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EDITORIAL NOTE

The *XIBA Business Review* continues to be a platform for thought-provoking research and discussions, bringing together diverse perspectives on business, leadership, finance, and consumer behavior. As we present this volume 7 issue 2, we reflect on the evolving dynamics shaping industries, organizations, and society at large.

This edition explores key themes that define today's economic and managerial landscape. Leadership remains a focal point, emphasizing how different qualities and approaches influence engagement, motivation, and overall workplace well-being. Financial accessibility and technological advancements are also examined, shedding light on the intersection of digital transformation and socio-demographic shifts.

The changing nature of productivity and time management is another critical area of focus, offering insights into optimizing efficiency in both professional and personal spheres. Consumer preferences continue to evolve, and discussions in this volume highlight the factors driving choices in competitive markets, balancing modernity with sustainability.

Entrepreneurial acumen, innovative strategies, and adaptability play a significant role in shaping business success. By analyzing real-world experiences, this issue showcases the impact of skill development, decision-making, and resilience in various business settings. Additionally, deeper explorations into stress, psychological dynamics, and financial market behavior provide valuable perspectives for individuals and organizations navigating uncertainty.

We extend our sincere appreciation to the researchers, academicians, and professionals whose work has enriched this publication. Their contributions not only advance knowledge but also inspire meaningful conversations that lead to innovation and growth.

It is our hope that this issue of the *XIBA Business Review* serves as a valuable resource for scholars, students, and professionals, encouraging critical thinking and fostering academic curiosity in the ever-changing business environment.

Regards

Dr. A. Michael John SJ

Editor in Chief

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Research Articles

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A Study on Effect of Democratic Leadership on Employee's Morale of Private Sector Banks in Vaniyambadi, Tamil Nadu

V. K. Tanseer Shadab*, A. Michael John S. J.**

Abstract. *This study investigates the impact of democratic leadership on employee's morale in private sector banks located in Vaniyambadi, Tamil Nadu. In recent years, the banking sector has faced numerous challenges, including rapid technological advancements, increased competition, and changing customer expectations. In this context, effective leadership has emerged as a crucial factor in fostering a positive workplace environment and enhancing employee performance. Democratic leadership, characterized by participative decision-making and collaborative problem-solving, is believed to play a significant role in promoting employee engagement, job satisfaction, and overall morale. By exploring the perceptions and experiences of employees regarding their leaders' democratic practices, the study aims to elucidate the relationship between leadership style and employee morale. Key aspects of democratic leadership, such as communication, inclusion in decision-making, and recognition of employee contributions, are examined to understand their effects on employee attitudes and behaviors.*

Keywords *Democratic Leadership, Employee Morale, Organizational Commitment, Job Satisfaction, Private Sector Banks, Vaniyambadi*

INTRODUCTION

The banking sector in India plays a pivotal role in the country's economic development, serving as a critical conduit for financial transactions, investments and savings. In recent years, the sector has undergone significant transformations driven by technological advancements, regulatory changes, and shifting consumer preferences. As these changes continue to reshape the banking landscape, the importance of effective leadership within financial institutions has become increasingly evident. Leadership styles can significantly influence employee behavior, motivation, and overall morale, which in turn to organizational performance and customer satisfaction.

Democratic leadership is characterized by participative decision-making, open communication, and collaborative approach, has emerged as a compelling leadership style in contemporary organizations. Unlike autocratic leadership, which centralizes authority and decision-making power, democratic leadership encourages employees to contribute their ideas and participate in the decision-making process. This inclusivity fosters a sense of ownership among employees and enhances their engagement, job satisfaction, and morale. In an industry where employee morale is essential for maintaining high levels of customer service and operational efficiency, understanding the dynamics of democratic leadership becomes critical.

A Vaniyambadi a prominent town in Tamil Nadu, where Seven private sector banks are functioning like Axis Bank, City Union Bank, HDFC Bank, ICICI Bank, Karur Vysya Bank, Tamil Nadu Mercantile Bank, IDBI Bank, that serve a diverse clientele. The unique socio-economic context of this region, coupled with the challenges faced by the banking sector, necessitates an exploration of effective leadership practices. This study seeks to investigate the impact of democratic leadership on employee morale specifically within the private sector banks of Vaniyambadi. By examining the perceptions and experiences of bank employees regarding their leaders' democratic practices, this research aims to shed light on the relationship between leadership style and employee morale.

REVIEW OF LITERATURE

The relationship between leadership styles and employee morale has been a focal point of organizational behavior research for decades. As organizations navigate the complexities of modern work environments, understanding how leadership influences employee attitudes and behaviors becomes increasingly critical. This literature review examines the concept of democratic leadership, its characteristics, and its impact on employee morale, particularly in the context of the banking sector.

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Democratic Leadership-Defined

Democratic leadership is characterized by participative decision-making, open communication, and a collaborative approach to problem-solving. According to Lewin et al. (1939), democratic leaders encourage team members to express their opinions and contribute to decisions, leading to a more engaged workforce. This leadership style contrasts with autocratic and laissez-faire leadership, which can either stifle employee input or lead to a lack of direction. Studies have shown that democratic leadership fosters a positive work environment where employees feel valued and empowered (Bass & Avolio, 1993).

Employee Morale and Its Importance

Employee morale refers to the overall attitude, satisfaction, and outlook that employees have towards their work and workplace. High morale is often linked to increased productivity, lower turnover rates, and improved organizational performance (Harter et al., 2002). In the banking sector, where employee interactions with customers are critical, maintaining high morale can directly affect customer service quality and client satisfaction (Locke, 1976).

Impact of Democratic Leadership on Employee Morale

Numerous studies have explored the relationship between democratic leadership and employee morale. For instance, research by Heller and Van Til (1988) indicates that organizations with democratic leadership styles tend to have higher levels of employee job satisfaction and commitment. Furthermore, studies by Chen et al. (2015) demonstrate that democratic leadership can enhance employee engagement by promoting a culture of trust and collaboration. This sense of inclusion can significantly boost morale, leading to a more committed and motivated workforce.

Democratic Leadership in the Banking Sector

The banking sector presents a unique context for examining democratic leadership. Given the rapid changes in technology and customer expectations, banks that adopt democratic leadership practices may be better equipped to adapt and innovate (Harris, 2006). Research conducted by Yang (2012) highlights that banks characterized by participative decision-making report higher employee morale and better customer service outcomes. Employees in these organizations often feel more connected to their work and are more likely to go above and beyond to satisfy customer needs.

Context of Vaniyambadi

The town of Vaniyambadi, located in Tamil Nadu, presents a specific context for studying the effects of democratic leadership on employee morale. The region's socio-economic landscape, including its diverse workforce and competitive banking environment, may influence leadership practices and employee perceptions. While existing literature provides insights into the relationship between democratic leadership and employee morale. This study aims to fill this gap by examining how democratic leadership impacts employee morale in this unique setting.

OBJECTIVES OF THE STUDY

- *To Analyze the Relationship between Democratic Leadership and Employee Morale:* Investigate how democratic leadership practices influence employee morale in private sector banks, focusing on aspects such as job satisfaction, engagement, and organizational commitment.
- *To Identify Key Components of Democratic Leadership:* Examine the specific characteristics of democratic leadership (e.g., participative decision-making, communication, and employee recognition) that are perceived as most impactful by employees in the banking sector.
- *To Evaluate Employee Perceptions of Leadership Styles:* Assess the perceptions of employees regarding their leaders' democratic practices and how these perceptions correlate with their overall morale and job satisfaction.
- *To Compare Employee Morale across Different Leadership Styles:* Compare the levels of employee morale in banks led by democratic leaders versus those led by other leadership styles (e.g., autocratic or laissez-faire) to highlight the differences in employee attitudes and behaviors.
- *To Provide Recommendations for Bank Management:* Based on the findings, offer practical recommendations for bank management to foster democratic leadership practices that enhance employee morale and promote a positive work environment.
- *To Contribute to the Existing Literature:* Add to the body of knowledge on leadership styles and employee morale in the banking sector, particularly in the context of smaller towns like Vaniyambadi, to guide future research.

Hypotheses

- *H1: There is a positive relationship between democratic leadership and employee morale in private sector banks in Vaniyambadi.*

  This hypothesis posits that employees who perceive their leaders as practicing democratic leadership will report higher levels of morale compared to those who do not.

- *H2: Participative decision-making has a significant positive effect on employee morale.*

  This hypothesis suggests that when employees are involved in the decision-making process, their morale increases significantly.

- *H3: Open communication between leaders and employees positively impacts employee job satisfaction.*

  This hypothesis asserts that effective communication from leaders fosters a sense of inclusion and belonging among employees, thereby enhancing their job satisfaction.

- *H4: Democratic leadership style leads to higher organizational commitment among employees.*

  This hypothesis suggests that employees working under democratic leaders exhibit greater commitment to their organization than those under other leadership styles.

- *H5: Employee morale differs significantly between banks with democratic leadership and those with autocratic or laissez-faire leadership styles.*

  This hypothesis posits that there will be significant differences in morale levels between employees in banks led by democratic leaders and those in banks led by autocratic or laissez-faire leaders.

- *H6: The impact of democratic leadership on employee morale is moderated by the demographic factors (age, gender, experience) of the employees.*

  This hypothesis explores whether the relationship between democratic leadership and employee morale varies based on demographic characteristics of the employees.

LIMITATIONS OF THE STUDY

- The study may face limitations related to sample size and generalizability due to the focus on a specific geographic area (Vaniyambadi).
- Potential biases may arise from self-reported data, which may not fully capture the complexities of employee morale and leadership perceptions.

FINDINGS

The study investigated the impact of democratic leadership on employee morale in private sector banks in Vaniyambadi, utilizing a mixed-methods approach that included quantitative surveys and qualitative interviews. The following key findings emerged from the analysis:

- *Positive Correlation Between Democratic Leadership and Employee Morale*: The survey results indicated a statistically significant positive correlation between democratic leadership practices and employee morale. Employees who perceived their leaders as democratic reported higher levels of job satisfaction, engagement, and commitment to the organization.
- *Key Components of Democratic Leadership*: Participative decision-making and open communication emerged as the most influential components of democratic leadership. Employees expressed a strong preference for leaders who actively involve them in the decision-making process and maintain transparent communication regarding organizational goals and changes.
- *Impact of Recognition and Feedback*: Qualitative data revealed that employees who felt recognized for their contributions exhibited higher morale and job satisfaction. Regular feedback and acknowledgment from leaders were linked to increased motivation and a sense of belonging within the organization.
- *Demographic Variations*: The findings suggested variations in employee morale based on demographic factors such as age and tenure. Younger employees and those with less tenure in the organization reported a stronger positive response to democratic leadership practices compared to their older counterparts.
- *Employee Engagement and Organizational Performance*: The study also highlighted that higher employee morale resulting from effective democratic leadership positively impacts overall organizational performance. Employees reported being more committed to their work and willing to go the extra mile for customer satisfaction.

CONCLUSION

This study concludes that democratic leadership significantly influences employee morale in private sector banks in Vaniyambadi. The findings support the hypothesis that participative leadership styles foster higher job satisfaction, engagement, and commitment among employees. As organizations in the banking sector face ongoing challenges, including technological advancements and competitive pressures, adopting democratic leadership practices can serve as a strategic approach to enhance employee morale and improve organizational performance.

The research underscores the importance of cultivating an inclusive work environment where employees feel valued and empowered to contribute. Bank management is encouraged to implement leadership training programs that promote democratic practices, enhance communication, and recognize employee contributions.

Moreover, this study contributes to the existing literature on leadership and employee morale, particularly in the context of smaller towns like Vaniyambadi, providing valuable insights for future research in this area. The findings emphasize that organizations prioritizing democratic leadership can achieve not only improved employee morale but also enhanced customer service and overall business success.

RECOMMENDATIONS

Based on the findings, the study recommends that private sector banks in Vaniyambadi:

- *Foster a Culture of Participation:* Encourage leaders to involve employees in decision-making processes to promote a sense of ownership and commitment.
- *Enhance Communication Channels:* Develop and maintain open communication channels to ensure employees are well-informed and feel comfortable sharing their ideas.
- *Implement Recognition Programs:* Establish formal recognition programs to acknowledge employee contributions and foster a motivating work environment.
- *Conduct Leadership Training*: Invest in leadership development programs that emphasize democratic leadership practices and effective communication strategies.
- *Consider Demographic Differences:* Tailor leadership approaches to meet the needs of diverse employee groups, particularly younger and less tenured staff who may respond more positively to democratic leadership.

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EXPLORING THE IMPACT OF FINANCIAL INCLUSION ON SOCIO-DEMOGRAPHIC FACTORS WITH DIGITAL BANKING ADOPTION

Neeti Sharma*, Brahmdev Singh**

Abstract. *This research investigates the dynamics of financial inclusion with socio-demographic factors within the Delhi National Capital Region (NCR), focusing on online banking among residents. Employing a descriptive research design, the study analyzes the impact of demographic variables—gender, age, education, employment, and frequency of online banking—on various aspects of financial inclusion. A sample of 248 participants was drawn using convenience sampling, reflecting a diverse cross-section of the population. The findings reveal nuanced insights into the interplay between demographic factors and financial inclusion. While gender disparities persist, with women facing greater barriers to financial access, age emerges as a key determinant, highlighting distinct preferences among different age cohorts, particularly digital natives. Employment status significantly influences access to financial services, underscoring the importance of addressing the needs of marginalized workers. Additionally, education plays a pivotal role in shaping financial literacy and capability, emphasizing the need for targeted educational interventions. Furthermore, the frequency of using online banking services serves as a crucial indicator of digital financial inclusion. Disparities in digital literacy and technological access underscore the importance of addressing infrastructural gaps to ensure equitable access to online banking. Overall, this study underscores the multifaceted nature of financial inclusion and provides valuable insights for policymakers, financial institutions, and stakeholders seeking to design inclusive strategies that cater to the diverse needs of populations within the Delhi NCR region. By understanding the complex interplay of demographic factors, stakeholders can develop targeted interventions to promote equitable access to financial services and enhance financial resilience among underserved communities.*

Keywords *Financial Inclusion, Investment Portfolio, Financial Objectives, Financial Habits, Financial Decisions, Financial Behavior*

INTRODUCTION

The term "financial inclusion" describes initiatives aimed at ensuring that financial services and products are available and reasonably priced for all people and enterprises, irrespective of their size or personal net worth. The goal of financial inclusion is to take down the obstacles that prevent individuals from engaging with the financial industry and utilising its services to better their lives. Another name for it is inclusive finance. Financial inclusion, as stated on the World Bank's website, "facilitates day-to-day living, and helps families and businesses plan for everything from long-term goals to unexpected emergencies." In addition, it states, "As accountholders, people are more likely to use other financial services, such as savings, credit, and insurance, start and expand businesses, invest in education or health, manage risk, and weather financial shocks, which can improve the overall quality of their lives."

Financial inclusion has been identified as an enabler for 7 of the 17 Sustainable Development Goals. The G20 committed to advance financial inclusion worldwide and reaffirmed its commitment to implement the G20 High-Level Principles for Digital Financial Inclusion. The World Bank Group considers financial inclusion a key enabler to reduce extreme poverty and boost shared prosperity.

As for the financial sector, it's always thinking of new ways to provide the world's people with goods and services, and it frequently makes money doing it too. For instance, the growing usage of financial technology, or fintech, has created new avenues for people and organisations to get the services they want at affordable prices and offered creative solutions to the issue of financial services being inaccessible.

In recent years, financial inclusion has emerged as a critical concept in both economic development and social equity. Defined as the availability and accessibility of financial services to all members of society, regardless of their socio-economic status, financial inclusion has become a cornerstone of inclusive growth strategies worldwide. This research paper delves into the multifaceted relationship between financial inclusion and various socio-demographic factors, particularly gender, age, employment status, education, and the frequency of using online banking services. By examining these dimensions, we aim to uncover the intricate dynamics that shape individuals' access to and utilization of financial services, thereby shedding light on the broader implications for economic empowerment and social welfare.

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Financial inclusion encompasses a broad range of financial services and activities aimed at ensuring that individuals and communities have access to affordable and appropriate financial products and services. This includes not only basic banking services but also access to more advanced financial tools and resources. In the context of online banking and investment activities, financial inclusion extends to access to online banking: Providing individuals with the ability to access and manage their finances online, including checking balances, transferring funds, paying bills, and conducting other banking transactions digitally. This enables people to conveniently and securely manage their money from anywhere with an internet connection, increasing financial access and convenience. Secondly, Online banking platforms often offer features for monitoring investment portfolios, including tracking the performance of stocks, bonds, mutual funds, and other investments. This allows individuals to stay informed about the value and performance of their investments in real-time, empowering them to make informed financial decisions.

The Indian government has taken several steps to promote financial inclusion in the country, including launching the Pradhan Mantri Jan Dhan Yojana (PMJDY) scheme, which aims to provide every household in India with a bank account and access to other financial services. The government has also promoted the use of technology, such as mobile banking and digital transactions, to reach remote and underserved populations. These initiatives aim to improve the economic well-being and financial stability of individuals and to bring the unbanked into the formal financial system.

LITERATURE REVIEW

Gender equality plays a crucial role in financial inclusion, as evidenced by various studies. Research indicates that gender equality positively impacts financial stability and inclusion in developing countries, with a significant effect observed in African nations (Tripathi & Rajeev, 2023). Studies focusing on regions in India emphasize the strong correlation between financial inclusion and women's empowerment, highlighting the importance of initiatives promoting financial literacy and access to banking services for women (Ozili, 2024; Sharma, 2016). Furthermore, the connection between financial inclusion and women's entrepreneurship is evident, with findings showing a positive impact on the efficiency of women-owned enterprises, emphasizing the need for increased access to finance for women to engage in entrepreneurship (Rani & Sundaram, 2023). Overall, these studies underscore the critical link between gender equality, financial inclusion, and women's empowerment for achieving inclusive growth and sustainable development. Gender plays a significant role in online investment activities and trust in online banking platforms. Studies show that gender does not moderate the effect of perceived trust and risk on the intention to use online investment platforms (Zamzami, 2021) Additionally, factors influencing trust in e-banking differ based on gender, with task characteristics being crucial for both men and women, while risk perception and social influences play varying roles (Mahmoud, 2019). Furthermore, research indicates that men and women have similar levels of risk propensity and investment performance, debunking the notion of gender differences in risky investment behavior (Berggren & Romualdo, 2010). Understanding gender-based behavioral differences in investment decisions is essential, as women's portfolios may exhibit more stability compared to men's, influenced more by time than gendered fields of interest (Bayyurt et al., 2013). Therefore, gender considerations are vital when engaging in online investment activities and monitoring investment portfolios.

Research on gender disparities in financial inclusion highlights the persistent barriers faced by women in accessing and utilizing financial services. According to Hendriks (2019), women are disproportionately excluded from formal banking channels, with factors such as limited access to education, cultural norms, and discriminatory practices contributing to this disparity. Similarly, Cabeza-García et al. (2019) underscores the importance of addressing gender inequalities in financial access, arguing that women's empowerment and economic participation are intrinsically linked to financial inclusion. Moreover, study by Hendriks (2019) emphasize the transformative potential of financial inclusion in enhancing women's agency and decision-making power within households and communities.

Thus, the following hypotheses were formulated: Gender has significant impact on Financial Inclusion:

H1a- Gender has a significant effect on building a proper investment portfolio.

H1b- Gender has a significant effect on tracking progress towards financial objectives.

H1c- Gender has a significant effect on transaction alerts to gain insights into financial habits.

H2d- Gender has a significant effect on access to make more informed financial decisions.

H1e- Gender has a significant effect on financial behavior in the future.

Financial inclusion plays a crucial role in the well-being of individuals, especially in older age. Studies have shown that financial inclusion is associated with functional impairment during older age, with gender and social networks potentially modifying this relationship (Rajola et al., 2014).

