TECHNOLOGICAL PROGRESS AND BUSINESS TRANSFORMATION

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Technological Progress and Business Transformation

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About the Book

In today's world, businesses are changing fast this is because of technological advancements and innovative ideas Fusion of these powerful tools is reshaping the business landscape, driving growth, efficiency, and competitiveness. Technology has become the cornerstone of modern business operations. From Artificial Intelligence and Machine Learning to Block Chain and the Internet of Things, businesses are leveraging these tools to streamline processes, enhance decision making, and create new opportunities. These technologies are not just tools, they are catalysts for change, enabling businesses to adapt to market dynamics, anticipate customer needs, and stay ahead of the competition.

However technology alone is not enough to drive meaningful change. Innovation is equally essential. Innovation involves not only the development of new products or services but also the implementation of creative ideas to solve existing challenges and meet evolving customer demands. It fosters a culture of continuous improvement and adaptation, where experimentation and risk taking are encouraged. The nexus of Technological Progress and Business Transformation represents a dominant force for disruption and revolution.

It's about more than just adopting the latest gadgets or trends and fundamentally reimagining how business is done Companies that embrace this nexus are not only surviving but thriving in today's volatile market environment This Book will explore into various aspects of this nexus, from the impact of emerging technologies on traditional industries to the role of innovation in driving sustainable growth. By understanding the dynamics of this evolving landscape, businesses can position themselves to capitalize on opportunities and navigate challenges in an increasingly digital world.

About the Editors

Dr. N. Jayanthi, Associate Professor and Head, Department of Commerce, PMIST, Thanjavur, Tamil Nadu, is having 19 years of teaching and research experience and authored three books, editorial member in National & International Journals. Dr. N. Jayanthi has qualified SET Examination in Commerce and Management. Board of Studies Member & External examiner in various institutions. Organized national, international conferences, seminars, workshops and Special lectures. She has published more than 40 research papers in the journals indexed in Scopus and UGC CARE list- I Journals.

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Preface

The Edited book entitled "Technological Progress and Business Transformation", serves as a platform for research scholars, undergraduate and postgraduate students, academicians and industrialists from across the globe to converge and delve into the intricacies of this transformative nexus. With technology serving as both a catalyst and a channel for innovation, businesses are witnessing profound shifts in paradigms, strategies, and operations. From Artificial intelligence to Block Chain, from data analytics to augmented reality, the spectrum of technological tools available to businesses today is vast and diverse, presenting boundless opportunities for growth and development.

Yet, in the midst of this technological revolution, the true drivers of change lie in the creative and innovative minds that attach these tools to reimagine industries, redefine processes, and revolutionize markets. Innovation, in its myriad forms, emerges as the linchpin that propels organizations towards competitive advantage and sustainable success. Through this international conference, we aim to explore the multifaceted dimensions of this nexus – examining not only the latest technological advancements but also the strategies, mind-sets, and cultures that foster innovation within organizations. By fostering dialogue, collaboration, and knowledge exchange, we aspire to equip participants with insights and perspectives that will empower them to navigate the evolving business landscape with confidence and foresight.

We extend our gratitude to our Esteemed Chancellor, Pro Chancellor, Hon'ble Vice-chancellor, respected Registrar, Faculty Deans, Head of the Department, Faculty members, Resource persons, presenters, and participants whose invaluable insights and contributions have enriched this conference. May the discussions and discoveries that unfold here pave the way for a future where innovation thrives, and businesses flourish in an ever-changing world.

Editors

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Dr. D. Umamaheswari
Dr. S. Prabhu
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Acknowledgments

CHAPTER 1

A Study on Assessing the Role of KSFC in Empowering Women Entrepreneurs in Emerging Economies

Afreen Taj*

ABSTRACT

Women entrepreneurs in emerging economies face multifaceted challenges hindering their full participation and growth in the business landscape. Financial institutions play a crucial role in addressing these challenges and empowering women entrepreneurs. This research focuses on assessing the role of the Karnataka State Financial Corporation (KSFC) in empowering women entrepreneurs in emerging economies. Combining exploratory research design with a mix of quantitative and qualitative approaches, this study aims to lay a foundation for understanding KSFC's impact on women entrepreneurs. Primary data will be collected through a systematic questionnaire distributed to women entrepreneurs receiving assistance from KSFC, while secondary data will be gathered from various sources including websites, academic papers, and journals. A pilot study will be conducted to refine the questionnaire, ensuring its suitability and effectiveness. The study will explore KSFC's tailored programs, mentorship initiatives, and financial products for women-led businesses, evaluating their impact on business growth, financial sustainability, and socio-economic empowerment. Through comparative analyses and stakeholder engagement evaluation, this research seeks to provide insights for KSFC, similar institutions, and policymakers to enhance support for women entrepreneurs. The sampling technique employed in this study is simple random sampling, ensuring each respondent has an equal chance of being represented and maintaining the purity of probability sampling. Limitations including sample size constraints and subjective interpretation of qualitative data are acknowledged, suggesting avenues for future research to address these constraints and deepen understanding in this critical area.

Keywords: Financial Institutions; Women Entrepreneurs; Socio-economic Empowerment; Financial Initiatives; Non-financial Resources.

1.0 Introduction

The Government of India has defined woman entrepreneurship as "an enterprise owned and controlled by a woman having a minimum financial interest of 51% of the capital and giving at least 51% of the employment generated in the enterprise to women".

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Financial corporations are increasingly recognizing the pivotal role women entrepreneurs play in economic development and are implementing various initiatives to empower them. These initiatives encompass improved access to capital through tailored financial products, such as loans and credit facilities, specifically designed to meet the needs of women-led businesses. Financial institutions are also prioritizing financial education and training programs to enhance the business of women entrepreneurs. Networking opportunities and mentorship programs further facilitate their growth by connecting them with potential investors and experienced mentors.

2.0 Review of Literature

(Singh & Mishra, 2023): This study investigates the pivotal role of Karnataka State Financial Corporation (KSFC) in fostering and supporting women-led entrepreneurial endeavours. Employing a mixed-methods approach, the researchers conducted interviews and surveys among women entrepreneurs who accessed KSFC's programs. The study elucidates the impact of KSFC's tailored initiatives on the establishment, growth, and sustainability of women-led businesses. The findings highlight the effectiveness of KSFC's mentorship programs, funding schemes, and non-financial support in empowering women entrepreneurs, yet also address challenges in accessing these services.

(Asongu, 2023): This study contributes to existing literature by examining how microfinance institutions (MFIs) influence female entrepreneurship, with a particular focus on the levels of female unemployment. The research covers 44 countries in sub-Saharan Africa from 2004 to 2018 and utilizes interactive quantile regressions, emphasizing nations with varying levels of business constraints. The analysis aims to identify critical thresholds of female unemployment to guide the implementation of policies promoting female business ownership through MFIs. The findings indicate that the positive impact of MFIs on female business owners is valid mainly in the 10th quantiles of the cost of business and time to start up a business by females.

(Kegne, 2023): This study delves into the impact of microfinance services on the development of women's entrepreneurship in Assosa town. Employing both descriptive and explanatory designs with a quantitative research approach, the research focuses on 352 women clients of Assosa Woreda Microfinance Institution, with 165 selected through simple random sampling. Utilizing a questionnaire and statistical analysis with SPSS 26 software, the descriptive mean analysis reveals that the financial and non-financial services provided by microfinance institutions do not significantly empower disadvantaged and poor women in improving their livelihoods and business development.

(Gupta *et al.*, 2022): Focusing on the challenges faced by women entrepreneurs in leveraging KSFC's services, this study presents a comprehensive analysis of the barriers hindering women's access to financial support and

mentorship. Combining qualitative interviews and quantitative surveys, the research identifies structural and societal hurdles inhibiting women's engagement with KSFC's programs. The study offers insights into the cultural, bureaucratic, and economic constraints experienced by women entrepreneurs, shedding light on the complexities of navigating financial systems.

3.0 Statement of the Problem

"In emerging economies, women entrepreneurs encounter numerous obstacles, ranging from limited access to financial resources and markets to societal and institutional barriers, hindering their full participation and impeding the growth of their businesses. Amidst these challenges, the role of financial institutions like the Karnataka State Financial Corporation (KSFC) in empowering women entrepreneurs remains underexplored and insufficiently understood. Understanding the efficiency and impact of KSFC's interventions, initiatives, and support mechanisms targeted at women entrepreneurs in emerging economies is crucial for comprehending the mechanisms through which financial institutions contribute to or hinder the empowerment of women entrepreneurs. Identifying the specific challenges faced by women entrepreneurs accessing KSFC's services and evaluating the effectiveness of these services in addressing their needs constitutes a critical gap in current research and necessitates a comprehensive assessment to facilitate informed policymaking and strategic enhancements within KSFC and similar institutions."

4.0 Objectives

- To assess the impact of KSFC's Financial Initiatives on women-led businesses.
- To examine the Accessibility of KSFC's Programs for Women Entrepreneurs.
- To evaluate stakeholder engagement (beneficiaries, partners, and the community.
- To investigate the influence of non-financial resources provided by KSFC on the empowerment of women entrepreneurs.

5.0 Research Methodology, Instruments and Materials

- *Research design:* Exploratory research has been employed. The study tries to assess the role of KSFC in empowering women entrepreneurs. Combining quantitative and qualitative approaches is done as it is exploratory, this research attempts to serve as a foundation for more studies in this area.
- *Sources of data:* The study is based on data collected from primary and secondary resources.
  - o *Primary data:* A systematic questionnaire was utilized to gather primary data. Closed-ended questions on a Likert scale were included in the questionnaire, sent to women entrepreneurs seeking assistance from KSFC.

- o *Secondary data:* Secondary data was collected from the websites, academic papers, websites, journals, and e-magazines available on the internet.
- *Dimensions of the study:* This study aims to explore KSFC's impact on women entrepreneurs through tailored programs. It assesses these programs' effects on business growth and examines challenges women face in business for financial assistance. The research investigates long-term sustainability factors and broader societal impacts. It explores stakeholder engagement, comparative analyses, and internal branding's role within KSFC.
- *Sampling:* The number of women entrepreneurs (106) at KSFC reflects the population size. The sample was selected from the firm's workforce. Simple Random Sampling was employed for the questionnaire. As each respondent has an equal chance of being represented and the respondents are selected at random, it is the purest type of probability sampling.
- *Framework of analysis:* The responses collected from the questionnaire were analyzed for deeper insights. The analysis was done using tables and charts. The study intends to measure the results using descriptive and analytical statistical tools such as linear regression analysis. The hypothesis will be statistically analyzed using these tools.
- Limitations of the study
  - o Limited sample size or non-representative samples could limit the generalizability of findings to a broader population of women entrepreneurs or businesses.
  - o If KSFC alters its programs or strategies during the study period, it might affect the consistency and comparability of results over time.

6.0 Data Analysis and Interpretation

Descriptive and analytical research is undertaken for this study. Therefore, both descriptive and inferential statistics are used. The study is limited to a single Financial Corporation in Bangalore, with the sample size being particularly restricted to 106 respondents. The hypotheses are tested and analyzed with the help of Descriptive Statistics and Regression Analysis.

6.1 Data analysis of user demographics

Interpretation: The analysis of the provided table reveals several key insights regarding the respondents' demographics. Firstly, in terms of gender distribution, as the study was completely based on women entrepreneurs (100%) are females. Secondly, the age distribution shows that the highest proportion of respondents (38.7%) fall within the 21-30 age group, followed by (35.8%) in the 31-40 age group. Thirdly, education-wise, most respondents are graduates (48.1%), followed by Diploma/12th (30.2%). Fourthly, concerning employment status, 49.1% of respondents are self-employed, (37.7%) in private jobs, and Government

employees and retired pensioners constitute smaller percentages. Overall, this analysis provides a comprehensive understanding of the demographic characteristics of the respondents, indicating trends in gender, age, education, and employment.

Table 1: Demographic Analysis of Women Entrepreneurs

Women Entrepreneurs particulars		No. of respondents	Percentage (%)
Gender	Female	106	100%
Age	21-30 years	41	38.7%
	31-40 years	38	35.8%
	41-50 years	20	18.9%
	51-60 years	04	3.8%
	60 years and above	03	2.8%
Educational Qualification	High School	02	1.9%
	Diploma / 12th	32	30.2%
	Graduate	51	48.1%
	Postgraduate	20	18.9%
Occupation	Private Employee	40	37.7%
	Government Employee	10	9.4%
	Self Employed	52	49.1%
	Retired	4	3.8%

Source: Primary

6.2 Data analysis for objective 1 – hypothesis testing

Objective 1: To assess the impact of KSFC's Financial Initiatives on women-led businesses.

H_0: There is no significant impact of KSFC's financial Initiatives on Women-led Business.

H_a: There is a significant impact of KSFC's financial Initiatives on Women-led Business.

Hypothesis analyzed and tested using Linear Regression Analysis:

Regression model:

Y – Dependent Variable = Women-led Business

X – Independent Variable = KSFC's Financial Initiatives

Table 2: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.616[a]	0.379	0.373	0.48082
a. Predictors: (Constant), KSFC's led Initiatives			

Source: Primary

The Regression Analysis showed that 37.9% of the variation in the Women–led business is explained by KSFC's Financial Initiatives (Table 2). Moreover, the

Regression Analysis showed a significant and positive impact of KSFC's Financial Initiatives on Women–led businesses, i.e., 0.616, with F (1, 104) = 63.510, P < 0.05.

Table 3: ANOVA[b]

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	14.683	1	14.683	63.510	.000[a]
Residual	24.044	104	0.231		
Total	38.726	105			
a. Dependent Variable: Women-led Business					
b. Predictors: (Constant): KSFC's Financial Initiatives					

Source: Primary

From Table 3 using Regression Analysis, it can be inferred that Y = a + bx, where a = 1.557, b = 0.652, Y = Women-led business (dependent variable), and X = KSFC's led Initiatives (independent variable).

The regression slope line suggests that KSFC's initiatives show a regression of symbolic value being valid at .379 which indicates that as the value of variable X (KSFC'S led initiatives) increases by 1, the value of variable Y (Financial Inclusion Promotion) increases by 0.652.

Table 4: Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.557	0.349		4.463	0.000
KSFC's led Initiatives	0.652	0.082	0.616	7.969	0.000
a. Dependent Variable: financial stability, growth and scalability of women-led business					
b. Independent Variable: KSFC's financial Initiatives					

Source: Primary

Further, from Table 4, it can be inferred that P < 0.05. Thus, Ha which states that there is a significant impact of KSFC's financial Initiatives on Women-led Business is accepted. This means that KSFC's essential support to women entrepreneurs through various financial initiatives that include access to capital through loans and credit facilities tailored to the needs of women-led businesses and offering lower interest rates, flexible financing options, and asset financing solutions to help women acquire necessary resources without significant upfront costs. By addressing these financial needs and providing support tailored to women entrepreneurs, financial corporations play a vital role in promoting their business growth and contributing to economic empowerment.

6.3 Descriptive statistics – hypothesis testing

Objective 2: To Examine the Accessibility of KSFC's Programs for Women Entrepreneurs.

Table 5: Level of Ease of Respondents in Accessing Formal Financial Services

Accessibility of KSFC's Programs for Women Entrepreneurs	N	Minimum	Maximum	Mean	Std. Deviation
Ease of Accessing KSFC's services	106	1	5	4.1604	0.536
Tailored to address the specific challenges	106	1	5	3.4717	0.620
Digital accessibility of KSFC's programs	106	1	4	2.9717	0.291
Perceived Difficulty Level	**100**	**3**	**14**	**10.603**	**1.447**

Source: Primary

Interpretation: Table 5 provides insights into examining the accessibility of KSFC's programs for women entrepreneurs. The data from statements 1 to 3. The maximum value for the 1st & 2nd statements is 5 and the 3rd statement is 4, while the minimum value for all of the statements is 1 (on a scale of 1 to 5, with 5 being 'Strongly Agree'). The mean of each statement ranges between 2.97 and 4.16. on average, respondents rated the ease of accessing KSFC's services quite high (4.1604 out of 5), with relatively low variability (.53695). Similarly, they rated whether KSFC's services are tailored to address the specific challenges faced by women entrepreneurs slightly lower on average (3.4717 out of 5), with a bit more variability (.62041). Finally, respondents rated the digital accessibility of KSFC's programs lower on average (2.9717 out of 4), with relatively low variability (.29139), but note that the scale for this question ranges up to 4 rather than 5 as in the other questions.

Hence, it can be concluded that the KSFC's services are easily accessible to Women Entrepreneurs.

Objective 3: To Evaluate stakeholder engagement (beneficiaries, partners, and the community 2-Somewhat effective – 0.9%

Figure 1: Stakeholder Engagment
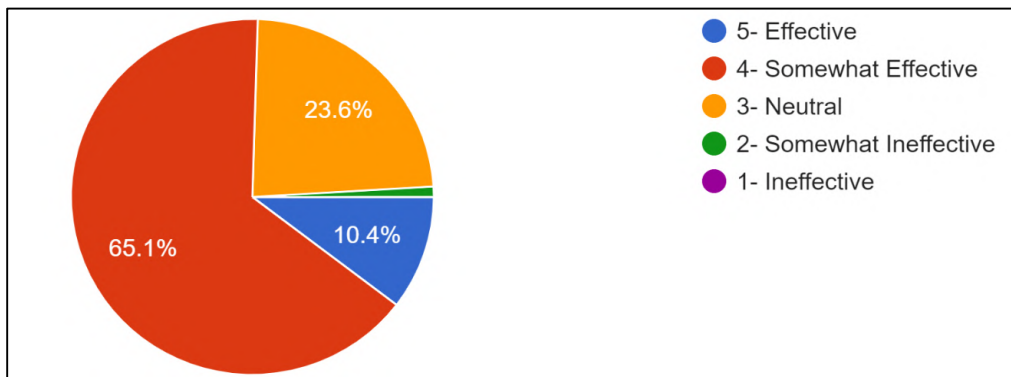
Interpretation: The pie chart shows the results of a question about the effectiveness of KSFC's stakeholder engagement in supporting women-led businesses. The chart shows that 65.1% of respondents rated the effectiveness as "5. Effective" and 10.4% rated it as "4. "Somewhat Effective". In total, 75.5% of respondents rated the effectiveness as at least somewhat effective.

The remaining 23.6% of respondents were not very positive about the effectiveness. They rated it as "3. Neutral" (25%) "2. Somewhat ineffective" (10.4%) or "1. Ineffective" (8.1%). It is important to note that this data is from a survey and may not be representative of the wider population.

Hence, it can be concluded that the Majority (75%) of the respondents are satisfied with the KSFC's stakeholder engagement (such as beneficiaries, partners, and the community) and rate as it is effective in supporting women-led businesses.

6.4 Data analysis for objective 4 – hypothesis testing

Objective 4: To investigate the Impact of non-financial resources provided by KSFC on the empowerment of women entrepreneurs.

H_0: There is no significant Impact of non-financial resources provided by KSFC on the empowerment of women entrepreneurs.

H_a: There is a significant impact of non-financial resources provided by KSFC on the empowerment of women entrepreneurs.

Hypothesis analyzed and tested using Linear Regression Analysis:

Regression model:

Y – Dependent Variable = Empowerment of women entrepreneurs

X – Independent Variable = KSFC's Non-Financial Resources

Table 6: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.517[a]	0.268	0.261	0.46792
a. Predictors: (Constant), Utilisation of Non-financial resources			

Source: Primary

The Regression Analysis showed that 26.8% of the variation in the Empowerment of women entrepreneurs is explained by the non-financial resources provided by KSFC. (Table 6). Moreover, the Regression Analysis showed a significant and positive impact of KSFC's non-financial resources on the empowerment of women entrepreneurs. i.e., 0.517, with $F (1, 104) = 38.015$, $P < 0.05$.

From Table 7 using Regression Analysis, it can be inferred that $Y = a + bx$, where a = 2.278, b = 0.480, Y = Empowerment of Women Entrepreneurs (dependent variable), and X = KSFC's non-financial resources (independent variable). The regression slope line suggests that KSFC's initiatives show a regression of symbolic value being valid at 0.268 which indicates that as the value of variable X (KSFC'S

non-financial resources) increases by 1, the value of variable Y (Empowerment of Women Entrepreneurs) increases by 0.480.

Table 7: ANOVA[b]

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8.232	1	8.323	38.015	0.000[a]
Residual	22.771	104	0.219		
Total	31.094	105			
a. Dependent Variable: Satisfaction Level					
b. Predictors: (Constant): Utilization of Non-Financial Resources					

Source: Primary

Table 8: Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.278	0.334		6.814	0.000
KSFC's Non-financial Resources	0.480	0.078	0.517	6.166	0.000
a. Dependent Variable: Satisfaction Level					
b. Independent Variable: KSFC's non-financial resources					

Source: Primary

Further, from Table 8, it can be inferred that P < 0.05. Thus, Ha which states that there is a significant impact of non-financial resources provided by KSFC on the empowerment of women entrepreneurs is accepted. This means that non-financial resources provided by KSFC have significantly empowered women entrepreneurs by offering access to invaluable networks, mentorship programs, and industry expertise. Non-financial resources provided by financial corporations complement financial support and play a crucial role in empowering women entrepreneurs by enhancing their skills, knowledge, networks, and visibility, ultimately contributing to their long-term success and economic empowerment.

