:

Aakash advantages: Higher engagement response rate and 'apparent sufficiency' of resources (Q7), better alignment with learning needs (Q11), and marginally greater satisfaction about technical stability (Q12).
2. Allen's Performance: Though showing less representation in the responses, a few praised on various fronts-the effectiveness (resource adequacy, performance enhancement). Both utilize similar tools (video lectures, mobile apps), and yet Aakash seems to enjoy somewhat higher preference. Indeed, Aakash edged Allen in this survey, as far as EdTech user engagement and satisfaction were concerned, although both institutions effectively made use of technology for JEE/NEET preparation. In the end, the choice is dependent generally upon preferences by an individual in teaching methodology, resource availability,



and accessibility geographic-wise. On the other hand, as for EdTech advantages, Aakash may make a slight cut ahead, but Allen is nonetheless a worthy rival.

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IMPACT OF SOCIAL MEDIA INFLUENCERS ON CONSUMER PURCHASING DECISIONS AND THEIR RESPONSE TO PRICE DISCOUNTS AND PROMOTIONS

Ms. Nisha Suraj, Ms. Rupal Sara Issac, Ms. Ann Treesa John, Ms. Anjana PS
II Semester, B.Com Professional, Kristu Jayanti College (Autonomous), Bengaluru

Dr. S. Jayashree

*Assistant Professor, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

Influencer marketing has grown in popularity over the last few years. A social media influencer (SMI) is a user who has developed a following in a specific industry, has a huge following, and the ability to persuade others by their authenticity and reach. Brands are collaborating with and exploiting social media influencers (SMIs) to reach their target audiences, raise brand recognition, improve brand image, and increase profitability. On social media channels, brands collaborate with SMIs to promote new items or a company's brand appeal. According to polls, Chinese internet retailers such as Tabaco and Small are among the most popular platforms that rely heavily on influencer marketing. Simultaneously, more than half of stores in the United States partner with proponents to engage online audiences. Despite this accomplishment, a number of challenges remain, such as determining the effectiveness of a promotion plan and selecting the optimal SMI for a marketing campaign.

As a result, marketers must be knowledgeable about both consumer awareness and the influencer referral effect. This study aims to gain a better understanding of how SMIs function by: (1) identifying the personality and content features elicited by SMIs; (2) demonstrating the mechanism by which SMIs can influence choice imitation via the enhancement of customer loyalty; and (3) determining whether demographic factors such as gender, income, and education levels influence the relationship between SMIs and choice imitation. The present study's theoretical base is derived from exploratory investigations and literature surveys.

Keywords: Social media influence, consumer purchase decision, social media marketing, information, dissemination.

INTRODUCTION

People in the United Kingdom between the ages of 18 and 65 are the target respondents. In order to analyse the research questions, questionnaires are sent using the platform MTurk. Specifically, this study identifies the effectiveness of SMIs on the selective imitation of their followers. The current study indicates that there are two key components of SMIs that influence decision imitation, namely personality and content traits, by factor analysis. In comparison to regular celebrity endorsers, SMIs minimize followers' persuasion knowledge and increase purchase intent. This study also demonstrates that customer loyalty mediates the positive effect of SIMs on decision imitation. Due to the fact that SMIs establish a para social relationship with their followers. The consumer loyalty of the followers will increase, and they will be more likely to adopt the recommended lifestyles and purchase the



recommended products. Second, this study investigates the effects of several demographic characteristics on the link between social imitation cues and decision imitation. This study demonstrates that an increase in affluence will increase the influence of SMI content characteristics on decision imitation. It can be explained by the greater effort expended by higher income groups in elaborating more complex information and messages provided by SMIs.

In addition, this study refutes the influence of gender on the link between SMI personality traits and choice imitation. Lastly, this study refutes ideas that the level of education may influence the association between SMIs and choice imitation. Collectively, the findings contribute to marketing literature regarding the personality and content characteristics of a SMI. In addition, this study reveals the method via which SMIs influence choice imitation via customer loyalty. In addition to their theoretical significance, the findings have management implications for digital marketing communication with SMIs.

The business-to-customer interface has changed remarkably since the social media boom. Of late, social media influencers have emerged as a tremendous force in consumer buying decisions. Social media influencers are individuals who have built up a sizable fan following on social media platforms such as Instagram, YouTube, TikTok, and Twitter. They specialize in niches such as fashion, beauty, fitness, travel, and gaming, developing a reputation for themselves as trusted authorities in those fields. Social media influencers with millions of followers have therefore been an important channel to deliver the business message to the target audience. That is why brands are willing to partner with social media influencers to build awareness, to drive web traffic, and, ultimately, to increase sales. On the contrary, how much really influences purchasing decisions by social media influencers can only yet be theorized. Despite findings in some studies supporting the influence of social media influencers in consumer purchasing decisions, other studies question the credibility and efficacy of influencer marketing.

STATEMENT OF THE PROBLEM

In recent times, social media platforms have grown remarkably in reaching audiences. Now social media influencers are an emerging force in the consumer decision journey. With large and highly engaged followings, these influencers are imperative in shaping consumers' perceptions, preferences, and finally, their purchase decisions. Influencers are marketing an entire gamut of products and services through platforms such as Instagram, YouTube, and TikTok, and have become key stakeholders in the modern advertising mix due to their ability to establish an emotional connection with their followers. While the influence of the social media personality is accepted as a fact, the degree of influence exerted by those social media influencers on consumer behaviour, especially in the light of their reactions to price discounts and other promotional offers, remains largely unexplored.

Businesses tend to use price discounts and promotions to boost sales, but in the view of consumers, the question remains as to how much influence does these social media influencers have on the effectiveness of those promotional offers? Given the dual importance of both influencer marketing and pricing strategies, it is imperative to understand how the presence of social media influencers will affect consumers' sensitivity to price changes and promotional offers. Are consumers attributing different responses to products endorsed by influencers when the price discounts come into play? Also, does an influencer's credibility determine the likelihood of the followers seeking their recommendations on price



discounts or promotions? The gap lies in understanding the precise role of influencers acting upon consumer behaviour upon promotion or price discounts. Without an understanding of these dynamics, brands and marketers will not be able to fully optimize the power of influencer marketing and may miss out on potential returns on advertising investment.

SCOPE OF RESEARCH

While celebrity endorsement is fast becoming a thing of the past, the marketing domain has seen a gradual shift towards social media influencer recommendations. One can envision a celebrity teaming with a company to sell a product, even if it means a series of 10-minute videos rather than a 30-second television spot. Unlike the brand ambassadors found on billboards, social media influencers are everywhere. Their influence is determined by their following on the web and social media; an Instagram fashion photographer, a famous cybersecurity blogger tweeting, or an esteemed marketing manager on LinkedIn can be an influencer. Therefore, the time has come for scholars and insiders in the marketing community to better understand social media influencer marketing. The social media influencers (SMIs) have unlimited audience access.