Age-related differences in financial inclusion have been explored extensively in the literature, with younger populations often exhibiting higher levels of engagement with digital financial technologies. Koenig-Lewis et al. (2010) note a significant generational divide in banking behavior, with younger individuals more likely to adopt online banking and mobile payment solutions. Conversely, older adults may face challenges in adapting to digital channels due to technological barriers and preferences for traditional banking methods (Son Yu, 2012). These findings underscore the importance of designing inclusive financial products and services that cater to the diverse needs and preferences of different age cohorts.

Age has a big influence on one's financial situation. According to research, younger people define financial well-being as being able to sustain their current lifestyle, achieve their desired lifestyle, and be financially independent, whereas elderly people are more concerned with elements of their present and future lives (Riitsalu et al., 2024, Sorgente & Lanz, 2017; Soumaré et al., 2016).

Hence, it was hypothesized that: Age has significant impact on Financial Inclusion:

H2a- Age has a significant effect on building a proper investment portfolio.

H2b- Age has a significant effect on tracking progress towards financial objectives.

H2c- Age has a significant effect on transaction alerts to gain insights into financial habits.

H2d- Age has a significant effect on access to make more informed financial decisions.

H2e- Age has a significant effect on financial behavior in the future.

Education plays a crucial role in promoting financial inclusion, as evidenced by various studies (Grohmann et al., 2021; Bire et al., 2019, Kodongo, 2018). Higher education levels are associated with increased financial inclusion, including account ownership, mobile banking, and borrowing from financial institutions. Compulsory upper-secondary education has been shown to positively impact financial inclusion across different socioeconomic groups, emphasizing the importance of education in enhancing financial access (Shi & Qamruzzaman, 2022). Additionally, financial literacy, which is closely linked to education, significantly influences financial inclusion by empowering individuals to make informed financial decisions and utilize available services effectively (Cohen & Nelson, 2011). Therefore, integrating financial education into formal education systems and promoting tailored interventions that combine financial literacy programs with social interactions are essential strategies to enhance financial inclusion and bridge the gap in access to financial services. However, in a study by Education as a demographic variable did not show a significant effect on financial inclusion among university lecturers in Palembang, as per the study findings (Soejono & Mendari, 2022).

Educational attainment is closely linked to individuals' financial literacy and capability, influencing their ability to access and utilize financial services effectively. Studies by Lusardi and Tufano (2009) emphasize the positive correlation between education and financial literacy, with higher levels of education associated with greater confidence in managing personal finances. However, disparities in educational attainment contribute to inequalities in financial inclusion, particularly among marginalized communities (Carpena et al., 2011). Enhancing financial literacy and education is therefore critical for expanding access to financial services and empowering individuals to make informed financial decisions:

Thus, the following hypotheses were formulated: Education has significant impact on financial inclusion:

H3a- Education has a significant effect on building a proper investment portfolio.

H3b- Education has a significant effect on tracking progress towards financial objectives.

H3c- Education has a significant effect on transaction alerts to gain insights into financial habits.

H3d- Education has a significant effect on access to make more informed financial decisions.

H3e- Education has a significant effect on financial behavior in the future.

Full-time employees and financial inclusion are interconnected in various ways. Research indicates that financial inclusion positively impacts unemployment rates, which can benefit full-time employees (Clinebell & Clinebell, 2007; Sun & Scola, 2023). Additionally, studies show that financial inclusion plays a crucial role in poverty reduction, affecting factors such as GDP per capita and education levels, which can indirectly benefit full-time workers (Kar et al., 2017). Moreover, the financial inclusion program in India has shown differential impacts on self-employed individuals and service holders, emphasizing the importance of occupation-specific banking orientation, which could also apply to full-time employees (Tran & Lee, 2021). Overall, promoting financial inclusion not only aids in reducing unemployment and poverty but also enhances access to financial services, potentially benefiting full-time employees by providing them with more opportunities for financial growth and stability (Alshyab et al., 2021).

Employment status plays a crucial role in shaping individuals' access to financial services, with formal employment often facilitating greater financial inclusion. However, research by World Bank (2014) highlights the prevalence of financial exclusion among informal workers, who lack access to employer-sponsored banking services and formal credit facilities. Moreover, unemployed individuals may face difficulties in accessing financial services, leading to heightened vulnerability and economic exclusion (Chen & Jin, 2017). Addressing the financial needs of diverse employment categories is essential for promoting inclusive economic growth and social development.

Thus, the following hypotheses were formulated: Employment has a significant effect on financial inclusion:

H4a- Employment has a significant effect on building a proper investment portfolio.

H4b- Employment has a significant effect on tracking progress towards financial objectives.

H4c- Employment has a significant effect on transaction alerts to gain insights into financial habits.

H4d- Employment has a significant effect on access to make more informed financial decisions.

H4e- Employment has a significant effect on financial behavior in the future.

The frequency of using online banking is closely linked to financial inclusion, as highlighted in various research papers. Financial technology (FinTech) services, such as mobile money and peer-to-peer lending, aim to promote economic inclusion for the un(der)banked, but require Internet access and digital literacy (Boshkov, 2019) Additionally, financial inclusion ensures access to financial services for vulnerable groups, with over 40% of the population utilizing such services (McHenry et al., 2017). Electronic banking, including mobile banking, plays a crucial role in expanding financial inclusion by providing branchless banking options and enhancing access to formal financial services for the underprivileged (Sharma & Pandey, 2022). Therefore, the frequency of online banking usage is a key factor in promoting financial inclusion globally.

The frequency of using online banking services serves as a key indicator of individuals' adoption of digital financial technologies. Research by McKinsey & Company (2020) highlights the growing significance of digital channels in banking, with online banking becoming the preferred mode of interaction for many consumers. However, disparities in digital literacy and internet access can hinder the adoption of online banking among certain demographic groups (Donner & Tellez, 2008). Bridging the digital divide and promoting inclusive design principles are essential for ensuring equitable access to digital financial services.

Hence, it was hypothesized that: Frequency of using online banking has a significant effect on financial inclusion:

H5a- The frequency of using online banking by respondents has a significant effect on building a proper investment portfolio.

H5b- The frequency of using online banking by respondents has a significant effect on tracking progress towards financial objectives.

H5c- The frequency of using online banking by respondents has a significant effect on transaction alerts to gain insights into financial habits.

H5d- The frequency of using online banking by respondents has a significant effect on access to make more informed financial decisions.

H5e- The frequency of using online banking by respondents has a significant effect on financial behavior in the future.

RESEARCH DESIGN

The research employs a descriptive research design. Descriptive research aims to describe the characteristics of a population or phenomenon. In this study, the focus is on examining various aspects related to financial inclusion on online banking among individuals residing in the Delhi NCR region.

The objective of this research is to analyze the significant effect of demographic variables gender, age, education, employment and frequency on various factors of financial inclusion like investment portfolio, financial objectives, financial habits, financial decision, financial behavior.

The population under study comprises individuals above 18 years of age residing in the Delhi National Capital Region (NCR). Sample Size: The sample size for this study is determined to be 248 participants. Convenience sampling was utilized to select participants from various locations within the Delhi NCR region. This method is chosen for its practicality and efficiency in accessing participants who meet the inclusion criteria. Primary and secondary method of data collection was used. For primary method a structured questionnaire was developed to collect relevant data pertaining to the research objectives. The questionnaire includes close-ended questions. Questionnaire was developed on the basis of objective of the research. The questions were divided into two category demographic characteristics of respondents second category questions were based on investment portfolio, financial objectives, financial habits, financial decision, financial behavior. For this Likert scale of 1-5 was used in framing questions. Secondary method was used to identify research gap for this books, research papers, journals and articles were referred. Google form was created to collect data and same was circulated to participants above 18 years of age. The collected data will be analyzed using descriptive statistics. Descriptive statistics involve the summarization and interpretation of data to describe the characteristics of the sample population. Measures such as mean, standard deviation, t-test and ANOVA was used to analyze quantitative data. The research adheres to ethical guidelines and principles, ensuring participant confidentiality, anonymity, and voluntary participation. Any sensitive information collected will be handled with utmost confidentiality and will only be used for research purposes.

DATA ANALYSIS AND INTERPRETATION

Table 1: General Characteristic of Participants

	Category	Frequency	Percentage
Gender	Male	160	64.5
	Female	88	35.5
Age	18-25	169	68.1
	26-35	26	10.5
	36-45	28	11.3
	46-55	14	5.6
	56 and above	10	4
Education	High school or equivalent	46	18.5
	Bachelor's degree	152	61.3
	Master's degree or higher	50	20.2
Employment Status	Student	156	62.9
	Employed full-time	58	23.4
	Employed part-time	16	6.5
	Retired	8	3.2
	Unemployed	10	4

Interpreting demographic variables can provide valuable insights into the characteristics of a population. Let's break down the interpretation for each variable from Table 1.

There are 160 males in the sample, constituting 64.5% of the total population. Female: There are 88 females in the sample, constituting 35.5% of the total population. Interpretation: This suggests that the sample population is predominantly male, with nearly two-thirds being male and around one-third being female. This could imply a gender imbalance in the population being studied. Age: 18-25: There are 169 individuals in the 18-25 age group, making up 68.1% of the total population. 26-35: There are 26 individuals in the 26-35 age group, accounting for 10.5% of the total population. 36-45: There are 28 individuals in the 36-45 age group, comprising 11.3% of the total population. 46-55: There are 14 individuals in the 46-55 age group, representing 5.6% of the total population. 56 and above: There are 10 individuals aged 56 and above, making up 4% of the total population. The largest age group in the sample is 18-25, indicating that the majority of respondents fall within this age range. The proportion of individuals decreases as age increases, with older age groups having smaller representations in the sample. This could suggest a skew towards younger individuals in the population being studied. Education: High school or equivalent: There are 46 individuals with a high school education or equivalent, comprising 18.5% of the total population. Bachelor's degree: There are 52 individuals with a bachelor's degree, representing 61.3% of the total population. Master's degree or higher: There are 50 individuals with a master's degree or higher, accounting for 20.2% of the total population. Interpretation: The majority of individuals in the sample have a bachelor's degree, followed by those with a master's degree or higher. A smaller proportion have a high school education or equivalent. This distribution suggests that the sample is relatively well-educated, with a significant portion having attained at least a bachelor's degree. Employment Status: Student: There are 156 students in the sample, making up 62.9% of the total population. Employed full-time: There are 58 individuals employed full-time, accounting for 23.4% of the total population. Employed part-time: There are 16 individuals employed part-time, representing 6.5% of the total population. Retired: There are 8 retired individuals, comprising 3.2% of the total population. Unemployed: There are 10 unemployed individuals, making up 4% of the total population. The largest group in terms of employment status is comprised of students, indicating that a significant portion of the sample is still in education. Full-time employment is the next most common category, followed by part-time employment. There is also a small proportion of individuals who are retired or unemployed.

Table 2: T-Test using Gender and Factors Based on Financial Inclusion

	Gender	N	Mean	Std. Deviation	F	Sig
Investment Portfolio	Male	160	1.70	.751	.566	.453
	Female	88	2.09	.825		
Financial Objectives	Male	160	1.96	.816	.116	.734
	Female	88	1.95	.829		
Financial Habits	Male	160	1.81	.810	.075	.785
	Female	88	1.89	.836		
Financial Decision	Male	160	1.66	.882	7.808	.006
	Female	88	1.89	.964		
Financial Behaviour	Male	160	1.55	.823	5.119	.025
	Female	88	1.64	.912		

Interpretation of t-test results when gender is independent variable and dependent variables as Investment portfolio, Financial objectives, Financial habits, Financial decision, Financial behaviour. From Table 2 the investment portfolio mean of male is 1.70 and female is 2.09, value of F is .566, and sig is .453. Since the difference in means between males and females is not statistically significant, as indicated by a non-significant p-value (p = 0.453).

In financial objectives mean of male is 1.96 and female is 1.95, value of F is .116, and sig is .734. Again, the difference in means between males and females is not statistically significant (p = 0.734). Once more, there is no statistically significant difference between males and females in terms of financial habits (p = 0.785). In financial habits mean of male is 1.81 and female is 1.89, value of F is .075, and sig is .785. Once more, there is no statistically significant difference between males and females in terms of financial habits (p = 0.785). Hypothesis H1a, H2a, H3a are rejected as their p-value is greater than .05

In financial decision mean of male is 1.66 and female is 1.89, value of F is 7.808, and sig is .006. Here, the difference in means between males and females is statistically significant (p = 0.006). This suggests that there is a significant difference in financial decision-making between genders. In financial behaviour mean of male is 1.55 and female is 1.64, value of F is 5.119, and sig is .025. Similarly, the difference in means between males and females is statistically significant (p = 0.025), indicating a significant difference in financial behavior between genders. Hypothesis H2d & H1e are accepted as their p-value is less than .05.

While there are no significant differences between genders in terms of investment portfolio, financial objectives, and financial habits, there are significant differences in financial decision-making and financial behavior.

Table 3: ANOVA using Age and Factors Based on Financial Inclusion

		N	Mean	Std. Deviation	F	Sig
Investment portfolio	18-25	169	1.93	.842		
	26-35	26	1.54	.761		
	36-45	28	1.71	.600		
	46-55	14	1.71	.726	1.959	.101
	56 and above	10	1.60	.516		
	Total	247	1.84	.800		
Financial objectives	18-25	169	2.05	.830		
	26-35	26	1.77	.908		
	36-45	28	1.79	.686		
	46-55	14	1.71	.726	1.569	.183
	56 and above	10	1.80	.789		
	Total	247	1.96	.820		

		N	Mean	Std. Deviation	F	Sig
Financial habits	18-25	169	1.95	.872		
	26-35	26	1.46	.647		
	36-45	28	1.86	.651		
	46-55	14	1.43	.514	3.966	.004
	56 and above	10	1.40	.516		
	Total	247	1.84	.820		
Financial decision	18-25	169	1.81	.957		
	26-35	26	1.69	.928		
	36-45	28	1.50	.745		
	46-55	14	1.57	.756	.921	.452
	56 and above	10	1.60	.843		
	Total	247	1.74	.918		
Financial behaviour	18-25	169	1.72	.921		
	26-35	26	1.38	.752		
	36-45	28	1.14	.356	4.638	.001
	46-55	14	1.57	.756		
	56 and above	10	1.00	.000		
	Total	247	1.58	.856		

Interpretation of ANOVA results from Table 3 when age is independent variable and dependent variables as Investment portfolio, Financial objectives, Financial habits, Financial decision, Financial behaviour. In investment portfolio mean of 18-25 age group is 1.93, 26-35 age group mean value is 1.54, 36-45 age group mean value is 1.71, 46-55 age group mean value is 1.71, and above 56 and above is 1.60, value of F is 1.959, and sig is .101. The difference in means across age groups is not statistically significant, as indicated by a non-significant p-value ($p = 0.101$). This suggests that there is no significant difference in investment portfolio across different age groups. In financial objectives mean value of 18-25 age group is 2.05, 26-35 age group mean value is 1.77, 36-45 age group mean value is 1.79, 46-55 age group mean value is 1.71, and above 56 and above is 1.80, value of F is 1.569, and sig is .183. Similarly, the difference in means across age groups is not statistically significant ($p = 0.183$), indicating that there is no significant difference in financial objectives across different age groups. In financial habits mean value of 18-25 age group is 1.95, 26-35 age group mean value is 1.46, 36-45 age group mean value is 1.86, 46-55 age group mean value is 1.43, and above 56 and above is 1.40, value of F is 3.966, and sig is .004. In contrast, the difference in means across age groups is statistically significant ($p = 0.004$). This suggests that there is a significant difference in financial habits across different age groups. In financial decision mean value of 18-25 age group is 1.81, 26-35 age group mean value is 1.69, 36-45 age group mean value is 1.50, 46-55 age group mean value is 1.57, and above 56 and above is 1.60, value of F is .921, and sig is .452. The difference in means across age groups is not statistically significant ($p = 0.452$), indicating that there is no significant difference in financial decision-making across different age groups. In financial behaviour mean value of 18-25 age group is 1.72, 26-35 age group mean value is 1.38, 36-45 age group mean value is 1.14, 46-55 age group mean value is 1.57, and above 56 and above is 1.00, value of F is 4.638, and sig is .001. Here, the difference in means across age groups is statistically significant ($p = 0.001$), suggesting that there is a significant difference in financial behavior across different age groups. In summary, while there are no significant differences in investment portfolio and financial objectives across age groups, there are significant differences in financial habits and financial behavior. Financial decision-making does not appear to vary significantly across age groups.

Table 4: ANOVA using Education and Factors Based on Financial Inclusion

		N	Mean	Std. Deviation	F	Sig
Investment portfolio	High school or equivalent	46	1.83	.769		
	Bachelor’s degree	152	1.88	.845		
	Master’s degree or higher	50	1.72	.671	.776	.462
	Total	248	1.84	.799		
Financial_objectives	High school or equivalent	46	2.13	.806		
	Bachelor’s degree	152	1.95	.828	1.559	.213
	Master’s degree or higher	50	1.84	.792		
	Total	248	1.96	.819		
financial habits	High school or equivalent	46	1.96	.868	3.815	.023
	Bachelor’s degree	152	1.89	.855		
	Master’s degree or higher	50	1.56	.577		
	Total	248	1.84	.819		
Financial decision	High school or equivalent	46	1.83	.926		
	Bachelor’s degree	152	1.75	.937		
	Master’s degree or higher	50	1.64	.851	.507	.603
	Total	248	1.74	.917		
Financial behaviour	High school or equivalent	46	1.39	.714		
	Bachelor’s degree	152	1.72	.929	5.801	.003
	Master’s degree or higher	50	1.32	.621		
	Total	248	1.58	.855		

From Table 4 ANOVA results indicate when education is independent variable and dependent variables as Investment portfolio, Financial objectives, Financial habits, Financial decision, Financial behaviour. In investment portfolio mean value of High school or equivalent is 1.83, mean value of Bachelor’s degree is 1.88, mean value of master’s degree is 1.72, value of F is .776, and sig is .462. The difference in means across education levels is not statistically significant ($p = 0.462$). This suggests that there is no significant difference in investment portfolio across different education levels. In financial objectives mean value of High school or equivalent is 2.13, mean value of Bachelor’s degree is 1.95, mean value of master’s degree is 1.84, value of F is 1.559, and sig is .213. Similarly, the difference in means across education levels is not statistically significant ($p = 0.213$), indicating that there is no significant difference in financial objectives across different education levels. Similarly, in financial habits mean value of High school or equivalent is 1.96, mean value of Bachelor’s degree is 1.89, mean value of master’s degree is 1.56, value of F is 3.815, and sig is .023. In contrast, the difference in means across education levels is statistically significant ($p = 0.023$). This suggests that there is a significant difference in financial habits across different education levels. In financial decision mean value of High school or equivalent is 1.83, mean value of Bachelor’s degree is 1.75, mean value of master’s degree is 1.64, value of F is .507, and sig is .603. The difference in means across education levels is not statistically significant ($p = 0.603$), indicating that there is no significant difference in financial decision-making across different education levels. In financial behaviour mean value of High school or equivalent is 1.39, mean value of Bachelor’s degree is 1.72, mean value of master’s degree is 1.32, value of F is 5.801, and sig is .003. Here, the difference in means across education levels is statistically significant ($p = 0.003$), suggesting that there is a significant difference in financial behavior across different education levels. In summary, while there are no significant differences in investment portfolio and financial objectives across education levels, there are significant differences in financial habits and financial behavior. Financial decision-making does not appear to vary significantly across education levels.