7.0 Implications

7.1 Findings
7.1.1 Impact of KSFC's financial initiatives' effect on women-led enterprises
- Women-led companies who benefited from KSFC's financial programs showed a marked improvement in their ability to obtain funding, allowing them to invest in marketing, product development, and business growth.
- The availability of KSFC's customized loan packages and flexible payback periods, among other specific financial products and services, had a beneficial impact on the long-term viability and financial stability of women-owned enterprises.

- KSFC offers loans to women-led businesses at very low interest rates compared to other banks and financial institutions, these encourage women to start up businesses.
- Beyond financial measurements, KSFC's financial activities positively influence women-led enterprises; recipients report more self-esteem, drive, and ambition to seize expansion opportunities and expand their businesses.

7.1.2 To examine the accessibility of KSFC's programs for women entrepreneurs

- It was discovered that KSFC's programs were available to female entrepreneurs in a variety of industries and locations, with a wide range of participants from varying backgrounds and stages of their businesses.
- High levels of satisfaction among female entrepreneurs taking part in KSFC's programs show how well the programs are delivered and how well they address the unique requirements and difficulties that women in entrepreneurship confront.
- Among female entrepreneurs, the use of KSFC's programs was positively connected with the perception of accessibility, indicating that proactive measures to raise awareness and encourage participation influence program adoption.
- Participants' qualitative feedback emphasized the significance of responsive support services, transparent communication channels, and user-friendly application processes in boosting the accessibility and usefulness of KSFC's programs.

7.1.3 To evaluate stakeholder engagement (beneficiaries, partners, and the community)

- By actively collaborating and engaging with stakeholders, such as partners, beneficiaries, and the community, KSFC was able to cultivate a sense of shared responsibility and ownership for the initiative's success.
- Collaborations with governmental organizations, nongovernmental organizations, trade associations, and other significant players enabled the pooling of resources, sharing of expertise, and joint endeavours to tackle systemic obstacles and encourage women's entrepreneurship.
- KSFC's outreach activities and community-based projects allowed for peer learning, networking, and conversation, which improved the ecosystem for female entrepreneurs and promoted an atmosphere that was encouraging for their expansion and improvement.
- To maximize the impact and reach of interventions aimed at empowering women entrepreneurs, KSFC's programs are designed, implemented, and evaluated with input from a diverse range of stakeholders. This assures relevance, inclusivity, and sustainability.

7.1.4 To investigate the Impact of nonfinancial resources provided by KSFC on the empowerment of women entrepreneurs

- Nonfinancial services from KSFC, like networking opportunities, training courses, mentorship programs, and access to markets, were essential in helping women entrepreneurs develop their abilities.
- Capacity-building programs emphasizing technology adoption, leadership development, and business management techniques enabled female entrepreneurs to effectively navigate competitive markets, overcome obstacles, and capture opportunities.
- By providing direction, counsel, and support to help aspiring women entrepreneurs overcome the challenges of entrepreneurship and realize their objectives, mentoring programs enabled important relationships between seasoned business executives and experienced individuals in the field.
- With the help of KSFC's comprehensive support ecosystem, which includes both non-financial and financial resources, women entrepreneurs were able to flourish in their enterprises and positively impact their communities by creating jobs, innovating, and engaging in social impact projects.

8.0 Suggestions

1) Customized Financial Products: Create novel financial instruments, including revenue-based financing or equity investments, to provide female entrepreneurs access to other funding sources and lessen their debt loads.
2) Promote Access to Markets and Networks: Create online markets or platforms to exhibit goods and services provided by female entrepreneurs, opening up e-commerce prospects and expanding their consumer base.
3) Non-Financial Support Services: Provide specialized training in e-commerce, online marketing, and digital literacy to assist female entrepreneurs in utilizing technology to expand their market reach, improve efficiency, and gain a competitive edge.
4) Capacity Building and Training: To assist female entrepreneurs in creating company plans, financial projections, and funding proposals, and hold workshops or seminars on financial management, financing availability, and investment preparedness.
5) Monitoring and Evaluation: Get input from female business owners regularly to gauge their level of satisfaction, pinpoint areas for development, and track the long-term results and socioeconomic effects of the assistance they got.
6) Collaboration & Partnerships: To better utilize resources, knowledge, and networks, fortify alliances and cooperation with academic institutions, community-based groups, NGOs, and civil society organizations that support women's entrepreneurship and empowerment.

9.0 Conclusion

In summary, this study clarifies the critical role that Karnataka State Financial Corporation (KSFC) has played in enabling women entrepreneurs. Employing an exhaustive examination of KSFC's fiscal and non-fiscal endeavours, the research underscores the diverse assistance supplied to women-owned enterprises and its wider influence on the advancement of society's economy.

With a wide range of programs, customized financial products, and proactive outreach initiatives targeted at addressing the requirements and obstacles faced by female entrepreneurs, KSFC has demonstrated its dedication to supporting women's entrepreneurship. Through the provision of finance, technical support, mentorship, and market opportunities, KSFC enables female entrepreneurs to surmount obstacles, capitalize on prospects, and attain their maximum potential as drivers for innovation and economic progress.

The research also highlights how crucial non-financial support services are to empower female business owners. Through skill development workshops, networking events, and mentorship programs, KSFC's initiatives have given women entrepreneurs the networks, knowledge, and self-assurance they need to succeed in cutthroat marketplaces and negotiate the challenges of entrepreneurship.

Through the utilization of cutting-edge technologies, the development of strategic alliances, and the promotion of legislative changes, KSFC remains committed to enabling female entrepreneurs to realize their complete potential and propel inclusive economic expansion. KSFC can significantly contribute to the creation of a more just, resilient, and prosperous future by maintaining its commitment to and investment in women's entrepreneurship.

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CHAPTER 2

Optimizing the Usability of Fintech Services by Street Vendors

R. Amarnath*, Pradiksha. S.** and Vaishnavi Nakshatra G.***

ABSTRACT

Optimizing the usability of fintech services for street vendors involves adapting the digital financial tools to meet their unique needs. This includes developing user-friendly interfaces, simplifying transactions, and ensuring accessibility through mobile devices. This study looks into improving the usability of fintech services for street vendors, identifying challenges and opportunities. A survey was conducted with a structured questionnaire and descriptive research was employed. The research focuses on the street vendors of Thanjavur a total of 50 respondents were collected. The Study suggest that improving user friendly interface, overcoming the language barriers through communicating in regional language, and providing real-time support by reducing transaction costs and regulating time delays helps in efficient use. In conclusion, enhancing the accessibility and usability of fintech services is the key to stimulate the financial inclusion and financial benefits for street vendors.

Keywords: *Fintech, Street Vendors, Accessibility, User-friendly Interface, Financial Inclusion.*

1.0 Introduction

Fintech have been reconstructing the financial sector in recent years. However, while fintech has gained attraction among various sectors, its usability and adoption among street vendors remain relatively unexplored. Street vendors are essential to urban environments even though they frequently work in informal economies, yet they frequently have difficulty obtaining regular financial services. The usefulness of fintech services for street vendors is explored in this article, along with the potential and challenges they face. The aim is to investigate how fintech may improve the financial environment for street vendors through the combination of user-focused design and technological improvements.

2.0 Objectives

- To study the usability of fintech services among street vendors.
- To examine the challenges faced by street vendors while utilizing fintech services.

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3.0 Statement of the Problem

This article covers the usability of fintech services among street vendors, examining the obstacles they face, the opportunities fintech offers, and the consequences for financial inclusion and economic empowerment.

4.0 Scope of the Study

The study intends to examine the obstacles, opportunities, and usability factors that impact the acceptance of fintech services for street vendors.

5.0 Research Methodology

Research Methodology is a way to systematically solve the research problem. This study adopts descriptive research design. A detailed survey is conducted through questionnaire method. The research will be presented with both primary and secondary data.

Sampling method: Convenience sampling method is used in this study.

Sampling area: The area of study covers the street vendors of Thanjavur district.

Sampling size: The number of respondents is 50 street vendors who are exploring the accessibility of fintech services.

Tools used: This study employed Statistical Package for the Social Science (SPSS) tool for analysing the data.

6.0 Limitation of the Study

- The research study covers only the area of Thanjavur district.
- The result from 50 street vendors cannot interpret the whole street vendors in Thanjavur district.
- Lack of awareness about fintech services.

7.0 Literature Review

Handayani *et al.*, (2022) investigated the entrepreneurial orientation, focusing on their effectiveness and impact on business success. The sampling size was 128 street vendors selected and multiple linear regression analysis research method was employed. The findings indicate that entrepreneurial orientation, promotion strategies, and pricing strategies positively and significantly influence the success of street vendors in the new normal era. The study suggests that street vendors should focus on providing the best service to their customers, maintaining customer loyalty, and persistently adjusting their strategies to survive and improve performance in the current business environment.

Munishi, (2022) Examined the restrictions faced by urban-based informal street vendors in accessing Business Development Services and Support (BDSS). The research employed qualitative methods and further used purposive and simple random sampling techniques to obtain data from 110 vendors.

Used MAXQDA 10 software for data analysis. The report indicates that barriers to street vendors' expansion into larger enterprises include lack of funding, absence of BDSS specialists and organizations, and lack of pertinent laws and regulations. It advocates resolving these difficulties to assist street vendors in growing their operations.

Moreira-Santos *et al.*, (2022) examined the adoption of Fintech services in small and medium-sized enterprises (SMEs) particularly in the context of COVID-19. IBM SPSS Statistics V.28.0.0 and Microsoft Office Excel 365 software were used to analyse the data.

The findings suggest that the adoption of Fintech services in SMEs is influenced by various factors, including the technological, organizational, and environmental contexts. The study also revealed that COVID-19 was not a significant motivating factor for adopting Fintech services among the surveyed SMEs.

Munodei & Sibindi (2023) examined the incorporation of financial technology (fintech) into social protection provision, as well as exploring how fintech tools can be utilized to enhance social protection services. The sampling size consisted of 145 documents. The software used for data analysis included SCOPUS and VOS. The findings suggest that there has been a significant increase in publications related to fintech in social protection since 2018, indicating growing attention from academics. The COVID-19 pandemic accelerated the adoption of fintech in social protection due to increased charitable cases and the need for contactless services.

Fu & Mishra (2022) examined the effects of the COVID-19 pandemic on digital finance and fintech adoption. They used mobile application data from a globally representative sample to analyze the increase in finance app downloads during the pandemic. The study is empirical in nature, utilizing mobile app download data. Used statistical analyses to draw insights, considering factors on both the demand-side and supply-side. Data analysis was conducted using the AppTweak platform for mobile app download data.

The spread of COVID-19 and related lockdowns significantly increased the adoption of finance-related mobile applications globally. The study has revealed that with the increased adoption of fintech there is a potentially predatory or fraudulent lending apps in developing countries raises concerns. The findings underscore the need for regulatory vigilance and proactive measures in response to the evolving financial landscape.

8.0 Data Analysis and Interpretation

Table 1: Age of Respondents

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	25-35	17	34.0	34.0	34.0
	36-45	15	30.0	30.0	64.0
	46-55	10	20.0	20.0	84.0
	56 above	8	16.0	16.0	100.0
	Total	50	100.0	100.0	

Source: Primary data

Interpretation: From Table 1 it is found that 34% of the respondents belong to the category of age 25-35, 30% of the respondents belong to the category of age 36-45, 20% of the respondents belong to the category of age 46-55, and 16% of the respondents belong to the category of age 56 and above, so the majority of respondents are 25-35 age group peoples.

Figure 1: Age of Respondents
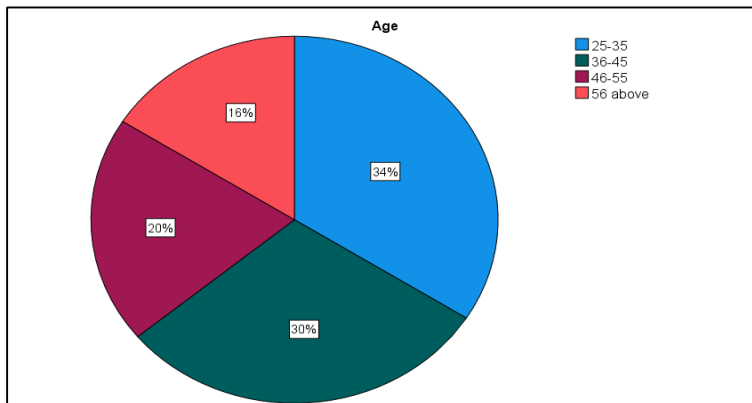
Source: Primary data

Table 2: Gender of Respondents

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Male	29	58.0	58.0	58.0
	Female	21	42.0	42.0	100.0
	Total	50	100.0	100.0	

Source: Primary data

Interpretation: From table 2 shows 58% of the respondents belong to the Male respondents and 42% % of the respondents belong to the Female respondents, so the majority of respondents are ale respondents.

Figure 2: Gender of Respondents
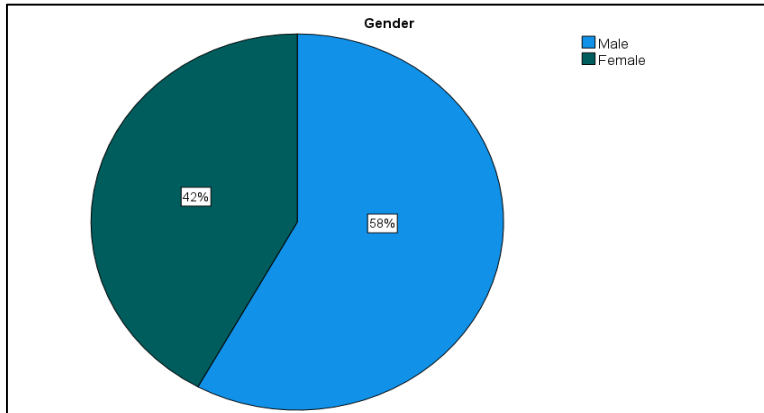
Source: Primary data

Table 3: Fintech Service are Reliable and Consistent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	22.0	22.0	22.0
	Agree	25	50.0	50.0	72.0
	Neutral	14	28.0	28.0	100.0
	Total	50	100.0	100.0	

Source: Primary data

Interpretation: Table 3 of Fintech Service is reliable and consistent finds that 22% of the respondents are "Strongly agree", 50% of the respondents are "Agree", and 28% of the respondents are "Neutral", so the majority of respondents are "Agree" with Fintech Service being reliable and consistent.

Figure 3: Fintech Service are Reliable and Consistent
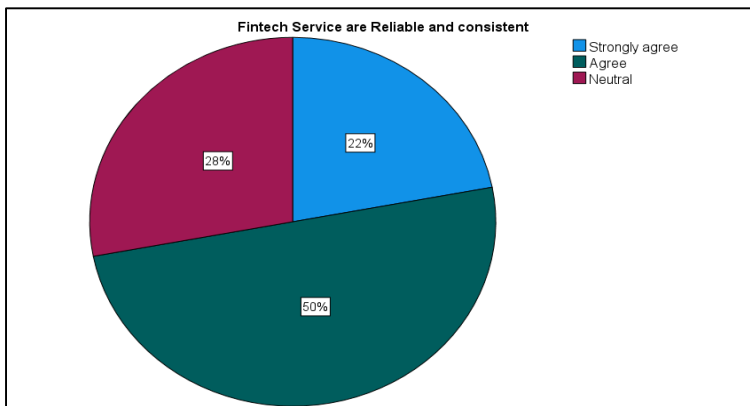
Source: Primary data

Table 4: I Plan to Continue using this App for my Financial Needs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	19	38.0	38.0	38.0
	Agree	16	32.0	32.0	70.0
	Neutral	13	26.0	26.0	96.0
	Disagree	1	2.0	2.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Source: Primary data

Interpretation: The above table 4 of I plan to continue using this app for my financial needs find that 38% of the respondents are "Strongly Agree", 32% of the respondents are "Agree", 26% of the respondents are "Neutral", 2% of the respondents are "Disagree", and 2% of the respondents are "Strongly Disagree", so the majority of respondents are "Strongly agree" with I plan to continue using this app for my financial needs.

Figure 4: I Plan to Continue using this App for My Financial Needs
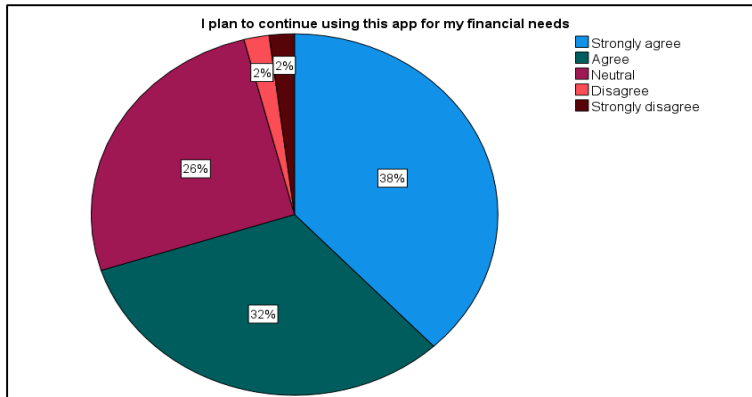
Source: Primary data

Table 5: I Would Recommend this App to Other Street Vendors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	7	14.0	14.0	14.0
	Agree	13	26.0	26.0	40.0
	Neutral	13	26.0	26.0	66.0
	Disagree	10	20.0	20.0	86.0
	Strongly disagree	7	14.0	14.0	100.0
	Total	50	100.0	100.0	

Source: Primary data

Interpretation: The above table 5 of I would recommend this app to other street street vendors find that 14% of the respondents are "Strongly Agree", 26% of

the respondents are "Agree", 26% of the respondents are "Neutral", 20% of the respondents are "Disagree", and 14% of the respondents are "Strongly Disagree", so the majority of respondents are "Agree" and "Neutral" with I would recommend this app to other street street vendors.

Figure 5: I Would Recommend this App to Other Street Vendors
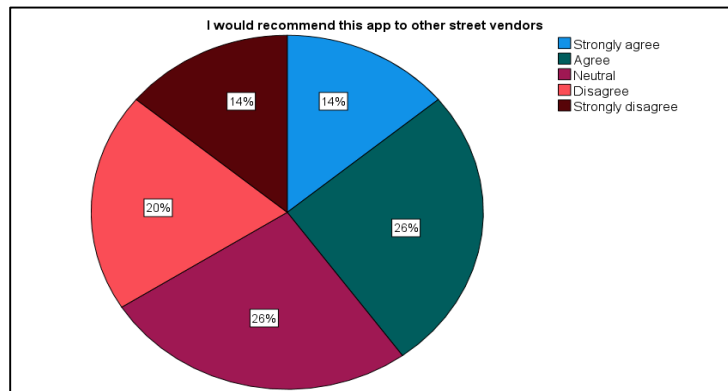
Source: Primary data

9.0 Findings

- Majority of the respondents (34%) comes under 25-35 age group.
- Majority of the respondents (58%) are Male.
- Majority of the respondents (50%) are "Agree" that Fintech Service being reliable and consistent for them.
- Majority of the respondents (38%) are "Strongly agree" that they plan to continue using this app for their financial needs.
- Majority of the respondents (26%) selected both "Agree" and "Neutral" as they would recommend this app to other street vendors.

10.0 Suggestions

- Providing clear icon can easily navigate the street vendor and reduce complicity.
- Provide clear instructions in regional languages to improve communication with street vendors.
- The digital payment transaction time takes 12 hours to transfer the amount to the street vendor's bank account. This is hard for the street merchants so, reduce the transaction time.
- Street vendors are hesitating to use the fintech services because of the hidden fees and high charges.

- Education on digital literacy and security measures is needed for reducing risks and increasing trust.

11.0 Conclusion

In conclusion, improving the usability of fintech services for street vendors is critical for financial inclusion. By creating user-friendly designs and accessible interfaces, simplifying transactions, overcoming language obstacles, and maintaining smooth connectivity, we can able to boost adoption rates and provide vendor's more financial advantage. Finally, by focusing on the accessibility and usability we can help the street vendors to fully utilize the fintech services which will enhance socioeconomic advantages in urban communities.

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CHAPTER 3

An Analysis of the Digital Payment System in India using Various Data Analytics Tools

Buvaneswari P.*

ABSTRACT

Recent years have seen a technological revolution in Governance in India under the tag of Digital India. As a part of the Government of India's strategy to digitize the financial sector and the economy, digital payment's transactions have been consistently increasing over the last few years and have registered unprecedented growth in India. In this regard, the researcher has conducted an in-depth analysis of the numerous payment system in terms of volume and the value of transactions from FY2018-19 to FY2021-22. The researcher has stressed on various payments and settlements systems and their effects on each other. Further, the study leads to establishing a relationship between various methods of digital payments and their dynamic ecosystem with the help of various data analysis tools like Python, R-Programming and Tableau. Also, considering the factors such as increase in Government initiatives, internet and smartphone usage and the rise of e-commerce the study will try to link the changing nature of various digital payments such as IMPS, NEFT, UPI etc. from the given data.

Keywords: Python, R-Programme, Tableau, Financial Sector, Economy.