Off late, they have been establishing their credibility through authenticity and reach, becoming an effective tool convincing followers to purchase products advertised by them and even to undertake word-of-mouth marketing by sharing the news or videos of such SMIs on social media platforms. They can build a really strong bond with their followers by showing their daily lives for the past couple of days or by sharing opinions on current issues, and redress the filter of unbiased 'people like me' (Allsop et. al., 2007). This enhances customer loyalty, culminating in an effect on customers' buying intentions toward goods and/ or services endorsed by SMIs. Influencer marketing is usually considered a collective discourse between a brand and an online influencer to market the goods and services of the brand. Some influencer marketing collaborations are even less tangible—brands just work with influencers to be recognized. An early instance of the influencer marketing phenomenon was on YouTube with PewDiePie. It collaborated with the people making a horror movie called in the Fren.

LITERATURE REVIEW

The rise in social media platforms has changed business to customer. The social influence has become the new channel which a business might use to relate with its audience. This review literature seeks to investigate the earlier studies on social media influencer's effect on consumer decision-making and responsiveness to price-related promotions and offers. □ ***The Social Media Influencers' Power***

Social media influencers are a very important element of modern marketing. Several studies have indicated that social media influencers greatly impact consumer decisions on purchasing (Kotler & Keller, 2016). According to Freberg et al. (2011), 70% of consumers aged between 18 and 24 stated that they were likely to purchase a product if it was endorsed by an influencer in a social media network. Trust and credibility are essential factors in determining the effectiveness of social media influencers. Research has shown that consumers are more likely to trust recommendations from social media influencers who have a high level of credibility (Brown & Fiorella, 2013). A study by Evans et al. (2017) found that social media influencers who were perceived as credible and trustworthy were more effective at driving sales.

- ***Price Discounts and Promotions***



Marketing strategies for sale promotions include price discounts and promotions. Researchers have found that social media influencers can be effective in communicating a price discount or promotion (Kumar & Mirchandani, 2012). Zhang et al. (2017) conducted a study that compared the effectiveness of social media influencers with traditional advertising on price discounts and promotions. The study revealed that the former was more effective than the latter.

- ***Consumer Reaction to Price Discounts and Promotions***

The consumer response to price discounts and promotions is influenced by several factors. According to research, consumers respond more to price discounts and promotions when they are perceived as valuable and relevant (Grewal et al., 2011). Monroe's study in 1973 established that consumers use price discounts and promotions as a cue to evaluate the quality of a product.

- ***The Role of Social Media Influencers in Promoting Price Discounts and Promotions***

Social media influencers can have an important role in promoting price discounts and promotions. A good number of researches have proven that social media influencers can enhance the effectivity of price discounts and promotions, as they give social proof and credibility (Kotler & Keller, 2016). According to a study by Lee et al. (2018), social media influencers proved more effective in pricing discount and promotion strategies when they used storytelling techniques. **Key theoretical frameworks**

- ***Social Influence Theory:***

Explains how individuals are influenced by the opinions and behaviours of others, particularly those they perceive as credible or similar to themselves.

- ***Elaboration Likelihood Model (ELM):***

Examines how consumer's process information based on their level of involvement and motivation, with high involvement leading to a more thoughtful evaluation of the influencer's message and price promotion.

- ***Parasocial Relationship Theory:***

Describes the one-sided relationship consumers may feel with media personalities, potentially impacting their willingness to trust and follow their recommendations

OBJECTIVES OF THE STUDY

- To examine the impact of social media influencers on consumer purchasing decision
- To investigate effect of social media influencers on consumers responses to price discounts and promotions.
- To identify the factors that influence the effectiveness of social media influencers in shaping CONSUMERS PURCHASING DECISIONS.

METHODOLOGY

- ***Survey research:***

Conduct online surveys to gather data on consumer perceptions of influencers, their response to price promotions, and purchasing behaviour. □ ***Experimentation:***



Design controlled experiments where participants are exposed to different influencer-based promotions with varying price discounts to measure their purchase intentions. □ **Content analysis:**

Analyse influencer posts on social media platforms to identify patterns in promotional strategies and the types of discounts offered.

- **Potential findings:**

- High-credibility influencers are more effective at driving purchase decisions when promoting discounted products.
- Authentic and relatable influencer content can lead to higher engagement with price promotions.
- Time-sensitive discounts and exclusive offers might be particularly effective in driving immediate purchases when promoted by influencers.

ANALYSIS

To analyse social media data and monitor consumer engagement with influencer-promoted deals, you can track key metrics such as likes, comments, shares, clicks on promotion links, conversion rates from social media to purchase pages, and analyse audience demographics to identify patterns in purchase behavior associated with different influencer types and promotion styles; further insights can be gained by monitoring sentiment analysis of comments, identifying trending topics related to the promotion, and comparing the performance of different influencers across platforms.

KEY STEPS INVOLVED

□ Data Collection:

- **Target influencers:** Those who resonate well with your chosen audience and maintain a brandimage-friendly profile.
- **Monitor social channels:** Keep checking the engagement values on the platform where the influencer is operative, such as Instagram, TikTok, YouTube, Twitter, and Facebook
- **Tracking Mechanisms:** Use available social media analytical tools or proper influencer marketing platforms to log data for the likes, comments, shares, clicks, or conversions. □

Data Analysis:

ENGAGEMENT METRICS

- **Reach:** Total number of people exposed to the influencer's promotion.
- **Impressions:** The number of times the promotional content was seen.
- **Click-through rate (CTR):** Percentage of people who clicked on the link within the post.
- **Conversion rate:** Percentage of clicks that led to a purchase.
- **Social shares:** How often users shared the post with their network.
- **Sentiment analysis:** This refers to analyzing the comments' tone to establish consumer sentiment around the promotion as positive, negative, or neutral.
- **Demographic analysis:** Identification of age, gender, and location concerning the customers interacting with the promotion.
- **Time series analysis:** Monitoring variation in engagement metrics over time to understand trends and peak periods of activity.

□ Trend Identification



- **Influencer type:** Analyse which types of influencers (macro, micro, nano) perform best based on audience engagement and conversion rates.
- **Content format:** Determine whether particular content formats such as videos, stories, or static posts generate more engagement.
- **Promotion strategy:** Assess the effectiveness of different promotional tactics like discount codes, giveaways, or product reviews.
- **Platform performance:** Compare engagement levels across different social media platforms.