Table 5: ANOVA using Employment and Factors Based on Financial Inclusion

		N	Mean	Std. Deviation	F	Sig
Investment portfolio	Student	156	1.94	.855		
	Employed full-time	58	1.66	.715		
	Employed part-time	16	1.75	.683		
	Retired	8	1.75	.463	1.658	.160
	Unemployed	10	1.60	.516		
	Total	248	1.84	.799		
Financial objectives	Student	156	2.09	.838		
	Employed full-time	58	1.83	.798		
	Employed part-time	16	1.63	.719		
	Retired	8	1.75	.463	3.462	.009
	Unemployed	10	1.40	.516		
	Total	248	1.96	.819		
Financial habits	Student	156	1.95	.878		
	Employed full-time	58	1.59	.622		
	Employed part-time	16	1.88	.957	2.379	.052
	Retired	8	1.75	.463		
	Unemployed	10	1.60	.516		
	Total	248	1.84	.819		
Financial decision	Student	156	1.79	.942		
	Employed full-time	58	1.62	.855		
	Employed part-time	16	1.75	1.000	.889	.471
	Retired	8	2.00	.756		
	Unemployed	10	1.40	.843		
	Total	248	1.74	.917		
Financial behaviour	Student	156	1.69	.899		
	Employed full-time	58	1.41	.726		
	Employed part-time	16	1.50	.894	2.339	.056
	Retired	8	1.00	.000		
	Unemployed	10	1.40	.843		
	Total	248	1.58	.855		

From Table 5 it can be interpreted that when employment is independent variable and dependent variables as Investment portfolio, Financial objectives, Financial habits, Financial decision, Financial behaviour. In investment portfolio mean value of student 1.94, mean value of employed full-time is 1.66, employed part-time is 1.75, mean value of retired and unemployed is 1.75 and 1.60 respectively, value of F is 1.658, and sig is .160. The difference in means across employment categories is not statistically significant ($p = 0.160$). This suggests that there is no significant difference in investment portfolio across different employment statuses. Likewise, in financial objective mean value of student 2.09, mean value of employed full-time is 1.83, employed part-time is 1.63, mean value of retired and unemployed is 1.75 and 1.40 respectively, value of F is 3.462, and sig is .009. In contrast, the difference in means across employment categories is statistically significant ($p = 0.009$). This indicates that there is a significant difference in financial objectives across different employment statuses. Similarly, in financial habits mean value of student 1.95, mean value of employed full-time is 1.59, employed part-time is 1.88, mean value of retired and unemployed is 1.75 and 1.60 respectively, value of F is 2.379, and sig is .052. The difference in means across employment categories is marginally significant ($p = 0.052$). This suggests that there may be some differences in financial habits across different employment statuses, although not statistically significant at conventional levels. Additionally, in financial decisions mean value of student 1.79, mean value of employed full-time is 1.62, employed part-time is 1.75, mean value of retired and unemployed is 2.00 and 1.40 respectively, value of F is .889, and sig is .471. The difference in means across employment categories is not statistically significant (p = 0.471). This indicates that there is no significant difference in financial decision-making across different employment statuses. In financial behaviour mean value of student 1.69, mean value of employed full-time is 1.41, employed part-time is 1.50, mean value of retired and unemployed is 1.00 and 1.40 respectively, value of F is 2.339, and sig is .056. The difference in means across employment categories is marginally significant (p = 0.056). This suggests that there may be some differences in financial behavior across different employment statuses, although not statistically significant at conventional levels. In summary, while there are significant differences in financial objectives across employment statuses, there are no significant differences in investment portfolio, financial decision-making, and financial habits. However, there may be some trends or tendencies in financial habits and behavior across different employment statuses, though not statistically significant at conventional levels.

Table 6: ANOVA for Frequency of using Online Banking and Factors Based on Financial Inclusion

		N	Mean	Std. Deviation	F	Sig.
Investment portfolio	Rarely	38	2.32	.574		
	Daily	130	1.66	.773		
	Weekly	62	1.90	.824	7.335	.000
	Monthly	18	1.89	.900		
	Total	248	1.84	.799		
Financial_objectives	Rarely	38	2.26	.644		
	Daily	130	1.80	.811		
	Weekly	62	2.03	.868	4.336	.005
	Monthly	18	2.22	.808		
	Total	248	1.96	.819		
Financial habits	Rarely	38	2.26	.724		
	Daily	130	1.63	.818	7.495	.000
	Weekly	62	1.97	.789		
	Monthly	18	2.00	.686		
	Total	248	1.84	.819		
Financial decision	Rarely	38	2.05	.899		
	Daily	130	1.58	.879	3.407	.018
	Weekly	62	1.81	.938		
	Monthly	18	2.00	.970		
	Total	248	1.74	.917		
Financial behaviour	Rarely	38	2.11	.863		
	Daily	130	1.43	.787	6.726	.000
	Weekly	62	1.61	.875		
	Monthly	18	1.44	.856		
	Total	248	1.58	.855		

Interpretation of ANOVA from Table 6 results indicate that when frequency is independent variable and dependent variables as Investment portfolio, Financial objectives, Financial habits, Financial decision, Financial behaviour. In investment portfolio mean value of rarely is 2.32, mean value of daily is 1.66, weekly is 1.90, and monthly is 1.89, value of F is 7.335, and sig is .000. The difference in means across frequency categories is statistically significant (p = 0.000). This suggests that there is a significant difference in investment portfolio across different frequency of financial activities. In financial objectives mean value of rarely is 2.26, mean value of daily is 1.80, weekly is 2.03, and monthly is 2.22, value of F is 4.336, and sig is .005. Similarly, the difference in means across frequency categories is statistically significant ($p = 0.005$). This indicates that there is a significant difference in financial objectives across different frequencies of financial activities. In financial habits mean value of rarely is 2.26, mean value of daily is 1.63, weekly is 1.97, and monthly is 2.00, value of F is 7.495, and sig is .000. Again, the difference in means across frequency categories is statistically significant ($p = 0.000$). This suggests that there is a significant difference in financial habits across different frequencies of financial activities.

In financial decision mean value of rarely is 2.05, mean value of daily is 1.58, weekly is 1.81, and monthly is 2.00, value of F is 3.407, and sig is .018. The difference in means across frequency categories is statistically significant ($p = 0.018$). This indicates that there is a significant difference in financial decision-making across different frequencies of financial activities.

In financial behaviour mean value of rarely is 2.11, mean value of daily is 1.43, weekly is 1.61, and monthly is 1.44, value of F is 6.726, and sig is .000. Once more, the difference in means across frequency categories is statistically significant ($p = 0.000$). This suggests that there is a significant difference in financial behavior across different frequencies of financial activities.

In summary, there are significant differences in investment portfolio, financial objectives, financial habits, financial decision-making, and financial behavior across different frequencies of financial activities.

FINDINGS

Gender remains a pivotal determinant of financial inclusion, with women often facing greater barriers to access and utilization of financial services compared to their male counterparts. Socio-cultural norms, limited mobility, and unequal access to education and employment opportunities are among the factors that contribute to this disparity. Consequently, exploring the differential impact of financial inclusion initiatives on men and women is crucial for designing targeted interventions that address gender inequality in access to financial resources and decision-making power. Age is another crucial factor influencing individuals' engagement with financial services. Younger populations, particularly digital natives, exhibit distinct preferences and behaviors in their financial interactions, often favoring digital channels over traditional banking methods. Understanding the unique needs and preferences of different age cohorts is essential for crafting inclusive financial products and services that cater to the diverse requirements of both older and younger demographics. Employment status plays a significant role in determining individuals' access to financial services, as those with stable employment are more likely to have access to formal banking channels and credit facilities. However, informal and precarious employment arrangements may limit individuals' ability to build savings, access credit, or make long-term financial investments. By examining the relationship between employment status and financial inclusion, we can identify strategies to extend financial services to vulnerable and marginalized workers, thereby promoting economic resilience and social inclusion. Education emerges as a critical determinant of financial literacy and capability, shaping individuals' understanding of financial products, services, and risks. Higher levels of education are often associated with greater financial literacy and confidence in managing personal finances. Therefore, efforts to enhance financial inclusion must include initiatives aimed at improving financial literacy and education among underserved communities, empowering individuals to make informed financial decisions and navigate complex financial landscapes effectively. Finally, the frequency of using online banking services represents a key indicator of individuals' adoption of digital financial technologies. As the world becomes increasingly interconnected and digitized, access to online banking services has become essential for conducting financial transactions, managing accounts, and accessing a wide range of financial products and services. However, disparities in digital literacy, internet access, and technological infrastructure can hinder the adoption of online banking among certain demographic groups, exacerbating existing inequalities in financial inclusion.

MANAGERIAL IMPLICATIONS

Financial institutions should develop products and services tailored to the specific needs and preferences of diverse socio-demographic groups. Understanding the unique challenges and opportunities faced by different segments of the population can help in designing more inclusive and effective financial solutions. To promote digital banking adoption, managers should prioritize investment in digital infrastructure, including robust internet connectivity and user-friendly interfaces. By ensuring accessibility and usability, financial institutions can encourage more individuals to embrace digital banking channels.

Implementing digital literacy programs is crucial to overcoming barriers to digital banking adoption, especially among underserved populations. Managers should collaborate with government agencies, NGOs, and community organizations to provide training and education on digital financial services, empowering individuals to make informed decisions and navigate online platforms confidently. Collaboration between financial institutions, technology firms, and government agencies is essential for advancing financial inclusion goals. Government should seek opportunities for partnerships and collaborations to leverage each other's strengths and resources in expanding access to financial services and promoting digital banking adoption. As the landscape of financial inclusion and digital banking continues to evolve, managers must engage in continuous evaluation and adaptation of their strategies. Monitoring key performance indicators, soliciting feedback from customers, and staying abreast of emerging trends and technologies will enable managers to refine their approaches and stay responsive to the changing needs of their target audience.

CONCLUSION

In conclusion, the exploration of the impact of financial inclusion on socio-demographic factors and digital banking adoption underscores the critical role of individuals in driving inclusive growth and fostering technological innovation. By recognizing the diverse needs and preferences of different socio-demographic groups, financial institutions can design more inclusive and customer-centric solutions that cater to the unique circumstances of their target populations. Moreover, by investing in digital infrastructure, promoting digital literacy, and forging strategic partnerships, government can overcome barriers to digital banking adoption and empower individuals to participate more fully in the formal financial system. As government continue to navigate the dynamic landscape of financial inclusion and digital banking, a commitment to continuous evaluation, adaptation, and collaboration will be essential to achieving sustainable and equitable outcomes for all members of society.

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The Future of Leadership: Leveraging Gender and Agentic Qualities for Employee Engagement

Aiswarya B.*, Sheba Elizabeth Kurian, Shema Soby***, Sofia Peter**** , G. Ramasundaram*****

Abstract. *This research examines the influence of agentic characteristics on employee engagement, filling an essential void in leadership studies. The study utilized the Hayes model and regression methods to evaluate the connections between leadership characteristics and employee results, considering variations related to gender. The results indicate an impact of agentic qualities on employee engagement. The research highlights gender as a moderating element that affect these relationships, demonstrating the intricacy of leadership dynamics in different contexts. This study adds to the area of organizational behavior by emphasizing the significance of incorporating agentic characteristics into leadership training initiatives, which ultimately improve workplace settings.*

Keywords *Agentic Characteristics, Employee Engagement, Leadership Dynamics, Gender Differences, Regression*

INTRODUCTION

Studies in organizational behavior have recognized the importance of personal characteristics, especially for leaders. This "trait perspective" highlights a set of inherent tendencies (like personality traits) that are directly linked to effectiveness. Consequently, developing these traits becomes a crucial way for individuals, particularly managers, to influence organizational outcomes. Agency and communion are two fundamental, broad trait dimensions that can be assessed in oneself and others. They offer a simplified yet powerful framework for analyzing reported personal characteristics in work settings and beyond.

Female leaders were met with resistance when they tried to lead in an agentic manner, because the masculine leadership style was seen as violating the traditional gender roles and norms (Eagly & Carli, 2007). While agentic traits have historically linked to men, leadership styles are not always gender specific. If we look at the existing gender stereotype content, there are in fact many agentic traits (e.g. Independent, competent) which are important for leadership are also deemed as desirable in women (Prentice & Carranza, 2002).

Agentic actions are predominantly influenced by differences in social roles at work. In terms of agentic behaviours, gender disparities were not seen. When interacting with supervisees, both men and women are more agentic and with supervisors, they are less agentic. Dyadic gender composition at work primarily influences communal behaviours. Agentic behaviors are influenced by social roles that represent assigned social authority (Moskowitzet al., 1994).

Our study focuses on investigating the relationship between leaders' agentic traits, and the resultant impact on employee engagement. Agency can also be defined as personality characteristics in which an individual focuses on the self (Gonzalez et al., 2012), and this is done through self-confidence, self-assertiveness, and self-direction and is linked with individualistic thinking (Woike, 1994). And thus people with these characteristics achieve life fulfilment through their accomplishment and a sense of independence (Guisinger & Blatt, 1994; Helgeson, 1994; Spence & Helmreich, 1978). Agency is also referred to as "masculinity", "instrumentality" or "competence".

Gender also influences the relationship between leader qualities, leadership styles, and employee outcomes. Gender stereotypes can influence how leaders are perceived and assessed, potentially affecting the efficacy of their leadership approaches. For example, female leaders may have more hurdles in adopting agentic behaviors, whereas male leaders are expected to demonstrate more agentic features. So, we aim to study the effect of agentic and communal traits on employee engagement and how the gender of the leader influences the same. For this we have used regression and Anova to find whether there is any relationship between agentic and communal traits on employee engagement.

LITERATURE REVIEW

Agentic Traits

The sexual division of labour and gender hierarchy are the two main social organizational features from which the

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stereotypical beliefs that women are primarily communal, and men are primarily agentic arise. Men adopt patterns of assertive and initiating behaviors, that can be termed as agentic, when accommodating to their roles as providers (Eagly & Steffen, 1984). So as per this theory, as long as the role men and women play are the same and the gender hierarchy is not obvious, men and women should behave similarly. When there is a clear gender hierarchy, as in marriage or other close relationship, the gender differences consistent with gender stereotypes would be expected.

Traits such as ambition, decisiveness and assertiveness are usually associated with men. People also think that these traits are more beneficial to men than women when aiming for leadership positions. Badura et al. (2018) developed a Gender-Agency/Communion-Participation (GAP) model from social role theory and conducted a study of gender relationship with agency, communion and participation and leadership emergence and it was revealed from the studies that men were higher on agentic traits when compared to women and men are more active in group discussions, with participation positively associated with agentic traits. An analysis by Scott and Brown (2006) showed that Leadership emergence, effectiveness, evaluation, and style all differ as per gender, especially when the leadership position is defined to be clearly masculine (Eagly & Johnson, 1990; Eagly & Karau, 1991; Eagly, Karau & Makhijani, 1995; Eagly, Makhijani & Klonsky, 1992).

There is an assumed association between leadership and males, because historically males have been in positions of power and leadership roles and thus “people generally associate agentic traits with effective leadership possibly because of the long history of male leadership dominance, making it difficult to differentiate leader associations from male associations” (Eagly, 2007). Consequently, “The activation of gender-related beliefs by cues influences individuals to perceive women as communal but lacking in agency, and men as agentic but lacking in communality” (Eagly & Karau, 2002).

Female leaders were met with resistance when they tried to lead in an agentic manner, because the masculine leadership style was seen as violating the traditional gender roles and norms (Eagly & Carli, 2007). While agentic traits have historically linked to men, leadership styles are not always gender specific. If we look at the existing gender stereotype content, there are in fact many agentic traits (e.g. Independent, competent) which are important for leadership are also deemed as desirable in women (Prentice & Carranza, 2002).

Employee Engagement

Being able to handle the pressures and demands of one’s job, together with having a high level of energy when it comes to work, are characteristics of work engagement. Three sub-constructs of work engagement were found by Schaufeli and Bakker (2004): vigor, devotion, and absorption. According to Kahn (1990) and Geldenhuys, Laba and Venter (2014), vigor is linked to a physical connection, dedication to an emotional connection, and absorption to a cognitive connection, all of which are tied to one’s work.

By comparing burnout as the negative side of a scale and work engagement as the positive side, Maslach and Leiter (1997) expanded on this idea. They said that work engagement would be positioned on the positive side of the pole and would correspond to more involvement, energy levels, and efficiency toward one’s work, whereas burnout would be placed on the negative pole and associated with weariness, decreasing efficiency, and increasing cynicism.

The UWES-9, also known as the Utrecht Work Engagement Scale (UWES), was developed by Schaufeli and Bakker (2004) as a tool for measuring work engagement. The UWES-9 allows respondents to rate their degree of work engagement using nine questions and a 7-point Likert scale. It is a commonly used scale to assess the concept of engagement at work.

According to Wójcik-Karpacz (2018), work engagement is positively correlated with an employee’s effectiveness at work and with better business outcomes including higher productivity and financial success. As a result, a business should always be searching for methods to increase worker engagement. Other benefits of work engagement include raising a worker’s emotional investment in their position, which in turn encouraged greater engagement, initiative, and accountability for their outputs (de Oliveira & da Costa Rocha, 2017). Additional research revealed that higher levels of work engagement resulted in lower levels of absenteeism and turnover as well as higher levels of job satisfaction (Kim, Kolb & Kim, 2012; Strom, Sears & Kelly, 2014; Geldenhuys, Laba & Venter, 2014).

According to Coetzee and Veldman (2016), a manager’s credibility, behavior, and dependability as well as the relationships that workers had at work, their drive for success and autonomy, and, lastly, whether or not they felt cared for, all had an impact on how absorbed an employee was in their work. Because agentic leadership attributes include influence, status, and a drive to succeed and be autonomous, it may be inferred that the manager’s credibility and the employees’ desire for autonomy and achievement are linked to an agentic leadership style (Trapnell & Paulhus, 2012).

While communal leadership approaches from an emotional standpoint, absorption is the cognitive aspect of work participation (Kahn, 1990; Geldenhuys, Laba & Venter, 2014; Abele & Wojciszke, 2014; Rosette, Mueller & Lebel, 2015).

METHODOLOGY

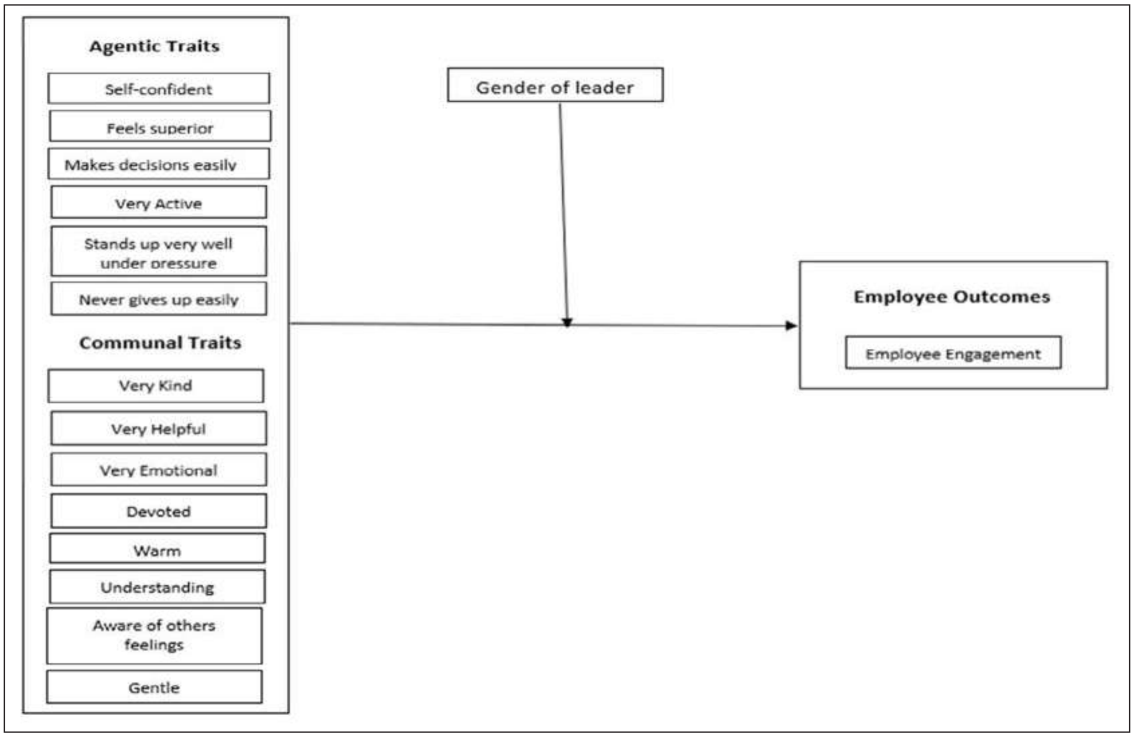

Fig. 1: Conceptual Model

Problem Statement

The gap in the current literature highlights the need to examine how leaders, who exemplify agentic leadership styles, affect employee engagement of their employees. This is important because it is an opportunity to increase employee engagement which is still at a low level and enhance women's representation in different leadership positions.