1.0 Introduction

The then Prime Minister has made a tremendous change in the merchant transactions in order to enable the citizen to adopts Digital India Campaign. This is mainly focused on digital mode of payment rather than physical mode i.e transactions will be taken place in electronic mediums. In this regard, the Government of India undertakes various measures to create awareness amongst the people about the new system of digital dealings in every financial aspect of transaction. The Government is mainly focused on digitally empowered economy that is 'Contactless, Paperless and Cashless'. There are different methods of digital payment is available namely Bank Cards, Unstructured Supplementary Service Data (USSD), Aadhaar Enabled Payment System (AEPS), Unified Payments Interface (UPI), Mobile Wallets, Bank Prepaid Cards, PoS Terminals, Internet Banking, Mobile Banking, Micro ATMs. The digital payment systems have very much boomed during pandemic situation.

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People also felt convenient for using digital currency rather than physical mode of payment and settlement systems. They equipped themselves with technological advancements.

2.0 Statement of the Problem

The clearance of payment systems for various activities have transitioned to digital payment methods. In today's competitive market, even roadside vendors have become familiar with technology, adopting mobile and contactless payment systems. Online payments are convenient for both customers and merchants, influencing consumer behavior in terms of tastes, preferences, and buying and selling attitudes of merchants and their implications for business enhancement. Therefore, it is the need of an hour to analyze the various digital payment systems available today using different analytical tools.

3.0 Importance of the Study

Mr. Narendra Modi, the Prime Minister of India, implemented the demonetization of high-value Rs. 500 and Rs. 1000 currency notes in November 2016. The "Digital India" initiative was launched in 2015, with the aim of transforming India into a digitally empowered society. A key aspect of "Digital India" is its focus on being "Faceless, Paperless, Cashless." This initiative, along with other measures, has accelerated the adoption of digital payment systems. Government programs like BHIM and UPI have further facilitated the transition to and rapid uptake of digital payments. Digital payment refers to transactions for services and products at the point of sale (POS) conducted via internet banking, mobile banking through android and smartphones, or card payments. Therefore, the study of this nature is very much needed in order to understand the effectiveness of Digital India Campaign.

4.0 Review of Literature

Babulal (2019) has studied a digital payment system in India. The study has aimed to analyse the impact of digital payment systems, opportunities and challenges encountered on the same. The researcher analysed the development of ATMs, PoS transactions with the help of descriptive research. With the help of analysis made by the researcher has come out with the prospects of digital payment systems in India. Reshma & Ramesh (2023), the researchers have studied the issues and challenges in banking sector especially in digital payments. Here the researchers has anlaysed the growth of digital payments in India. The study was undertaken by the researchers have descriptive in nature. The study has concluded with the importance of cashless transactions and its impact of raise in volume and value of transactions.

5.0 Research Gap

The above literature survey, the researcher has studied the opportunities and challenges encountered with the digital payment systems. The researcher has concentrated only on value of transactions and they used basic statistical tools for analysis. In this study, the researcher analyses the digital payment systems in terms of volume as well as value of transactions taken place. Since, the data is secondary data, the researcher used data analytical tools like Python and R-Programming and data visualisation tools Tableau for the better understanding of research problem.

6.0 Objectives of the Study

- To analyse the Digital Payment systems by using R.
- To analyse the Digital Payment systems by using Python.
- To analyse the data with the help of data visualization tool like Tableau.

7.0 Research Methodology

The researcher banks on secondary data obtained from the Reserve Bank of India's website, encompassing a sample size of 5 years from 2018-19 to 2022-23. For analysis purposes, the researcher has utilized five major payment systems: debit cards, credit cards, RTGS, NEFT, and IMPS. The research of this nature is purely on analytical research.

Hypothesis 1:

Ho: There is no significant relationship between various digital payment systems in India.

H1: There is a significant relationship between various digital payment systems in India.

The researcher has used the following tools for analysis.

- Correlation data done through R Programming between Total Digital Payments and Total Retail Payments & Python and the data visualization tools Tableau.

Table 1: Correlation between Total Retail Payments & Total Digital Payments

Year	Total Digital Payments (Rs.)	Total Retail Payments (Rs.)
2019	163713425	36271304
2020	161968681	38637028
2021	141458488	41485747
2022	174401233	52394049
2023	267136348	124362966

Source: RBI Website

7.1 Correlation analysis using R

```
> TDP <- c(163713425,161968681,141458488,174401233,267136348)
> TRP <- c(36271304,38637028,41485747,52394049,124362966)
> plot (TDP, TRP, pch=16)
```

> cor.test (TDP,TRP) data: TDP and TRP, t = 7.5516, df = 3, p-value = 0.004815
Alternative hypothesis: true correlation is not equal to 0, 95 percent confidence interval: 0.6598807 0.9983980, sample estimates: cor 0.9746911

Figure 1: Total Retail Payments & Total Digital Payments
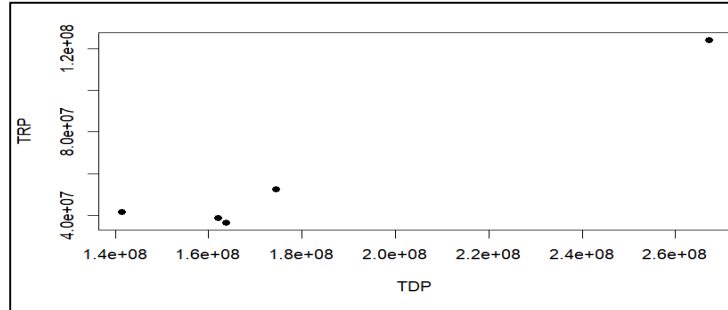
Source: RBI Website

Table 2: Payment System Indicators (Volume in Lakh: Value in Crore)

Particulars	2018-19		2019-20		2020-21		2021-22		2022-23	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
A. Settlement Systems										
CCIL Operated Systems	36	116551038	36	134150192	28	161943141	33	206873112	41.44	258797336
B. Payment Systems										
1. Large Value Credit Transfers – RTGS	1366	135688187	1507	131156475	1592	105599849	2078	128657516	2425.62	149946286
Retail Segment	-	-	-	-	-	-	-	-		
2. Credit Transfers	118481	26090471	206297	28556593	317868	33504226	577935	42728006	983620.8	55009620
2.1 AePS (Fund Transfers)	11	501	10	469	11	623	10	575	5.9	356
2.2 APBS	14949	86226	16747	99048	14373	111001	12573	133345	17833.95	247535
2.3 ECS Cr	54	13235	18	5146	0	0	0	0	0	0
2.4 IMPS	17529	1590257	25792	2337541	32783	2941500	46625	4171037	56532.64	5585441
2.5 NACH Cr	8834	729673	11100	1037079	16465	1216535	18758	1281685	19257.19	1541815
2.6 NEFT	23189	22793608	27445	22945580	30928	25130910	40407	28725463	52847.43	33719541
2.7 UPI	53915	876971	125186	2131730	223307	4103658	459561	8415900	837143.7	13914932
3. Debit Transfers and Direct Debits	4914	524556	6027	605939	10457	865520	12189	1034444	15343.05	1289611
3.1 BHIM Aadhaar Pay	68	815	91	1303	161	2580	228	6113	214.22	6791
3.2 ECS Dr	9	1260	1	39	0	0	0	0	0	0
3.3 NACH Dr	4830	522461	5842	604397	9646	862027	10755	1026641	13502.52	1280219
3.4 NETC (linked to bank account)	6	20	93	200	650	913	1207	1689	1626.31	2601
4. Card Payments	61769	1196888	72384	1434813	57787	1291799	61783	1701851	63324.72	2152245
4.1 Credit Cards	17626	603413	21773	730894	17641	630414	22399	971638	29145.24	1432255
4.2 Debit Cards	44143	593475	50611	703920	40146	661385	39384	730213	34179.48	719989
5. Prepaid Payment Instruments	46072	213323	53941	214860	49366	197095	65783	279416	74667.44	287111
6. Paper-based Instruments	11238	8246065	10414	7824822	6704	5627108	6999	6650333	7109.28	7172904
Total - Retail Payments (2+3+4+5+6)	242473	36271304	349063	38637028	442180	41485747	724689	52394049	2206354	124362966
Total Payments (1+2+3+4+5+6)	243839	171959490	350570	169793503	443772	147085596	726767	181051565	2208780	274309252

Source: RBI Website

7.2 Analysis using R

	YEAR	UPI	CREDIT CARD	DEBIT CARD	IMPS	NEFT
1	2018-19	876971	603413	593475	1590257	22793608
2	2019-20	2131730	730894	703920	2337541	22945580
3	2020-21	4103658	630414	661385	2941500	25130910
4	2021-22	8415900	971638	730213	4171037	28725463
5	2022-23	13914932	1432255	719989	5585441	33719541

7.3 Maximum Digital Transactions using R

```
> retval<-subset(DIGITAL_PAYMENTS,UPI==max(UPI))
> print(retval)
# A tibble: 1 x 6
  YEAR         UPI `CREDIT CARD` `DEBIT CARD`    IMPS     NEFT
  <chr>      <dbl>         <dbl>        <dbl>   <dbl>    <dbl>
1 2022-23 13914932       1432255       719989 5585441 33719541
> retval<-subset(DIGITAL_PAYMENTS,UPI=min(UPI))
```

7.4 Minimum Digital Transactions using R

```
> retval<-subset(DIGITAL_PAYMENTS,UPI==min(UPI))
> print(retval)
# A tibble: 1 x 6
  YEAR       UPI `CREDIT CARD` `DEBIT CARD`    IMPS     NEFT
  <chr>    <dbl>         <dbl>        <dbl>   <dbl>    <dbl>
1 2018-19 876971        603413       593475 1590257 22793608
>
```

```
> YEAR <- matrix(c(876971,603413,598475,1590257,22793608,2131730,730894,703920,2337541,22945580,410
3658,630414,661385,2941500,25130910,8415900,971638,730213,4171037,28725463,13914932,1432255,719989,
5585441,33719541), byrow = T, nrow = 5)
> YEAR
        [,1]    [,2]   [,3]    [,4]     [,5]
[1,]   876971 603413 598475 1590257 22793608
[2,]  2131730 730894 703920 2337541 22945580
[3,]  4103658 630414 661385 2941500 25130910
[4,]  8415900 971638 730213 4171037 28725463
[5,] 13914932 1432255 719989 5585441 33719541
```

7.5 Analysis using Tableau and Python

Analyzing the growth of UPI (Unified Payments Interface) over the years. Through the below analysis, we can see that UPI, over the years has had a huge increment as a mode of payment for the people of India. The value of the UPI transactions has a seen an upward trajectory of almost 1400% over the last five years and is expected to grow more exponentially in the coming years.

Figure 2: UPI Volume over the Years
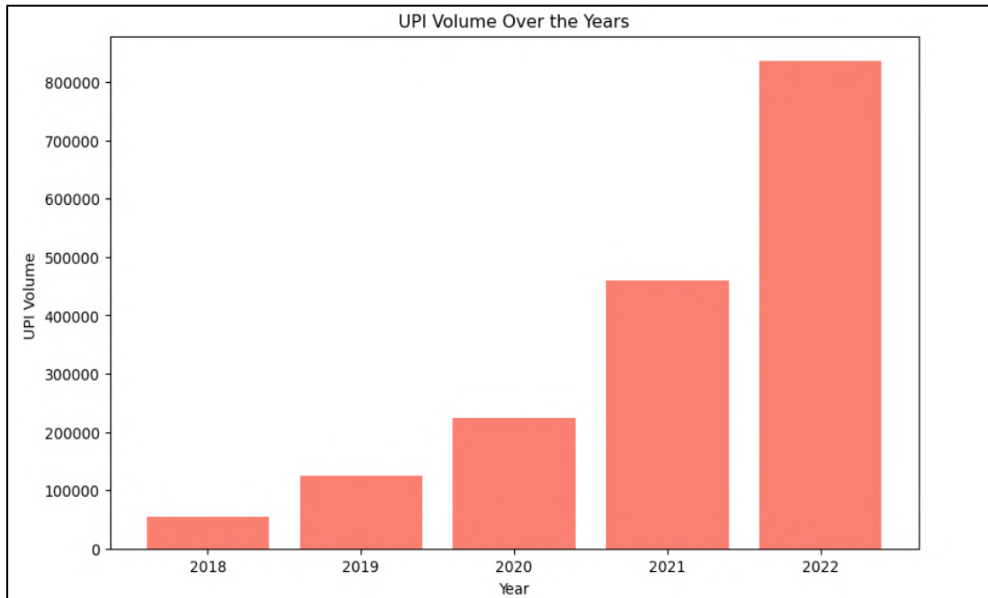
Source: R Language

Figure 3: UPI Increment over the Years
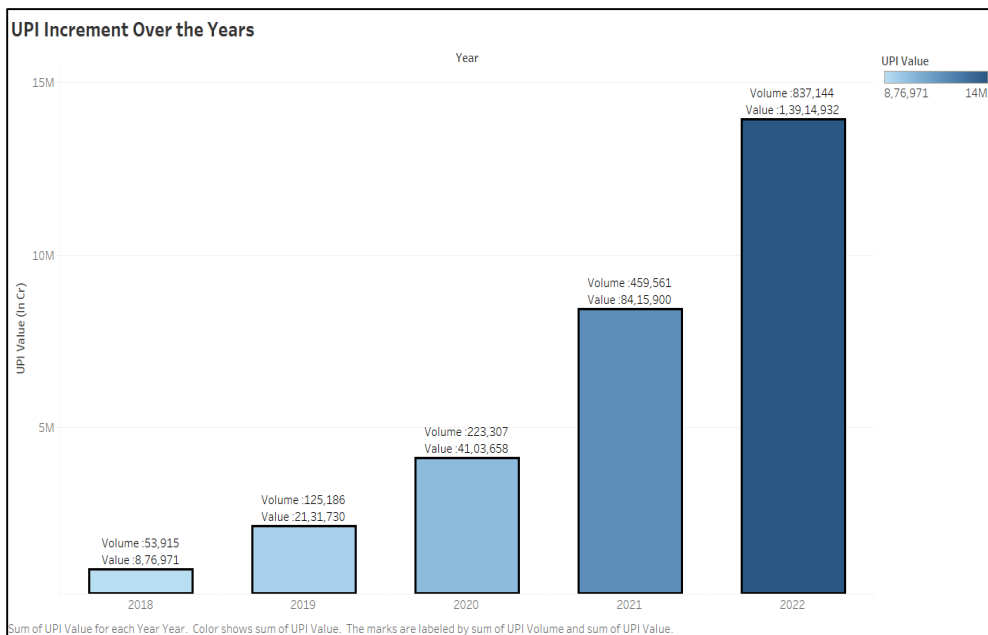
Source: R Language

7.6 Analysing the Growth of UPI (Unified Payments Interface) over the years

Figure 4: UPI Volume over the Years
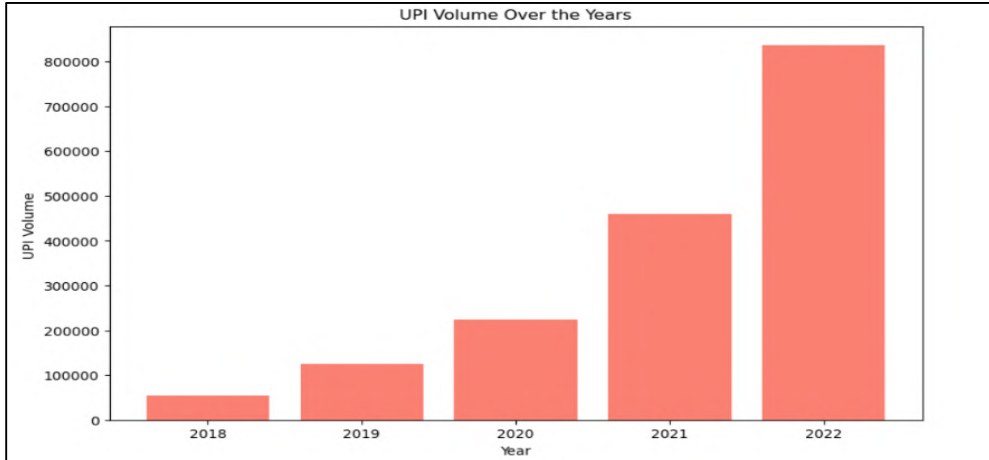
Source: R Language

7.7 The progression of UPI using Python
Python code Snippet for plotting graph.

```
plt.figure(figsize=(10, 6))
plt.bar(df['Year'], df['UPI Volume'], color='salmon')
plt.title('UPI Volume Over the Years')
plt.xlabel('Year')
plt.ylabel('UPI Volume ')
plt.show()
```

Figure 5: Comparing the Expansion of Card Transactions with the Growth of UPI
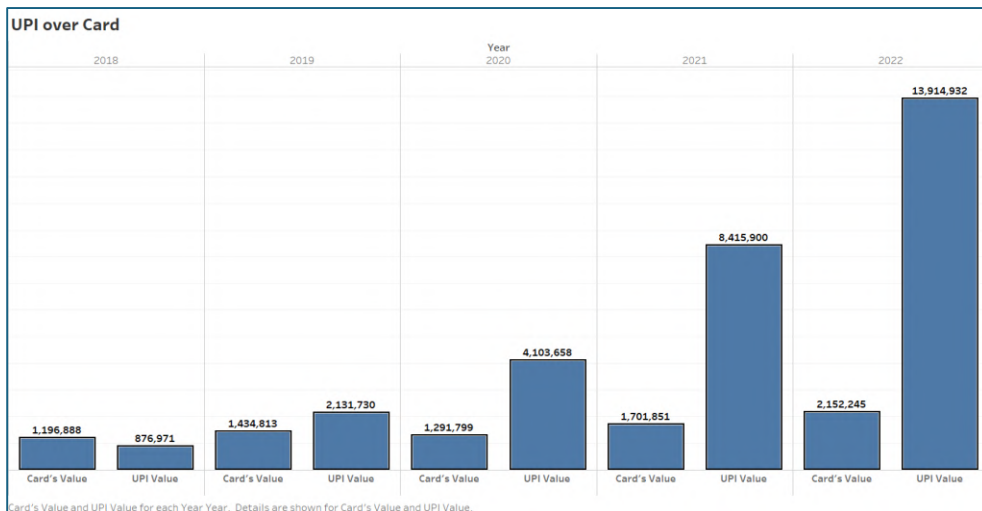
Source: Python Language

Analyzing the historical growth of UPI and card transactions using Tableau

Figure 6: Comparison of CARD Payments Value and
UPI Volume over the Years
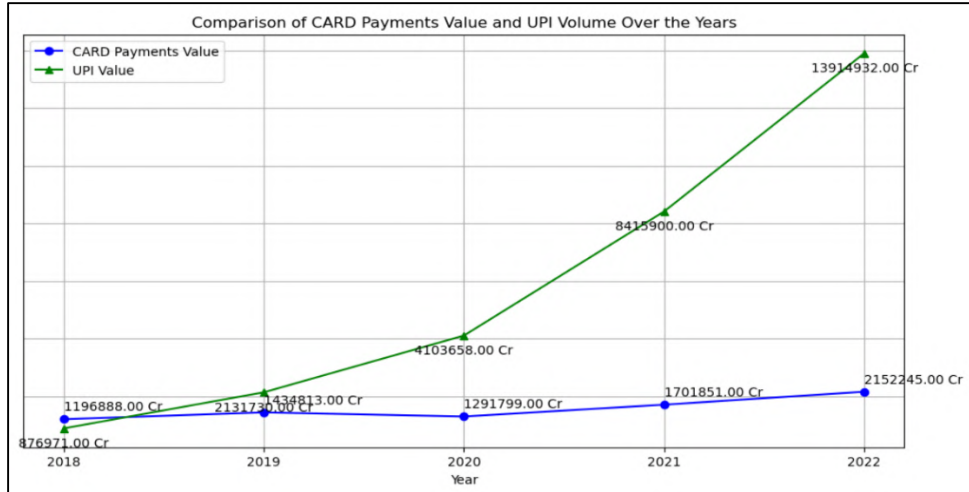
Source: Python

Analysing the historical growth of UPI and Card Transactions using Python
The above graphs show the specific growth that the UPI registered in comparison to the previously occurring card transactions through the financial years 2017 – 18 to 2022 -23. Through these graphs, we can see the increase in the volume of the UPI transactions over the years.

Contrasting the evolution of IMPS with the development of UPI over time.