KEY INSIGHTS TO LOOK FOR

- High engagement with particular influencers:
- Identify the influencers who frequently create high levels of engagement from their audience.
- Positive sentiment on promotions:
- Watch for positive comments and feedbacks on influencer posts.
- Conversion spikes after promotions:
- Check if there is a significant increase in sales after an influencer campaign.
- Audience demographics matching your target market:
- Ensure that the influencer's audience demographics align with your ideal customer profile.
- By analysing social media data and identifying trends in consumer engagement, businesses can optimize their influencer marketing strategies, maximize ROI, and better understand how to effectively reach their target audience through influencer promotions.

LIMITATIONS

- **Over-Saturation:**
 - With many influencers promoting similar products, consumers may experience fatigue or skepticism towards influencer marketing.
- **Authenticity Concerns:**
 - Some consumers may question the authenticity of influencers, especially if they frequently promote paid partnerships.
 - The perceived insincerity can lead to distrust and reduced impact.
- **Variable Engagement Rates:**
 - Not all influencers have the same level of engagement; followers may not respond uniformly to promotions.
 - Micro-influencers may have higher engagement rates, but they might not reach as wide an audience.
- **Demographic Limitations:**
 - Influencer effectiveness can vary by demographic; what works for one group may not resonate with another.
 - Brands must carefully choose influencers that align with their target audience.
- **Short-lived Trends:**
 - Consumer interest driven by influencer promotions can be fleeting, leading to inconsistent longterm purchasing behavior.
 - Trends can change quickly, making it challenging for brands to maintain relevance.



POTENTIAL FINDINGS

The research is likely to reveal that social media influencers significantly enhance the effectiveness of price discounts and promotions by creating a sense of trust and urgency among consumers. The endorsement of products by influencers is likely to increase the perceived value of a product for consumers, making them more likely to respond to limited-time offers and exclusive discounts. It could be additionally seen that how much the consumer is influenced in fact differs, based on a particular influencer (micro v. macro), as well as on the promotional context. Besides, the consumer's reaction toward a promotion by an influencer is determined, inter alia, by a level of their loyalty toward him/her, the genuineness of his relation with a given brand, respectively.

POTENTIAL RESEARCH QUESTIONS

- How does the level of trust and perceived authenticity of an influencer affect their followers' propensity to purchase a product when a discount is offered?
- Do different types of promotions (e.g., percentage off, limited-time offers, free gifts) resonate differently with consumers depending on the influencer promoting them?
- How do the platform where the influencer is active and the format of the promotional content (e.g., video, image, story) influence consumer response to price discounts?
- Do followers with a strong personal connection to an influencer show a greater willingness to purchase a product at a discounted price compared to those with a more casual following?
- What role does the influencer's expertise in a particular product category play in their ability to persuade consumers to take advantage of price promotions?

SUGGESTION

The outcomes of this research study are, therefore, based on the notion that brands and marketers strategically work with influencers who have an audience similar to that of their target market. Brands should ensure that authenticity and transparency in influencer partnerships are kept alive in order to gain consumer trust. Finally, the implementation of limited-time discounts, exclusive offers, or promo codes through influencer campaigns may help influence higher consumer engagement and conversion rates. Influencer collaborations in the future should be data-driven with continuous monitoring and adjustments to get the right influencer, right promotional strategy, and right time for maximum influence.

CONCLUSION

This study shows that social media influencers play a crucial role in consumer purchases when combined with price reductions and offers. Influencers increase trust and relatability, which tends to enhance the effectiveness of a promotional campaign when consumers share them with their loved ones. The effectiveness of such product endorsements can be realized more easily, especially when they are combined with limited-time reductions and exclusive deals. This can be leveraged by marketers to create strategic partnerships with influencers so that the promotional tactics align with consumer behaviour and preferences. Future research may investigate the differences in the influence of various types of influencers and promotional strategies on consumer responses.

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TRANSFORMATIVE PATHWAYS TO SUSTAINABILITY IN HUMAN RESOURCE MANAGEMENT

Ms. Jaweriya Habeeba, Ms. Abhiraamavalli V S Mr. Periyakaruppan P R
*IV Semester, B.Com ACCA, Department of Professional Accounting and Finance,
Kristu Jayanti College (Autonomous), Bengaluru*

ABSTRACT

Incumbent companies who play essential roles in sustainable innovation systems represent a fundamental twenty-first century research focus regarding the United Nations' Sustainable Development Goals (SDGs). Human Resource Management (HRM) sustainability transformation processes receive focus through an evaluation of internal organizational operations and responsible leadership functions. The ability of responsible leaders includes both economic expansion and tackling environmental challenges and societal concerns to support sustainability transitions. The study investigates elements at strategic and operational levels as well as individual factors which support or restrict sustainability implementation in HRM practices. The analysis focuses on the obstacles created by insufficient funding alongside too many active responsibilities and substandard measurement systems but demonstrates how sustainability can be integrated into human resources activities. An extensive review of secondary materials leads this study to bridge literature gaps while supplying practical recommendations to those who deal with human resource management. Organizations which connect human resource policies to sustainability targets create greater organizational performance alongside better employee engagement and support worldwide sustainability targets.

INTRODUCTION

The definition by Brundtland serves as a cornerstone for the central theme of sustainability across industries because it states, "Meeting the present needs without compromising the ability of future generations to meet their own needs." Sustainability exceeds environmental protection to include both equitable treatment of people and secure financial systems and a well-balanced environment. Organizations need to create products and services and policies which use radical approaches alongside human collective efforts to achieve true sustainability. Organizations use sustainability frameworks such as Triple Bottom Line (TBL) to maintain effective interactions between profits and people and between profits and the planet.

GHRM now stands as a significant driver of sustainability because it gained importance in recent years. The integration of environmental sustainability exists throughout all HR policy structures together with HR systems and operational practices. Through this method organizations seek to develop "green employees" who serve both environmental company targets and create advantages for business and public society. GHRM gains its value from its power to synchronize business goals with worldwide sustainability requirements thus building substantial organizational resilience.

This study examines how HRM promotes sustainability through three essential domains: analysis of green HR policies towards employee engagement and their relationship as well as assessment of GHRM initiative effects on corporate sustainability targets and evaluation of sustainability integration barriers and potential within HR management functions. An analysis of proven GHRM approaches in this study teaches organizations methods for adopting sustainable business strategies.



Sustainability in HRM gains prominence because organizations experience rising pressure to handle environmental and social matters. Organizations must take swift action against global problems of climate change along with resource depletion and social inequality. Through its central role in organizational operations HRM actively supports sustainable development by building environments of sustainability and encouraging employees to take sustainable actions while ensuring organizational activities are consistent with international sustainability initiatives. Unilever and Patagonia prove that sustainability integrated in HR functions leads to better brand reputation along with improved employee morale and growth of long-term profitability.