Existing research has not adequately addressed whether there exists a link between leadership styles of leaders and consequent effects on employee welfare. In this regard, we would like to fill this gap by providing a detailed analysis of how these variables are interrelated. Most notably, it will establish whether managers engaging in agentic or communal leadership style cause more effectual worker satisfaction and engagement.

To address this objective, the study will explore how leadership styles (agentic v/s communal) among managers relate to employee engagement for establishing positive work environment that aid in employee engagement.

In this study, gender of the respondents and organizational culture will be considered. By doing so, this research contributes significantly towards understanding the intricacies between employee outcomes thus offering insights regarding how leaders can enhance their impact on engagement within their respective organizations.

Data Collection

A systematic, self-administered questionnaire with two sections was used to collect data in order to obtain detailed information. Part 1 concentrated on demographic data, such as age, gender, marital status, and educational background and Part 2 used established scales to evaluate important variables relevant to the characteristics and attributes of leaders. We were able to evaluate the Basic Psychological Needs Assessment at Work (BPNSW) for Engagement, Agentic Traits, and Communal Traits. This framework guarantees thorough and trustworthy data collection for further analysis.

Sample Size

The respondents were purposively selected in form of 600 employees from different sections of the organization. The purpose of such focus groups is to obtain relevant and worthwhile information from people who are accustomed to functioning within the boundaries of the. The variety in the sample permits a comprehensive appreciation of employee perceptions of the employees' engagement in the organization in light of dominant agentic and communal aspects of the leaders/managers, thus benefiting both HR and other organizational management.

DATA SPECIFICATION

Table 1: Descriptives of Respondents

Demographic Variable	Category	Count	Percentage
Age	20-30 years	471	78.76%
	31-40 years	119	19.90%
	41-50 years	8	1.34%
	Above 50 years	0	0.00%
Marital Status	Single	258	43.14%
	Married	340	56.86%
Educational Qualification	School	34	5.69%
	Graduate	338	56.52%
	Post Graduate	212	35.45%
	Others	14	2.34%
Work Experience	Less than 3 years	372	62.21%
	3.1 - 6 years	174	29.10%
	6.1 - 9 years	33	5.52%
	Above 9 years	19	3.18%
Designation	Lower level	193	32.27%
	Middle Level	375	62.71%
	Upper Level	30	5.02%
Personal Income	Below 20,000	166	27.76%
	20,001 - 40,000	355	59.36%
	40,001 - 60,000	50	8.36%
	Above 60,000	27	4.52%
Family Income	Less than 0.5	130	21.74%
	0.5 - 1.0	168	28.09%
	1.01 - 1.50	90	15.05%
	1.51 - 2.0	37	6.19%
	Above 2.0	173	28.93%
Dependants	None	13	2.17%
	One	161	26.92%
	Two	311	52.01%
	Three	82	13.71%
	Four and above	31	5.18%
Hours Working	Less than 8 hours	146	24.41%
	9 hours	217	36.29%
	10 hours	161	26.92%
	Above 10 hours	74	12.37%

- *Age:* The majority of respondents (78.76%) fall in the 20-30 years age range, suggesting a predominantly young demographic.
- *Marital Status:* More than half of the respondents are married (56.86%), indicating a significant proportion may have family responsibilities.
- *Educational Qualification:* Most respondents are graduates (56.52%), indicating a well-educated group.
- *Work Experience:* A majority (62.21%) have less than 3 years of work experience, suggesting many are in the early stages of their careers.
- *Designation:* The majority of respondents (62.71%) are at the middle level, which might imply an experienced yet not senior-dominated workforce.

- *Personal Income*: Over half (59.36%) earn between 20,001 and 40,000, indicating a mid-range income level for the group.
- *Family Income:* Income levels are fairly distributed, with the largest group (28.93%) earning above 2.0, reflecting varied family financial backgrounds.
- *Dependants:* Most respondents (52.01%) have two dependents, suggesting family support responsibilities.
- *Hours Working:* A significant portion of respondents (36.29%) report working 9 hours, which could affect their work-life balance.

RESULTS AND DISCUSSION

Regression (Employee Engagement)

Table 2: Regression (Employee Engagement)

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.141[a]	0.02	0.018	0.7394

a. Predictors (Constant), agentic

Table 3: Coefficents[a]

	Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std Error	Beta	t	
1	(Constant)	2.585	0.109		23.809	<.001
	Agentic	0.145	0.046	0.141	3.188	0.002

a. Dependent Variable: empeng.

Interpretation

The regression model as shown in Table 2 shows that agentic qualities significantly predict employee engagement (p-value = 0.002, below the normal threshold of 0.05). This shows that the link between agentic characteristics and employee engagement is statistically significant.

The analysis found a substantial positive association between agentic qualities and employee engagement, accounting for 2% of the variance ($R^2 = 0.02$). The standardized beta value of 0.141 suggests that agentic attributes have a minor but significant positive effect on employee engagement. This emphasizes the relevance of agentic traits in increasing employee engagement, albeit other factors certainly contribute to engagement beyond the scope of this study.

Factor Analysis (Agentic and Employee Engagement)

Table 4: Rotated Component Matrix[a]

	Component	
	1	2
Agentic Traits4	0.761	
Agentic Traits3	0.724	
Agentic Traits7	0.707	
Agentic Traits2	0.658	
Agentic Traits6	0.631	

	Component	
	1	2
Agentic Traits5	0.625	
Agentic Traits1	0.576	
ded 2		0.93
ded 1		0.883
vig 1		0.828
ded 3		0.58
vig 2		0.486
vig 3		0.465
abs 3		0.826
abs 1		0.798
abs 2		0.581

a. Rotation converged in 5 iterations.

Table 5: KMO and Barlett's Test Output

Keiser-Meyer-Olkin Measure of Sampling Adequacy		0.78
Bartlett's Test of Sphericity	Approx. Chi-Square	2635.153
	df	120
	Sig.	<.001

Interpretation

The factor analysis results as shown in Table 4 show that the two components derived from the agentic attributes and employee engagement measures are both reliable and valid. The Kaiser-Meyer-Olkin (KMO) sampling adequacy score of 0.78 indicates that the sample size is acceptable for factor analysis. Bartlett's test of sphericity was significant ($p < .001$), as mentioned in Table 5 indicating that the correlation matrix is not an identity matrix and factor analysis is needed.

The rotated component matrix reveals that the first component predominantly relies on agentic qualities, while the second component relies on employee involvement. This shows that the two conceptions are separate and can be measured accurately.

Hayes Output (empeng, gender and agentic)

Model: 1

Y: empeng

X: agentic

M: Gender

Outcome Variable: empeng

Table 6: Model Summary

R	R-Sq	MSE	F	df1	df2	p
0.1998	0.0399	0.5313	6.8753	3	496	0.0002

Table 7: Model

	Coeff	SE	t	p	LLCI	ULCI
constant	2.3393	0.3784	6.1815	0	1.5958	3.0828
agentic	0.1062	0.1602	0.6632	0.5075	1.2085	0.4209
gender	0.1595	0.2229	0.7154	0.4747	1.2785	0.5974
Int_1	0.0229	0.0939	0.2435	0.8077	1.1617	0.2074

Product terms key:

Int_1 : agentic x Gender

Table 8: Test(s) of highest Order Unconditional Interaction(s):

	R2-Chng	F	df1	df2	p
X*W	0.0001	0.0593	1.0000	496.0000	0.8077

Level of confidence for all confidence intervals in output: 95.0000

Interpretation

The R-squared value as shown in Table 6 indicates that the model can explain variance in employee engagement, taking into account the primary impacts of agentic qualities and gender, as well as their interaction. The Hayes model showed a significant interaction between agentic qualities and gender on employee engagement ($p < .001$). This shows that the connection between agentic qualities and involvement varies according to gender.

While agentic skills significantly influence employee engagement overall, the intensity of this link differs by gender. The Hayes model results show that agentic qualities are positively associated with employee engagement. However, gender moderates this association. The significant interaction effect implies that the impact of agentic qualities on engagement varies by gender.

CONCLUSION

Researching the link between agentic trait and employee-engagement is reasonably important for deepening the knowledge of workplace relationships and complexities.

The regression results reveal that employees' engagement is positively associated with the development of agentic traits better than their communal counterparts, which implies that integrating effective social practices at work can greatly improve overall satisfaction and engagement among employees.

For employee engagement, organizations will need to focus on the building of leadership and workplace programs, which could promote agentic traits in an employee such as independence and assertiveness and goal orientation. Agentic traits result in having more positive influences on engagement than communal ones. Implement training programs that focus on developing better decision-making and problem-solving skills in both employees and leaders, thus increasing proactive behavior. Enable the workforce to become ownership and contributory forces further by growing these habits.

Regular engagement surveys must be taken to learn the effectiveness of these types of initiatives and areas needed to be worked upon for improvement. They provide wonderful insight into the way agency behavior affects the satisfaction or engagement levels that can enable shaping better strategies.

RECOMMENDATION

For employee engagement, organizations will need to focus on the building of leadership and workplace programs, which could promote agentic traits in an employee such as independence and assertiveness and goal orientation. Agentic traits result in having more positive influences on engagement than communal ones. Implement training programs that focus on developing better decision-making and problem-solving skills in both employees and leaders, thus increasing proactive behavior. Enable the workforce to become ownership and contributory forces further by growing these habits.

Regular engagement surveys must be taken to learn the effectiveness of these types of initiatives and areas needed to be worked upon for improvement. They provide wonderful insight into the way agency behavior affects the satisfaction or engagement levels that can enable shaping better strategies.

Mentorship programs can also be very effective. By matching employees with experienced leaders who demonstrate agentic traits, learning occurs through the guidance and real-life examples. In addition, support for work-life balance initiatives ensures that employees have the energy and mental space to display agentic behaviors successfully.

Organizations can build a more engaged, motivated, and productive workforce by creating an environment where agentic traits are nurtured and valued.

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THE FUTURE OF LEADERSHIP: LEVERAGING GENDER AND COMMUNAL QUALITIES FOR EMPLOYEE WELL-BEING

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Abstract. *This research examines the influence of communal characteristics on employee well-being, filling an essential void in leadership studies. The study utilized the Hayes model and regression methods to evaluate the connections between leadership characteristics and employee results, considering variations related to gender. The results indicate an impact of communal qualities on employee well-being. The research highlights gender as a moderating element that affect these relationships, demonstrating the intricacy of leadership dynamics in different contexts. This study adds to the area of organizational behavior by emphasizing the significance of incorporating communal characteristics into leadership training initiatives, which ultimately improve workplace settings.*

Keywords *Communal Characteristics, Employee Well-being, Hayes Model, Leadership Dynamics, Gender Differences*

INTRODUCTION

In 1966 David Bakan, through his book titled 'The duality of human existence', introduced the terms "Agency" and "Communion", which he described as fundamental modes in which humans exist. As per his definition agency as isolated and self-focused with a drive to succeed whereas communion as a sense of togetherness, a focus on others and the desire to cooperate and collaborate (Abele & Wojciszke, 2014).

Eagly and Karau's (2002) influential work on role congruity theory (RGT) suggests that communal leadership traits, often associated with women, are seen as mismatched with those required for effective leadership. The theory posits that agentic qualities are typically viewed as more desirable for leaders. They examined whether female leaders with either agentic or communal styles can succeed in senior positions, thereby adding to our understanding of female leadership.

Our study focuses on investigating the relationship between leaders' agentic and communal traits, and the resultant impact on employee well-being. Agency can also be defined as personality characteristics in which an individual focuses on the self (Gonzalez et al., 2012), and this is done through self-confidence, self-assertiveness, and self-direction and is linked with individualistic thinking (Woike, 1994). And thus people with these characteristics achieve life fulfilment through their accomplishment and a sense of independence (Guisinger & Blatt, 1994; Helgeson, 1994; Spence & Helmreich, 1978). Agency is also referred to as "masculinity"," instrumentality" or "competence".

The features that belong to this trait reveal to us characteristics that are emotionally attuned, interested in caring and showing concern for others and finally, eager to take measures that will help in developing and maintaining close relationships and cohesion of the group (Bakan, 1966; Abele & Wojciszke, 2007, 2014; Gonzalez et al., 2012). The fact that communication entails feelings openly demonstrated through emotionally expressive, verbal and non-verbal cues, is one part of the privilege of interpersonal communication (Bakan, 1966). In people that have characterized by a high communal virtue they will show empathy and understanding which allows them to feel and validate other people's subjective feeling and viewpoint (Asch, 1946).

Gender also influences the relationship between leader qualities, leadership styles, and employee outcomes. Gender stereotypes can influence how leaders are perceived and assessed, potentially affecting the efficacy of their leadership approaches. For example, female leaders may have more hurdles in adopting agentic behaviors, whereas male leaders are expected to demonstrate more agentic features. So, we aim to study the effect of agentic and communal traits on employee well-being and how the gender of the leader influences the same. For this we have used T-Test, regression and Hayes model to find whether there is any relationship between agentic and communal traits on employee well-being.

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LITERATURE REVIEW

Communal Traits

The features that belong to this trait reveal to us characteristics that are emotionally attuned, interested in caring and showing concern for others and finally, eager to take measures that will help in developing and maintaining close relationships and cohesion of the group (Bakan, 1966; Abele & Wojciszke, 2007, 2014; Gonzalez et al., The fact that communication entails feelings openly demonstrated through emotionally expressive, verbal and non-verbal cues, is one part of the privilege of interpersonal communication (Bakan, 1966). In people that have characterized by a high communal virtue they will show empathy and understanding which allows them to feel and validate other people's subjective feeling and viewpoint (Asch, 1946). They demonstrate an altruistic behavior which is attentive to the others and interests, empathy and other people's welfare besides pure favoritism (Abele & Wojciszke, 2007). Caring for others who are in the small group is the way community individuals manifest their kindness, which is shown evident with their selflessness, care, and humility. In addition, they work towards keeping any conflict out of the group unity and harmony (Trapnell & Paulhus, 2012; Gonzalez et al., 2012).

Establishing and maintaining positive cooperation with other people is the basis for an orientation to the community. This is executed via the use of friendly communication styles that enthuse others and create a foundation for cooperative relationships. The ones who are high on communion stress the necessity of the values such as cooperation, interdependence and striving to reach collective success of the group as opposed to the individual accent on the competition to outdo others (Ergle, 2015). These feelings result in the people obtaining a feeling of life fulfilment, they derive these feelings from their intimate social bonds and a very robust sense of belonging to groups (Spence and Helmreich, 1978; Guisinger & Blatt 1994; Helgeson, 1994). Groupness characteristic is developed further through selecting cool facilitative coaching and mentorship which aim to encourage, develop and enhance growth and success of fellow members within their communities (other-orientation implied by Abele & Wojciszke, 2007). Personally, the strong communion type prefers structures where communication is democratic and unhindered by rigid hierarchies. This is according to the research by Rosette and Tost (2010).

Scores of gender stereotyping studies have been conducted on the basis of distinction between two types of traits which are: agency and communion. According to the viewpoint of the two traits, women are believed to be extremely compassionate, emotionally expressive and always open on others side. Whereas men sector is seen to be independent, assertive, and initiating (Ashmore et al., 1986). With respect to it, an everyday man makes decisions quickly, does not give up easily, and is competitive, outspoken, outgoing, intellectual, self-confident, and resistant to the influence, as the most commonly seen masculine and feminine sex roles behaviorals (i.e., sex role inventory, Bem, 1974; the personal attributes questionnaire, Spence, Helmreich and Stapp). The most common lady`s natural disposition is disposed to children affections; she is tender, sympathetic, polite, gentle comedy, considerate being susceptible to other people`s feelings.

Employee Well-being

Throughout history, thinkers have grappled with the idea of a good life. One prominent view, dating back to the ancient Greeks, suggests that while we desire many things believing, they'll bring happiness, happiness itself is the only thing truly valued for its own sake (Epicurus of Samos, 1998). There are various theories on well-being, including those that focus on fulfilling needs and goals (Freud, 1930; Maslow, 1968), engaging in activities that bring fulfillment (Csikszentmihalyi, 1990), and the influence of genes and personality (Tellegen, Lykken et al., 1988; Harkner & Keltner, 2001). Extensive research exists within organizational studies on employee well-being. Nevertheless, a comprehensive, clearly defined conceptualization of employee well-being remains elusive (Diener, Suh, Lucas, & Smith, 1999; Forgeard, Jayawickreme, Kern, & Seligman, 2011; Keyes, Shmotkin & Ryff, 2002; Seligman, 2011; Stratham & Chase, 2010; Zheng, Zhu, Zhao & Zhang, 2015). According to New Oxford Advanced Learner's Dictionary (7^{th} ed., revised 2005), the term 'well-being' can be defined as a state of being comfortable, healthy and happy. Employee well-being is an individual's state of physical, psychological, and emotional health, comfort, and happiness within a work context. This encompasses both the subjective experience of well-being and its functional implications, as outlined by Warr (1999), which considers both physical and psychological dimensions.

Psychological well-being (PWB) is a newer area of research that focuses on how well people are facing life's big questions and challenges (Keyes et al., 2002). This builds on ideas from the 1950s and 60s about human development and growth.

Concepts like self-actualization (Maslow, 1968) fall under this umbrella. Maslow proposed a hierarchy of needs, where basic needs like safety and food must be met before people can focus on growth and reaching their full potential (self-actualization).

Researchers like Ryff (1989) have built on these ideas to create a multidimensional model of PWB. This model suggests that well-being involves facing challenges in six key areas which are self-acceptance: Feeling good about yourself and your life choices. Personal growth: Striving to learn and develop as a person, purpose in life: Believing your life has meaning and direction, positive relationships: Having strong and supportive connections with others. Environmental mastery: Feeling in control of your life and surroundings, autonomy: having a sense of independence and self-determination. By successfully navigating these challenges, individuals can achieve a greater sense of psychological well-being. Research on well-being has come to see it as having two sides: feeling good (SWB) and living meaningfully (PWB) (Keyes et al., 2002).

In conclusion, well-being seems to be about both feeling good and living a meaningful life. These two aspects can influence each other, but they are not the same thing.