Figure 7: Comparing IMPS & UPI Transaction Growth History using Tableau
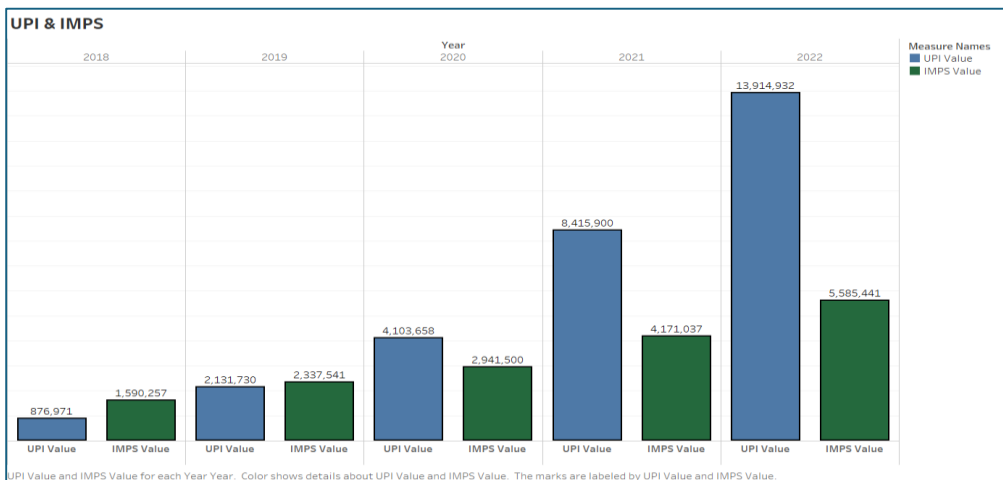
Source: IMPS

Figure 8: Comparison of IMPS Payments Value and
UPI Volume over the Years
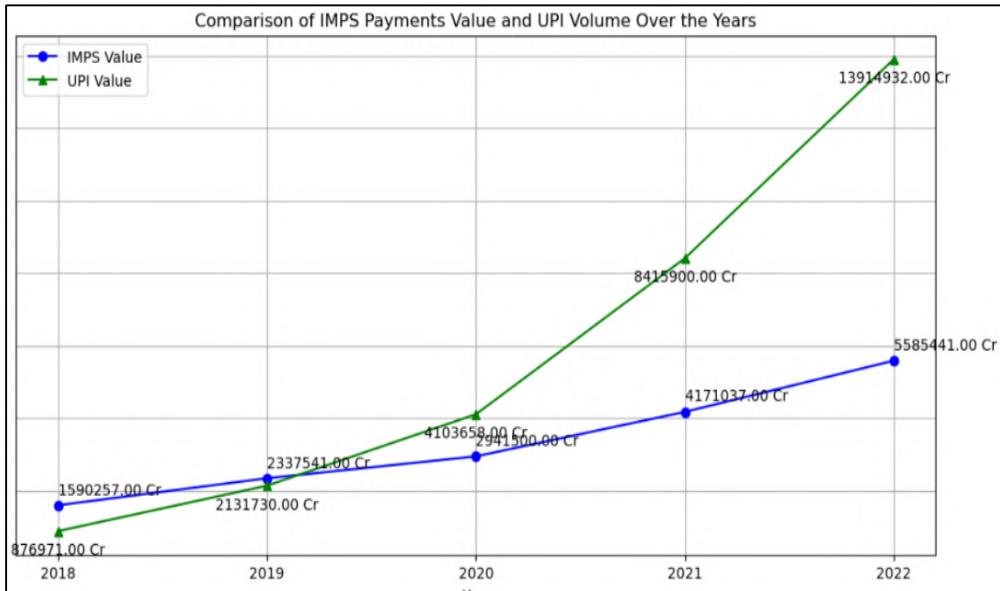
Source: Python

Comparing IMPS and UPI transaction growth historically using Python.

The graphs above can be seen showcasing the difference in the growth of transactions using both IMPS and UPI. We can see that even though there seems to be a growth through both the payment methods, UPI, has grown exponentially in comparison to IMPS over the last five years.

Contrasting the evolution of IMPS with the development of UPI over time

```python
plt.figure(figsize=(12, 6))
years = df['Year']
card_values = df['IMPS Value']
upi_volumes = df['UPI Value']
plt.plot(years, card_values, label='IMPS Value', marker='o', color='blue')
plt.plot(years, upi_volumes, label='UPI Value', marker='^', color='green')
for year, card_value, upi_volume in zip(years, card_values, upi_volumes):
    plt.annotate(f'{card_value:.2f} Cr', (year, card_value), textcoords="offset points", xytext=(0, 7), ha='left')
    plt.annotate(f'{upi_volume:.2f} Cr', (year, upi_volume), textcoords="offset points", xytext=(0, -15), ha='center')
plt.xlabel('Year')
plt.tick_params(axis='y', which='both', left=False, right=False, labelleft=False)
plt.title('Comparison of IMPS Payments Value and UPI Volume Over the Years')
plt.xticks(years)
plt.legend()
plt.grid(True)
plt.show()
```

Exploring the Dominance: UPI Transaction Volume as a Key Player in the Total Digital Transaction Landscape

Figure 9: UPI Volume in Respect of Total Digital Volume
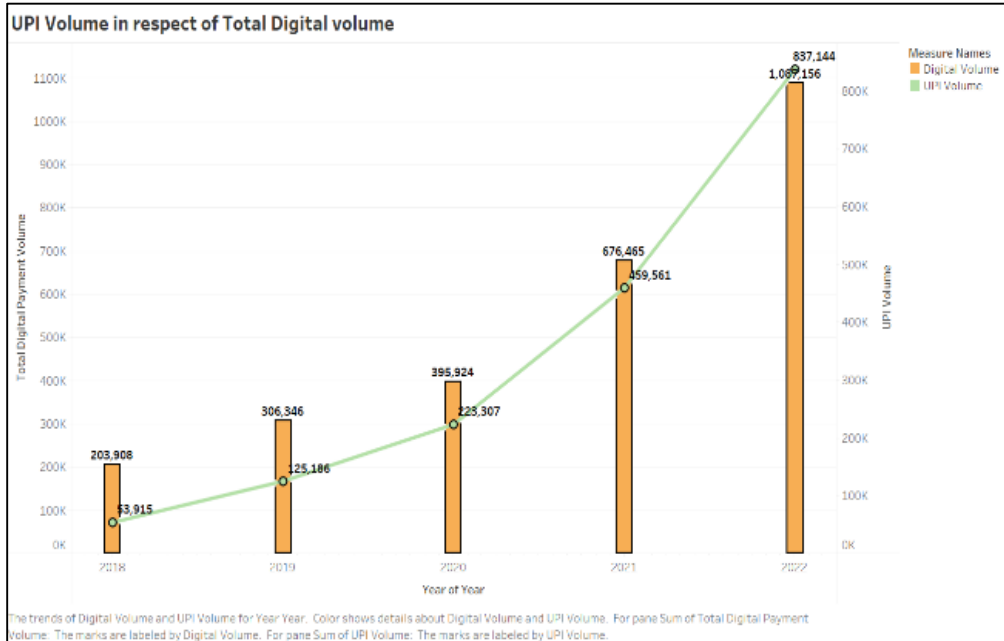
Figure 10: Comparison between Volume
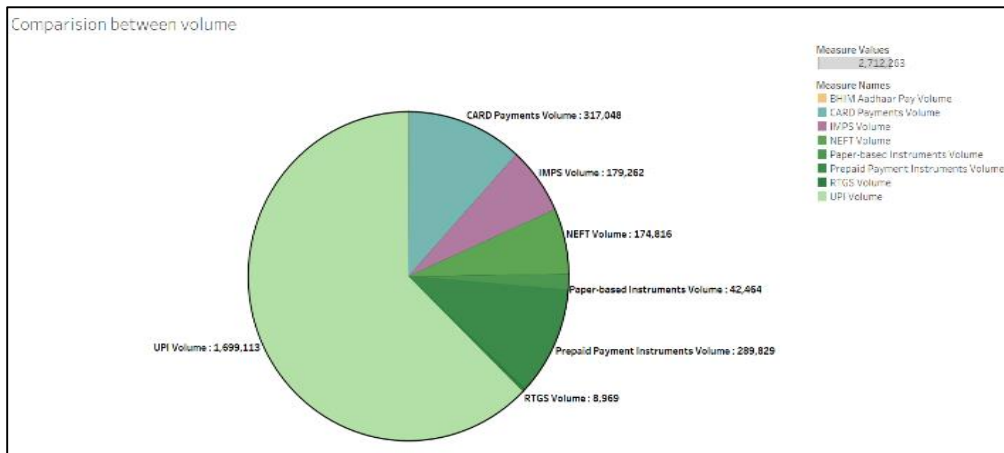
Going through the comparison as shown in the charts above, we can see that UPI, seems to have the humongous volume in comparison to other payments modes. We can see that UPI holds more than half of the entire market share and would be growing even more in the coming years. It has proven to be a key player in total digital transaction landscape.

8.0 Conclusion

The examination of digital payment systems from FY2018-19 to FY2022-23 indicates significant growth in India's digital finance sector. The increase in digital transactions, especially through platforms like UPI, marks a substantial move towards a cashless economy. The identified benefits of digital payments—convenience, economic advancement, security, and efficient monitoring—have enhanced transaction ease and promoted financial inclusion and safety. Additionally, the affordability and better financial management provided by digital payment systems suggest they could transform conventional financial methods. As data analysts, we predict a persistent rise in digital payments, driven by technological advancements, changing consumer habits, and consistent government backing. Nevertheless, maintaining this momentum requires continuous improvements in security, user education, and digital infrastructure to ensure a robust and secure digital finance environment for all involved. This analysis not only illuminates historical trends but also guides stakeholders—government entities, financial organizations, and companies—in shaping future plans, supporting the digitally driven economy that the 'Digital India' campaign envisions.

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CHAPTER 4

Biometric Finger Print Authentication System for Student Attendance

J. Anjana Meena*, J. Abdul Hak** and M. Shaik Sajit Ahamed***

ABSTRACT

Effectively managing student attendance is essential for all educational institutions across the globe. Conventional techniques for keeping track of attendance are labor-intensive, resource-intensive, and error-prone. Institutions are progressively implementing digital solutions, such automated attendance monitoring systems, to tackle these issues. By streamlining the attendance monitoring process and utilizing technology like biometric scanners, RFID, and mobile applications, these systems save teachers' and administrative staff's time. Additionally, they offer real-time data access, allowing for timely interventions for children in need of extra help. Automated systems also guarantee the confidentiality and accuracy of attendance data by lowering the possibility of mistakes that come with manual processes. To sum up, the utilization of automated attendance monitoring systems enhances efficiency, precision, and responsibility in overseeing student attendance, hence promoting a more effective and efficient educational setting.

Keywords: Biometric Scanners, Timely Saving, Attendance Monitoring Systems.

1.0 Introduction

Managing student attendance effectively is a vital component of educational institutions across the globe. Physically recording attendance using the old-fashioned way costs money in terms of time and resources, and it frequently results in mistakes and inefficiencies. But as technology develops, colleges and institutions are increasingly using digital solutions to speed up this procedure. Using automated attendance monitoring systems represents one such creative strategy that not only saves time but also lowers the possibility of errors that come with human techniques.

Reduce the Time Needed to Print Figures Student Attendance: Teachers as well as admin staff may save greatly of time by automating the tracking of students' attendance. Schools can speed up the process on taking attendance by using digital tools like mobile applications, RFID technology, and biometric scanners. These systems eliminate the need for human data entry by enabling the fast and accurate tracking of pupils who participate in classes or other events.

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Consequently, instead of wasting valuable time recording attendance, educators can concentrate more on providing high-quality instruction. Furthermore, automated systems offer instantaneous access to real-time data, facilitating prompt interventions for pupils who might need extra guidance or supervision.

Lowers the Chance of Figure Print Student Absence: Automated attendance monitoring systems not only save time but also lower the possibility of mistakes that come with human techniques. Errors caused by people, like losing attendance records, entering data incorrectly, or making illegal changes, can result in inaccurate student records. Schools can reduce these dangers by using digital solutions, which make sure that registration data is conveniently accessible and securely maintained. Moreover, automated systems improve the safety and accuracy of attendance records with features like GPS tracking and biometric authentication.

All things considered, using automated attendance monitoring solutions reduces the hazards involved with manual approaches while also saving time. Educational institutions can improve productivity, precision, as well as responsibility in managing the attendance of students by utilizing software to streamline this crucial work. Using creative approaches to tracking attendance as we move further into the digital era of education will surely create a more efficient and productive learning environment.

2.0 Objective and Methodology

2.1 Objective
- To save time for students attendance system using biometric recognition.
- To simplify the process of gathering student attendance data.
- To minimize the amount of physical labour involved in tracking attendance.

2.2 Methodology
A fingerprint device is used to obtain the fingerprint, which is subsequently entered into a database that has already been enrolled. When a student uses the fingerprint device to verify attendance, the information in the database is updated with the user's matriculation number indicating that they attended that specific lecture. Reports are sent out at the conclusion of the semester that list the students who are eligible for tests and the proportion of times they attended lectures. It is comprised of two steps: enrollment and authentication. In the Enrollment phase, the user's fingerprint is taken, its distinct features are extracted, and the user's identity is stored in a database that serves as a starting point for the; in the authentication phase, the user's fingerprint is taken again, and the extracted features are compared with the template in the database to see if they match before attendance is produced. The fingerprint-based administration system is implemented using Java on NetBeans with a Java development.

3.0 Review of Literature

Rahman (2018), the development of an automated student attendance system based on fingerprint recognition is the result of the revolution in information and computer technology. This method uses biometric features, such as fingerprints, retinal scans, and face traits, to do away with the necessity for paper tracking. It saves time for the payroll department and automatically logs work hours, making life easier for both enterprises and employees.

There are several kinds of automated attendance systems, including systems that use magnetic stripe cards, RFID technology, and the Internet of Things. An even more accurate method of tracking individual or group activities and attendance is provided by fingerprint-based attendance systems. The purpose of this project is to build a fingerprint authentication and student attendance management system that can be utilized by educational institutions.

Tenuche *et al.*, (2018), due to their carefree dispositions and excessive social activities, students frequently miss attending lectures. Lecturers and administrators in postsecondary institutions have devised strategies to guarantee that students attend lectures and laboratory work in order to promote optimal educational development. But issues like impersonation and manual attendance procedures have resulted in low attendance.

Systems for biometric authentication that use fingerprints have become popular as a way to combat tardiness and absenteeism. Because fingerprints are distinct and one-of-a-kind, they are perfect for personal identification. Students can use the fingerprint scanning feature of the system to register attendance. The system features an interface that allows lecturers to see and analyze student attendance by generating reports, and administrators to control users and attendance.

The problems with traditional attendance registration and management in higher education institutions are addressed by the biometric fingerprint-based attendance management system. It eliminates issues like friend signature, missing attendance sheets, and control over lecturer/student skip rates by providing quicker, more precise percentages of student attendance and the amount of lectures given by particular lecturers. In the future, the system should be changed to let students know their status, such as being prohibited from attending classes or having to take tests for particular courses. To make the process of taking attendance easier, a mobile version of the system might be created.

Subalakshmi *et al.*, (2021), the objective of this research is to distinguish between a legitimate student and a forger before they enter an exam room using fingerprint identification. It is suggested to implement a fingerprint-based test hall authentication system that would only permit authorized individuals to enter the examination area. The fingerprint scanner in the system is linked to a microcontroller circuit, which verifies the user's fingerprint. The driver unlocks a door to make sure only authorized individuals can enter if the fingerprint is legitimate. Identity cards

might be a preferable option if you want to authenticate users' identities by biometric access and examination impersonation.

Nikam *et al.*, (2021), before allowing students to take exams, academic institutions need precise documentation of their attendance and payment of fees. Identity verification is essential for security-related problems like internet transactions, cash terminals, and access control. Paper authentication, which includes student names, passport photos, and school authentication stamps, is frequently used by universities to verify eligibility. These passes, however, are susceptible to manipulation for fraud and impersonation. Lecturers can retrieve registered understudy fingerprints from a system that can recognize and validate them. This real-time report guarantees impartial assessment practices and aids in the prevention of impersonation.

4.0 Biometric FingerPrint Authentication System

Because of automated fingerprint identification systems that function in both verification and identification modes, fingerprints provide a quick and safe biometric identification approach. For the purpose of authentication, matching algorithms are employed to compare candidate fingerprints with previously stored fingerprint templates. Pattern-based algorithms and minute feature-based algorithms are the two main types of fingerprint authentication methods. While minute details like height ending, bifurcation, and short ridge are utilized to analyze fingerprints, pattern-based algorithms compare fundamental fingerprint patterns with a previously recorded pattern and a candidate fingerprint. The five modules that make up a standard biological fingerprint authentication system are the matching procedure, template database, biometrics capture, image processing, and feature extraction.
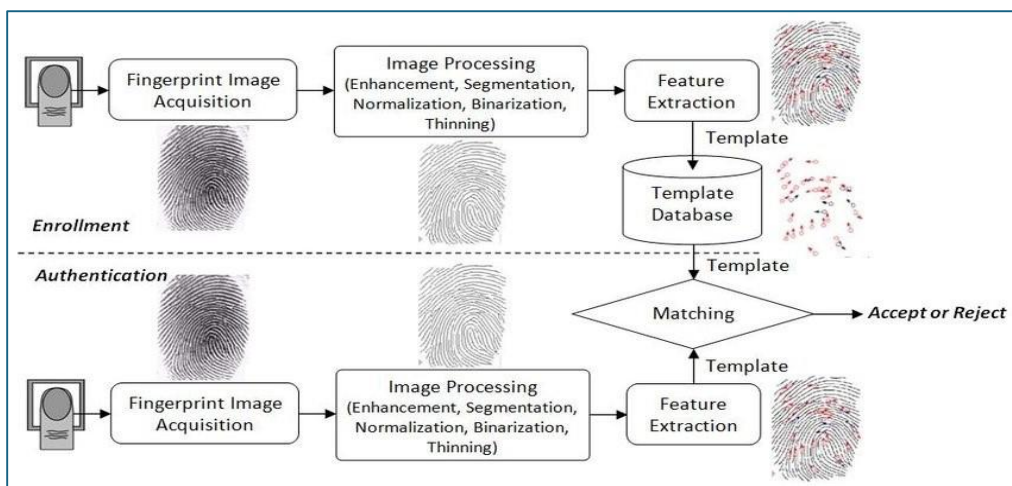
After the biometrics picture is acquired by the acquisition module, it is preprocessed, enhanced, normalized, segmented, binarized, and thinned to prepare it for the extraction of features or identification of little details. The matching module determines if a match or not by comparing the biometric data from the query and the template.

5.0 System Implementation

The biometric fingerprint-based student attendance management system's implementation and a detailed explanation of its main components are presented in this section. The following features of the Windows-based system that was implemented are its functionalities:

A. Staff Login: The application interface's index page, which contains the username and password, is also the login page. If the password and username match exactly, the user is considered registered in the database. The system then determines which kind of user to provide—admin or professor mode. The application's login window is displayed An error informing the user that their username or password is incorrect will appear if they enter incorrect login information!

Figure 1: Staff Login
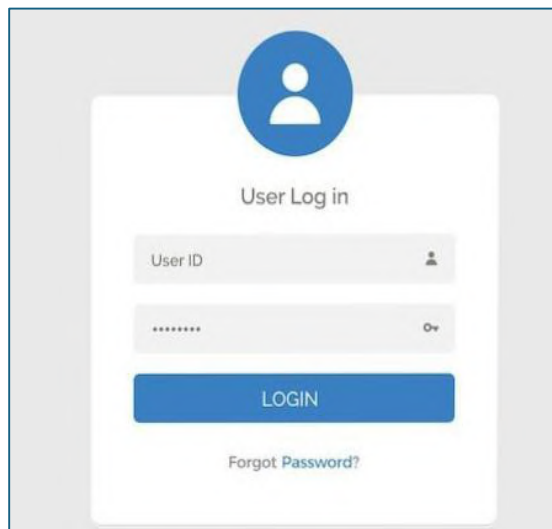
B. Interface for Attendance Information: The student user will see the personal zone form after access has been granted. As seen in this interface enables the user to perform several tasks, such as changing profile information and passwords, among other things. The lecturer can download a file in Excel with the extension ".CSV" for later use, make a report, and utilize the navigation to see which students are present for the course.

Figure 2: Interface for Attendance Information
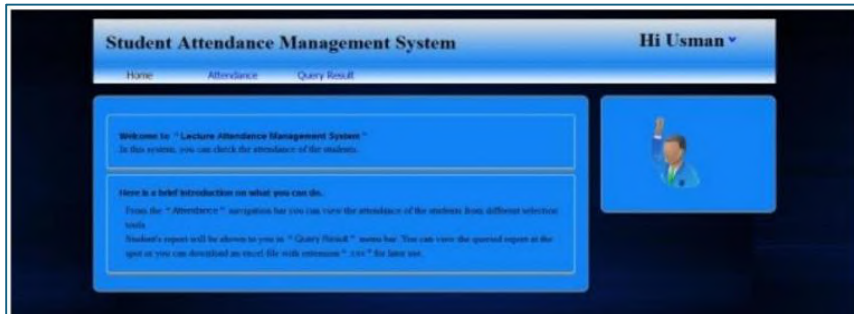
C. Particular Course Information System: A student's attendance for a certain course is displayed. Example of a course attendance page

Figure 3: Particular Course Information System
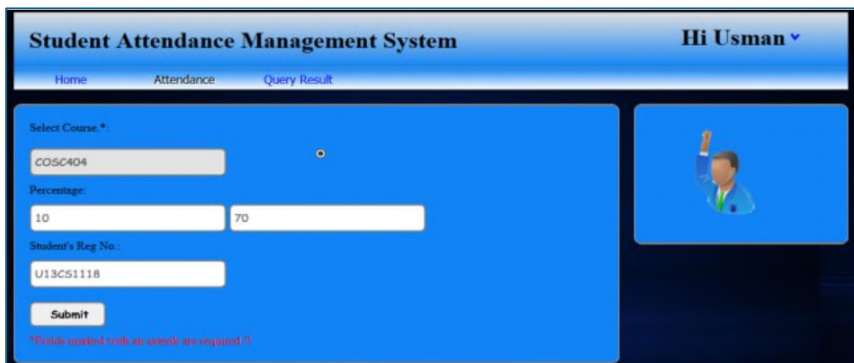
D. Report on Attendance for Each Student The website allows the instructor to save the analysis in a file in Excel format and shows the result of the executed query. It displays how many classes are taught, how many students attend, and what proportion of students attend.