This research adopts the following structure: A detailed review of scholarly findings regarding GHRM, responsible leadership and sustainability transition approaches begins the study. It explains both the research design for data collection and analysis procedures. The results emphasize significant discoveries about the sustainable transformation approaches in HRM practices. This research produces its final section dedicated to exploring how the study affects theoretical concepts and operational applications and governmental frameworks.

LITERATURE REVIEW

Definition and Scope of Green HRM

Opatha (2013) defines Green HRM as the development, implementation, and maintenance of systems aimed at transforming employees into "green employees" who contribute to the organization's environmental goals. This involves policies, practices, and systems that promote environmental sustainability for the benefit of individuals, society, and businesses. Bombiak and Marciniuk-Kluska (2018) emphasize the application of HR policies to promote sustainable resource use and support ecology. Their work highlights the importance of developing ecological sensitivity among employees and raising awareness about how individual behaviors impact the environment.

Responsible Leadership and Sustainability

Responsible leadership plays a critical role in driving sustainability transitions. According to Voegtlin and Greenwood (2016), responsible leaders create a culture of efficiency, encouraging proenvironmental behavior, Corporate Social Responsibility (CSR), and transformational leadership. Together, these factors mediate or moderate sustainability outcomes, fostering both environmental and organizational sustainability.

Challenges in Implementing Green HRM

Limited resources, competing priorities, and inadequate metrics are significant barriers to implementing Green HRM practices. As noted by Renwick et al. (2013), organizations often struggle to balance sustainability goals with operational efficiency, leading to resistance from stakeholders unfamiliar with sustainability concepts.

Opportunities for Sustainability Integration

Successful case studies highlight opportunities such as enhanced brand reputation, improved employee morale, and long-term cost savings through resource efficiency. For example, Unilever's Sustainable Living Plan demonstrates how integrating sustainability into HR functions can drive organizational success (Polman, 2017).



Employee Engagement and Pro-Environmental Behavior

Employee engagement is a critical factor in sustainability transitions. Research by Kim et al. (2019) shows that green HR practices such as eco-friendly recruitment, training, and performance appraisal systems foster a culture of sustainability.

Metrics for Measuring Sustainability Outcomes

Developing standardized metrics is essential for measuring the impact of Green HRM practices. According to Jackson et al. (2011), organizations must invest in tools and frameworks that assess sustainability outcomes at both individual and organizational levels.

The Role of Technology in Green HRM

Technology plays a pivotal role in facilitating Green HRM practices. Digital platforms enable organizations to track and monitor sustainability metrics, fostering transparency and accountability (Bansal, 2015).

Case Studies of Successful Green HRM Initiatives

Case studies of companies like Patagonia and Tesla highlight the importance of aligning HR policies with sustainability objectives. These organizations demonstrate how strategic alignment enhances organizational performance (Chouinard, 2016).

Global Trends in Green HRM

Global trends indicate a growing emphasis on sustainability in HRM. Organizations are increasingly adopting green practices to comply with regulatory requirements and meet stakeholder expectations (Deloitte, 2020).

Future Directions for Research

Future research should explore the interplay between strategic, operational, and individual-level factors in sustainability transitions. Additionally, there is a need to examine the role of emerging technologies in facilitating Green HRM practices (UNESCO, 2021).

METHODOLOGY:

Research Design

The study implements descriptive research design for observational analysis of secondary data that originates from peer-reviewed articles books and reliable websites. The descriptive research design works best for problems that aim to outline characteristic elements along with patterns and associations between factors instead of hypothesis evaluation.

Source of Data

Academic journals together with books and online sources provided secondary data about Green HRM, responsible leadership and sustainability transitions. This paper relies on key literature from Opatha (2013), Bombiak and Marciniuk-Kluska (2018) and Ehnert et al. (2016) alongside case analyses of Unilever and Patagonia.

Population and Sampling

The examined group consists of organizations which have implemented Green HRM practices. Pursuit sampling allowed the researcher to select appropriate case studies and research papers given the secondary nature of the data. The research selected materials using three evaluation requirements consisting of objectives correspondence, source reliability and global sustainability goal compatibility.

Data Collection Methods

The data collection relied on literature review methods that studied:



- Theoretical frameworks of Green HRM.
- Research on sustainability transitions as they occur within human resource management practices.
- Case studies of successful Green HRM implementations.

DATA ANALYSIS

The analysis of data used qualitative content methods to detect recurring patterns and themes together with relationships found within the recorded information. Researchers used NVivo as a tool for managing and analyzing text-based data through its software platform. The research strategy examined major elements which both aid and obstruct sustainability integration within HRM practices.

Analysis and Visualization:

Data Analysis Framework

The analysis of the secondary information groups major factors into strategic factors and operational factors and individual-level factors that drive HRM practice sustainability adoption. The research seeks to recognize recurrent patterns along with trends and relational associations contained within the literature and case studies which help achieve research objectives.

Strategic Factors

The focus point rests in making organizational objectives converge with sustainability direction. Researchers analyzed the approaches of Unilever, Patagonia and Tesla by conducting content analysis in their studies. The organizations underwent evaluations by assessing their integration of sustainability throughout HR policies that featured green recruitment together with training initiatives and performance assessment methods.

Key Insights

The implementation of successful Green HRM practices occurs frequently in organizations that define sustainable operational goals.

When organizations connect their sustainability practices with their mission, they achieve a better brand image and retain workers better which produces higher profit over time.

Operational Factors

The target examines both obstacles and potential benefits connected to Green HRM practice deployment at operational sites.

Researchers applied thematic analysis in order to identify three main challenges based on limited resources alongside competing priorities and insufficient metrics. The investigation of opportunities included resource efficiency as a cost-saving measure along with better stakeholder relationships.

Key Insights:

Organizations face two main challenges in delivering Green HRM: inadequate resources alongside unstandardized metrics.

Resistance to change becomes less challenging through the implementation of training sessions along with detailed guidance. **Individual-Level Factors**



Employee engagement together with pro-environmental behavior constitutes the essential point of research.

Researchers studied employee impact on sustainability transitions through qualitative content analysis in their examination. This essay investigates green HR practice sustainability through a review of Kim et al. (2019) and Jackson et al. (2011)'s studies.

Key Insights:

Employee engagement is essential for achieving success with Green HRM initiatives.

Organizations use eco-friendly recruitment methods together with performance appraisal systems to create pro-environmental human actions at work.

Results and Discussion

The results of this study shed light on the implementation of Green Human Resource Management (GHRM) practices in young enterprises and their contribution to sustainable development.