METHODOLOGY

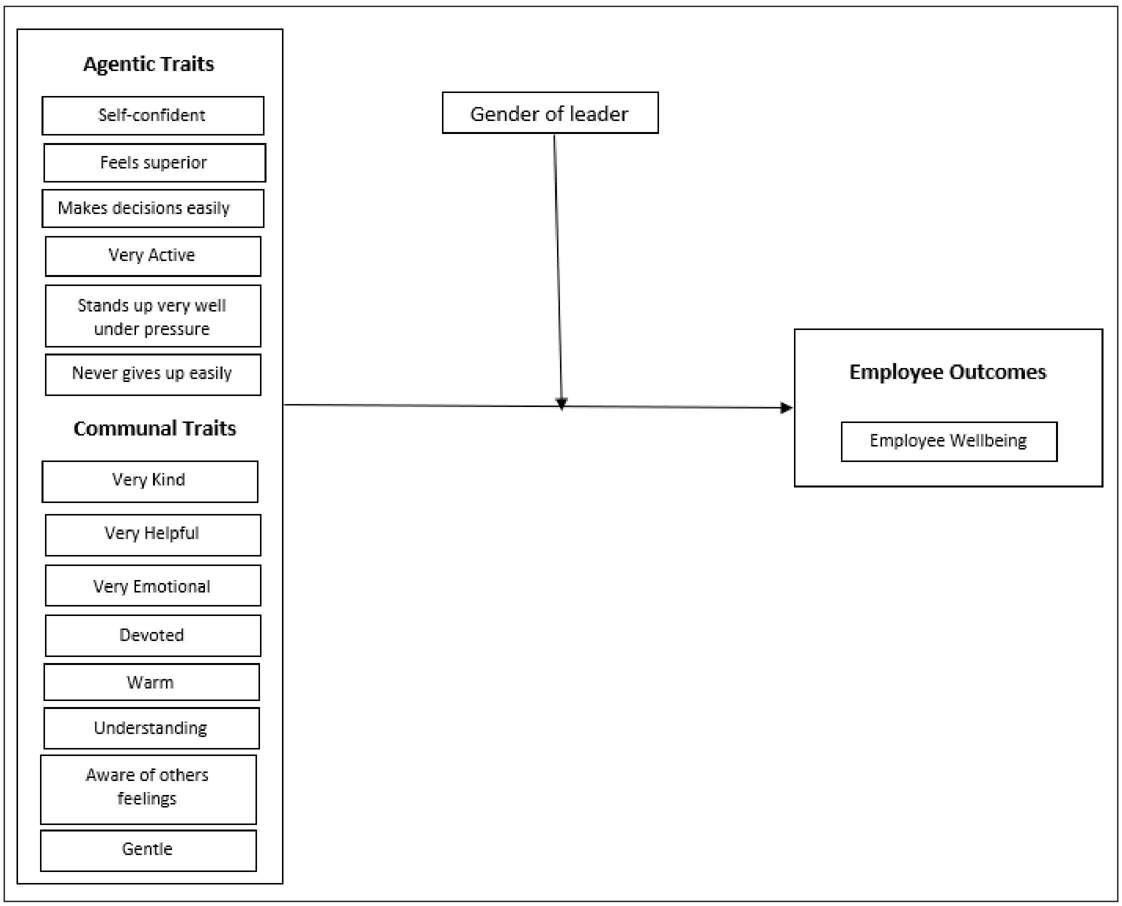


Fig. 1: Conceptual Model

Problem Statement

The gap in the current literature highlights the need to examine how leaders, who exemplify either communal or agentic leadership styles, affect employee well-being of their employees. This is important because it is an opportunity to increase employee well-being which is still at a low level and enhance women's representation in different leadership positions.

Existing research has not adequately addressed whether there exists a link between leadership styles of leaders and consequent effects on employee welfare. In this regard, we would like to fill this gap by providing a detailed analysis of how these variables are interrelated. Most notably, it will establish whether managers engaging in agentic or communal leadership style cause more effectual worker satisfaction and commitment.

To address this objective, the study will explore how leadership styles (agentic v/s communal) among managers relate to employee well-being for establishing positive work environment that aid in employee well-being.

In this study, gender of the respondents and organizational culture will be considered. By doing so, this research contributes significantly towards understanding the intricacies between employee outcomes thus offering insights regarding how leaders can enhance their impact on well-being within their respective organizations.

Data Collection

A systematic, self-administered questionnaire with two sections was used to collect data in order to obtain detailed information. Part 1 concentrated on demographic data, such as age, gender, marital status, and educational background and Part 2 used established scales to evaluate important variables relevant to the characteristics and attributes of leaders. We were able to evaluate the Basic Psychological Needs Assessment at Work (BPNSW) for Well-being, Agentic Traits, and Communal Traits. This framework guarantees thorough and trustworthy data collection for further analysis.

Sample Size

The respondents were purposively selected in form of 600 employees from different sections of the organization. The purpose of such focus groups is to obtain relevant and worthwhile information from people who are accustomed to functioning within the boundaries of the. The variety in the sample permits a comprehensive appreciation of employee perceptions of the employees well-being in the organisation in light of dominant agentic and communal aspects of the leaders/managers, thus benefiting both HR and other organizational management.

DATA SPECIFICATION

Descriptives of Respondents

Demographic Variable	Category	Count	Percentage
Age	20-30 years	471	78.76%
	31-40 years	119	19.90%
	41-50 years	8	1.34%
	Above 50 years	0	0.00%
Marital Status	Single	258	43.14%
	Married	340	56.86%
Educational Qualification	School	34	5.69%
	Graduate	338	56.52%
	Post Graduate	212	35.45%
	Others	14	2.34%
Work Experience	Less than 3 years	372	62.21%
	3.1 - 6 years	174	29.10%
	6.1 - 9 years	33	5.52%
	Above 9 years	19	3.18%
Designation	Lower level	193	32.27%
	Middle Level	375	62.71%
	Upper Level	30	5.02%
Personal Income	Below 20,000	166	27.76%
	20,001 - 40,000	355	59.36%
	40,001 - 60,000	50	8.36%
	Above 60,000	27	4.52%
Family Income	Less than 0.5	130	21.74%
	0.5 - 1.0	168	28.09%
	1.01 - 1.50	90	15.05%
	1.51 - 2.0	37	6.19%
	Above 2.0	173	28.93%
Dependants	None	13	2.17%
	One	161	26.92%
	Two	311	52.01%
	Three	82	13.71%
	Four and above	31	5.18%
Hours Working	Less than 8 hours	146	24.41%
	9 hours	217	36.29%
	10 hours	161	26.92%
	Above 10 hours	74	12.37%

- *Age:* The majority of respondents (78.76%) fall in the 20-30 years age range, suggesting a predominantly young demographic.
- *Marital Status:* More than half of the respondents are married (56.86%), indicating a significant proportion may have family responsibilities.
- *Educational Qualification:* Most respondents are graduates (56.52%), indicating a well-educated group.
- *Work Experience:* A majority (62.21%) have less than 3 years of work experience, suggesting many are in the early stages of their careers.
- *Designation:* The majority of respondents (62.71%) are at the middle level, which might imply an experienced yet not senior-dominated workforce.
- *Personal Income:* Over half (59.36%) earn between 20,001 and 40,000, indicating a mid-range income level for the group.
- *Family Income:* Income levels are fairly distributed, with the largest group (28.93%) earning above 2.0, reflecting varied family financial backgrounds.
- *Dependants:* Most respondents (52.01%) have two dependents, suggesting family support responsibilities.
- *Hours Working:* A significant portion of respondents (36.29%) report working 9 hours, which could affect their work-life balance.

RESULTS AND DISCUSSION

Regression Output for the Dependent Variable (Employee Well-being)

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	0.629[a]	0.396	0.394	0.37917

a. Predictors: (Constant), Communal, Agentic.

Coefficients[a]						
		Unstandardized Coefficients		**Standardized Coefficients**		
	Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	2.030	0.082		24.619	<0.001
	Agentic	0.040	0.025	0.59	1.613	0.107
	Communal	0.384	0.023	0.610	16.711	<0.001

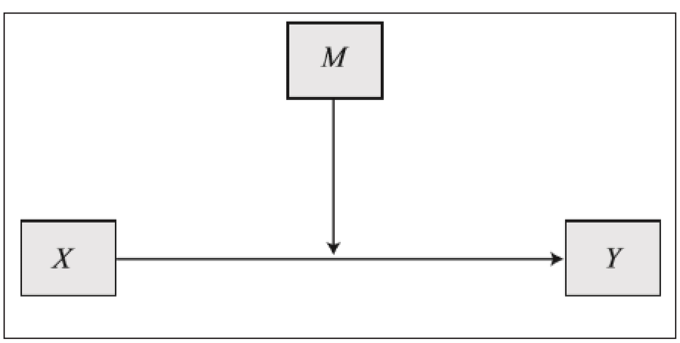
Significance

Both agentic and communal traits are statistically significant predictors of employee well-being, as indicated by their p-values being less than 0.05. This suggests that both traits have a significant impact on employee well-being.

Overall Interpretation

Based on the regression analysis, both agentic and communal traits are positively associated with employee well-being. However, the communal trait appears to have a stronger influence on well-being compared to the agentic trait. This suggests that fostering a work environment that promotes kindness, helpfulness, and understanding among employees could have a significant positive impact on their overall well-being.

Hayes Model Output (Agentic Traits, Gender and Employee Well-being)



Run MATRIX procedure:

****** PROCESS Procedure for SPSS Version 4.1 *****************

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2022). www.guilford.com/p/hayes3

****

Model : 1

Y : empwellb

X : agentic

W : Gender

Sample

Size: 500

****

OUTCOME VARIABLE:

empwellb

Model Summary

R	R-Sq	MSE	F	df1	df2	p
.3274	.1072	.2130	19.8553	3.0000	496.0000	.0000

Model

	coeff	SE	t	p	LLCI	ULCI
constant	.3.4196	.2396	14.2713	.0000	2.9488	3.8903
agentic	-.1330	.1014	-1.3118	.1902	-.3323	.0662
Gender	-.2233	.1411	-1.5824	.1142	-.5006	.0540
Int_1	.1788	.0595	3.0065	.0028	.0620	.2957

Product terms key:

Int_1 : agentic x Gender

Test(s) of highest order unconditional interaction(s):

	R2-Chng	F	df1	df2	p
X*W	..0163	9.0391	1.0000	496.0000	.0028

Focal predict: agentic (X)

Mod var: Gender (W)

Conditional effects of the focal predictor at values of the moderator(s):

Gender	Effect	SE	t	p	LLCI	ULCI
1.0000	. .0458	.0474	.9659	.3346	-.0474	.1390
2.0000	.2246	.0359	6.2561	.0000	.1541	.2952

******** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:

95.0000

------ END MATRIX -----

Significance

Moderation analysis was conducted using Hayes' PROCESS Model 1 to examine whether gender moderates the relationship between agentic traits and employee well-being. The overall model was statistically significant, F(3, 496) = 19.86, p < 0.001, explaining 10.72% of the variance in employee well-being.

Interpretation

- For Gender 1 (male), agentic traits do not significantly affect well-being.
- For Gender 2 (female), agentic traits have a positive and significant effect on employee well-being. This implies that individuals in this gender group benefit more in terms of well-being from agentic traits than the other group.

Hayes Model Output (Communal Traits, Gender and Employee Well-being)

Run MATRIX procedure:

******* PROCESS Procedure for SPSS Version 4.1 *****************

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2022). www.guilford.com/p/hayes3

****

Model : 1

Y : empwellb

X : communal

W : Gender

Sample

Size: 500

****

OUTCOME VARIABLE:

empwellb

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6336	.4015	.1428	110.9087	3.0000	496.0000	.0000

.1552

Model

	coeff	SE	t	p	LLCI	ULCI
constant	2.2713	.2581	8.8008	.0000	1.7643	2.7784
communal	.2973	.0778	3.8208	.0001	.1444	.4502
Gender	-.0967	.1552	-.6232	.5334	-.4017	.2082
Int_1	.0543	.0459	1.1842	.2369	-.0358	.1444

Product terms key:

Int_1 : communal x Gender

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0017	1.4023	1.0000	496.0000	..2369

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:

95.0000

------ END MATRIX -----

Significance

A moderation analysis was conducted using Hayes' PROCESS Model 1 to investigate whether gender moderates the relationship between communal traits and employee well-being. The overall model was statistically significant, F(3,496)=110.91, p<0.001F(3, 496) = 110.91, p < 0.001F(3,496)=110.91, p<0.001, explaining 40.15% of the variance in employee well-being.

Interpretation

Communal traits positively predict employee well-being, with a statistically significant effect. However, the interaction term was not significant, indicating that gender does not moderate this relationship. Thus, the influence of communal traits on well-being is consistent across genders.

T Test Output

Variables	F	Sig.	t
Agentic Traits 1	0.339	0.561	0.446
			0.443
Agentic Traits 2	1.291	0.256	-0.155
			-0.153
Agentic Traits 3	2.056	0.152	-0.32
			-0.324
Agentic Traits 4	3.55	0.06	-1.612
			-1.627
Agentic Traits 5	0.358	0.55	-1.204
			-1.206
Agentic Traits 6	0.936	0.334	0.482
			0.485
Agentic Traits 7	0.955	0.329	1.105
			1.11
Communal Traits 1	2.799	0.095	-1.169
			-1.179
Communal Traits 2	5.463	0.02	-4.279
			-4.374
Communal Traits 3	0.693	0.405	-1.001
			-1.009
Communal Traits 4	2.441	0.119	-4.382
			-4.374
Communal Traits 5	0.314	0.576	-3.434
			-3.427
Communal Traits 6	0.065	0.799	-1.741
			-1.729
Communal Traits 7	0.103	0.749	-3.233
			- 3.219
Communal Traits 8	2.704	0.101	-3.613
			-3.632

Interpretation

The T-test results indicate that only Communal Trait 2 (p = 0.02) shows a statistically significant difference between groups, with a high negative t-value (-4.279), suggesting a notable group-based variation. Other communal traits, such as Communal Traits 5, 7, and 8, also approach significance, but none of the agentic traits show significant differences all p-values > 0.05). This suggests that communal traits exhibit more variance between groups (potentially by gender) than agentic traits.

CONCLUSION

Researching the link between agentic and communal traits and employee well-being is reasonably important for deepening the knowledge of workplace relationships and complexities. The regression results reveal that employees' well-being is positively associated with the development of communal traits better than their agentic counterparts, which implies that integrating effective social practices at work can greatly improve overall satisfaction and mental health outcomes among employees.

In addition, the results of moderation analysis performed with Hayes' PROCESS Model reveal that agentic traits have almost no effect on males, whereas for females, it is significantly positive. Such a result affirms the necessity of focusing on gender impact when estimating relations between personality and well-being issues. By contrast, the importance of communal traits in the workplace appears to be the same for males and females because they do not get enhanced or moderated by agentic traits, therefore, it can be said that they are important determinants of workplace well-being in the contemporary world.

As for the results of the T-test, they give more support to these conclusions and demonstrate that, indeed, greater differences exist between groups, which are associated with communal traits, rather than agentic ones. Of these, it can be said that Communal Trait 2 was more relevant than the others. All this indicates that certain communal actions can play an important role in improving well-being in organizational settings.

RECOMMENDATION

Organizational leadership development programs that are aimed at the communal features of empathy and collaboration considerably enhance employee well-being, and hence HR policies should be structured to support this type of environment. In general terms, gender-sensitive training should be put in place to eliminate bias and develop the capabilities of female leaders in acting in a way that will express either or both beneficial agentic and communal traits. Regular well-being surveys could be conducted which can also give organizations an opportunity to understand gaps and this enables them to improve their leadership approach. Third, the inclusion of mentorship programs where mature leaders share experiences of striking a balance between communal and agentic traits would be highly effective.

Organizations must also look at work-life balance initiatives since excessive workloads or hours worked may nullify the benefits from effective leadership styles. With these practices being integrated into the organizational culture, companies would be able to sustain a more engaged and healthier workforce.

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Enhancing Productivity Through Time Management Rules

M. Vignesh*

Abstract. *Smart work is better than hard work – as quoted, employees never aware of the need to go for a smart work. With corporate CEOs recommending a 70-hour or even 90-hour work per week, human work force can subtly perform their task relaxed and can enhance the productivity at a consistent rate. After the practice of scientific management, works were being allocated as per the skill set of the employees. Time management is a vital component in the productivity. Some of the best time management and task oriented practices for the productivity enhancement are discussed here.*

Keywords *Productivity, Time Management, Pomodoro, Eat-The-Frog, Eisenhower Matrix, GTD Approach, 5-Minute Rule*

TIME MANAGEMENT TECHNIQUES

Usually time-based techniques are meant to give clarity and thereby more attention will be gained on the work. Time management methods include the steps as prioritisation of tasks, setting up of goals, framing deadlines, taking breaks and completion of tasks.

POMODORO TECHNIQUE

The techniques was developed by Francesco Cirillo. This is a time-based technique where a Pomodoro timer is set for 25 minutes. The work will be carried out without any distractions for the set period and a five-minute break will be given when the alarm rings. The process can be repeated for three or several times to break the monotony. After that a long gap of thirty minute period will be given to the employees. This enables the workers to get rid of the tedious work process and meantime, they can relax themselves.

ELON MUSK'S 5 MINUTE RULE

Elon Musk divided his entire time into five-five minute blocks, from waking up in the morning to his night sleep time into five-minute blocks. For instance, first five-minute, he will take for arrangement of file, the next five-minute for his breakfast and so on. This would enhance his concentration on work and there by the productivity increase.

EAT-THE-FROG APPROACH

This approach was elaborated by Brian Tracy suggest 21 ways to avoid procrastination enables the employees to eradicate the two hurdles of productivity i.e., procrastination and lack of motivation. This is a prioritization technique. It aims at identifying one challenging or difficulty task (the frog) and complete it (eat it). And the rest of the tasks will be easier to complete. Mark Twain in his anecdote says, "If you have two frogs to eat, don't eat the smaller frog first". Hence the toughest job should be picked first in the morning followed by the smaller or the easiest tasks.

GETTING THINGS DONE (GTD) APPROACH

This was framed by David Allen. The method envisages how we approach our work and life. The GTD approach aims at moving out all the items of interest, issues which hinder the work from one's mind and transforming them into action oriented tasks within the time limits. According to him, five stages as Capture (to collect), Clarify (process), organize, reflect (plan) and engage (do).

EISENHOWER MATRIX

It is a task-oriented approach, which envisages the to-do list based on the priority or urgency. This is a 2X2 grid matrix

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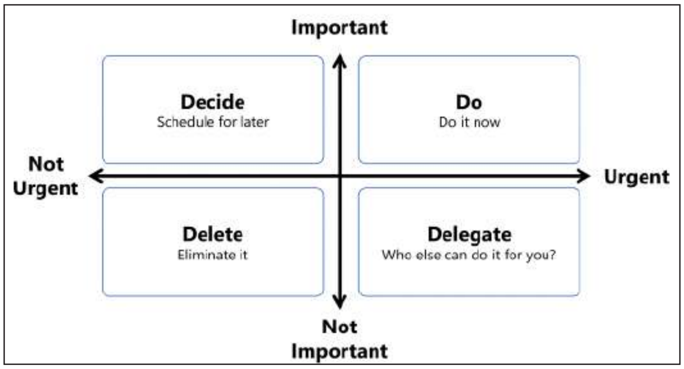
constructed on important and non-important criteria. Based on the interaction, there are parameters as DO, DECIDE, DELEGATE and DELETE.



Source: https://keystoneexecutivecoaching.com/

PICKLE-JAR THEORY

This is also a traditional form of time management technique and it is also known as the bucket of rocks theory or the Jar of life theory, which was developed by Jeremy Wright. As per his definition, the jar of pickles is a metaphor and the jar represents our productive day, which is being filled with activities as sand, pebbles and rocks which represents our daily activities. To this we may add water, which represents our personal life. Here the sand represents the socialisation, chatting with our colleagues which hinder our work and the pebbles are of more importance than the sand, which represents immediate attention. These are followed by the rocks, which are eminent to accomplish our goals and failing to do may lead to serious consequences. The rule states that, try to fill the jar with the rocks first i.e., the important tasks first, followed by the pebbles. Least importance will be given to the sand.

OTHER TIME-BASED METHODS

90-20 Rule: A 90-minute work followed by a 20-minute rest.

112-26 Rule: Working for 112 minutes followed by a gap of 26 minutes.

52/17 Method: Denotes working for 52 minutes continuously and a gap of 17-minute rest.

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A Study on Consumers' Brand Preference Towards Modern Cosmetics vs Organic Cosmetics in Chennai City

Pradeep E.*, Abdul Majeed, Alan Jackson***, Darry Crescenta M.******

Abstract. *This examination investigates buyer inclinations among current and natural beauty care products in Chennai City. By dissecting study information, we look at segment impacts, buy ways of behaving, and inspirations for brand decisions. Discoveries uncover more youthful shoppers' tendency towards natural beauty care products, lining up with worldwide patterns towards maintainability and well-being cognizance. The review gives significant bits of knowledge to advertisers and brands in the makeup business.*

Keywords *Organic Cosmetics, Modern Cosmetics, Brand Preference*

INTRODUCTION

The cosmetics business has changed generally over the course of recent years, reflecting greater social developments toward prosperity, well-being, and regular commitment. This study jumps into customer tendencies in Chennai City, focusing in on the creating example of normal excellence care items and its ideas for the high level magnificence care items market.