Figure 4: Particular Course Information System
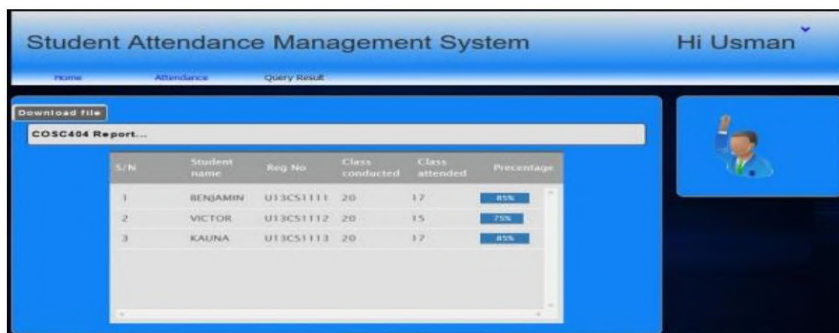
E. Including and Overseeing Students: The admin user of the system can check reports of attendance for all courses and add and remove courses. Additionally create a student profile so they can view attendance.

Figure 5: Including and Overseeing Students

F. Enrollment Interface for desktop use: The enrolment procedure, shown in captures the fingerprints of the students and keep it in the information system. Additionally, it shows the fingerprint image as it was taken to ensure accuracy and provide an update while the procedure goes on.

Figure 6: Enrollment Interface for Desktop Use
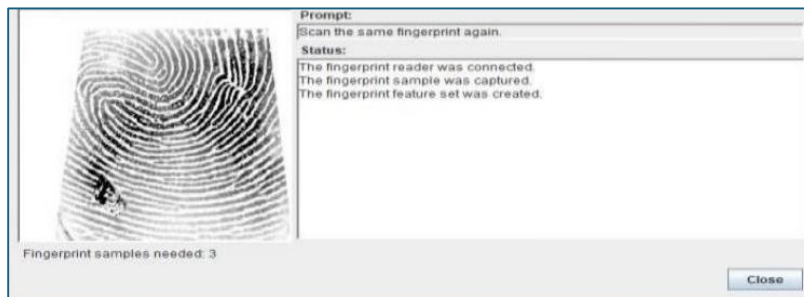
G. Verification Interface for Desktop Use: The interface indicates the status of the attendance report and indicates the fingerprint scan as indicated in

Figure 7: Verification Interface for Desktop Use
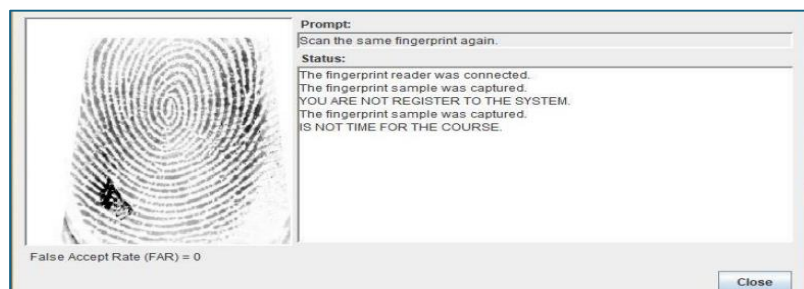
6.0 Advantage and Disadvantages

6.1 Advantage
- Teachers and staff can save time.
- Reduces the number of inaccuracies in attendance logs.
- Promotes student responsibility.

6.2 Disadvantages
- Tracking attendance can be interfered with by technical issues.
- The initial setup expenses can add up.
- Biometric data may give rise to privacy problems.

7.0 Future Work

- ATM based on fingerprint technology.
- One way to eliminate manual attendance that any student can sign on behalf of another student is to implement finger print based student attendance utilizing GSM.

8.0 Conclusion

The outline discusses the benefits of automated attendance monitoring systems in educational institutions, focusing on biometric recognition, RFID, and mobile applications. It highlights their efficiency, accuracy, and potential to improve student engagement and academic performance. The methodology details the specific technologies and tools used, while the literature review provides an overview of existing research and systems. The system implementation section details the software and hardware components, user interface design, and potential challenges. The conclusion summarizes the project's significance and future directions.

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CHAPTER 5

The Role of Exchange Traded Funds (ETFs) in Diversification

M. Vasanthakumar*, S. Mohamed Jasam** and M. Mohamed Irsath***

ABSTRACT

This study investigates the pivotal role of Exchange-Traded Funds (ETFs) in achieving portfolio diversification. ETFs, known for their ability to track a wide range of underlying assets, offer investors a cost-effective and efficient means of spreading investment risk. The research highlights the strategic advantages of ETFs, such as liquidity, transparency, and the ease of gaining exposure to various market segments. The findings underscore the importance of ETFs in modern portfolio theory, particularly in the context of optimizing asset allocation and managing market volatility. The study advocates for a balanced approach, typically favoring a mix of 60% stocks and 40% bonds. A quantitative research design has been adopted for this study and primary data were collected from the respondents of (82) samples from the investors with the tool's SPSS software with various analysis of Anova and Correlation. The research suggests a proactive stance in portfolio oversight, recommending the selection of suitable ETFs that align with the investor's determined asset allocation and cover various sectors and asset classes.

Keywords: ETFs, Portfolio Diversification, Risk Management, Asset Allocation, Market Volatility, Investment Strategy, Quantitative Analysis.

1.0 Introduction

Diversification is a key strategy for investors who want to reduce their risk and optimize their returns. However, achieving diversification can be challenging, especially for individual investors who have limited resources and access to different markets. This is where exchange-traded funds come in handy. ETFs are investment vehicles that can help investors diversify their portfolios and reduce their costs. ETFs are collections of securities that track the performance of a specific index, market segment, or asset class. They can be traded on stock exchanges like regular stocks, offering liquidity and flexibility. In this essay, I will explain how ETFs play a crucial role in achieving diversification within an investment portfolio.

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I will discuss the variety, efficiency, and performance of ETFs that can suit different investors needs and goals.

2.0 Objectives of this Study

- To identify the benefits of ETFs for diversification, such as variety, efficiency, and performance.
- To provide the different types of ETFs that can suit different investors needs and goals.
- To compare the ETFs with other investment options, such as mutual funds, stocks, and bonds.

3.0 Statement of the Problem

Investors often seek to diversify their portfolios to reduce their risk and optimize their returns. However, achieving diversification can be difficult, especially for individual investors who have limited resources and access to different markets. Exchange-traded funds are investment vehicles that can help investors diversify their portfolios and reduce their costs. ETFs are collections of securities that track the performance of a specific index, market segment, or asset class. They can be traded on stock exchanges like regular stocks, offering liquidity and flexibility. However, ETFs also pose some challenges and risks, such as market volatility, tracking errors, and fees. The purpose of this essay is to examine the role of ETFs in diversification, and to evaluate their benefits and drawbacks for different types of investors.

4.0 Research Design

Research design is the conception framework within which research is conducted and published. A scholar for his research prepares an action plan and it constitutes the outline of the collection, measurement, and analysis of data.
Sampling method: A quantitative research design has been adopted for this study to understand the role of Exchange traded funds (EFTs).
Data collection
Primary data: Primary data has been collected from the investors of online brokerage platform.
Sampling area: The data was collected from the respondents from within the areas of Thanjavur.
Sampling size: The primary data were collected from the respondents of (82) samples from the investors of online brokerage platform.
Sampling tool: The primary data were collected by the SPSS software with various analysis of Anova and correlation.
Sampling techniques: The sampling technique adopted for the study is a purposive

sampling technique. In the purposive sampling approach, the investment which is made on the Exchanged traded fund (ETFs) have been selected for the survey to ensure representation across demographics and usage patterns.

Statistical tool used: For this research, descriptive statistics, Anova and Correlation were used to analyse the collected data using a statistical package for the social science (SPSS) software.

5.0 Limitations of the Study

- Samples size is small and might not represent the whole population.
- The study is only within the areas of Thanjavur.
- Data depends upon respondents' views, which could be biased in nature.
- Some of the respondents hesitated to answer truly and frankly.

6.0 Scope of the Study

The study will examine the role of ETFs in portfolio diversification, focusing on their ability to offer exposure to various asset classes and market segments. It will assess how ETFs contribute to risk management and compare their performance with traditional investments. The research will review different ETF types and their alignment with investors' goals and risk profiles, considering recent trends and the specific context of emerging markets. The aim is to understand ETFs' impact on portfolio resilience amid market volatility.

7.0 Review of Literature

Vattoli (2022) this study aims at studying the growth and development of Exchange Traded Funds in India during the last ten years. The growth of ETFs is studied by analysing the increase in the Assets under Management of ETFs and number folios in the gold and non-gold ETF funds in India. In short ETFs have reported decent growth over the years both in terms of assets and number of investors. Agarwal & Dey (2023) the main objective of this research is to evaluate the performance of ETF funds. The analysis shows that tracking error is much higher for ETFs so the ETFs performing better in the market. From the analysis of the active returns of ETFs, we found that ETFs outperformed their underlying index in CNX Nifty. The analysis is positive for all ETF the funds. Thus, the analysis shows that the all-ETF funds are performing better and giving the better returns to the investors.

Petrova (2015) the article discusses the basics of exchange-traded fund, does a brief review on the emergence of exchange-traded funds, and provides information of exchange-traded funds. Exchange-traded fund is a type of exchange-traded product. By owning ETF investor receives two important advantages are found. They

are diversification of index fund and the flexibility of trading financial assets. Lettau & Madhavan (2018) the discussion in this paper has suggested a number of reasons behind this growth. First, there are the traditional advantages of exchange-traded funds in terms of liquidity, low fees, transparency, and potential tax advantages. Second, the universe of ETFs has been expanding beyond the traditional equity-based funds, including funds providing access to fixed income, commodities, currency, volatility, multi-asset class structures, and "smart beta" or factors. Many of these new ETFs represent a blurring of the traditional line between active and passive management. Third, the investor base of ETFs has also been expanding are founded.

Zawadzki (2020) the research was conducted on the basis of 18 different ETFs issued by iShares, six for each of three regions: both Americas, Asia and Europe. This study evaluates the performance of Exchange-Traded Funds by using various tracking error calculation approaches. The results indicate that ETFs do not mimic their corresponding indexes well. Calculated tracking errors do not equal zero and are often significantly negative. Furthermore, the value of tracking errors depends on the region and the degree of market development.

Trainor *et al.*, (2020) this study demonstrates how a portfolio of leveraged exchange traded funds (LETFs) targeting a unit exposure to their underlying indexes outperforms a portfolio using traditional ETFs while simultaneously reducing downside risk. The results are primarily a function of LETFs borrowing short while the investor lends the additional wealth generated from this leverage in one- to seven-year Treasury bonds or similar type of assets.

Elton *et al.*, (2019) Over 26% of investment company assets are held in passively managed vehicles the choice between two alternatives: the lowest cost index fund and the lowest cost exchange traded fund. If the investor followed a strategy of selecting either the index fund or ETF each period, whichever had the lower expenses, the institutional investor would be better off by 5 basis points per year compared to always selecting the ETF while the performance of retail investors would be unchanged. Zhi Da & Shive (2017) the results in this paper suggest that they may also lead to excessive' movement among these assets. There is no doubt that the ETF structure provides great benefits. Among others, ETFs provide a cheaper and more efficient way for investors to diversify into a broad asset portfolio. The costs could even be passed on too many passive individual investors who invest through the institutional investors.

8.0 Data Analysis and Interpretation

Data collected from the respondents were analyzed and interpreted in accordance with the objectives of this study. The analysis of data was performed using statistical treatment with SPSS (Statistical Package for Social Science). In role of exchanged traded fund (EFTs) in diversification.

Table 1: Showing Correlation of the Respondents between Diversification and Commodity ETFs

Correlations			
		diversification	Commodity ETFs
ETFs is lower than actively managed funds, making them an economical choice for diversification.	Pearson Correlation	1	0.122
	Sig. (2-tailed)		0.276
	N	82	82
Commodity ETFs are ideal for investors aiming to diversify their portfolio and hedge against inflation.	Pearson Correlation	0.122	1
	Sig. (2-tailed)	0.276	
	N	82	82

Source: Primary data

Interpretation: The correlation coefficient between diversification and Commodity EFTs is 1. This is a perfect positive correlation, which means that there is a perfect linear relationship between the two variables. In other words, according to the data in this table, as the diversification score increases, the Commodity EFTs score also increases. The fact that the correlation is perfect suggests that there is a very strong relationship between the two variables in this data set. The p-value in the table (0.276) indicates that the correlation coefficient is not statistically significant at the 5% level. This means that there is not enough evidence to reject the null hypothesis that there is no correlation between diversification and Commodity EFTs.

Hypothesis 1

Null Hypothesis (H0): There is no significant difference between holdings and currency ETFs.

Alternative Hypothesis (H1): There is a significant difference between holdings and currency ETFs.

Table 2: Showing Anova between Holdings and Currency ETFs

ANOVA					
Holdings and Currency ETFs					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4.106	4	1.026	0.500	0.736
Within Groups	158.199	77	2.055		
Total	162.305	81			

Source: Primary data

Interpretation: ANOVA was performed to examine the significant difference between Holdings and Currency ETFs. Result of ANOVA showed P-value 0.736 is less than 0.05. Hence null hypothesis is rejected. There is significant difference between holdings and currency ETFs.

Hypothesis 2

Null Hypothesis (H0): There is no significant difference between Hands-off approach and more flexibility.

Alternative Hypothesis (H1): There is a significant difference between Hands-off approach and more flexibility.

Table 3: Showing Anova between Hands-off Approach and More Flexibility

ANOVA					
Hands-off Approach by more Flexibility					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	20.787	4	5.197	4.342	0.003
Within Groups	92.152	77	1.197		
Total	112.939	81			

Source: Primary data

Interpretation: ANOVA was performed to examine the significant difference between Hands-off approach and more flexibility. Result of ANOVA showed P-value 0.003 is less than 0.05. Hence null hypothesis is rejected. There is significant difference between Hands-off approach and more flexibility.

9.0 Suggestion

- Determine an Appropriate Asset Allocation: Base your portfolio on long-term goals, risk tolerance, and time horizon. A typical long-term investor might opt for a 60% stocks and 40% bonds allocation.
- Select Suitable ETFs: Choose ETFs that align with your determined asset allocation, ensuring they cover various sectors and asset classes.
- Rebalance Regularly: Adjust your portfolio periodically to maintain your target asset allocation, which may shift over time due to market movements.
- Consider Thematic ETFs: For exposure to emerging trends and innovations, thematic ETFs can be a valuable addition to a diversified portfolio.
- Monitor and Review: Stay informed about the performance and composition of the ETFs in your portfolio to ensure they continue to meet your diversification objectives.

10.0 Findings

- *Broad Market Exposure:* ETFs tracking major indices, like the S&P 500, allow investors to hold a stake in all constituent companies, thereby spreading risk across a wide array of stocks.

- *Access to Diverse Asset Classes:* ETFs simplify the investment process, enabling investors to gain exposure to different asset classes such as stocks, bonds, and commodities, which would otherwise require significant capital and research.
- *Geographic and Sector Diversification:* Investing in international or sector-specific ETFs can mitigate risks tied to any single country or industry, providing a strategic edge in portfolio management.

11.0 Conclusions

This research has illuminated the pivotal role of Exchange-Traded Funds (ETFs) in modern portfolio management, offering broad market exposure, access to diverse asset classes, and opportunities for geographic and sector diversification. ETFs have proven to be instrumental in democratizing investment opportunities, allowing investors to participate in a wide spectrum of markets with relative ease and flexibility. The findings underscore the importance of a strategic asset allocation, tailored to an investor's long-term objectives, risk tolerance, and time horizon. The study advocates for a balanced approach, typically favoring a mix of 60% stocks and 40% bonds, while also emphasizing the need for regular rebalancing to adapt to market shifts. Moreover, the research suggests a proactive stance in portfolio oversight, recommending the selection of suitable ETFs that align with the investor's determined asset allocation and cover various sectors and asset classes. It also highlights the potential of thematic ETFs to capitalize on emerging trends and innovations, adding a valuable dimension to a diversified portfolio. This approach should be supported by continuous learning and monitoring to adapt to the ever-changing financial landscape, ultimately leading to a more effective and dynamic investment experience.

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CHAPTER 6

Impact of Digital Entrepreneurship on the Social Environment

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ABSTRACT

Many studies have demonstrated entrepreneurship as a key driver of economic growth and a means to reduce unemployment. Understanding all the concepts related to entrepreneurship is essential for success in this field. To thrive in the market and achieve business goals, entrepreneurs must stay updated on changes in customer preferences and market trends. Utilizing modern digital technologies and software for communication and product enhancement is often necessary. Given the prevalent reliance on national and multinational technologies in today's world, integrating these technologies into business operations is crucial. Digital entrepreneurship plays a pivotal role in enabling entrepreneurs to perform activities accurately and effectively. By leveraging digital applications, entrepreneurs can enhance the market value of their products and develop their businesses both conventionally and technologically. Information and communication technology (ICT) proficiency is a critical component of digital enterprise success, facilitating business improvement. This comprehensive study provides detailed insights into digital entrepreneurship, offering valuable knowledge to individuals involved in business ventures.

Keywords: Economic Growth, Unemployment, Entrepreneurship, Digital Entrepreneurship, Information and Communication Technology, Digital Enterprise, Digital Articrafts, Digital Platform, Digital Infrastructure.

1.0 Introduction

The present world is changing drastically in all fields especially in information and communication technologies (ICT). In this scenario, the rapid increase of digital technologies with new innovative functionalities is transforming competitive environments, modifying general business strategies, structures and procedures (Bharadwaj et al. 2013). For example, in the networked economy motorized by digital technologies, many firms or companies are becoming smaller with only one individual where partnerships are changing. Innovative digital technologies like social media, big data, and mobile and cloud solutions are giving rise to new methods of collaborating, leveraging resources, product/service design, development and deployment over open standards and shared technologies (Markus and Loebecke, 2013).

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They are in turn influencing the business activities by generating employment opportunities. For example, Alibaba.com is a digital technology which enabled millions of Chinese people to become entrepreneurs and also responsible to create employment.

Even though digital technologies generating vast employment opportunities, they are also creating many challenges. The labor market is being modernized through digital technologies. Many countries like Australia are facing many challenges in order to meet the economic competition. In order to face these challenges and remove the hurdles, the countries are suggested to take over digital entrepreneurship and gain an appropriate position. Digital entrepreneurship increases the rate of employment through ICTs like internet, mobile technology, social computing and digital platforms (Davidson & Vaast, 2010; Oestreicher-Singer & Zalmanson, 2013; O'Reilly, 2007; Onetti, Zucchella, Jones, McDougall-Covin, 2012).

Digital entrepreneurship can be simply defined as an entrepreneurial business which is carried out through a digital channel. Many companies started digital business by selling their goods online in order to meet the competition in the market. As this became a need, the concentration on how to start a business venture is growing with utmost importance. People who want to start a digital business should clearly know the difference of digital and traditional entrepreneurship, opportunities, downfalls and obstacles in digital entrepreneurship. For this, people require a format or a framework of digital entrepreneurship which consists of all the details regarding new digital venture like its features, objectives. This study simply provides a brief description and the process of digital entrepreneurship for understanding the concept.

2.0 Review of Literature

Davidson & Vaast (2010) defined digital entrepreneurship as an act of identifying and utilizing new business opportunities which are offered by new media and internet technologies. It is same as traditional entrepreneurship in the sense that financial profits can be created through digital ventures and are directly associated with economic activities like new business establishment or commercialization of a business or innovation. Hair, Wetsch, Hull, Perotti & Hung (2012) stated that in case of digital entrepreneurship, all the activities of business are digitally operated instead of traditional layout. Hair (2012) said that the major difference between digital and traditional entrepreneurship is the business models and strategies that are followed by the companies for marketing and distribution of products.

According to Reuber & Fische (2011), a digital enterprise is termed as a person or a business that utilizes ICTs in order to communicate between customers and partners. This involves activities with a main aim of selling products or services which are digitalized. Simmons, Armstrong & Rosenbloom (1993) opined that digital entrepreneurship involves large firms like hardware, software and network

technologies to small firms which utilize information and communication technologies to organize their business activities.

Vasilchenko & Morrish (2011) opined that small scale business firms which perform their actions with the support of ICT applications like online accounting, Wi-Fi – hotspot, phone backup, artificial intelligence soft wares, social computing websites like music consumption, and small mobile and internet based businesses like classification/cataloguing of specialized information, travel/recruitment agencies and buy-sell marketplace can also come under digital entrepreneurship.

It is important for everyone to understand the difference between digital entrepreneurship and traditional entrepreneurship. From the above review, we can say that digital entrepreneurship is related to the firms or entrepreneurial business that depends on digital technology whereas traditional entrepreneurship deals with business that is related to normal business strategies and procedures. This is explained further in detail.

3.0 Entrepreneurship and Digital Entrepreneurship – Its Difference

The concept of entrepreneurship is already explained through several studies' literature (Kumtko and Hodgens, 2004; Cunningham and Lischeron, 1991: Timmons and Spinclli, 2005). Entrepreneurship is an activity which consists of identifying and utilizing opportunities, converting these ideas and opportunities into useful goods and services, adding value to them in long run, taking risk and obtaining rewards. Entrepreneurial actions can include activities in new and old ventures, non-profit organizations and also public sector. An important feature of entrepreneurship is creating a new value for a product through innovation.