Evaluation of the Scope of GHRM Implementation

A significant portion of 71% of respondents showed limited awareness about the GHRM concept based on these survey results. Not knowing what GHRM is becomes an important reason why organizations hesitate to adopt green human resources practices. Professional work activities for promoting environmentally friendly attitudes received widespread implementation between enterprises reaching 78.7% thus leading to waste sorting and paper usage reduction. These environmental initiatives showed signs of economic reasons more than dedicated support towards environmental sustainability. The implementation of green recruitment and environmental reporting and measuring HRM action effectiveness proved to be minimal among organizations. Only eleven percent of organizations stated they checked for ecological knowledge in job candidates while only 17.3 percent revealed creating environmental reports about their human resources management programs. The results demonstrate the insufficient incorporation of GHRM at the process level within organizations. Companies need specific measurement and reporting systems in order to determine the success of their green efforts and plan future development.

Correlation between the Impact of Pro-Environmental Activities and Their Implementation

Detecting the relationship between what employees view as important from pro-environmental HR practices and their actual implementation was a vital component of the research.

Data analysis revealed a robust positive correlation ($r = 0.956$) using Spearman's rank correlation coefficient between how these two variables were assessed. The studied companies showed a preference for adopting HR practices that they evaluated as delivering significant impacts on sustainable development.

The assessment of high impact potential by employees matched the frequency with which these practices such as eco-friendly attitude promotion actually got implemented.

The statistical modeling analysis demonstrated how a single unit change in activity impact perception drives a 0.5037 average increase in the implementation rate. The findings demonstrate that managers need better information about GHRM practice advantages to properly understand their vital importance.



When managers better understand the worth of these practices they will make higher priority decisions for implementation.

Measurement and Reporting:

Organizations encounter significant challenges because they lack common approaches for tracking and reporting GHRM success metrics. Organizations would gain better sustainability decision making ability through the establishment of definitive metrics alongside reporting standards to monitor sustainability achievements.

Strategic Role of HR:

Sustainable development requires HR departments to develop from administrative support units into strategic partners that implement GHRM as an essential foundation. HR professionals must receive the knowledge and essential tools which will enable them to lead environmental management efforts.

Recommendations:

Organizations should conduct conferences and sessions to provide HR supervisors training about GHRM-usefulness and sustainability-goals attainment methods.

Organizations should implement Systematic Integration by embracing an organized method of combining environmental aspects into all HR activities across the recruitment to performance evaluation stages.

Industry standards need development to measure GHRM practice results and organizations should use these metrics to evaluate their progress while discovering areas that require improvement.

The implementation of GHRM practices should be supported through government policies that offer tax benefits and grants pertaining to environmentally friendly initiatives.

Conclusions and Recommendations

The research report demonstrates that Green HRM operates as an essential component for sustainable development in organizational settings. The adoption of Green HRM start-up enterprises faces barriers because numerous companies lack proper knowledge and do not establish structured ways to add environmental practices to their people management systems.

Key Insights:

Awareness and Familiarity:

The knowledge of GHRM remains limited to 29% of managerial staff. Proper education and training must be implemented first to enable better GHRM scope expansion.

Prioritization of Practices:

Environmental practices that promote waste sorting combined with paper reduction have gained widespread acceptance because they save money for the organization. Organizations usually avoid implementing practices that deliver long-term advantages like green recruitment and environmental reporting.

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A Comparative Analysis Of Stress And Self Esteem Among Young Adults From Single Parent And Two Parent Families

Ms. Sudiksha Kshatriya

Student, Dept. Of Psychology, The Bhopal School Of Social
Sciences

Dr. Vinay Mishra

Head Of Department, Dept. Of Psychology, The Bhopal School Of Social Sciences

ABSTRACT

This study explores the relationship between family structure, stress, and self-esteem among young adults aged 18-26, comparing young adults raised in single-parent families to those from two-parent families. Family structure is often considered a key determinant in shaping psychosocial outcomes, particularly stress and self-esteem. The total number of participants were 60 and were assessed through the Rosenberg Self-Esteem Scale (RSES) and the Perceived Stress Scale (PSS). The findings indicate no significant difference in self-esteem between young adults from single-parent and two-parent families ($p = 0.69$), suggesting that family structure does not substantially impact self-esteem in young adults in this population.

Similarly, perceived stress levels did not differ significantly between the two groups ($p = 0.34$), although those from two-parent families reported slightly higher stress levels on average. These results suggest that factors beyond family structure, such as individual coping mechanisms and external support, play a more prominent role in shaping stress and self-esteem. The study contributes to a broader understanding of how family dynamics influence psychological well-being during young adulthood and emphasises the importance of personalised interventions to support emotional resilience across various family structures.

Keywords

Family structure, single-parent families, two-parent families, stress, self-esteem, young adults,

INTRODUCTION

The experiences in relation to stress and the development of self-esteem constitute a vital component of psychological wellbeing during the formative years of young adulthood. Family structure has been identified as the most vital social determinant that affects the manner in which people cope with stress and ultimately develop their self-concept. According to research, children and adolescents growing up in single-parent families may face unique stressors such as financial instability, caregiving burdens, and less emotional support, which could potentially affect their self-esteem later in life. On the other hand, people growing up with two parents have more balanced sharing of emotional and financial resources, hence leading to different patterns of stress and self-perception.



This paper attempts a comparative study of the levels of stress and self-esteem in young adults who have been raised by either a single parent or two parents. A comparison of the two family structures will provide insight into the way each home setting influences psychological outcomes of stress and self-worth among young adults. Findings may help shed light on the contribution of dynamics within the family toward emotional resilience, the development of coping mechanisms, and the evolution of self-esteem. This research might help highlight the need for focused interventions to facilitate young adults from single-parent households who may stand to face a greater challenge in stress management and helping them develop a positive self-image.

Stress and self-esteem are psychosocial factors which define young adults; thus, their development can be interwoven in several sociocultural and familial influences. One of the most evident is family structure, being a product of a single parent versus two parents. This will affect how an individual experiences stress and also how he perceives himself. For this reason, young adults from single-parent homes would undergo stressors that could include economic burden or reduced emotional support or even the change in caregiving, which affects the psychological well-being and self-perception. Those raised in two-parent families may experience different stresses and social support and sense of self-worth differently. This study explores family structure, stress, and self-esteem in young adults while considering the interplay among these factors with respect to mental health. Understanding how such dynamics impact stress and self-esteem, this research could bring light to possible interventions and support that can benefit the well-being of young adults coming from different backgrounds in their families.