The reasoning for this study originates from the quick change of purchaser conduct in the makeup business. With Chennai City filling in as a microcosm of metropolitan India, understanding its buyers gives important experiences into more extensive market patterns.

LITERATURE REVIEW

Consumer Preference and Satisfaction Towards Organic Personal Care Brands in Chennai

This study investigates consumer preferences and satisfaction levels regarding organic personal care products in Chennai. It highlights the growing trend of health consciousness among consumers and the significant relationship between preference and satisfaction for organic brands. The research utilized a sample of 100 consumers and employed various statistical techniques for analysis, including chi-square tests and correlation analysis.

Consumer Brand Preference and Buying Behavior of Cosmetic Products at Coimbatore City

This research focuses on the brand preferences of cosmetic consumers in Coimbatore, analyzing how demographic factors influence buying behavior. The study concludes that family size and income levels significantly affect brand choice, emphasizing the importance of understanding local consumer attitudes toward cosmetics.

Changing Consumer Preferences in the Indian Beauty Industry

According to a FICCI survey, 71% of Indian consumers prefer natural beauty products over synthetic ones. This literature discusses how brands like Mamaearth have gained traction by offering toxin-free products, reflecting a broader shift towards sustainability and health consciousness among consumers in India.

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A Study on Consumer Behaviour Towards Cosmetic Products in Chennai

This study covers consumer behavior related to cosmetic purchases in Chennai, focusing on factors influencing buying decisions. It analyzes the attitudes of women consumers towards various cosmetic categories such as skincare, haircare, and eye care, revealing a gradual shift towards organic options

Factors Influencing Consumer Buying Behavior Towards Organic Cosmetics

This literature review explores various factors that motivate consumers to choose organic cosmetics over traditional options. It highlights the importance of product quality, safety concerns regarding synthetic ingredients, and the growing awareness of environmental issues as key drivers of consumer preference.

Consumer Attitudes Towards Herbal Cosmetics: An Indian Perspective

This research investigates consumer attitudes towards herbal cosmetics in India, emphasizing quality consciousness and brand loyalty among consumers. The findings indicate a positive correlation between income levels and spending on herbal products, suggesting that higher-income consumers are more inclined to purchase organic cosmetics.

METHODOLOGY

Problem Statement

The investigation issue in this study twirls around the limited perception of the nuanced factors affecting customer tendencies for present day versus regular magnificence care items in Chennai City.

The makeup business in Chennai is seeing a developing division in buyer inclinations between present day beauty care products and natural beauty care products. Current beauty care products are ordinarily connected with cutting edge details, engineered fixings, and adequacy in tending to explicit skin and magnificence concerns. Conversely, natural beauty care products accentuate regular fixings, manageability, and well-being cognizant decisions, interesting to ecologically mindful and well-being centered shoppers.

This change in inclination is driven by variables, for example, expanded familiarity with expected results of engineered synthetic substances, the impact of showcasing methodologies, way of life changes, and a developing accentuation on manageability. Notwithstanding, the hidden inspirations, boundaries, and determinants of these inclinations stay muddled.

The shortage of granular data and encounters obvious for metropolitan Indian business areas disturbs the limit of brands and policymakers to address these propelling tendencies effectively. This study intends to fill these openings by giving a point by point assessment of customer lead and tendencies in Chennai City.

DATA SPECIFICATION

Data Collection

Items of Cosmetics

About six items of cosmetics that are normally used by consumers have been selected for the study. They are:

- Bathing Soap
- Shampoo
- Hair Oil
- Perfume
- Sun Screen
- Moisturiser

Sample Size

A sample of 520 chennai people (both male and female) are selected as respondents on the basis of stratified random sampling method.

Table 1: Descriptives of Respondents

Demographic Variable	Category	Count	Percentage
Age	18-24 years	154	29.61
	25-35 years	228	43.84
	36-45 years	100	19.23
	Above 45 years	38	7.3

Demographic Variable	Category	Count	Percentage
Gender	Male	215	41.34
	Female	305	58.64
Personal Income	Below 20,000	110	21.15
	20,001 - 40,000	150	28.84
	40,001 - 60,000	96	18.46
	60,001 - 80,000	75	14.42
	Above 80,000	43	8.26
	Student/Unemployed	46	8.84

RESULTS AND DISCUSSION

From the data collected these are the results in each product range:

Table 2: Consumer Soap Preference

Sr. No.	Soap Preference	No. of Respondents	Percentage
1	Vilvah	81	15.58
2	Khadi naturals	32	6.15
3	Cinthol	107	20.58
4	Biotique	50	9.62
5	Dove	84	16.15
6	Lux	66	12.69
7	Lifebuoy	64	12.31
8	Forest essentials	36	6.92

The information shows Cinthol as the most favored designed (20.58%), trailed by Dove (16.15%) and Vilvah (15.58%). While present day brands like Cinthol, Dove, Lux, and Lifebuoy rule with their spread out notorieties, customary cleaning specialists like Vilvah, Biotique, and Forest essentials district rudiments overall a making interest in standard things. Khadi Naturals has the most un-propensity (6.15%), mirroring its specialty advance. This components a blend of standard trust and a rising tendency toward ordinary various decisions.

Table 3: Consumer Hair Oil Preference

Sr. No.	Hair Oil Preference	No. of Respondents	Percentage
1	Parachute	151	29.04
2	Dabur	32	6.15
3	Kama ayurveda	14	2.69
4	VVD Coconut oil	142	27.31
5	Biotique	31	5.96
6	Vilvah	63	12.12
7	Forest essential	48	9.23
8	Vatika	39	7.50

Parachute (29.04%) and VVD Coconut Oil (27.31%) dominate the hair oils market preferably owing to their affordability and reputation. Organic hair oils such as Vilvah (12.12%), Forest Essentials (9.23%) and Biotique (5.96) demonstrate an increasing preference towards such products. However, Dabur (6.15%) and Kama Ayurveda (2.69%) cater to a more niche market. This indicates a strong preference for established brands, while the organic segment is catching up.

Table 4: Consumer Sunscreen Preference

Sr. No.	Sunscreen Preference	No of Respondents	Percentage
1	Lakme	58	11.1538
2	Himalaya	65	12.5000
3	Vaseline	33	6.3462
4	Garnier	24	4.6154
5	Biotique	53	10.1923
6	Vilvah	166	31.9231
7	Forest essential	64	12.3077
8	Kama ayurveda	57	10.9615

As demonstrated in the table, the respondents in Chennai City showed a strong preference for five out of the available sunscreen brands. From the results, it can be noted that the choices were varied, the most preferred brand being Vilvah with a total of 31.92% of the votes. In close margins were Himalaya and Forest Essential with each accounting to around 12% of the preferences. Lakme, Biotique and Kama Ayurveda also managed to secure a fair share of the respondents votes in the range of 10-11%. Whereas, Lesser preferences were shown towards Vaseline and Garnier having 6.35% and 4.62% respectively.

Table 5: Consumer Shampoo Preference

Sr. No.	Shampoo Preference	No. of Respondents	Percentage
1	Biotique	39	7.50
2	Forest Essentials	55	10.58
3	Clinic plus	61	11.73
4	Dove	87	16.73
5	Head & Shoulders	34	6.54
6	Kama Ayurveda	65	12.50
7	Loreal	91	17.50
8	Vilvah	88	16.92

The graph illustrates the brand of shampoo respondents preferred the most to the least in the zone of the Chennai City. The analysis suggests a number of brands popularity, with Loreal being the most favored brand, having a ratio of 17.50 percent. For the respondents, Dove is the second most popular shampoo at 16.73 percent. Vilvah and Kama Ayurveda also received 16.92 percent and 12.50 percent respectively. About 10-11% of respondents supported Forest Essentials, Clinic Plus, and Head & Shoulders. Biotique on the other hand, was the least preferred with only 7.50% of the preferences.

Table 6: Consumer Perfume Preference

Sr. No.	Perfume Preference	No of Respondents	Percentage
1	Biotique	18	3.46
2	Forest Essentials	58	11.15
3	Yardley	88	16.92
4	Axe	45	8.65
5	Fogg	64	12.31
6	Dove	70	13.46
7	Just herbs	89	17.12
8	Vilvah	88	16.92

The table illustrates the preferences of respondents that answered the types of perfumes in Chennai City. The analysis shows a variation in the choices made, with Yardley and Just Herbs being the most chosen brands, each with 16.92% of the votes. Dove and Fogg were also popular, with selected votes of 13.46% and 12.31% respectively. Forest Essentials and Vilvah each got about 11-16 percent approval of the respondents. On the other hand, Biotique and Axe were the least preferred at 3.46 percent and 8.65 percent respectively.

Table 7: Consumer Moisturiser Preference

Sr. No.	Moisturiser Preference	No. of Respondents	Percentage
1	Lakme	17	3.27
2	Dove	71	13.65
3	Kama ayurveda	69	13.27
4	Forest essentials	66	12.69
5	Nivea	64	12.31
6	Biotique	21	4.04
7	Vaseline	108	20.77
8	Vilvah	104	20.00

The table outlines the popularity of moisturizer brands that each of the respondents from Chennai City favor. The popularity of the brands does seem to be very versatile with Vaseline being on the forefront receiving 20.77% of votes. Vilvah is nearly similar to Vaseline with 20.00% of the respondents voting for it. Dove, Kama Ayurveda, and Forest Essentials received substantial support with 13.65%, 13.27%, and 12.69% of preferences respectively. Nivea also secured a significant share with 12.31% of the respondents' favor. In contrast, Lakme and Biotique had the lowest preference rates, with 3.27% and 4.04% respectively.

Table 8: Reason for Consumer's Choice

Sr. No.	Preference	No. of Respondents	Percentage
1	Eco Friendly	146	28.08
2	Social trends	178	34.23
3	Cost	120	23.08
4	Allergy	76	14.62

Social trends appeared to be the most important determinant, accounting for 34.23% of the respondents. This suggests that social media, influencer marketing, and peer recommendation are very important in determining what consumers will prefer. Eco friendliness emerged as the second most important factor with 28.08% of the respondents considering it first. This indicates a shift in attitude and concern for the environment among consumers in Chennai. Price was an important factor for 23.08% of the respondents further indicating that it is important to many consumers that having cosmetics that are economically priced is important. Allergy worries were a factor for 14.62% of the respondents, which seems to be one of the consumers' sensitivities since it should be non-irritating or hypoallergenic skincare products.

Table 9: Consumer Spending Preference on Cosmetics

Sr. No.	Preference	No. of Respondents	Percentage
1	500 – 1000	213	40.96
2	1000-2000	152	29.23
3	Below 500	105	20.19
4	Above 2000	50	9.62

The distribution of Chennai City citizens and their preferred spending range regarding cosmetics is shown in the table above. A majority of the respondents fall in the range of spending between ₹500 to ₹1000 with the percentage of 40.96. In this case, the amount of respondents who wish to spend between 1000 to 2000 falls second and are roughly about 29.23%. Merely a small number out of the total of respondents are only willing to spend below ₹500 at a rate of about 20.19%. The count of people who were interested in spending higher than 2000 on cosmetic products was only 9.62%. Overall, the statistics indicate that the population in Chennai City are not very spendthrift regarding cosmetics with their spending being from ₹500 to ₹2000, However a relatively smaller portion is willing to invest heavily in high end cosmetics.

Table 10: Preference Based on Gender

Gender	Modern Cosmetics	Organic Cosmetics	Total
Female	174	131	305
Male	134	81	215
Sum	308	212	520

Hypothesis

- *Null Hypothesis (H0):* There is no significant difference in the preference scores for cosmetic types (modern vs. organic) between males and females.
- *Alternative Hypothesis (H_1):* There is a significant difference in the preference scores between males and females.

Table 11: Statistical Analysis

x^2	1.45
df	1.00
p-val	0.23
T-test	0.07
Chi sq test	0.34

Since the value of T-Test and Chi square test are > 0.05 we accept the alternate hypothesis, thus there is a significant difference in the preference between males and females.

Findings

- *Soaps:* Cinthol (20.58%) leads the market among the modern brands, while Vilvah (15.58%) caters to the emerging income in natural cleaners. Khadi Naturals has the lowest preference (6.15%), highlighting its niche demand.
- *Hair Oils:* Traditional brands like Parachute (29.04%) and VVD Coconut Oil (27.31%) dominate due to value for money and brand equity. Natural options such as Vilvah (12.12%) and Timberland Basics (9.23%) are gaining some ground.
- *Sunscreens:* Vilvah leads with 31.92%, showing major areas of strength for a natural choices in this classification. Present day brands like Himalaya and Lakme drag along with around 10-12% each.
- *Shampoos:* L'Oréal (17.50%) and Pigeon (16.73%) overwhelm the market, yet Vilvah (16.92%) and Kama Ayurveda (12.50%) show a huge shift toward natural items.

- *Perfumes:* Yardley and Just Spices lead (16.92%), with natural brands like Vilvah and Woodland Basics showing developing interest (11-16%).
- *Moisturiser:* Vaseline (20.77%) remains the most well known, yet natural brands like Vilvah (20.00%) and Kama Ayurveda (13.27%) are getting up to speed.
- Majority of the respondents (40.96%) prefer to blow through ₹500-₹1000 on beauty care products, followed by 29.23% who settle for ₹1000-₹2000.
- *Social Trends:* The greatest factor (34.23%), which is powered by influential advertising and peer suggestions.
- *Eco-Friendliness:* A pretty robust motivator (28.08%), signifying a growing trend for affordable and eco-friendly products.
- *Cost:* A big concern (23.08%), especially for thrifty buyers.
- *Sensitivity Issues:* 14.62%, reflecting a desire for hypoallergenic and sensitive-skin-friendly products.
- There is a significant difference in the preference between males and females.

Suggestions

For Modern Cosmetic Brands

- Put resources into maintainable practices and eco-accommodating bundling to engage earth cognizant customers.
- Influence online entertainment showcasing and joint efforts with powerhouses to keep up with importance and reinforce market presence.

For Organic Cosmetic Brands

- Center around reasonableness to draw in a bigger customer base while keeping up with item quality.
- Increment perceivability through designated publicizing, stressing the advantages of natural fixings.
- Grow item openness by joining forces with web based business stages and actual retail locations.

CONCLUSION

The review features a double pattern in Chennai City's beauty care products market: a fortress of laid out current brands because of their standing and reasonableness, close by a developing tendency toward natural options driven by eco-neighborliness and social patterns. While current beauty care products overwhelm, natural brands like Vilvah and Forest Essentials are building up some forward movement, especially in classes like sunscreen, soaps and perfumes. Therefore the result is towards modern cosmetics but organic cosmetics are also competitive with marginal difference only and there is a significant difference in the preference between males and females

Customer inclinations are progressively molded by online entertainment impact, ecological cognizance, and moderateness. This presents an exceptional chance for both current and natural brands to enhance and adjust to developing business sector requests. By zeroing in on supportability, moderateness, and viable promoting, brands can take special care of the different inclinations of Chennai's buyers and secure an upper hand in this powerful market.

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A Comparative Analysis of Marketing Day Celebrations by Shift I and Shift II Students: Exploring Skilfulness, Payment Modes, and Saleability

J. Sahaya Mary*

Abstract. *Marketing Day offers a platform for students to exhibit entrepreneurial skills, creativity, and sales acumen. This study compares the execution of Shift I and Shift II students, scrutinising expertness, mode of payment, and marketability during the event. By examining responses from 50 students, the researcher evaluates the strengths of each group in terms of marketing strategies, customer handling, and creative payment solutions. The study reveals how different shifts enhance to the practical implication of marketing concepts, providing strong feedback for curriculum improvement.*

Keywords *Digital Transactions, Saleability of Products, Consumer Behaviour, Marketing Strategies, Entrepreneurial Skills*

OBJECTIVES OF THE STUDY

- To evaluate the creativity of Shift I and Shift II students during marketing day.
- To estimate the preferred modes of payment agreed by each group.
- To calculate the marketability and income earned by students in each shift.
- To recognise correlations between students' expertness and their favourable outcome in sales.
- To suggest improvements in marketing training for students.

STATEMENT OF THE PROBLEM

Marketing Day aims to link theoretical knowledge with practical application, yet contrast in performance between Shift I and Shift II students remain unexamined. This study tries to find out how the students' programming, skill development, and chosen sales approaches impact overall performance. By recognising the strengths and areas for improvements of each group, the study addresses the gaps in the curriculum and provides an understanding for better skill development in both shifts.

REVIEW OF LITERATURE

Experiential Learning in Marketing Education

Studies indicate that based on learning, such as getting involved in sales events, notably improves students' practical skills and confidence in real-world applications (Kolb, 1984).

Impact of Payment Mode on Customer Engagement

Research by Chaudhry and Sharma (2018) suggests that different payment options can improve the experience of the customer, open the door for higher sales, especially among the younger generations' inclined to digital transactions.

Skill Development in Higher Education

According to Moore (2020), skill development in educational environments can differ based on the time management, group interaction, and personal effort, with evidence

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exhibiting that students may offer unique skill-building opportunities due to smaller and bigger group sizes, which intensify their interaction.

METHODOLOGY

Sample Size: 50 students (25 from Shift I and 25 from Shift II).

Data Collection: A standardised questionnaire was prepared focusing on skilfulness, mode of payment, and marketability.

Analysis: Simple percentage and correlation to evaluate skill-sales success relationships, and Tables with Ratings.

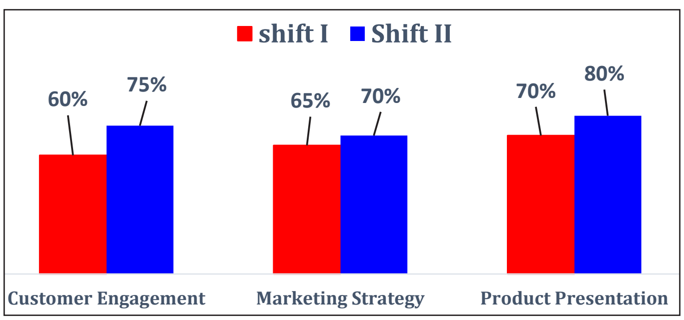
DATA ANALYSIS

Simple Percentage Analysis

The table below reveals the % of students from each shift who exhibited skills, opted for different payment modes, and accomplished high marketability.

Table 1

Skilfulness (% of Respondents)	Shift I	Shift II
Customer Engagement	60%	75%
Marketing Strategy	65%	70%
Product Presentation	70%	80%



The huge proportion of students in Shift I illustrated Product Presentation skills (70%), followed by Marketing Strategy (65%) and Customer Engagement (60%). It suggests a greater emphasis on strategic planning and presentation in Shift I.

Shift II students excelled particularly in Product Presentation (80%) and Customer Engagement (75%), with Marketing Strategy being slightly lower (70%). It indicates that students in Shift II were more customer-oriented and presentation-focused compared to those in Shift I.

Shift II students scored higher on customer engagement and product presentation, while Shift I students led in strategic planning.

Mode of Payment Analysis

The table below compares the preferred modes of payment for each shift.

Table 2

Mode of Payment	Shift I (%)	Shift II (%)
Cash	50%	30%
Digital	35%	50%
Mobile Wallet	15%	20%

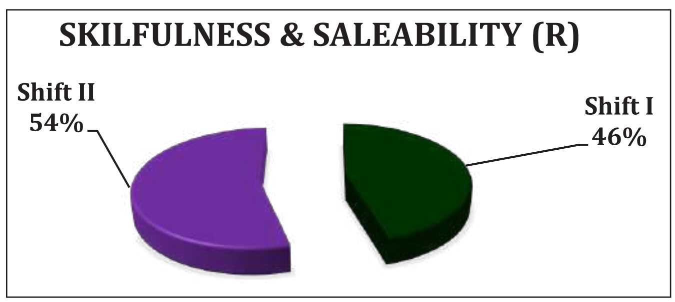
Shift II students favoured digital payment options more than Shift I, aligning with preferences among younger generation consumers for cashless transactions.