Digital entrepreneurship is a sub group of entrepreneurship which involves digitalization methods in the functioning of its activities. Hence, digital entrepreneurship is related to digital business activities along with some digital goods and services (Clyde Hull, 2006). Traditional entrepreneurship can also be converted into digital business in order to increase the intensity of business. Some of the advantages of digital business include developing business activities, extend businesses by starting new ventures, improving business intelligence and communicating with large number of customers in less time. The growth of digital entrepreneurship can also lead to invention of new methods and technologies.

One of the major differences between digital and traditional entrepreneurship is the type of a product i.e. good or a service. If a new business offers digital products, then it is said to be mildly digital, and also experience some variations in customers' response to those goods. Understanding how a digital entrepreneurship works can make many practitioners and business people to establish digital ventures.

Second major difference between digital and traditional entrepreneurship is the workplace. As soon as the products are digitalized, the physical space will be automatically reduced. DeSanctis and Monge (1999) assumed that virtual forms of

digital ventures can offer products and services with a better cost as this process involves the usage of computer mediated –communication (CMC) within and between an organization and also some important external stakeholders (suppliers & customers). The importance for CMC in modern businesses is growing making it essential in virtual ventures.

4.0 Importance of Digital Entrereneurship

Venture assumes the critical job in monetary development and expectation for everyday comforts of the neighborhood network. By doing the best for their organizations, business people engage nearby network, provinces, and national financial system all in all. Business visionaries, contradicted to work searchers, are work makers, who besides utilizing themselves, utilize neighborhood populace and thus, increment their business power. Ascent of their organizations lead to expanded way of life of nearby network. By doing their business movement, business visionaries draw in nearby assets and different firms, permitting them to be a piece of their inventory network, and along these lines moving capital and ventures to neighborhood networks. Digital enterprises are different from traditional enterprises because they rely on different business models and fully of the digital technology to pursue their products and services, as well as marketing and distribution activities. Advances in digitisation and developments in information and communication technologies is changing the business environment, transforming business practices and creating opportunities for new types of entrepreneurial activities. Compared to starting a new venture in the non-digital arena, "it is easy to become a digital entrepreneur. The Republic of Croatia is still at the beginning of the potential of digital growth. This is a great opportunity for the local enterprises to leverage their businesses and hence, their local communities, with the smart use of the latest technologies. In order to support digital entrepreneurship within the EU, European Commission has developed a digital entrepreneurship policy framework, structured along five pillars describing key factors of digital entrepreneurship. These pillars are: 1) Digital knowledge base and ICT market, 2) Digital business environment, 3) Access to finance, 4) Digital skills and e-leadership and 5) Entrepreneurial culture.

4.1 Digital knowledge base and ICT market
Public and/or private sector support the creation of new companies and foster the development of existing ones that embrace digital. Knowledge diffusion to enhance digital innovation is encouraged. ICT sector acts as an engine for diffusion and commercialization of new services/ideas.

4.2 Digital business environment
A clear and supportive regulatory environment makes doing digital business simple, market entry is facilitated and there is an active and dynamic supply and

demand of digital technologies. Access to and trust in digital markets is heightened as a result of an improved ICT infrastructure.

4.3 Access to finance

Enhanced access to finance is available, targeted at the creation, survival and growth of digital entrepreneurs. Traditional forms of lending are complemented by innovative mechanisms targeted at enhancing digital investments.

4.4 Digital skills and e-leadership

A supportive education system exploits the new opportunities arising from ICT development, so individuals have the skills and the knowledge to improve business efficiency and develop new business models powered by digital. Entrepreneurs and business leaders are more e-competent and able to enhance growth and internationalization.

5.0 The Digitalization of Entrepreneurial Processes

Adding to business enterprise writing, Nambisan (2016) shows that the dynamic and liquid limits of advancement have rendered pioneering forms less limited than in the customary economy. Subsequently, enterprising procedures reflect gradual and nonlinear ways encouraged by advanced relics and stages. The digitalization of enterprising procedures has assisted with separating the limits between the various periods of the pioneering procedure and has altogether preferred the decrease of creation to advancement hindrances

(Anderson, 2014; Steiniger, 2019). Consequently, late papers on DE don't concentrate on the recognizable proof of enterprising stages, yet rather on the way by which business visionaries can scale their thoughts into feasible organizations while utilizing computerized innovations to support opportunity acknowledgment, ideation, thoughts approval and testing, and plan of Compelling plans of action. Specifically, Huang et al. (2017) recognize three unexpected systems supporting quick scaling:

1. Information driven activity;
2. Moment discharge; and
3. Quick change and depict how these components communicate in the fast scaling of computerized adventures. Along a similar vein, Srinivasan and Venkatraman (2018) show that business enterprise achievement is complicatedly associated with the moves of different business visionaries and facilitated inside and across stages.

6.0 Digital Entrepreneurial Ecosystem

While computerized business and enterprise biological system are all around created subjects in the surviving advancement and business writing, the idea of

computerized enterprise nvironment is for the most part new and not very many endeavors exist to give a self-governing definition. Advanced enterprising environment as the mix of components inside an area that underpins the improvement and development of creative start-ups seeking after new open doors introduced by computerized innovations. This conceptualization isolates the computerized enterprising environments from those pioneering biological systems based on advanced stages like web based business commercial center and group financing stage. Presented the possibility of advanced business enterprise biological system as a group and shared exertion among "computerized species", which permits beating the asset impediment of a solitary firm and quicken the production of advanced new companies.

7.0 Pillars of Digital Entrepreneurship

Many studies, as said above, digital entrepreneurship differs from traditional or general entrepreneurship in many aspects which have been examined for years. The European Commission (2013) recognized 5 elements as pillars of digital entrepreneurship in which each element is related to analyze the concept of entrepreneurship.

- Digital knowledge base and ICT market
- The Digital business environment
- Access to finance
- Digital skills and e-leadership and
- Entrepreneurial culture

1. **Digital Knowledge Base & ICT Market**: Digital knowledge base is a type of technology which is used to store complex unstructured and structured data or information which is used by computer systems. A digital knowledge based system comprises of knowledge – base that characterize the facts and an interface engine that justify these facts and also use many rules and logical forms in order to produce other facts from existing information. Information and communication technology is also one of the technologies that are responsible for transmitting all kinds of information of industries or companies electronically. ICT is the major tool or technology that is used for process of digital entrepreneurship.

2. **Digital Business Environment**: Digital business environment can be explained as a virtual place in which one or more computer systems are used to record or save business information and details of individuals' interaction. This can be done through digital social environments, also called as social networking sites which consist of single central server to share information or data to each and every client.

3. **Access to Finance:** Finance is the primary concept and requirement for every business to carryon both short term and long term activities effectively. Access to

finance is defined as the capability of an individual or an enterprise to attain financial services along with credit, deposit, payment, insurance and other risk managing services. The extent of finance depends on the type of business, its products and services. The management of available finance is very important for every entrepreneur for reducing financial risks. There are many formal and informal financial services which provide financial support.

4. **Digital Skills & E – Leadership:** There are many kinds of skills which are essential for every individual who wants to become an entrepreneur. Among them, the digital skills are related to digital entrepreneurship. Digital skills can be defined as the skills of an individual which are associated with the usage of digital technologies. Attention on the process of using digital technologies should be more to eliminate the disturbances in digital business environment. E – Leadership, in other words, electronic leadership, is a process to influence the people in order to change their attitudes, intentions, behavior and also performance in the way they can achieve their goals perfectly. E – Learning can be used not only for digital entrepreneurship, but also for other aspects in order to attract people towards the specific fields.

5. **Entrepreneurial Culture**: An entrepreneurial culture is defined as an environment where people are influenced and motivated to obtain innovative thinking power to bear risks. In the case of business, an entrepreneurial culture is a program or a place where employees are encouraged to express their innovative thoughts or products. Whenever the time during work is involved in this, it is called as intrapreneurship. E – Leadership can be said as a part of entrepreneurial culture as e -leadership can be used to create an effective entrepreneurial culture.

8.0 Conclusion

Emerging digital technologies are disrupting businesses, and companies are increasingly accelerating their corporate digital entrepreneurship initiatives. This is not only true for start-up or small companies but equally important for large organizations as they need to transform their businesses and remain competitive in the market. Managers can develop new business, and operating models by leveraging digital technologies and coming up with new products are services that were not possible earlier. Cultural changes are critical to orchestrating structural changes in the organization. A proper sensing strategy is a prerequisite to understanding the internal and external environments for corporate digital entrepreneurship opportunities which are influenced by digital technologies.

Once opportunities are identified, digital commitment is necessary to support these initiatives by allocating proper resources and implementing suitable operating models to seize those opportunities. Companies should also provide learning and development opportunities for their employees to become digital employees. Ecosystem partnership is very important and a company cannot provide the entire

business solution, so strategic alliances and customer management are critical for corporate digital entrepreneurship.

As larger organizations are implementing digital technologies to foster corporate digital entrepreneurship, they can identify potential business ventures to strengthen their competitive positioning in the market. For industrial businesses, product-as-service business models could be piloted for newer products and services. The organizations can develop joint go-to-market (GTM) strategies with alliance partners to address customer requirements. Corporate digital entrepreneurship must be a corporate mandate and a proper organization structure, headed by a CDO or Chief Information Officer (CIO), could foster corporate digital entrepreneurship.

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CHAPTER 7

A Study on Customer Perception towards Credit Cards Issued by Banks

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ABSTRACT

This study delves into customer perception and behavior towards credit cards, exploring the various dimensions that influence how people view and utilize these financial tools issued by banks. This research combines quantitative surveys to gather statistically significant data on customer satisfaction, perceived benefits and drawbacks, and feature preferences. In addition, qualitative interviews will delve deeper, exploring the emotions, motivations, and decision-making processes behind these perceptions. Employing a mixed-method approach, this study investigates customer perceptions of credit cards. Quantitative surveys will assess overall satisfaction, perceived advantages (rewards, convenience) and disadvantages (debt, fees) of credit cards. Thematic analysis of qualitative interviews will explore the underlying reasons behind these perceptions, including trust in banks, security concerns, and the influence of factors like cultural background and past experiences. By identifying association between these variables and customer behavior, the study aims to uncover key themes and narratives that shape how people view and utilize credit cards. These findings can inform banks on how to improve their credit card offerings, enhance customer experience, and tailor marketing strategies to better cater to diverse consumer segments. Credit cards offer a convenient and versatile financial tool, but responsible use is crucial to avoid potential pitfalls. This study aims to gain insights into customer perceptions and usage patterns of credit cards. The research questions explored customer awareness, frequency of use, perceived benefits, and satisfaction with credit card features and services. The samples are collected in Thanjavur. Structured and well- designed questionnaires are utilized to gather primary data from respondents. The sample consists of 132 respondents. By understanding these factors, banks and financial institutions can develop targeted marketing strategies, improve customer service, and enhance credit card offerings to cater to diverse customer needs and promote responsible credit card usage.

Keywords: Customer Perception, Credit Card Behavior, Customer Satisfaction, Trust in Banks, Credit Card Offerings, Customer Experience.

1.0 Introduction

Credit cards have drastically altered the way we handle transactions by deeply embedded in modern-day finance.

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A credit card is a convenient financial tool that enables users to make purchases, pay bills, and access cash advances with ease. It works like a flexible line of credit, allowing cardholders to borrow money up to the issuing bank's predefined limit. Credit cards often come with additional benefits such as rewards programs, purchase protection, and fraud liability coverage. The widespread of credit card adoption is undeniable, however a complex series of perceptions operates beneath the surface, influencing how consumers see these financial instruments. This detailed research aims out to solve the unexplained issues concerning consumers' perception about credit cards issued by banks. Knowing the details of consumer perception towards credit cards provides banks and customers with a wide range of information. Banks can use this information to create credit card offerings that really convey to particular customer groups. Banks can nurture deeper customer relationships and accelerate corporate growth by customizing products, benefits, and advertising approaches to meet the changing demands and preferences of their customers.

2.0 Objectives

1. To analyze how the credit cards are useful among the customer.
2. To study about the awareness and safety among the customers.
3. To ascertain the frequency of using credit cards and the benefits perceived by users.
2. To identify the main problems faced by the credit holders.
3. To find out the satisfaction of card holders towards credit cards.

3.0 Statement of Problem

Credit cards are now used not only by economically well of people but by all, who need the benefits of the same. Today, they are a way of life for the middle class too, even in smaller locations across the country. Customer awareness and perception are crucial aspects of understanding the features, benefits, and risks associated with using credit cards. This includes factors like credit limits, interest rates, reward programs, and security features. Usage patterns are also essential, examining spending habits and frequency of use. Risk factors, such as financial and security risks, are identified. Customer satisfaction is assessed, influenced by factors like customer service, dispute resolution, and terms and conditions clarity. Demographic factors, such as age, income, and occupation, also play a role in influencing customer perceptions and usage of credit cards. As the competition among the credit cards players are strong, they are offering many benefits such as reward points, cash back and many others to attract and retain customers.

4.0 Scope of the Study

Rapid credit card growth has increased transaction efficiency. People have started using credit cards even for small transactions as against in the past where it

was used only in the crisis season. Credit cardholders are given the option to carry forward their payments. This study will analyze the perception of card holders towards credit cards and the factors influencing possession of credit cards. An effort has been taken to study satisfaction level of the credit card holders. The study also analyses the extent of utilization of credit cards by card holders and the level of awareness of bank customers having credit cards about the benefits of such cards.

5.0 Research Design

Research design will enable the researcher to achieve the objectives of the research in a scientific way. The descriptive research approach was employed in this research. It has supported the researcher to find the perception, usage, and awareness of credit cards among the bank customers. A detailed survey is conducted through questionnaire method. The research will be presented with both primary and secondary data.

6.0 Sample Design

Sampling design is imperative in every scientific study. Hence, the researcher decided to collect the data through convenience sampling.
Sampling area: The area of study covers the rural individuals of Thanjavur district.
Sampling size: 132 respondents are taken up for the study.
Tools used for analysis: This study employed Statistical Package for Social Science (SPSS) tool for analyzing the data.
Chi-square test.

7.0 Review of literature

Zhao, Peng, and Li's study (2021) on online consumer credit behavior in China found that factors such as affect, facilitating conditions, perceived consequences, and social influence significantly impact such behavior. They found that better services, technological innovation, credit limit, and financial literacy positively affect continuous use intention. Social factors such as normative beliefs, motivation to comply, and peer effect also played a role. The authors recommend standardizing and managing online credit markets and promoting financial education to promote rational consumption among China's young generation.

A study by Chen *et al.*, (2021) used the U.S. National Financial Capability Study dataset to investigate the relationship between consumer financial knowledge and credit card use. The results showed that higher financial knowledge positively impacted credit card ownership and desirable behaviors, while negatively related to undesirable behaviors. However, financial knowledge could not enhance desirable credit card behaviors for low-income individuals, indicating income limitations. The

study suggests policymakers, financial sectors, and consumers should improve consumer financial knowledge and cultivate proper consumption habits to improve financial literacy. Akela's (2020) text explores credit cards, which are issued by banks or businesses, allowing users to make purchases on credit. The article provides historical insights into banking and the evolution of bank services, including the development of credit cards. The study methodology is exploratory and descriptive, with results showing that credit card users are mainly males aged 26-45, employed in the business sector. The author emphasizes the importance of using credit cards judiciously and the need for issuers to approach their target customers carefully.

8.0 Data Analysis

Null Hypothesis: There is no association between how long respondents are holding the banks credit card and the customer services provided by the banks.

Table 1: Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.9133[a]	16	0.224
Likelihood Ratio	19.894	16	0.225
N of Valid Cases	132		

Source: Primary data

Since the p value is more than 0.05, the null hypothesis is accepted and the alternative hypothesis is rejected. It is found that there is no association between how long respondents are holding the banks credit card and the customer services provided by the banks.

9.0 Findings of the Study

- (36.6.1%) of the respondents learnt about the bank's credit card they currently hold through the bank representative.
- (35.1%) of the respondents found that travel reward was the most appealing features of the bank's credit card.
- (29.1%) of the respondents agreed that the bank's credit card provides good value for the annual fees charged.
- (28.4%) of the respondents are satisfied with the rewards and benefits offered by their current credit card.
- (29.9%) of the respondents were neutral about the opinion that they would recommend the bank's credit card to family or friends.
- (30.6%) of the respondents stated that the interest rates and fees associated with the bank's credit card is important in their decision-making process.

- (32.8%) of the respondents agreed that there are issues or challenges with the bank's credit card services or features.

10.0 Suggestions

- *Customer Education:* The bank could invest in educating customers about the benefits and features of their credit cards. This could help increase the usage of all features and benefits.
- *Improve Transparency:* The bank should continue to maintain transparency regarding fees, charges, and reward program details. This could help build trust and satisfaction among customers.
- *Enhance Customer Service:* The bank should strive to provide responsive and helpful customer service for credit card-related queries or issues. This could improve the overall customer experience.
- *Competitive Advantage:* The bank should aim to offer competitive rewards, benefits, and customer service compared to competitors. This could help attract and retain more customers.
- *Security Measures:* The bank should continue to enhance the online security features for credit card transactions. This could help protect customers from fraud and increase their confidence in using the bank's credit cards.
- *User-Friendly Interface:* The bank should aim to make it easy for customers to manage their credit card account online or through the bank's mobile app. This could improve the overall customer experience.

11.0 Conclusion

The purpose of this study is to document the various motivating factors of using credit card services and to report the problems they are exposed to in accessing the services in Thanjavur District. The results obtained from the study have practical implications for existing and potential credit card users of Thanjavur District. The Extent of usage of credit cards is smaller among higher proportion of the card holders. Customer's satisfaction is found to be moderate because of high rate of interest. Customers expect facilitating services from their banks at higher level. Card holders perceive lack of proper advice from banks as a major problem. Credit card market is needs to realize its potential yet. Many customers prefer debit card instead of credit cards. The debit cards too help them avoid carrying cash and enable withdrawal of cash through ATM and they need not be afraid of falling into debt trap as in the case of credit cards.

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CHAPTER 8

A Case Study on Sales Forecast Analysis in Mamaearth: Using SWOT Analysis

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ABSTRACT

The technique is historically attributed to Albert Humphrey in the 1960s, however this is questionable. There is no widely accepted inventor. Also known as the SWOT Matrix, it has gained popularity as a tool for differentiating and building a niche in the larger market. Beyond the commercial sector, SWOT Analysis may be used at the individual level to examine a person's status in comparison to their competitors. This case study examines the sales projection analysis of Mamaearth, a renowned company in the natural and organic personal care products market. It employs a SWOT analysis to evaluate the company's external opportunities and threats, as well as its internal strengths and weaknesses. The study focuses on factors like natural products, generation outsourcing, worldwide proximity, and competition to optimize sales forecasting strategies for long-term growth and market competitiveness. Mamaearth is a digital-first FMCG firm whose goods are sold on direct-to-consumer platforms. The firm not only generates safe green space through high-quality plantations, but also creates jobs, builds infrastructure, conducts educational programs, and provides rural development initiatives to enhance the standard of living in communities.

Keywords: Sales Forecasting, Natural Products, Competition, Customer Behaviors, Supply Chain.

1.0 Introduction

A SWOT examination may be a strategy utilized to decide and assess the points of interest, drawbacks, openings, and dangers confronting an organization. Qualities, Shortcomings, Openings, and Dangers are alluded to as SWOT (Christine Namugenyia, 2019). The primary objectives of SWOT examination are to extend mindfulness of the variables that go into making a commerce choice or building up a commerce methodology (Anthony C. Danca, 2014). Mamaearth specializes in toxin-free and characteristic items. With its grouping of skincare, haircare, and childcare merchandise, the brand fundamentally caters to mothers and their newborn children.

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Mamaearth's SWOT examination is the inside and external potential and dangers to the wellbeing and wellness of natural companies will be the most subjects of dialog (Mostafa Ali Benzaghta, 2021). Typically, Mamaearth's SWOT examination. Mamaearth's success relied heavily on trust and credibility. The brand gained several certifications and affiliations, including MadeSafe, Allergy UK, PETA, and ECOCERT, to back up their claims and reassure customers about product safety and quality. They also took a straightforward approach, including thorough ingredient lists, product information, and delighted customer feedback. Mamaearth's dedication to openness and trustworthiness helped them establish a solid brand reputation and acquire consumer confidence.

2.0 Objectives

- To ascribe the Mamaearth's quick development and broad ubiquity to its vigorous online nearness, successful e-commerce procedure, and compelling computerized promoting.
- To develop into outside markets, utilizing its brand esteem.
- To give eco-friendly items and has maintainability endeavors, such as planting trees to counterbalance their carbon effect and getting to be plastic negative.
- To place a solid accentuation on cultivating supportability, paying break even with consideration to items.

3.0 Scope of the Study

Mamaearth's SWOT analysis would include assessing the company's internal strengths and weaknesses, as well as external opportunities and threats, to determine the possible influence on sales performance. The study's goal is to give significant insights for projecting future sales trends and finding strategic growth prospects by performing a thorough research of Mamaearth's market position, competitive landscape, consumer preferences, and industry trends. This research evaluates Mamaearth's SWOT aspects to guide choices, optimize sales tactics, and improve business performance in the competitive retail market.