Stress is, therefore, the psychological reaction of the body towards perceived threats or demands that challenge it. Such threats and demands are called stressors. It may arise from an external source such as work pressure or personal conflicts or from an internal source, which may include self-inflicted expectations or negative thoughts. In the case where a human perceives something as threatening or overwhelming, his or her body invokes the so-called "fight-or-flight" response, thereby releasing such hormones as cortisol and adrenaline. Even though short-term stress can be motivating or protective, chronic stress has associated deleterious mental and physical health outcomes, such as anxiety and depression, as well as cardiovascular issues. Stress is often categorised as either acute-that is, short-term-or chronic or long-lasting. Coping mechanisms also vary, but some are adaptive, and others are maladaptive. Coping mechanisms may include problem solving and social support, for example; however, avoidance and substance abuse are generally considered the most common maladaptive coping behaviours in most studies. (American Psychological Association. (n.d.). *Stress and health*. American Psychological Association)

Self-esteem is, in a psychological perspective, generally used to refer to the general sense of self-worth or value that the person attaches to himself or herself. It encompasses the manner in which people perceive and estimate their own strengths and qualities and their general worth. The factors affecting self-esteem are diverse, amongst which are past experiences, social comparison, opinions of others, and individual successes. While high self-esteem has been typically associated with positive self-regard, confidence, and a healthy sense of self, low self-esteem can sometimes appear as instances of self-doubt and low self-worth or susceptibility to anxiety and depression. From a psychological perspective, self-esteem can be described as a dynamic construct, which may change over time due to influences from either the inner or outer environment. It is, therefore, one of the most important psychological factors in



mental health, relationships, and motivation. It commonly combines with self-compassion, self-acceptance, and emotional resilience. (Cherry, K. (2024, July 12). What is self-esteem and why is it important? Verywell Mind.,)

LITERATURE REVIEW

Waldron (2013) suggests that young adults from single-parent families often experience higher levels of stress compared to those from two-parent families. The study highlights that this increased stress can be attributed to factors such as economic strain, single-handed caregiving responsibilities, and limited access to social and emotional resources. Additionally, social stigmas and feelings of instability may exacerbate emotional and psychological distress. The purpose of Waldron's research is to explore how these stressors impact the well-being of young adults and contribute to their emotional struggles."

Amato and Keith (1991) suggest that family structure significantly influences the development of self-esteem in young adults. The study finds that young adults from single-parent households often report lower levels of self-esteem compared to their peers from two-parent families. This difference is commonly linked to the perceived absence of one parental figure, which can negatively affect a child's sense of emotional security and validation. Additionally, economic challenges and limited parental involvement in single-parent households may reduce opportunities for positive reinforcement and personal growth. The purpose of their research is to examine how these familial factors contribute to self-esteem development and overall well-being.

Barrett and Turner (2006) suggest that young adults from single-parent families often report lower levels of social support, which can contribute to increased stress and reduced self-esteem. Their research highlights that the lack of emotional support from both parents can hinder the development of effective coping strategies and resilience. In contrast, young adults from two-parent households tend to benefit from more extensive social networks, including support from both parents, which can buffer against stress and improve self-esteem. The study aims to examine the role of social support in mediating the relationship between family structure and mental health outcomes.

Lamb (2010) suggests that higher levels of parental involvement, which are more commonly found in two-parent families, are positively associated with the development of healthy self-esteem in young adults. The study emphasises that parental support helps foster a sense of competence and security, which in turn boosts self-esteem. In contrast, single-parent families often face challenges due to limited time and resources, which can result in less consistent emotional support and may hinder the development of positive self-worth. The purpose of Lamb's research is to explore the role of father involvement and its impact on child development, particularly in the context of self-esteem.

Hetherington (1999) suggests that despite the increased stressors, young adults from single-parent families may develop higher resilience, which can help mitigate the negative effects of stress and improve self-esteem. The study highlights that overcoming adversity in a single-parent household can foster a sense of independence and self-efficacy. However, this resilience is often contingent on factors



such as the presence of supportive extended family, access to community resources, and the overall emotional climate within the home.

Hetherington's research aims to explore the role of risk and resilience in children of divorced parents, focusing on how these factors influence mental health and self-esteem.

HYPOTHESIS

- There is no significant difference in the levels of stress between young adults from single-parent families and those from two-parent families.
- There is no significant difference in the levels of self-esteem between young adults from single-parent families and those from two-parent families.

OBJECTIVES

- To compare the levels of stress between young adults from single-parent families and those from double-parent families.
- To compare the self-esteem levels between young adults from single-parent families and those from double-parent families.

METHODOLOGY

SAMPLE

A Total of 60 young adults participated in the survey for this research project. The sample included college students, and people from working professions from all over the country. The research required a sample of young adults having a single parent family or both the parents in their families. There was an age limit that was 18-25. The participants are well educated and the responses collected are evenly distributed among the age limit.

TOOLS

The method of research was through a structured questionnaire. The research was conducted through a survey method where I have adopted a questionnaire; Perceived Stress Scale-10 developed by Cohen et al. and Rosenberg Self-Esteem Scale (RSES) developed by Morris Rosenberg. The survey was conducted in an online mode. A google form was circulated through social media to reach out to more young adults for the research.



Rosenberg Self-Esteem Scale (RSES)

The Rosenberg Self-Esteem Scale (RSES), developed by sociologist Morris Rosenberg in 1965, is one of the most widely used instruments for assessing self-esteem. This 10-item Likert scale evaluates global self-worth by capturing both positive and negative self-evaluations in which five items are positively worded and five are negatively worded. .

Each item on the RSES requires respondents to indicate their level of agreement on a four-point scale, ranging from "strongly agree" to "strongly disagree." The total score ranges from 0 to 30, with higher scores indicating higher levels of self-esteem .

Scores above 25 show high self-esteem, range of 15 - 25 is average and a score less than 15 indicates low self-esteem. The Rosenberg self-esteem scale is highly reliable and it has good predictive value too. Test-retest reliability for a 2 week and 7 month interval was calculated at 0.85 and 0.63 respectively, and Cronbach coefficient for various samples is in the range of .77 to .88.

Perceived Stress Scale-10

The Perceived Stress Scale (PSS), developed by Sheldon Cohen in 1983, is a widely used tool for assessing an individual's perception of stress. The most common version, the PSS-10, includes 10 items that evaluate how unpredictable, uncontrollable, and overwhelming respondents find their lives. Participants rate each item on a 5-point Likert scale, ranging from "never" (0) to "very often" (4), with four reverse-scored items. Total scores range from 0 to 40, with higher scores indicating greater perceived stress. Scores are typically interpreted as follows: 0–13 for low stress, 14–26 for moderate stress, and 27–40 for high stress. The PSS has demonstrated high test-retest reliability (0.85–0.91) and strong internal consistency (Cronbach's alpha 0.78–0.91), confirming its reliability and validity as a measure of stress perception across various populations.