Correlation Analysis

The table below shows the correlation between skilfulness and saleability.

Table 3

Variable	Skilfulness & Saleability (r)
Shift I	0.62
Shift II	0.74



A positive correlation exists between skilfulness and saleability, with Shift II students showing a stronger relationship, suggesting that higher skills directly impact sales performance.

Correlation Analysis by Gender

Table 4

Variable	Skilfulness & Saleability (r) for Boys	Skilfulness & Saleability (r) for Girls
Shift I	0.58	0.66
Shift II	0.72	0.76

In Shift I, girls show a slightly stronger correlation (0.66) between skilfulness and saleability than boys (0.58), suggesting that skill development may play a marginally more significant role in girls' sales success within this shift.

In Shift II, both boys and girls display a high correlation between skilfulness and saleability, with girls (0.76) showing a marginally higher correlation than boys (0.72). This suggests that skilfulness strongly influences sales outcomes for both genders, with girls benefiting slightly more.

These findings indicate a generally positive impact of skilfulness on saleability for both genders across shifts, with some variation in influence based on gender.

Tables with Ratings

Skillfulness Ratings

Students rated their own and peers' skilfulness on a scale of 1 to 5, with 5 being highly skilled.

Table 5

Skilfulness Aspect	Shift I Rating (Avg)	Shift II Rating (Avg)
Customer Interaction	3.8	4.2
Product Presentation	4.0	4.3
Marketing Strategy	4.1	4.0
Sales Closure Techniques	3.7	4.1

Shift II students demonstrated higher ratings in customer interaction and sales closure techniques, while Shift I students performed marginally better in marketing strategy.

Payment Mode Ratings

Students rated their various payment modes on a scale of 1 to 5.

Table 6

Mode of Payment	Shift I (Avg) Rating	Shift II (Avg) Rating
Cash	4.5	4.1
Digital	3.7	4.3
Mobile Wallet	3.5	4.2

Shift I students preferred cash payment, while Shift II students rated digital and mobile wallet payments more highly, It shows their adaptability to modern transactions.

Saleability Ratings

The effectiveness of sales techniques, measured by average student ratings.

Table 7

Sales Technique	Shift I (Avg) Rating	Shift II (Avg) Rating
Product Knowledge	4.2	4.4
Persuasion Techniques	3.9	4.3
Adaptability to Customers	3.8	4.2
Upselling Skills	3.5	4.1

The table compares student ratings of sales techniques across two shifts. Shift II student's ratings for all techniques is effective. Product Knowledge had high ratings in both shifts, while Persuasion, Adaptability, and Upselling skills showed notable improvements in Shift II.

SCOPE OF THE STUDY

This study aims to evaluate the performance of Marketing Day of Shift I and Shift II students, focusing on skill development, adaptability to latest methods of payment, and the impact of these factors on success of the sales. By verifying these variables, the study gives insights into curriculum effectiveness, student engagement, and practical applications of marketing concepts. The findings are relevant for the institution, aiming to improve practical knowledge for students seeking to increase their sales and customer interaction skills.

FINDINGS

- Students of shift II demonstrated a slight edge in interpersonal skills and customer interaction, which reflect the dynamics of the students.
- Digital and mobile payment modes were more popular among Shift II. It indicates their adaptability to current payment trends.
- Students of shift I showed a preference more for cash transactions.
- Students of shift II achieved higher sales figures, likely due to their use of new payment methods.

CONCLUSION

Marketing Day provided an effective hands-on experience for marketing students, enhancing their practical skills.

Notably, Shift II students showed increased adaptability in digital tools and interpersonal skills. This research highlights the importance of consistent skill-building activities for both shifts to equip students for success in a diverse, digital-driven marketplace.

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The Female Stress Paradox: Unpacking the Science Behind Women's Increased Stress Susceptibility

A. Andrew Arockia Celsy*, J. Sahaya Mary**

Abstract. *Women are disproportionately affected by stress, with higher rates of anxiety, depression, and burnout. This article explores the science behind women's increased stress susceptibility, examining the complex interplay of biological, psychological, and societal factors. A comprehensive review of existing literature reveals key differences in stress response, hormone regulation, and brain chemistry between men and women. Understanding these factors can inform strategies to mitigate stress and promote well-being in women.*

Keywords *Stress Susceptibility, Chronic Stress, Emotional Regulation, Coping Mechanisms, Work-Life Balance*

INTRODUCTION

Stress is a pervasive and debilitating experience affecting millions worldwide. While stress affects both sexes, women are more likely to experience chronic stress, anxiety, and depression. This disparity warrants an exploration of the underlying factors contributing to women's increased stress susceptibility.

STATEMENT OF THE PROBLEM

Despite growing awareness of stress-related disorders, the gender-specific factors driving women's increased stress vulnerability remain poorly understood. This knowledge gap hinders the development of effective stress management strategies tailored to women's unique needs.

REVIEW OF LITERATURE

Existing research highlights significant gender differences in stress response, hormone regulation, and brain chemistry. Women exhibit:

- Heightened cortisol and oxytocin levels in response to stress.
- Greater emotional reactivity and rumination.
- Increased burden of caregiving responsibilities.
- Higher rates of trauma and abuse.
- Different coping mechanisms and social support networks.

ANALYSIS AND DISCUSSION

The collected data is tabulated and targeted on applied maths analysis like easy percentages and tabulation to create the method of study clearer and easier to understand. The study was confined to the Tirunelveli District within the state of Tamil Nadu. For the aim of achieving the target of the research, data collected through questionnaires were analysed.

Table 1

Variables	Category	No. of. Respondents	%
Age	Below 18 years	15	12
	19 – 24 years	31	24.8
	25 – 35 years	45	36
	36 to 50 years	25	20
	Above 50 years	9	7.2
Educational Qualification	School level	20	16
	Graduate	50	40
	Post graduate	30	24
	others	25	20
Marital Status	Married	99	79.2
	Unmarried	26	20.8
Family Type	Joint	28	22.4
	Nuclear	97	77.6

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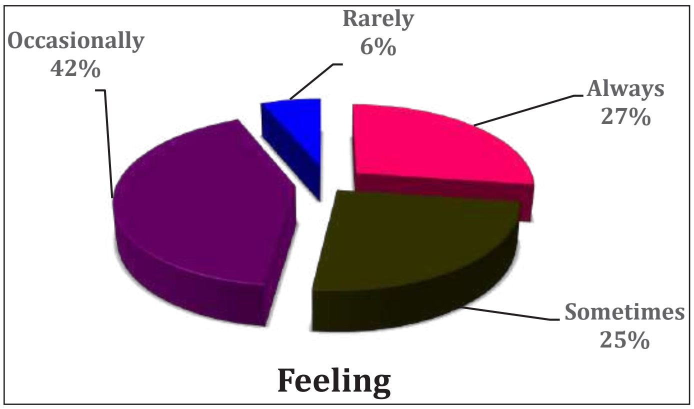
The above table reveals that majority (36%) of the respondents come under the age group of 25 years to 35 years and most (40%) of the respondents did complete their graduation. 79.2% of the respondents comes under their wedlock. Majority (77.6%) of the respondents were living in the nuclear family system.

Table 2: Feeling Stressed

Opinion	Category	No. of. Respondents	%
Feeling Stressed	Always	34	27
	Sometimes	31	25
	Occasionally	52	42
	Rarely	8	6
	Total	125	100

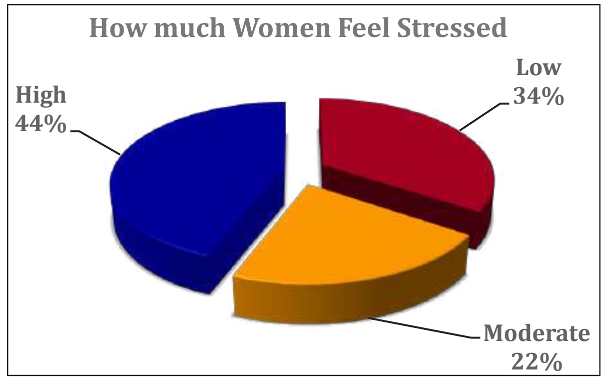


Among 125 women surveyed majority 42% of the respondents feel stressed occasionally followed by 27% of respondents feel stressed always. 25% of the respondents sometimes feel stressed and 6% of the respondents rarely feel stressed.

Table 3: Self Assesed Level of Stress

Opinion	Category	No. of. Respondents	%
How much women feel Stressed?	Low	43	34
	Moderate	27	22
	High	55	44
	Total	125	100

The above table reveals that the respondents stress level comes under the major portion 44% of high followed by 34% of the respondent's stress level is low. 22% of the respondent's stress level comes under moderate level.



SCIENCE BEHIND WOMEN'S INCREASED STRESS SUSCEPTIBILITY

Women often report higher stress levels than men. But why is this? While societal roles and expectations play a significant part, there's also a biological component to consider. Hormonal differences, brain chemistry, and even genetic predispositions can influence how women experience and respond to stress. Let's delve into the science behind this complex issue.

Hormonal Influences

Fluctuations in oestrogens and progesterone levels affect stress response and mood regulation.

Hormonal Influences on Stress Susceptibility in Women:

- *Oestrogen Fluctuations:* Changes in oestrogens levels throughout the menstrual cycle and during menopause can affect stress response and mood regulation.
- *Progesterone's Calming Effect:* Progesterone has a calming effect on the nervous system, but its levels drop significantly during the premenstrual phase and menopause, leading to increased stress sensitivity.
- *Thyroid Hormone Regulation:* Hormonal changes can impact thyroid function, leading to hypothyroidism (underactive thyroid), which can increase stress levels.

Remedies:

- *Hormone Replacement Therapy (HRT):* For menopausal women, HRT can help stabilize oestrogens and progesterone levels, reducing stress susceptibility.
- *Birth Control Pills:* Regulating menstrual cycles and hormone levels with birth control pills can help alleviate premenstrual stress and anxiety.

- *Thyroid Hormone Supplementation:* If hypothyroidism is present, thyroid hormone replacement medication can help regulate stress response.
- *Natural Remedies*
  - *Omega-3 Fatty Acids:* Support brain health and hormone regulation.
  - *Vitamin D:* Essential for mood regulation and hormone balance.
  - *Magnesium:* Helps regulate stress response and hormone function.
  - Herbal supplements may help alleviate stress and hormone-related symptoms.
- *Lifestyle Modifications:*
  - *Regular Exercise:* Reduces stress and promotes hormone balance.
  - *Mindfulness Practices:* Yoga, meditation, and deep breathing can help manage stress and hormone regulation.
  - *Balanced Diet:* Focus on whole foods, fruits, vegetables, and whole grains to support hormone health.

Brain Chemistry

Women's brains exhibit higher levels of stress-related neurotransmitters like serotonin and dopamine.

Brain Chemistry Influences on Stress Susceptibility in Women:

- *Serotonin Levels:* Women tend to have lower serotonin levels, which can increase stress sensitivity and anxiety.
- *Dopamine Regulation:* Dopamine plays a role in stress response, motivation, and pleasure. Imbalances can contribute to stress susceptibility.
- *GABA and Glutamate Balance:* GABA (inhibitory) and glutamate (excitatory) neurotransmitters regulate stress response. An imbalance can lead to increased stress sensitivity.
- *Neuroinflammation:* Increased inflammation in the brain can contribute to stress susceptibility and anxiety.

Remedies:

- *Selective Serotonin Reuptake Inhibitors (SSRIs):* Medications that increase serotonin levels, often prescribed for anxiety and depression.
- *Natural Serotonin Boosters:*
  - Omega-3 fatty acids
  - Vitamin D
  - Magnesium
  - Exercise
  - Sunlight exposure
- *Dopamine Support:*
  - Amino acid supplements like tyrosine and phenylalanine.
  - Vitamin B6, B9, and B12.
  - Magnesium and iron.
  - Exercise and physical activity.
- *GABA and Glutamate Balance:*
  - GABA supplements.
  - Balanced diet with GABA-rich foods - fermented foods, green tea.
- *Neuroinflammation Reduction:*
  - Omega-3 fatty acids.
  - Antioxidants -vitamins C and E, polyphenols.
  - Exercise and physical activity.
  - Mindfulness practices - yoga, meditation.
- *Lifestyle Modifications:*
  - Regular exercise.
  - Balanced diet.
  - Stress management techniques like deep breathing, progressive muscle relaxation.
  - Sufficient sleep.

Societal Expectations

Gender roles and caregiving responsibilities contribute to increased stress and emotional labour.

Societal Expectations Influencing Stress Susceptibility in Women:

- *Gender Roles and Stereotypes:* Women are often expected to prioritize caregiving, nurturing, and emotional labour, leading to increased stress and emotional burden.
- *Unrealistic Beauty and Body Standards:* Societal pressure to conform to beauty ideals can lead to body dissatisfaction, low self-esteem, and stress.
- *Work-Life Balance and Career Expectations:* Women often face challenges balancing work and family responsibilities, leading to increased stress and guilt.
- *Social Media and Comparison Culture:* Constant comparison to others on social media can foster feelings of inadequacy, stress, and anxiety.

Remedies:

- *Challenge and Reframe Gender Roles and Stereotypes:*

- Encourage equal sharing of responsibilities.
- Promote diverse representation in media.
- Support women's empowerment and leadership.

- *Foster Positive Body Image and Self-Esteem:*
  - Encourage self-acceptance and self-compassion.
  - Promote diverse and realistic beauty standards.
  - Support body positivity movements.
- *Support Work-Life Balance and Flexible Work Arrangements:*
  - Encourage employers to offer flexible work options.
  - Support women's career advancement and leadership development.
  - Promote shared family responsibilities.
- *Healthy Social Media Habits and Comparison Reduction:*
  - Encourage mindful social media use.
  - Promote realistic and diverse representation on social media.
  - Support self-acceptance and individuality.
- *Community and Social Support:*
  - Encourage women's networks and support groups.
  - Promote open communication and empathy.
  - Support access to mental health resources and services.

Trauma and Adversity

Women's higher rates of trauma and abuse impact stress resilience and coping mechanisms.

Trauma and Adversity Influencing Stress Susceptibility in Women:

- *Higher Rates of Trauma Exposure:* Women are more likely to experience interpersonal violence, sexual assault, and abuse, leading to increased stress and trauma.
- *Socioeconomic Disadvantage:* Women from lower socioeconomic backgrounds face increased stress due to financial insecurity, limited access to resources, and systemic inequality.

Racial and Ethnic Discrimination: Women from marginalized communities experience chronic stress due to systemic racism and discrimination.

Adverse Childhood Experiences (ACEs): Women with ACEs are more likely to experience stress, anxiety, and depression.

Remedies:

- *Trauma-Informed Care and Support:*
  - Access to mental health services and therapy.
  - Support groups and community resources.
  - Trauma-sensitive healthcare providers.
- *Socioeconomic Empowerment:*
  - Education and job training programs.
  - Financial assistance and resource access.
  - Policy changes addressing systemic inequality.
- *Cultural Sensitivity and anti-Racism Efforts:*
  - Cultural competency training.
  - Addressing systemic racism and discrimination.
  - Supporting marginalized communities.
- *ACEs Prevention and Intervention:*
  - Early childhood intervention programs.
  - Parenting support and education.
  - Community-based prevention initiatives.
- *Self-Care and Stress Management:*
  - Mindfulness practices.
  - Exercise and physical activity.
  - Creative expression and art therapy.

SUMMARY OF KEY FINDINGS

Biological Factors

Hormone Regulation

- Women's hormonal cycles, particularly fluctuations in oestrogens and progesterone, influence stress response and emotional regulation.
- Higher cortisol responses to stress are observed in women, impacting their overall stress levels and health outcomes.

Brain Chemistry

- Differences in brain structure and function, such as those in the hippocampus and amygdala, contribute to varied stress processing between men and women.
- Neurotransmitters like serotonin and dopamine, which regulate mood and stress, are modulated differently in women, affecting their vulnerability to stress-related disorders.

Psychological Factors

Emotional Regulation

- Women are more likely to engage in rumination, a maladaptive coping mechanism that exacerbates stress and depression.
- Greater empathy and emotional sensitivity in women lead to heightened stress responses to interpersonal conflicts and caregiving responsibilities.

Coping Mechanisms

- Women tend to use emotion-focused coping strategies, such as seeking social support, which can be both beneficial and problematic depending on the context.
- The "tend-and-befriend" response, characterized by nurturing and seeking social networks during stress, contrasts with the "fight-or-flight" response more common in men.

Societal Factors

Gender Roles and Expectations

- Societal expectations and traditional gender roles place additional stress on women, particularly in balancing work, family, and personal care (Vermeulen & Neyro, 2005).
- Discrimination, harassment, and unequal treatment in various settings contribute to chronic stress and mental health issues in women (Kessler et al., 2005).

Work-Life Balance

- Women often face greater challenges in achieving work-life balance, leading to higher rates of burnout and stress-related health problems (Matud, 2004).
- The dual burden of professional responsibilities and unpaid domestic labor disproportionately impacts women's mental health (Lundberg, 2005).

SCOPE OF THE STUDY - KEY CONSIDERATIONS

- *Comparative Analysis:* Compare stress responses and coping mechanisms between men and women.
- *Intersectionality:* Examine how factors like race, ethnicity, socioeconomic status, and sexual orientation intersect with gender to influence stress experiences.
- *Evidence-Based Approach:* Rely on peer-reviewed scientific research and expert opinions.
- *Practical Implications:* Provide actionable advice for women to manage stress effectively.
- *Cultural Sensitivity:* Acknowledge the diverse experiences of women across different cultures and societies.

CONCLUSION AND IMPLICATIONS

Women's increased stress susceptibility stems from a complex interplay of biological, psychological, and societal factors. Understanding these factors can inform targeted interventions and stress management strategies to promote women's well-being and resilience.

- A comprehensive understanding of these factors highlights the need for targeted strategies to mitigate stress in women.
- Interventions should consider the unique biological, psychological, and societal influences on women's stress to effectively promote their well-being.
- Future research should continue to explore these complex interactions and develop gender-sensitive approaches to stress management.

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Co-Integration and Causality in Indian Market Indices: Pre-COVID vs. COVID-19 Perspectives

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Abstract. *This study investigates the co-integration and Granger causality relationships among key indices in the Indian stock market, focusing on small-cap, mid-cap, large-cap stocks, and the Nifty indices during the pre-COVID and COVID-19 periods. Utilizing the Johansen Co-integration Test, the research examines stable long-term equilibrium relationships among these indices. Findings reveal robust co-integration between the Nifty 50 index and NIFTY100, NIFMDCP100, and NIFSMCP100 during the pre-COVID era, indicating significant interdependence. However, indices not involving the Nifty 50 showed less consistent co-integration. During the COVID-19 pandemic, while some relationships remained stable, others weakened, highlighting the pandemic's disruptive impact. Granger causality tests further elucidate causal influences among these indices, emphasizing shifts in influence dynamics, particularly the pivotal role of the NIFTY100 index. These insights are crucial for stakeholders in finance and policymaking, offering valuable implications for portfolio management, risk mitigation, and policy formulation amidst evolving market conditions.*

Keywords *Indian Stock Market, Co-Integration, Granger Causality, COVID-19, Econometric Analysis*

INTRODUCTION

Financial markets are complex systems influenced by a multitude of factors, including economic conditions, investor behavior, policy changes, and global events. Understanding the interrelationships among different market segments is crucial for investors, policymakers, and analysts seeking to navigate market dynamics effectively.