- Mamaearth can enter new markets with a desire for natural products.
- Mamaearth faces competition from other personal care companies and price fluctuations for raw materials.

4.0 Review of Literature

Namugenyia *et al.*, (2019), this study examined that the significance of SWOT analysis across various industries, emphasizing the importance of identifying attribute dimensions for multidimensional modeling. It highlights the integration of

supply chain events into the framework, aiding SWOT analysts and business researchers. The methodology promotes reuse of SWOT artifacts across domains, unifying perspectives and facilitating connections between industry stakeholders. Successful implementation across multiple industries and integrated business environments is noted, with future opportunities in leveraging Big Data for enhancing SWOT analysis. However, research limitations and practical implications are acknowledged.

Table 1: Review of Literature

Authors	Article titles
Namugenyia *et al.*, (2019)	Design of a SWOT Analysis Model and its Evaluation in Diverse Digital Business Ecosystem Research.
Danca (2014)	SWOT Analysis Research for providing leverage to the company.
Ahmadi *et al.*, (2016)	A SWOT analysis of big data Research for safeguard sensitive data.
Benzaghta *et al.*, (2021)	SWOT analysis applications: An integrative analysis application: An integrative literature review.
Wang (2007)	A Process view of SWOT Analysis

Source: Secondary data

Atony (2014), in this study, analyzed that the fully leverage the SWOT analysis, it's not just about identifying strengths, weaknesses, opportunities, and threats; it's crucial to minimize weaknesses and avoid threats. Weaknesses should be addressed to turn them into strengths, while threats should be converted into opportunities. Additionally, strengths and opportunities should be aligned to maximize the firm's potential, providing leverage for the company.

Ahmadi *et al.*, (2016), this studied that big data, stemming from traditional statistics and management science, merges modern IT advancements to collect, store, and analyze vast data in near real-time. While offering unprecedented opportunities, caution is needed to ensure sound analysis and safeguard sensitive data.

Benzaghta *et al.*, (2021), this study provided an integrative review of SWOT analysis across various fields, such as general management, academia, marketing, healthcare, and agriculture. It examined the procedure of SWOT studies and discussed the incorporation of other methods. Key research papers utilizing SWOT analysis.

Wang (2007), this study scrutinized that the framework enhances SWOT analysis in three keyways:

- It introduces a process-oriented perspective by integrating five changes into the SWOT matrix, allowing for strategic decision-making across different stages of the business life cycle.
- By establishing a connection between Western quadruple categories and Chinese five elements, it offers a method to transform quadruple sets into the five-change framework, facilitating better understanding and application of SWOT analysis.

- It explores the strategic implications of business life cycles using Chinese five changes, enabling managers to leverage the SWOT matrix effectively and consider shifting strategies throughout the business life cycle phases.

Table 2: SWOT Analysis of Mamaearth

Strength	Natural products: Mamaearth is Asia's to begin with and as it were a secure certified organization, advertising a comprehensive run of normal and toxic-free products. Vigorous supply chain: Mamaearth encompasses an establishment of solid and dependable providers of crude materials and active compounds, with a quick conveyance framework and solid dissemination.
Weakness	Less number of Outlets: Mamaearth includes an exceptionally little number of physical shops, which limits its capacity to develop showcase shares and calls into address its nearness in offline commerce. Generation Outsourcing: Mamaearth does not have a generation office; consequently, they depend on third-party makers.
Opportunity	Modern trends in Customer behaviors: Changing shopper behaviors show Mamaearth with a modern opportunity to utilize cognitive advertisements to affect buyers. Worldwide nearness: Mamaearth's incredible normal and toxic-free merchandise can help individuals diminish their carbon impression.
Threats	Competition: With the rise within the ubiquity of common merchandise, major companies such as HUL, P&G, Dabur, and others are entering the showcase, coming about in furious contention among brands**.** Climates alter: Unobtrusive varieties in natural conditions, such as temperature and precipitation, can have a critical impact on crude fabric conveyance.

Source: Secondary data

Figure 1: Mamaearth Share Price since Listing
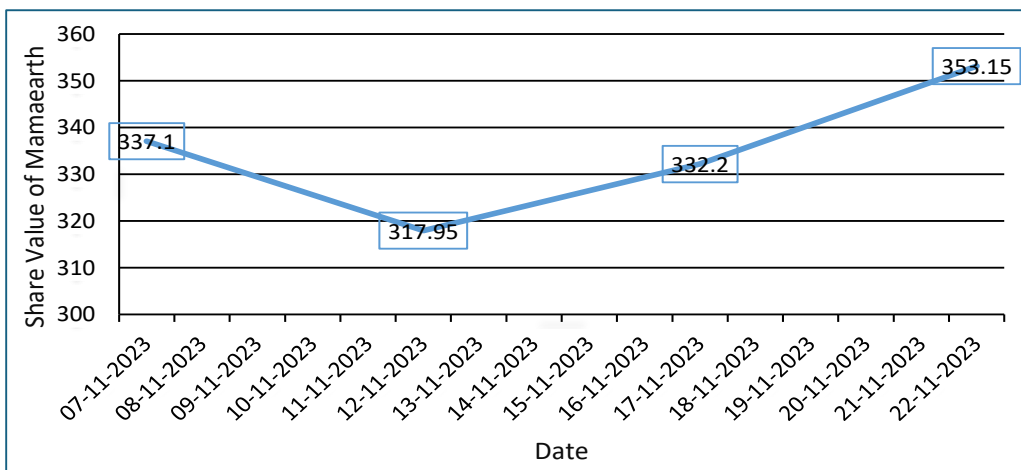
Source: Secondary data

Interpretation: According to Honasa survey of share price of mamaearth is uniquely positioned as it's the largest digital-first beauty and personal care (BPC) company in India in terms of revenue in FY23. The above graph represents the Mamaearth Share Price listing that shows Bear stage from (07/11/2023 to 12/11/2023), Bull stage from (12/11/2023 to 22/11/2023). Despite this, the company aims to expand distribution channels and increase brand awareness, spending 35% of its revenues on advertising. Mamaearth, its flagship brand, focuses on toxin-free beauty products with natural ingredients.

5.0 Data Analysis and Interpretation

Table 3: Mamaarth Sales Forecast Analysis

Categories of Product	Percentage
Operational challenge	54.00%
Market research	26.00%
Brand image	20.00%
TOTAL	100%
Collaboration	Percentage
Retail partnership	55.10%
YouTube influencer & collaboration	24.50%
Cross promotion	20.40%
TOTAL	100%

Source: Primary Data

Figure 2: Mamaearth Sales Forecast Analysis
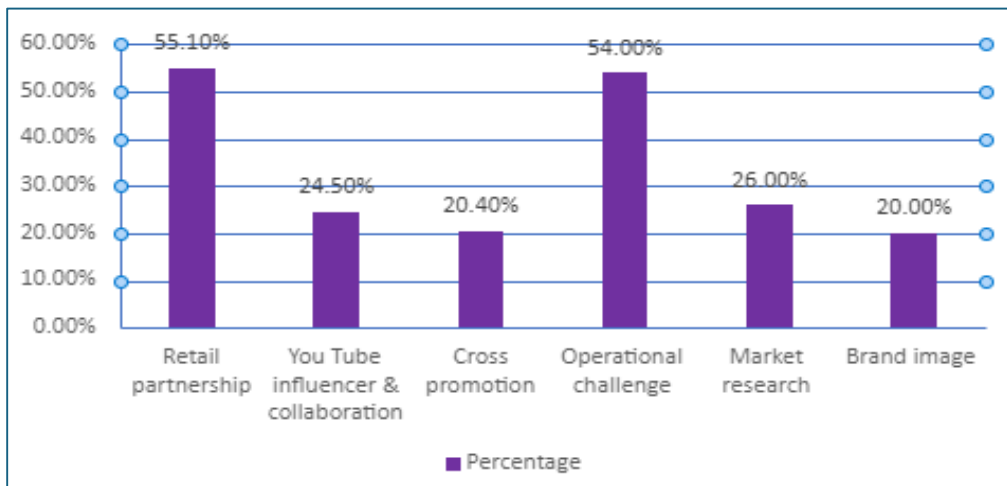
Source: Primary Data

Interpretation: The above table and chart show that Mamaearth offers a wide range of products to meet customer demands, but 54% of respondents face

operational challenges. Market research and brand image are also important factors. Managers suggest addressing these challenges when expanding product offerings. Potential partnerships to enhance the sales force include retail partnerships (55.1%), YouTube influencer collaboration (24.5%), and cross-promotions (20.4%). Retail partnerships are favored by 55.1% of respondents, while cross-promotions are preferred by 24.5%. Overall, focusing on retail partnerships could boost Mamaearth's sales force effectiveness.

6.0 Conclusion

According to Mamaearth's SWOT analysis, the company has been following their customers very keenly with strong committed natural and toxin-free products, and successful digital marketing tactics. Mamaearth's performance in the personal care sector can be further increased by addressing issues with price and offline presence, taking advantage of conscious consumerism, product diversity, and environmental activities. Mamaearth can sustain its growth and uphold its reputation as a reliable supplier of safe and natural personal care products by capitalizing on its advantages, avoiding possible dangers, and adhering to its basic principles.

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CHAPTER 9

Carbonex Index in Strengthening Sustainable Economic Development in India

Kaleeshwari S.* and Benneet S.**

ABSTRACT

Companies are nowadays aiming for sustainable development. Also, investors nowadays are concerned with the sustainable initiatives taken by these companies. Companies that are aiming for long-term initiatives over sustainable development will attract investments from investors' Carbonex is an index that measures the sustainable initiatives taken by the companies. The stock of Indian companies that are committed to mitigating risk arising from climate change is better performed this year. The Sensex has also jumped this year. This index in person provides an effective way for equity investors to manage the risk of climate change over the period. It becomes necessary for a country like India, to access the effectiveness of a sustainability-based index and whether it is creating any improvement in the economy due to the improvement in the price and return of the Carbonex index. A detailed analysis has been made of the BSE Carbonex index and its effect on developing the economy. The price and returns have been taken to analyze the true picture of this index on the country's development. The entire indices have been selected and the analysis has been made using the advanced econometric software EViews in concluding the results of the data used.

Keywords: Carbonex, Price, Return, Effect, Relationship, Development.

1.0 Introduction

Companies are nowadays aiming for sustainable development. Also, investors nowadays are concerned with the sustainable initiatives taken by these companies. Companies that are aiming for long-term initiatives over sustainable development will attract investments from investors' Carbonex is an index that measures the sustainable initiatives taken by the companies. The stock of Indian companies that are committed to mitigating risk arising from climate change is better performed this year. The Sensex has also jumped this year. This index personally provides an effective way for equity investors to manage the risk of climate change over the period.

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This index is introduced to provide a benchmark and increase awareness about the dangers posed by climate change. It will enable investors to gauge the performance of the constituent companies of the BSE-100 index regarding their commitment to greenhouse gas emission reduction. Constituents of BSE Carbonex are over or underweight compared to the benchmark based on their performance in the assessment process. The assessment will be based on the carbon emission and carbon efficiency of companies. The index will encourage people to invest in companies performing well on the index thus promoting low carbon growth. The Index has been developed with the help of expertise from the U.K.

2.0 Review of Literature

The possibility for increased economic benefit increases with the improvement of organizational environmental practices (Wagner, 2013). Therefore, increased environmental commitment from Indian organizations could result in long-term economic gains that surpass the negative effects of the Covid -19 pandemic. Similar to how investors in India use indices like the BSE SENSEX to make investing decisions, they also use the S&P BSE CARBONEX to measure environmental risk reduction (Bhandari et al., 2020). Similarly, the BSE GREENEX directs investors towards environmentally conscious choices by acting as a performance indicator for greenhouse gas emissions among BSE-listed businesses (Bhattacharya, 2013). Although these indices have been criticized for being in their early phases of development (Sharma & Jasuja, 2020), investors who are concerned about the environment have paid particular attention to GREENEX's stability (Choudhary & Jain, 2018). Notably, compared to traditional market-capitalization-based indexes like SENSEX and NIFTY, socially conscious indices like GREENEX and CARBONEX have drawn more investment in the Indian economy during previous stock market crises (Tripathi & Bhandari, 2015)

3.0 Statement of the Problem

It becomes necessary for a country like India, to access the effectiveness of a sustainability-based index and whether it is creating any improvement in the economy due to the improvement in the price and return of the Carbonex index. A detailed analysis has been made of the BSE Carbonex index and its effect on developing the economy. The price and returns have been taken to analyze the true picture of this index on the country's development. The entire indices have been selected and the analysis has been made using the advanced econometric software EViews in concluding the results of the data used.

The above problem has been discussed along with research problems:

Whether BSE carbon index has any cause or effect on economic factors in India?

What kind of relationship and impact does it create on the economic factors?

4.0 Objectives of the Study

- To study the cause and effect of the Carbonex index on select Macroeconomic factors in India.
- To analyze the Relationship between Carbonex index on select Macroeconomic factors in India.
- To examine the impact of the Carbonex index on select Macroeconomic factors in India.

5.0 The hypothesis of the Study

- There is no significant cause and effect of the Carbonex index on select Macroeconomic factors in India.
- There is no significant relationship between the Carbonex index on select Macroeconomic factors in India.
- There is no significant impact of the Carbonex index on select Macroeconomic factors in India.

6.0 Research Methodology

The study is analytical in nature.
Source of data: The data are a secondary source of information and are collected from the official websites of the National Stock Exchange, Reserve Bank of India, the World Bank, and other news articles, journals, and magazines.
Period of the study: The study period covers from 2019 Jan to 2021 Dec.
Tools used for the study: Statistical tools are used for the study such as granger causality, covariance analysis, and regression analysis.
Analysis and interpretation: There is no significant cause and effect of the Carbonex index on select Macroeconomic factors in India.

Table 1 depicts the Pairwise Grangers Causality for BSE Carbonex and Macroeconomic Factors in India. Based on the results it can be concluded that none of the factors such as export, foreign exchange reserve, gross domestic product, or import is causing or influencing the forecasting of BSE Carbonex. The null hypothesis is rejected concluding that there is no cause and effect of BSE Carbonex on Macroeconomic factors nor do Macroeconomic factors have their cause and effect to forecast.

Table 2 depicts the Pairwise Grangers Causality for Macroeconomic Factors in India. Based on the results it can be concluded that none of the factors such as export, foreign exchange reserve, gross domestic product, or import is causing or influencing forecasting any of the macroeconomic factors. The null hypothesis is rejected concluding that there is no cause and effect of Macroeconomic factors on

any of the factors. There is no significant relationship between the Carbonex index on select Macroeconomic factors in India.

Table 1: Pairwise Grangers Causality for BSE Carbonex and Macroeconomic Factors in India

Null Hypothesis:	Obs	F-Statistic	Prob.
Export does not Granger Cause BSE_Carbonex	31	1.42388	0.2589
BSE_Carbonex does not Granger Cause Export		0.28536	0.7541
FER does not Granger Cause BSE_Carbonex	34	0.05227	0.9492
BSE_Carbonex does not Granger Cause FER		0.08868	0.9154
Gross_Domestic_Product does not Granger Cause BSE_Carbonex	34	0.10713	0.8988
BSE_Carbonex does not Granger Cause Gross_Domestic_Product		0.54352	0.5865
Import does not Granger Cause BSE_Carbonex	34	0.15986	0.8530
BSE_CARBONEX does not Granger Cause IMPORT		0.82386	0.4487
Inflation does not Granger Cause BSE_Carbonex	34	1.09869	0.3468
BSE_Carbonex does not Granger Cause Inflation		1.26605	0.2971
FER does not Granger Cause Export	31	0.24705	0.7829
Export does not Granger Cause FER		1.22910	0.3090
Gross_Domestic_Product does not Granger Cause Export	31	2.30140	0.1202
Export does not Granger Cause Gross_Domestic_Product		0.15816	0.8545

Source: Computed from EViews

Table 2: Pairwise Grangers Causality between Macroeconomic Factors in India

Null Hypothesis:	Obs	F-Statistic	Prob.
Import does not Granger Cause Export	31	0.54553	0.5860
Export does not Granger Cause Import		0.86745	0.4318
Inflation does not Granger Cause Export	31	1.17133	0.3258
Export does not Granger Cause Inflation		2.56340	0.0964
Gross_Domestic_Product does not Granger Cause FER	34	0.97033	0.3909
FER does not Granger Cause Gross_Domestic_Product		0.04815	0.9531
Import does not Granger Cause FER	34	1.08386	0.3516
FER does not Granger Cause Import		14.1675	5.-05
Inflation does not Granger Cause FER	34	1.76729	0.1887
FER does not Granger Cause Inflation		1.44843	0.2514
Import does not Granger Cause Gross_Domestic_Product	34	0.09433	0.9103
Gross_Domestic_Product does not Granger Cause Import		0.40348	0.6717
Inflation does not Granger Cause Gross_Domestic_Product	34	2.04415	0.1477
Gross_Domestic_Product does not Granger Cause Inflation		0.36450	0.6977
Inflation does not Granger Cause Import	34	2.07287	0.1441
Import does not Granger Cause Inflation		2.82871	0.0755

Source: Computed from EViews

Table 3 Covariance analysis for BSE Carbonex and Macroeconomic factors in India. Based on the results the Exports have a high co-variance and relationship with BSE Carbonex and Imports do have co-variance along with a high positively

correlated with BSE Carbonex and exports, apart from that inflation has a strong positive relationship with Exports. Hence the significant value is below 0.05 and the null hypothesis is the accepted conclusion that there is covariance as well as a relationship. There is no significant impact of the Carbonex index on select Macroeconomic factors in India.

Table 3: Covariance Analysis for BSE Carbonex and Macroeconomic Factors in India

Probability	BSE Carbonex	Export	FER	Gross Domestic Product
BSE Carbonex	170974.7			
	1.000000			

Export	1.49E+10	4.95E+15		
	0.510543	1.000000		
	3.410871	-----		
	0.0017	-----		
FER	493266.0	7.84E+11	2.56E+09	
	0.023570	0.220148	1.000000	
	0.135437	1.296462	-----	
	0.8931	0.2038	-----	
Gross Domestic Product	92.16679	-23515569	-7169.835	1.453910
	0.184859	-0.277236	-0.117486	1.000000
	1.080555	-1.657571	-0.679610	-----
	0.2877	0.1069	0.5015	-----
Import	2.37E+10	6.47E+15	1.33E+12	-25891628
	0.549880	0.882642	0.252653	-0.206172
	3.781911	10.78700	1.500045	-1.210369
	0.0006	**0.0000**	0.1431	0.2347
Inflation	83.96767	39251701	12917.65	-0.490675
	0.138388	0.380255	0.173933	-0.277318
	0.802704	2.361811	1.014633	-1.658108
	0.4279	**0.0242**	0.3177	0.1068

Source: computed from EViews

Table 4 shows the regression analysis between BSE Carbonex and Inflation in India. The R-value of .104 shows the relationship among the variables. And the R square value of .011 indicates how much of the total variation in the dependent variable is by the dependent variable. And the adjusted R square value is -.018 which shows the negative value so that shows a low model fit. And the Durbin-Watson value is below 2.0 which means there prevails a positive autocorrelation.

Table 5 explains the Anova for the BSE Carbonex along with Inflation in India. The significant value is above 0.05 which indicates there is no significant impact of BSE Carbonex on Inflation. Hence the null hypothesis is rejected saying there is no impact of BSE Carbonex on Inflation in India.

Table 4: Analysis of Regression for BSE Carbonex and Inflation in India, Model Summary for BSE Carbonex and Inflation in India

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate	Durbin-Watson
1	0.104[a]	0.011	-0.018	1.568	0.418
a. Predictors: (Constant), BSE Carbonex					
b. Dependent Variable: Inflation					

Source: Computed from Spss

Table 5: ANOVA for BSE Carbonex and Inflation in India

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.911	1	0.911	0.370	0.547[b]
	Residual	83.645	34	2.460		
	Total	84.556	35			
a. Dependent Variable: Inflation						
b. Predictors: (Constant), BSE Carbonex						

Source: Computed from Spss

Table 6 indicates the coefficient for BSE Carbonex and Inflation in India. The significant value is above 0.05 which indicates there is no significant impact of BSE Carbonex on Inflation. Hence the null hypothesis is rejected saying there is no impact of BSE Carbonex on Inflation in India.

Table 6: The Coefficient for BSE Carbonex and Inflation in India

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.790	1.375		3.484	0.001
	BSE Carbonex	0.000	0.001	0.104	0.608	0.547
a. Dependent Variable: Inflation						

Source: Computed from Spss

Table 7 shows the regression analysis between BSE Carbonex and Foreign Exchange Reserve in India. The R-value of .026 shows the relationship among the variables. And the R square value of .001 indicates how much of the total variation in the dependent variable is by the dependent variable. And the adjusted R square value is -.029 which shows the negative value so that shows a low model fit. And the Durbin-Watson value is above 2.0 which means there prevails a negative autocorrelation.