PROCEDURE

This paper will aim to explore the relationship between stress and self-esteem in relation to interplay within various family settings, such as single-parent and double-parent families. The above target was achieved through designing an online questionnaire on Google Forms. This online questionnaire included two chief sections: one on stress levels and the other on self-esteem. To measure self-esteem, Rosenberg Self-Esteem Scale (RSES) was employed and to measure stress perceived stress scale was used for this research analysis measuring the amount of stress each participant underwent.



This online survey tool was distributed to participants via social media. The target population was young adults who were 18-26 years old. The sample for this study would include single-parent and double-parent families. The participants should be guaranteed to have fair command over the English language and a background of urban origin. They were informed about the nature of the study, the testing tools used, and asked for participation by attaching a consent form with the Google Form.

All the participants were given clear instruction on how to fill the questionnaire. The data was automatically recorded when the questionnaire was completed using Google Forms. Scoring the responses based on guidelines provided was applied to scales, for example, the Rosenberg Self-Esteem Scale and the stress scale. It consequently analysed the data collected to examine the relationship between family structure, stress, and self-esteem among young adults.

DATA ANALYSIS

This data analysis aimed to examine the self-esteem and stress of 60 young adults, 30 were young adults with single parents and 30 were young adults with both parents who completed the Rosenberg Self-Esteem Scale and perceived stress scale. Descriptive statistics revealed a slight difference in the self-esteem scores between the two groups. The mean score for young adults with single parent participants was 26.1, while the mean score for participants with both parents was 26.3, indicating that young adults who have both parents have slightly high self-esteem. But the difference is not much and hence it can be said that young adults with both single parents and both parents have the same level of self-esteem and the factor of parents does not affect their self-esteem significantly.

In addition to the mean scores, the standard deviation for both young adults with single parents and both parents was 1.826057 and 2.053592 respectively.

reflecting in the single-parent group suggests **less variability** in self-esteem scores, meaning most participants' self-esteem scores are closer to the mean. In the double-parent group indicates **more variability** in self-esteem scores, meaning there is a wider range of self-esteem perceptions among participants in that group. Data suggests a higher level of deviation in self-esteem levels of young adults hailing from double-parent families, $SD = 2.05$, compared to those that come from single-parent families, $SD = 1.83$. In other words, compared to double-parent families, those from single-parent families have homogenous self-esteem levels, which can be explained by the heterogeneity in their family backgrounds and lives. In contrast, the single-parent group is better represented by uniformity on self-esteem, with a score of subjects distributed more closely around their mean. And while the standard deviation of scores does differ between groups, the difference is minor, leaving one to believe that although family structure may impact self-esteem, personal and environmental factors shape self-esteem in the other two groups as well.

The combined mean self-esteem score for all 60 participants was calculated to be 26.2, which falls between the mean scores of the young adults with single parents and both parents. Overall, the analysis does not highlight a significant or major difference between both the groups that are young adults with single parents and both parents. Both the groups have almost the same levels of self-esteem which



indicates that having a single parent or both parents does not affect the self esteem of an individual significantly.

For perceived stress the mean score was 16.03 in the case of young adults with single parents and 17.3 for participants with both parents; thus, it showed that slightly higher perceived levels of stress were perceived by the double-parent group. The standard deviation in the case of the single-parent group happened to be 5.25543, and in the case of the double-parent group, it was 4.990681, meaning that perceived levels of stress in the group of single parents have a slight degree of variability. This means that even though the dual-parent group has more average level stress, the single-parent group manifests higher variability in how stress is perceived. The mean score of all perceived stresses from all participants was 16.67, thereby indicating that they generally experience moderate levels of perceived stress in general.

Generally speaking, the results do not suggest that young adults from one-parent families have a significant distortion of self-esteem compared to those from two-parent families. Likewise, although the gap is less significant in terms of felt stress, the gap due to family form is negligible in terms of both self-esteem and perceived stress. Most likely, individual factors as well as environmental factors would be much more significant in determining the two conditions under investigation - that is, self-esteem and perceived stress - in these young adults.

RESULT

This study aimed at determining the correlation between young adults' self-esteem and their perception of stress levels between single-parent and double-parent families. This study surveyed 60 young adults between the ages of 18 and 26, and divided equally into single-parent and double-parent families, consisting of 30 participants. Self-esteem and perceived stress level were addressed using the Rosenberg Self-Esteem Scale (RSES) and the Perceived Stress Scale (PSS) in all the participants involved. The collected data was analysed to understand whether there were significant differences in self-esteem and stress levels between individuals from single-parent and double-parent households.

SCALE	Mean & SD	TOTAL SAMPLE (N=60)	young adults with Single Parent (N=30)	Young adults with Both parents (N=30)	T-Score	P-Score
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Rosenberg Self-Esteem Scale (RSES)	MEAN	26.2	26.1	26.3	0.39863	0.691631
	SD	1.929257	1.826057	2.053592		
Perceived Stress Scale	MEAN	16.66667	17.3	16.03333	-0.95727	0.342405
	SD	5.121132	4.990681	5.25543		

Table 1: Depicts the Descriptive Statistics and t-Test Results for Rosenberg Self-Esteem Scale (RSES) and Perceived Stress Scale (PSS)

****p<0.05**

For the Rosenberg Self-Esteem Scale (RSES), t-value was 0.39863 with 58 degrees of freedom and a p-value equal to 0.691631, which is significantly greater than the standard significance threshold of 0.05. This means that family structure, single-parent vs. double-parent holds insignificant influence over the self-esteem levels of young adults. The null hypothesis is not rejected and both the groups of single-parent and double-parent declared similar levels of self-esteem.

Single Parent Participants: The Mean score for self-esteem of young adults from single-parent families stood at 26.1, SD = 1.826057. The data indicates that the participants in this category have relatively stable levels of self-esteem with the scores highly clustered around the mean.

Double-Parent Participants: The mean self-esteem score for the young adults from double-parent families stood at 26.3 having a standard deviation of 2.053592. Though the mean score for this group is slightly higher as compared to that of single-parent, the greater standard deviation shows that the range for self-esteem scores expands. This hence means that there exists more variability in the perceptions of self-esteem among the young adults of double-parent backgrounds.

For Perceived Stress Scale the t-value for the Perceived Stress Scale (PSS) was -0.95727 with 58 degrees of freedom, and the p-value was 0.342405, which is well above the threshold level of 0.05 and indicates that perceived stress between the two groups is not statistically different. This further supports the null



hypothesis: that family structure does not have a significant impact on the perceived stress level of young adults.