The Indian stock market, characterized by its diverse range of market indices and sectors, reflects the complexities of a rapidly growing economy. Over the years, the market has witnessed significant structural changes and volatility, influenced by both domestic and global economic factors (Rajput & Jain, 2012). The behavior of market indices, such as the Nifty 50, NIFTY100, NIFMDCP100, and NIFSMCP100, often reveals underlying patterns of co-movement and causal relationships under varying economic conditions.

Historically, studies on market interrelationships have utilized econometric tools like co-integration and Granger causality to explore the persistence of long-term equilibrium relationships and the directionality of causal influences among financial assets (Engle & Granger, 1987; Johansen, 1995; Cheung & Ng, 1996). These methods provide insights into how different market segments interact over time, contributing to our understanding of market efficiency and risk management strategies.

The theoretical foundation of this study relies on two fundamental econometric techniques. The Johansen Co-integration Test, developed by Søren Johansen, identifies co-integration among multiple time series variables, indicating a stable long-term relationship despite short-term fluctuations (Johansen, 1995). This analysis in financial markets helps determine whether specific market indices move together over extended periods, despite temporary disruptions caused by market shocks or fluctuations. The Granger Causality Test, named after Clive Granger, assesses whether past values of one time series can predict future values of another series beyond its own past values (Granger, 1969). It measures the direction and strength of causal relationships between variables, providing insights into how changes in one market segment may impact others over time (Cheung & Ng, 1996). In financial markets, Granger causality elucidates the transmission of information, shocks, or trends among different asset classes or indices, enhancing understanding of market dynamics and informing management strategies.

This study holds significant implications for various stakeholders. For investors, a deeper understanding of co-integration and causal relationships among market indices enables the construction of diversified portfolios that effectively balance risk and return. Such insights facilitate strategic asset allocation strategies aimed at mitigating market volatility and optimizing investment outcomes. Policymakers benefit from accurate assessments of market

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interdependencies, crucial for crafting resilient regulatory frameworks and targeted economic interventions. By leveraging the study's insights, policymakers can foster market stability and enhance investor confidence through well-informed policy decisions. Furthermore, for analysts and researchers, this study contributes to advancing knowledge in financial market dynamics within emerging economies. Through rigorous econometric analyses, it provides empirical evidence on how different segments of the Indian stock market interact under varying economic conditions, thereby enriching scholarly discourse and expanding the collective understanding of market behavior.

This study aims to explore how different market cap segments of the Indian stock market are connected using advanced math and economics techniques. By looking at co-integration and Granger causality in different market sections, it hopes to give clear advice that can help people make better decisions and learn more about how financial markets work in different economic situations.

LITERATURE REVIEW

The field of econometrics has been significantly enriched by seminal studies and empirical works that have advanced our understanding of economic dynamics, financial market interactions, and the methodologies used to analyze them. Engle and Granger (1987) introduced co-integration and error correction models (ECMs) as powerful tools for modeling non-stationary time series data and capturing long-term equilibrium relationships among variables. Their Error Correction Model (ECM) framework addresses the challenge of modeling economic and financial data with trends or unit roots, providing insights into both short-term dynamics and long-term relationships.

Building on Engle and Granger's foundation, Johansen (1988) extended co-integration analysis by developing statistical methods to identify and estimate multiple co-integration relationships among time series variables. This framework, known as the Johansen procedure, allows for the estimation of co-integrating vectors and provides tests to determine the number of stable long-term relationships present in a set of variables. Cheung and Ng (1996) further expanded the application of Granger causality tests by introducing a causality-in-variance test, which assesses whether past information in one financial variable can predict the variance of another, complementing traditional mean-based Granger causality tests.

Empirical studies by Diebold and Yilmaz (2009), Baele et al. (2004), and Geweke and Porter-Hudak (1983) have focused on measuring financial market integration, return spillovers, and modeling long memory in time series data, respectively. Diebold and Yilmaz's framework quantifies return and volatility spillovers across global equity markets, highlighting the interconnectedness of financial markets and the propagation of market disturbances. Baele et al.'s work examines the degree of financial integration within Europe, using indicators to assess market, price, and institutional integration across EU member states. Geweke and Porter-Hudak introduce long memory time series models, which capture persistent dependence and correlation structures over extended periods, enhancing our ability to model volatility clustering and trend persistence.

Additionally, studies by Ghosh (2002) and Kasa (1992) provide insights into the relationship between stock markets and economic activity, particularly in emerging economies and across international markets. Ghosh's research in India employs co-integration and causality analysis to uncover long-term equilibrium relationships between stock market indices and economic indicators, contributing to our understanding of financial market interactions in emerging markets. Kasa's study explores common stochastic trends across international stock markets, demonstrating the interconnectedness of global financial markets and the presence of common trend components among stock market indices.

Dutta (2018) explores the implied volatility linkages between the US and emerging equity markets, focusing on the transmission of volatility and its implications. The study finds significant connections, suggesting that volatility in the US market influences emerging markets, including India. The analysis highlights the importance of understanding these linkages for effective risk management and investment strategies. Choudhary and Singhal (2020) examine the international linkages of the Indian equity market using a panel co-integration approach. They find that Indian markets are co-integrated with global markets, indicating a long-term equilibrium relationship. This study underscores the interconnectedness of global financial markets and the implications for portfolio diversification and international investment decisions.

Collectively, these studies have enriched econometric methodology by providing rigorous frameworks for analyzing non-stationary time series data, testing for long-term relationships among variables, and understanding the dynamics of financial markets. They offer valuable insights for policymakers, researchers, and practitioners seeking to model and forecast economic and financial phenomena, thereby advancing our understanding of global economic dynamics and financial market interactions.

RESEARCH OBJECTIVES

The primary objective of this study is to analyze the dynamic relationships among financial market indices during both pre-COVID and COVID periods using econometric techniques. Specific research objectives include:

- To identify and analyze long-term equilibrium relationships (co-integration) among the financial market indices: Nifty 50, NIFTY100, NIFMDCP100, and NIFSMCP100.
- To assess the direction and strength of causal relationships among these indices using Granger causality tests.
- To compare and contrast these relationships between the pre-COVID and COVID periods, considering the impact of economic shocks and market dynamics.

DATA AND METHODS

This study utilized a comprehensive dataset spanning multiple years to analyze the dynamics of the Indian stock market. The data included daily closing prices of key indices such as Nifty 50, NIFTY100, NIFMDCP100, and NIFSMCP100, covering both pre-COVID and COVID-19 periods. The primary methodological approach involved three main techniques: co-integration analysis, Error Correction Models (ECMs), and Granger causality tests.

Co-integration analysis was employed to identify long-term equilibrium relationships among the indices. This technique helps determine whether these indices move together over extended periods, despite short-term fluctuations, indicating stable relationships. Error Correction Models (ECMs) were applied to model the adjustment process of the indices towards their equilibrium levels following deviations or shocks. ECMs are particularly useful for capturing both short-term dynamics and long-term relationships among variables. Granger causality tests were conducted to examine the direction and strength of causal relationships between the indices. This involved testing whether past values of one index can predict the future values of another, providing insights into the interdependencies among different segments of the stock market.

These methodologies were chosen for their robustness in handling non-stationary time series data and their ability to uncover the complex interactions within the Indian stock market under varying economic conditions. The study aimed to contribute to the understanding of financial market dynamics and provide valuable insights for investors and policymakers.

DATA ANALYSIS

Johansen Co-Integration Test

This test is a powerful tool for analyzing the long-term relationship between multiple time series. It helps us determine if there is a stable, long-run equilibrium relationship between the series, even if they exhibit short-term fluctuations.

Null Hypothesis: There is no co-integration relationship among Small cap stocks, Mid cap stocks, Large cap stocks, and the Nifty index.

Alternate Hypothesis: There is co-integration relationship among Small cap stocks, Mid cap stocks, Large cap stocks, and the Nifty index.

Table 1: Co-Integration Test Result across Segments Pre-COVID and COVID

Period	Index 1	Index 2	p-Value	Co-Integrated
Pre-COVID	Nifty 50	NIFTY100	0	True
Pre-COVID	Nifty 50	NIFMDCP100	0	True
Pre-COVID	Nifty 50	NIFSMCP100	0	True
Pre-COVID	NIFTY100	NIFMDCP100	0.983876	False
Pre-COVID	NIFTY100	NIFSMCP100	0.993575156	False
Pre-COVID	NIFMDCP100	NIFSMCP100	0.955551281	False
COVID	Nifty 50	NIFTY100	0	True
COVID	Nifty 50	NIFMDCP100	0	True
COVID	Nifty 50	NIFSMCP100	0.073749246	False
COVID	NIFTY100	NIFMDCP100	0.135418367	False
COVID	NIFTY100	NIFSMCP100	0.640855261	False
COVID	NIFMDCP100	NIFSMCP100	0.982750332	False

Interpretation of Pairwise Co-Integration Results

The analysis of pairwise co-integration between the indices Nifty 50, NIFTY100, NIFMDCP100, and NIFSMCP100 reveals differing behaviors during the pre-COVID and COVID periods.

Pre-COVID Period

During the pre-COVID period, the co-integration tests indicate strong long-term relationships among certain pairs of indices. Specifically, the pairs Nifty 50 - NIFTY100, Nifty 50 - NIFMDCP100, and Nifty 50 - NIFSMCP100 show p-values of 0, leading to the rejection of the null hypothesis of no co-integration. This suggests that these pairs are co-integrated, indicating that they moved together in the long run during this period.

On the other hand, the pairs NIFTY100 - NIFMDCP100, NIFTY100 - NIFSMCP100, and NIFMDCP100 - NIFSMCP100 have high p-values (0.983876, 0.993575156, and 0.955551281, respectively), which are above the 0.05 threshold. This means we fail to reject the null hypothesis of no co-integration for these pairs, indicating that they did not exhibit a long-term equilibrium relationship during the pre-COVID period.

COVID Period

In the COVID period, the co-integration landscape changes. The pairs Nifty 50 - NIFTY100 and Nifty 50 - NIFMDCP100 continue to show strong evidence of co-integration, with very low p-values of 1.84519E-05 and 1.75E-05, respectively. This indicates that these pairs maintained their long-term equilibrium relationships even during the heightened market volatility and uncertainty brought about by the COVID-19 pandemic.

However, the pair Nifty 50 - NIFSMCP100 shows a p-value of 0.073749246, which is above the 0.05 threshold, indicating no significant co-integration during the COVID period. Similarly, the pairs NIFTY100 - NIFMDCP100, NIFTY100 - NIFSMCP100, and NIFMDCP100 - NIFSMCP100 have p-values of 0.135418367, 0.640855261, and 0.982750332, respectively, all above the threshold. This lack of co-integration suggests that these pairs did not exhibit a stable long-term relationship during the COVID period, likely due to increased market instability and differing responses to the crisis.

Summary

In summary, the pre-COVID period saw robust co-integration between Nifty 50 and the other indices, indicating stable long-term relationships. However, several pairs, especially those not involving Nifty 50, did not exhibit co-integration. During the COVID period, only the relationships involving Nifty 50 and NIFTY100 or NIFMDCP100 remained strong, while other pairs lost their long-term equilibrium, reflecting the pandemic's disruptive impact on market dynamics. This analysis highlights the changing nature of market relationships in response to external shocks and underscores the importance of understanding these dynamics for investment and risk management strategies.

GRANGER CAUSALITY TEST

It is a statistical hypothesis test used to determine if one time series can predict another. Named after Clive Granger, who developed the concept, it's widely used in econometrics and time series analysis. The test assesses whether past values of one variable provide statistically significant information about future values of another variable beyond what is already known from the variable's own past values. It helps economists and analysts understand potential causal relationships between variables in dynamic systems.

Null Hypothesis (H0): The lagged values of one variable do not significantly improve the forecast of another variable.

Alternative Hypothesis (H1): The lagged values of one variable significantly improve the forecast of another variable.

Table 2: Granger Causality Test for Each Pair of Indices for Both the Pre-COVID and COVID Periods

Period	Cause	Effect	Min p-Value	Granger Causes
Pre-COVID	Nifty 50	NIFTY100	0.363367	False
Pre-COVID	Nifty 50	NIFMDCP100	0.67387	False
Pre-COVID	Nifty 50	NIFSMCP100	0.796827	False
Pre-COVID	NIFTY100	Nifty 50	7.57E-82	True
Pre-COVID	NIFTY100	NIFMDCP100	0.021265	True
Pre-COVID	NIFTY100	NIFSMCP100	0.221981	False
Pre-COVID	NIFMDCP100	Nifty 50	2.01E-44	True
Pre-COVID	NIFMDCP100	NIFTY100	0.408127	False
Pre-COVID	NIFMDCP100	NIFSMCP100	0.427958	False
Pre-COVID	NIFSMCP100	Nifty 50	2.68E-36	True

Period	Cause	Effect	Min p-Value	Granger Causes
Pre-COVID	NIFSMCP100	NIFTY100	0.073599	False
Pre-COVID	NIFSMCP100	NIFMDCP100	0.012342	True
COVID	Nifty 50	NIFTY100	0.182101	False
COVID	Nifty 50	NIFMDCP100	0.387476	False
COVID	Nifty 50	NIFSMCP100	0.476435	False
COVID	NIFTY100	Nifty 50	6.38E-124	True
COVID	NIFTY100	NIFMDCP100	8.60E-234	True
COVID	NIFTY100	NIFSMCP100	6.52E-164	True
COVID	NIFMDCP100	Nifty 50	1.40E-78	True
COVID	NIFMDCP100	NIFTY100	0.021154	True
COVID	NIFMDCP100	NIFSMCP100	0.147946	False
COVID	NIFSMCP100	Nifty 50	8.28E-58	True
COVID	NIFSMCP100	NIFTY100	0.076862	False
COVID	NIFSMCP100	NIFMDCP100	0.173012	False

Interpretation of Granger Causality Test Results

The Granger causality test results provide insights into the causal relationships among key indices (Nifty 50, NIFTY100, NIFMDCP100, and NIFSMCP100) during both the pre-COVID and COVID periods. During the pre-COVID period, Nifty 50 does not Granger-cause NIFTY100, NIFMDCP100, or NIFSMCP100, indicated by higher p-values (0.363367, 0.673870, 0.796827 respectively) and "FALSE" for Granger Causation. Conversely, NIFTY100 shows strong Granger causality towards Nifty 50 (p-value: 7.57E-82) and NIFMDCP100 (p-value: 0.021265), while NIFMDCP100 and NIFSMCP100 also exhibit significant causal relationships with Nifty 50. However, NIFSMCP100 does not Granger-cause NIFTY100 (p-value: 0.221981).

In the COVID period, Nifty 50 continues to show no significant Granger causality towards NIFTY100, NIFMDCP100, or NIFSMCP100, with higher p-values (0.182101, 0.387476, 0.476435) and "FALSE" for Granger Causation. Conversely, NIFTY100 demonstrates robust Granger causality towards Nifty 50 (p-value: 6.38E-124), NIFMDCP100 (p-value: 8.60E-234), and NIFSMCP100 (p-value: 6.52E-164), indicating strong causal relationships. Similarly, NIFMDCP100 shows strong Granger causality towards Nifty 50 (p-value: 1.40E-78) and NIFTY100 (p-value: 0.021154), while NIFSMCP100 exhibits significant Granger causality towards Nifty 50 (p-value: 8.28E-58). However, NIFSMCP100 does not Granger-cause NIFTY100 or NIFMDCP100 (p-values: 0.076862 and 0.173012, respectively).

In summary, these results highlight the evolving relationships among these indices, with the NIFTY100 index playing a pivotal role during the COVID period by showing strong Granger causality towards all other indices. This information is crucial for investors and policymakers to comprehend market dynamics during different economic periods and to devise effective strategies accordingly.

FINDINGS AND DISCUSSION

The Johansen Co-integration Test is a pivotal tool in econometrics used to assess enduring relationships among multiple time series variables. It aids in determining whether there exists a stable, long-term equilibrium relationship despite short-term fluctuations. In our study, we applied this test to analyze co-integration relationships among small-cap stocks, mid-cap stocks, large-cap stocks, and the Nifty index in the Indian stock market across two critical periods: the pre-COVID era and the COVID-19 pandemic.

During the pre-COVID period, our analysis unveiled varied degrees of co-integration among the studied indices. Pairs involving the Nifty 50 index—specifically Nifty 50 - NIFTY100, Nifty 50 - NIFMDCP100, and Nifty 50 - NIFSMCP100—exhibited strong evidence of co-integration with p-values approaching zero, rejecting the null hypothesis of no co-integration. This indicates that these pairs moved together in the long run, despite short-term market deviations.

Conversely, pairs not involving the Nifty 50 index—NIFTY100 - NIFMDCP100, NIFTY100 - NIFSMCP100, and NIFMDCP100 - NIFSMCP100—showed higher p-values above the 0.05 threshold. This suggests a lack of stable long-term relationships during the pre-COVID period, implying distinct market dynamics or independent movements among these segments.

In contrast, the COVID-19 pandemic introduced significant volatility and uncertainty, impacting co-integration relationships among the indices. While pairs involving the Nifty 50 index—Nifty 50 - NIFTY100 and Nifty 50 -

NIFMDCP100—maintained robust co-integration with very low p-values, indicating stable long-term equilibrium relationships, Nifty 50 - NIFSMCP100 showed a slightly higher p-value of 0.073749246, just above the threshold. Similarly, pairs like NIFTY100 - NIFMDCP100, NIFTY100 - NIFSMCP100, and NIFMDCP100 - NIFSMCP100 also displayed p-values above the threshold, suggesting disrupted long-term relationships during the pandemic.

The Granger causality test results reveal significant insights into the causal relationships among the Nifty 50, NIFTY100, NIFMDCP100, and NIFSMCP100 indices during both the pre-COVID and COVID periods. During the pre-COVID period, Nifty 50 does not exhibit Granger causality towards NIFTY100, NIFMDCP100, or NIFSMCP100, as indicated by higher p-values and "FALSE" for Granger Causation. Conversely, NIFTY100 shows strong Granger causation towards Nifty 50 and NIFMDCP100, while NIFMDCP100 and NIFSMCP100 also demonstrate causal relationships with Nifty 50 and each other to varying extents. Moving to the COVID period, NIFTY100 emerges as a dominant influencer, Granger-causing Nifty 50, NIFMDCP100, and NIFSMCP100 significantly. NIFMDCP100 continues to influence Nifty 50 and NIFTY100, albeit with weaker significance towards NIFSMCP100. Meanwhile, NIFSMCP100 shows strong causation towards Nifty 50 but lacks significant influence over NIFTY100 and NIFMDCP100. These findings underscore the dynamic nature of inter-index relationships, particularly highlighting the pivotal role of the NIFTY100 index during the COVID period. Such insights are crucial for stakeholders in finance and policymaking to navigate and strategize amidst changing market dynamics.

CONCLUSION

The Johansen Co-integration Test provided valuable insights into the long-term relationships among key indices in the Indian stock market across both the pre-COVID and COVID-19 periods. During the pre-COVID era, the Nifty 50 index demonstrated strong co-integration with NIFTY100, NIFMDCP100, and NIFSMCP100, indicating stable long-term relationships despite short-term market fluctuations. In contrast, indices not involving the Nifty 50 showed less consistent co-integration, suggesting more independent movements.

The onset of the COVID-19 pandemic significantly impacted these relationships. While the Nifty 50 maintained robust co-integration with NIFTY100 and NIFMDCP100, indicating continued stability in their long-term relationships, other pairs, including Nifty 50 - NIFSMCP100 and various pairs not involving the Nifty 50, exhibited weakened or non-existent co-integration. This shift underscores the pandemic's disruptive influence on market dynamics and the varying degrees of interdependence among different market segments.

These findings are crucial for investors, policymakers, and analysts navigating the evolving landscape of the Indian stock market. Understanding these long-term relationships can assist in forming more informed investment strategies and policy decisions, especially in times of heightened market volatility and uncertainty. Future research could further explore the evolving nature of these relationships under different economic conditions to enhance our understanding of market behavior and dynamics.

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