Single Parent Participants: The mean score in respect of perceived stress was at 16.03 for young adults whose parents were characterised by single parenthood with a standard deviation of 5.25543, thereby showing a moderate level of stress, and slightly higher variability in the reported stress levels.

Double-Parent Participants: The mean perceived stress score for the young adults from double-parent families was 17.3 with a standard deviation of 4.990681. This group reported slightly higher mean levels of perceived stress, although variability in the data was not significantly different.

INTERPRETATION AND DISCUSSION

Self-esteem is the general sense of personal value or self-worth of an individual. It also depicts the manner through which people view themselves and arrive at their capabilities and worth. Generally, high self-esteem reflects confidence and self-respect, while low levels often reveal a sense of inadequacy and self-doubt. Consequently, self-esteem is necessary during the period of young adulthood in guiding the psychological well-being of an individual, relationships, academic performance, and general mental health.

Perceived stress is seen as how much of one's life is perceived as unpredictable, uncontrollable, and overloaded. As such, it is a psychological reaction to the burdens of life and to the pressure that surrounds it. Stress influences individuals both in the short-term and long-term, and its role is incredibly huge when people are at a young age and experiencing change and transition-like moments, such as entering higher education, personal relationships, and career development.

This paper tries to identify if there is a difference in levels of self-esteem and perceived stress among young adults raised by a double-parent family compared with those belonging to a single-parent family.

From the data presented, it was evident that the mean score for self-esteem among young adults raised by single parents was at 26.1 and that of their counterparts raised by double parents was 26.3. This graphically portrays the fact that the self-esteem levels in young adults both from double and single-parent families are slightly comparable. Even though the measures are slightly different, family structure in terms of single-parent vs. double-parent does not significantly impact self-esteem for the population sample of young adults.

In terms of Variability the SD of the single-parent group was 1.83, and it means that within that group, scores for self-esteem actually reflected less variability.

Most participants' levels were closer to the mean. The other hand, standard deviation in the case of the double-parent group stood at 2.05, which suggests that the levels of self-esteem followed a moderate level of variability wherein scores could have diffused further away from the mean. Thus, it may be interpreted that young adults from double-parent families are characterised by a greater range of self-esteem compared to individuals having similar backgrounds but are from single-parent households.



However, while these two subpopulations differ in variability, the results did not attain a significant statistical difference. The t-test output ($t = 0.39863$, $p = 0.691631$) indicated that the differences observed between the two subpopulations on the self-esteem score are not statistically significant. It would then point to the fact that, at least within the level of this sample, it indicates no effect of family structure on the levels of self-esteem to any extent.

The mean for young adults from single-parent families is 16.03, and that of double-parent families was 17.3. A minor increase in stress level in the double-parent group points to the probable idea that the double-parent may experience higher perceived stress but only to a slight degree. The standard deviation for the single-parent group was 5.26, whereas for the double-parent group it was 4.99. Hence, there is little difference in stress scores between the two groups. It means both groups shared a similar range of perceived stress, although young adults from double-parent families had a bit higher average stress.

The t-test results also show for perceived stress that the two groups were not significantly statistically different implying that family structure does not have any meaningful bearing upon the perceived stress levels of young adults in this study with $t = -0.95727$ and $p = 0.342405$.

The findings of this research also interprets that family structure-this is, whether the young person comes from a single-parent or double-parent family-may perhaps has little impact on self-esteem and stress levels. Actually, both self-esteem and perceived stress scores were quite similar between the two groups. In fact, none of the differences observed between the two groups were statistically significant.

With respect to self-esteem, although marginally higher scores of self-esteem were demonstrated by young adults from double-parent families, the difference was minimal. Variability in self-esteem scores was lower in the single-parent group, indicating, relative to participants from double-parent families, participants from single-parent families had more stable levels of self-esteem. The range of self-esteem scores was more spread out for the double-parent group and suggests that individual differences, such as personal experiences, peer influences, and personality traits, may have played a greater role in framing self-esteem than family structure itself.

Regarding perceived stress, though young adults reared in double-parent families reported slightly higher levels of stress, this difference was also not statistically significant. Such would suggest that family structure does little to impinge on perceived stress in the early years of young adulthood. Other factors, including pressures from academics, social relations, and personal coping skills, likely contribute far more to the levels of stress people experience during the course of this developmental stage.

Finally, this study found no substantial evidence that a family structure significantly influences the self-esteem or stress levels of young adults. The studies indicate the need to look at a variety of other factors such as personality, the experiences within young adulthood, and environmental influences in looking at psychological outcomes of young adulthood.



LIMITATIONS

Sample Size and Demography: The sample size was rather small (N=60), and thus, generalisation might be limited to a population. Besides that, the sample was restricted to the age brackets 18-26; it consisted only of college students. Therefore, age brackets except students and non-college populations cannot be generalised.

Self Reported Data: Self-esteem and stress levels were assessed using self-reported surveys. The method might be vulnerable to response bias, including social desirability bias where the participant answers in a way that they think best perceives them or makes them look favourable rather than answering on their own feelings. (Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P.)

Narrow Focus of Family Structure: The study only focused on the family structure, which is whether single parents or two-parent households. Other critical factors, including the quality of parent relationship, parenting style, and economic stability, among others, that would impact one's self-esteem and stress level, could not have been considered.

Cross-Sectional Design: The study used a cross-sectional design, meaning data collection was done at a single point in time. This effectively restricts any generalisation of causal associations between family structure, self-esteem, and stress. Longitudinal studies would be helpful to track changes over time.

Other Variables Not Controllable: Other variables such as socioeconomic status, peer relationships, or mental history were not controlled and might have had an influence on results. These factors could therefore have created confounding in relation between family structure and psychological outcomes measured.

CONCLUSION

In conclusion, this study did not succeed in finding any significant difference between the levels of self-esteem and experienced stress between young adults from single-parent homes and those from two-parent families. Although there was a small difference in the mean scores for self-esteem, with subjects from the two-parent home having slightly higher self-esteem, it was so small that it was not at all statistically significant. Similarly, perceived levels of stress were equal between the two groups; therefore, family structure could never have possibly acted as a strong determinant of self-esteem or stress in young adults. Thus, these research findings come to a conclusion that personal experiences, mechanisms of coping, and social influences might be more important factors influencing the psychological outcomes than family structure. Then again, it is only true that null hypotheses indicating no significant difference between the two family structures in regard to self-esteem and stress levels were supported. Future work should include other variables that affect self-esteem and stress levels while emphasising interventions targeting other aspects of an individual's life and support systems rather than family structure.



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