Table 8 explains the Anova for the BSE Carbonex along with Foreign Exchange Reserve in India. The significant value is above 0.05 which indicates there

is no significant impact of BSE Carbonex on the Foreign Exchange Reserve. Hence the null hypothesis is rejected saying there is no impact of BSE Carbonex on the Foreign Exchange Reserve in India

Table 7: Analysis of Regression for BSE Carbonex and Foreign Exchange Reserve in India, Model Summary for BSE Carbonex and Foreign Exchange Reserve in India

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate	Durbin-Watson
1	0.026[a]	0.001	-0.029	51371.2520052	2.097
a. Predictors: (Constant), BSE Carbonex					
b. Dependent Variable: FER					

Source: Computed from Spss

Table 8: ANOVA for BSE Carbonex and Foreign Exchange Reserve in India

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61091331.540	1	61091331.540	0.023	0.880[b]
	Residual	89726188107.609	34	2639005532.577		
	Total	89787279439.149	35			
a. Dependent Variable: FER						
b. Predictors: (Constant), BSE Carbonex						

Source: Computed from Spss

Table 9 indicates the coefficient for BSE Carbonex along with Foreign Exchange Reserve in India. The significant value is above 0.05 which indicates there is no significant impact of BSE Carbonex on the Foreign Exchange Reserve. Hence the null hypothesis is rejected saying there is no impact of BSE Carbonex on the Foreign Exchange Reserve in India

Table 9: The Coefficient for BSE Carbonex and Foreign Exchange Reserve in India

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	41193.709	45023.657		0.915	0.367
	BSE Carbonex	3.188	20.952	0.026	0.152	0.880
a. Dependent Variable: FER						

Source: Computed from Spss

Table 10 shows the regression analysis between BSE Carbonex and Import in India. The R-value of .547 shows the relationship among the variables. And the R square value of .299 indicates how much of the total variation in the dependent variable is by the dependent variable. And the adjusted R square value is -.279 which shows the positive model fit. And the Durbin-Watson value is below 2.0 which means there prevails a positive autocorrelation.

Table 10: Analysis of Regression for BSE Carbonex and Import in India, Model Summary for BSE Carbonex and Import in India

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate	Durbin-Watson
1	.547[a]	.299	.279	91751763.6278193	.729
a. Predictors: (Constant), BSE Carbonex					
b. Dependent Variable: IMPORT					

Source: Computed from Spss

Table 11 explains the Anova for the BSE Carbonex along with Import in India. The significant value is below 0.05 which indicates there is a significant impact of BSE Carbonex on Import. Hence the null hypothesis is accepted saying there is an impact of BSE Carbonex on Import in India

Table 11: ANOVA for BSE Carbonex and Import in India

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	122153915948204064.000	1	122153915948204064.000	14.510	.001[b]
	Residual	286225128379717472.000	34	8418386128815220.000		
	Total	408379044327921540.000	35			
a. Dependent Variable: IMPORT						
b. Predictors: (Constant), BSE Carbonex						

Source: Computed from Spss

Table 12 indicates the coefficient for BSE Carbonex along with imports in India. The significant value is below 0.05 which indicates there is a significant impact of BSE Carbonex on Import. Hence the null hypothesis is accepted saying there is an impact of BSE Carbonex on Import in India

Table 12: The Coefficient for BSE Carbonex and Import in India

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-120599885.621	80414624.491		-1.500	.143
	BSE Carbonex	142546.811	37421.245	.547	3.809	.001
a. Dependent Variable: IMPORT						

Source: Computed from Spss

Table 13 shows the regression analysis between BSE Carbonex and Gross Domestic Product in India. The R-value of .110 shows the relationship among the variables. And the R square value of .012 indicates how much of the total variation in the dependent variable is by the dependent variable. And the adjusted R square value is -.017 which shows the negative value so that shows a low model fit. And the Durbin-Watson value is below 2.0 which means there prevails a positive autocorrelation.

Table 13: Analysis of Regression for BSE Carbonex and Gross Domestic Product in India, Model Summary for BSE Carbonex and Gross Domestic Product in India

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate	Durbin-Watson
1	.110[a]	.012	-.017	1.143	.436
a. Predictors: (Constant), BSE Carbonex					
b. Dependent Variable: GROSS DOMESTIC PRODUCT					

Source: Computed from Spss

Table 14 explains the Anova for the BSE Carbonex along with Gross Domestic Product in India. The significant value is above 0.05 which indicates there is no significant impact of BSE Carbonex on the Gross Domestic Product. Hence the null hypothesis is rejected saying there is no impact of BSE Carbonex on the Gross Domestic Product in India

Table 14: ANOVA for BSE Carbonex and Gross Domestic Product in India

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.546	1	.546	.417	.523[b]
	Residual	44.454	34	1.307		
	Total	45.000	35			
a. Dependent Variable: GROSS DOMESTIC PRODUCT						
b. Predictors: (Constant), BSE Carbonex						

Source: Computed from Spss

Table 15 explains the Anova for the BSE Carbonex along with Gross Domestic Product in India. The significant value is above 0.05 which indicates there is no significant impact of BSE Carbonex on the Gross Domestic Product. Hence the null hypothesis is rejected saying there is no impact of BSE Carbonex on the Gross Domestic Product in India

Table 15: The Coefficient for BSE Carbonex and Gross Domestic Product in India

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.864	1.002		4.854	.000
	BSE Carbonex	.000	.000	.110	.646	.523
a. Dependent Variable: GROSS DOMESTIC PRODUCT						

Source: Computed from Spss

Table 16 shows the regression analysis between BSE Carbonex and Export in India. The R-value of .514 shows the relationship among the variables. And the R

square value of .264 indicates how much of the total variation in the dependent variable is by the dependent variable. And the adjusted R square value is .242 which shows the positive model fit. And the Durbin-Watson value is above 2.0 which means there prevails a negative autocorrelation.

Table 16: Analysis of Regression for BSE Carbonex and Export in India, Model Summary for BSE Carbonex and Export in India

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate	Durbin-Watson
1	.514[a]	.264	.242	61814261.88595	.903
a. Predictors: (Constant), BSE Carbonex					
b. Dependent Variable: Export					

Source: Computed from Spss

Table 17: ANOVA for BSE Carbonex and Export in India

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46606791086495360.000	1	46606791086495360.000	12.198	.001[b]
	Residual	129914101065165888.000	34	3821002972504879.000		
	Total	176520892151661248.000	35			
a. Dependent Variable: Export1						
b. Predictors: (Constant), BSE Carbonex						

Source: Computed from Spss

Table 17 explains the Anova for the BSE Carbonex along with Export in India. The significant value is below 0.05 which indicates there is a significant impact of BSE Carbonex on Export. Hence the null hypothesis is accepted saying there is an impact of BSE Carbonex on Export in India

Table 18: The Coefficient for BSE Carbonex and Export in India

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-51363660.371	54176295.487		-.948	.350
	BSE Carbonex	88049.807	25211.141	.514	3.492	.001
a. Dependent Variable: Export						

Source: Computed from Spss

Table 18 explains the Anova for the BSE Carbonex along with Export in India. The significant value is below 0.05 which indicates there is a significant impact of BSE Carbonex on Export. Hence the null hypothesis is accepted saying there is an impact of BSE Carbonex on Export in India

7.0 Findings of the Study

- There prevails a strong positive relationship between BSE Carbonex and Exports.
- There also has positive relations between BSE Carbonex and Imports.
- There is a strong impact of BSE Carbonex on imports as well as Exports of India.

8.0 Conclusion

Socially responsible investing has gained importance among market participants worldwide, and India too has aligned itself with the global trend, becoming more sensitive towards the environmental aspects of doing business. Green investment in India may be in a nascent stage, but it is evolving and expected to gain momentum in the coming years. Many stakeholders, including the government, corporations, and market participants have become environmentally conscious and are looking to integrate environmental aspects of businesses into their mainstream investment strategies. BSE Carbonex Index is one such element for sustainable growth and it has created an impact on the imports and exports of India in the case of Carbon trading. So shortly Carbonex index will be a market leader in the reduction of carbon emissions.

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CHAPTER 10

Elevating Customer Engagement through CRM in Supermarket

S. Kulanthai Thereus*, Jothi Kirupa M.** and Santhiya B.***

ABSTRACT

The study explores the impact of customer relationship management (CRM) on supermarkets, focusing on factors influencing purchasing decisions and overall customer experience. Using a descriptive research design and convenience sampling method, data was collected from a population of 40 through questionnaire surveys. The SPSS tool was utilized for analysis. Findings indicate that CRM significantly affects supermarkets, influencing the overall customer experience. This research contributes to understanding the role of CRM in enhancing customer engagement and satisfaction engagement and satisfaction within the supermarket.

Keywords: Customer Relationship Management (CRM), Customer Engagement, Customer Experience, Supermarket, Purchasing Decisions.

1.0 Introduction

Customer relationship management (CRM) is a technology that enables business to manage their interactions and relationship with customer and enhance business relationship CRM system facilitate staying connected to customer, streamlining their business, and ensuring satisfaction by organizing customer and prospect information to build stronger relationship and increase business grows they begin by gathering customer data from various sources like websites, email, telephone call and social media, and may automatically integrate additional information like recent company activity. Personal details such as communication preferences are also stored. The CRM tool organizes this data to provide a comprehensive overview of individuals and companies, enabling a better understanding of relationship over time.

Supermarkets keep struggling in the quick marketplace to generate in new customer while also maintaining after existing ones in a competitive marketplace. Supermarkets are using customer relationship management (CRM) as a strategic method to improve customer engagement in response to this challenge. CRM give retailer the power to efficiently handle customer interactions identifies customer preferences, and customer marketing campaigns to suit their need.

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In the context of supermarkets, it explores the significance of CRM in enhancing customer involvement by looking at how it promotes long-term loyalty, enhances customer pleasure, and allow for personalized interactions. This study attempts to clarify the role that CRM play in changing the customer experience environment in supermarkets through an extensive investigation.

2.0 Objectives

- To investigate the influence of CRM on supermarket.
- To identify the factors influencing purchasing decision.
- To assess the overall customer experience at supermarket.

3.0 Statement of the Problem

The article covers the influence of CRM services on supermarket, identifying the factors influencing make purchase decision through customers and also assessing the overall customer experience at supermarket by using CRM services.

4.0 Scope of the Study

This study intends to investigate the influence, factors of CRM that impact on customers experience in supermarkets.

5.0 Research Methodology

Research methodology is the way to systematically solve the research problem. This study adopts descriptive research design. A survey is conducted through questionnaire method. The research will be presented with the both primary and secondary data.

Sampling method: Convenience sampling method is used in this study.

Sampling area: The area of this study covers the customers of supermarket at Thanjavur district.

Sampling size: The number of respondents is 40 customers who are used CRM services at supermarket.

Sampling tool: This study employed SPSS (Statistical package for the social science) tool for analyzing the data.

6.0 Limitations of the Study

- The research study only covers the area of Thanjavur district.
- The result from 40 customers cannot interpret the whole population in Thanjavur district.

7.0 Review of Literature

Kumar (2018), the author examined the importance of Customer Relationship Management (CRM) in the retail sector, specifically focusing on the implementation and effectiveness of CRM practices at more super market in India. The article discusses how CRM strategies can enhance customer satisfaction, loyalty, and overall business success in the competitive retail environment. The research methods mentioned in the article include exploratory and descriptive research. The sampling size and software used for data analysis are not explicitly mentioned in the provided research. The article presents several key findings and suggestions regarding more super market.

Findings indicate that most respondents became aware of the store through advertisements. Prefer purchasing food item at the mall, perceive lower product prices compared to other malls, and express overall satisfaction with the offers and associate services. Additionally, the majority of respondents perceive more supper market's customer services department as providing quick service.

Suggestions for improvement include focusing on electronic goods and clothes to boost sales, offering more discount and promotions, enhancing salesperson skills and customer services, improving response time of the customer service department, maintaining proper product arrangement, for better visibility, increasing availability of all brands, enhancing home delivery service, expanding the variety of toys to attract children, promoting private label products with attractive schemes, and providing adequate training to staff to enhance knowledge and courteousness. These suggestions aim to enhance the customer experience and drive sales at more super market's.

Kaur (2018): The author examined customer relationship management (CRM) activities carried out by online grocery portals, focusing on their impact on customer satisfaction and the overall value of the company. The research methods used in this article are descriptive and exploratory research design. Descriptive research was employed for the collection of primary data though a structured questionnaire to assess the importance of CRM in online grocery shopping.

The sampling technique used was non-probability convenience sampling, with a sample size of 206 customer the data analysis was conducted using SPSS23..0 software, and factor analysis was employed to identify the most important factors for CRM. The finding of study suggests that while online grocery stores are making efforts to increase customer satisfaction, they still lack efficiency in meeting customer expectations. The author identified factors important to customer when choosing an online grocery store, such as varies of grocery items, prices, quality, return options, and convenience. Recommendation provided include improvement in various aspects of CRM such as periodic feedback, surprise gifts, bonus points on referral and better management of relationship behaviors.

Suggestions were also made for different online grocery portals like big

basket, Amazon pantry and Reliance smart to enhance their CRM strategies and meet customer expectations effectively. Sulaiman (2014): The author examined the customer relationship management (CRM) strategies practiced among retailers, specifically focusing on the effectiveness of these strategies in creating customer loyalty in the retail industry Shan Alma. Malaysia.

The research methods used include quota sampling. Where 420 questionnaires were distributed to four named retail companies in Shah Alma and 304 (72%) doubters were returned and used for analysis. The finding indicate that operational excellence is the most effective CRM strategy that leads to customer loyalty in retail companies in Shah Alma, while product leadership is the least practiced strategy. The author suggests that retail companies should focus on building trust with customers to foster loyalty and recommends future research to include other retail companies in Selangor and other states in Malaysia. Additionally, the author emphasizes the importance of effective customer relationship programs in gaining benefits for consumers and profits for retailing business.

Setiawan (2022): The author examined the implementation of customer relationship management (CRM) in improving information services and customer satisfaction for giant supermarket Pager Alma Lampung, a retail company in Bandar Lampung. The research methods used were the system development method and system design method. The article does not specify the sampling size, and there is no mention of specific software used for data analysis. The findings include the development of a CRM system for giant supermarket pager Alma Lampung which improved the company service to customer through better sale information and facilitated sales reporting the author suggests future researchers should conduct more optimal marketing analysis and consider adding a delivery service menu to the CRM application program.

Chandra (2020): The author examined the customer relationship management (CRM) strategies used by D-mart its business model ,value retailing strategies , tactical management , stringent inventory system and pricing strategy all contributing to its success compared to competitors like Spencer and big bazaar. The article does not mention the research methods sampling size or specific software used for data analysis. The finding and suggestion stated by the author include D-mart successful business model with strategies such as owning property, avoiding credit focusing on quality and affordability, targeting middle and lower- middle- class customers, employing trained staff minimizing.

Then strategies contribute to D-mark profitability customer loyalty and market success compared to its competitors additionally the article emphasizes the importance of value retailing building customer true and connection providing benefits such as word -of-mouth marketing understanding customer experience reducing wait time and offering reward to encourage customer loyalty.

8.0 Data and Interpretation

8.1 Frequency Table

Interpretation: From Table 1 it is found that 7.5 of the respondents belong to the category of age below 20, 50 of the respondents of belong to the category age 21-30, 27.5 of the respondent belong to the category of age 31-40, 15 of the respondents belong to the category of age above 40 and above, so the majority of respondents are 31-40 age grope people.

Table 1: Age of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
	Below 20	3	7.5	7.5	7.5
	21-30	20	50.0	50.0	57.5
Valid	31-40	11	27.5	27.5	85.0
	Above 40	6	15.0	15.0	100.0
	Total	40	100.0	100.0	

Source: Primary data

Figure 1: Age of the Respondents
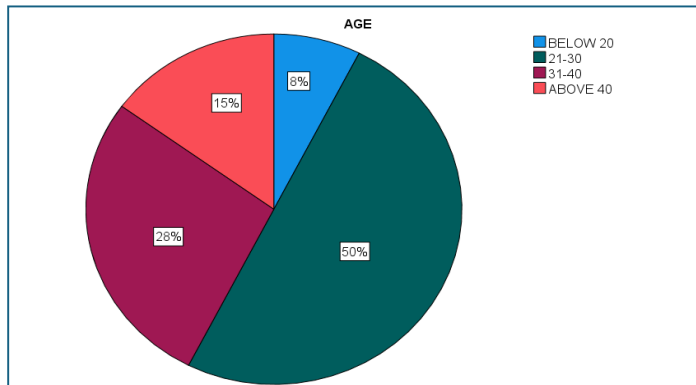
Source: Primary data

Table 2: Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	25	62.5	62.5	62.5
Valid	Female	15	37.5	37.5	100.0
	Total	40	100.0	100.0	

Source: Primary data

Interpretation: From Table 2 shows 62.5% of the respondents belong to the male and 37.5% of the respondents belong to the female respondents so the majority of respondent are ale respondent.

Figure 2: Gender of Respondents
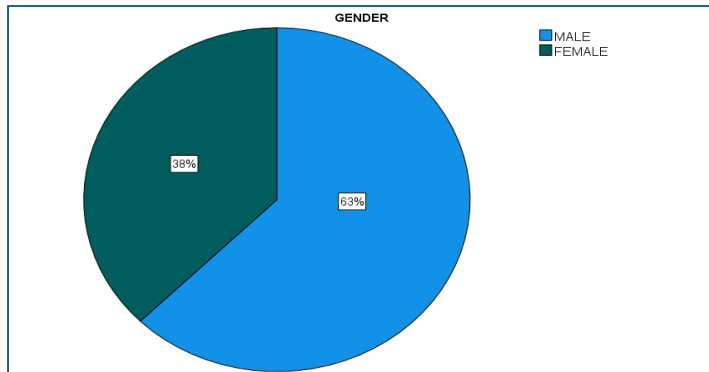
Source: Primary data

Table 3: The Communication Channels You Prefer for Receiving CRM Promotion from Supermarket

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Email	13	32.5	32.5	32.5
	SMS	20	50.0	50.0	82.5
	Mobile App Notification	1	2.5	2.5	85.0
	Social Media	5	12.5	12.5	97.5
	In-Store display	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Source: Primary data

Figure 3: The Communication Channels You Prefer for Receiving CRM Promotion from Supermarket
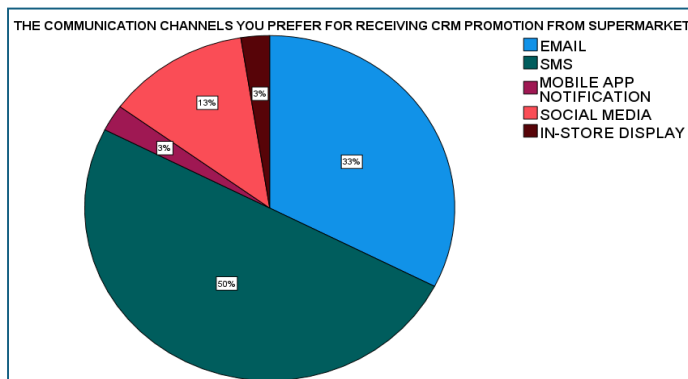
Source: Primary data

Interpretation: Table 3 of the communication channels you prefer for receiving CRM promotion supermarket find that 32.5% of the respondent are

"email", 50% of the respondent are "SMS", 2.5% of the respondent are "mobile app notification" 2.5% of the respondent are "in-store display", so the majority of respondent are "SMS" with the communication channel you prefer receiving CRM promotion supermarket.

Table 4: CRM System Services are User-friendly in Supermarket

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AGREE	21	52.5	52.5	52.5
	NEUTRAL	16	40.0	40.0	92.5
	DISAGREE	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

Source: Primary data

Figure 4: CRM System Servives are User Friendly in Super Market
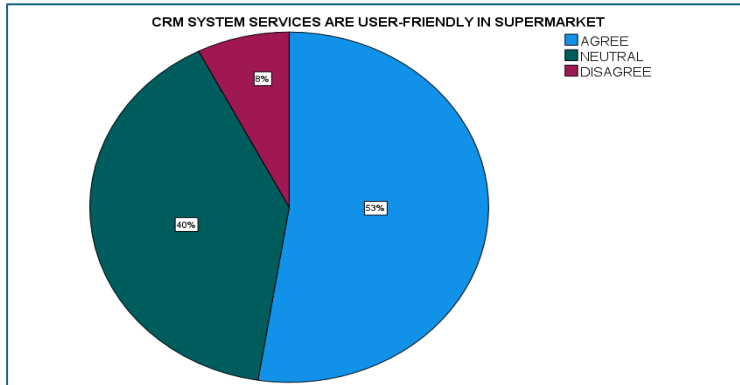
Source: Primary data

Interpretation: The Table 4 CRM system service are user-friendly in supermarket find that 52.5% of the respondents are "agree" , 40% of the respondents are" neutral" , 7.5% of respondent are "disagree" so the majority of respondent are " neutral" with CRM system service are user-friend in supermarket.

Table 5: Concerns You Faced While using CRM Services in Super Markets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Privacy Concern	18	45.0	45.0	45.0
	Not Yet Effectively Guided	12	30.0	30.0	75.0
	Lack of integration	10	25.0	25.0	100.0
	Total	40	100.0	100.0	

Source: Primary data

Interpretation: The Table 5 of concerns you faced while using CRM service in super markets find that 45% of respondents are "privacy concern", 30% of the

respondent are "not yet effectively guided" 0.25% of respondents are "lack integration", so the majority of respondents are "privacy concern" with concerns you faced while using CRM service in supermarkets.

Figure 5: Concerns You Faced while using CRM Services in Super Market
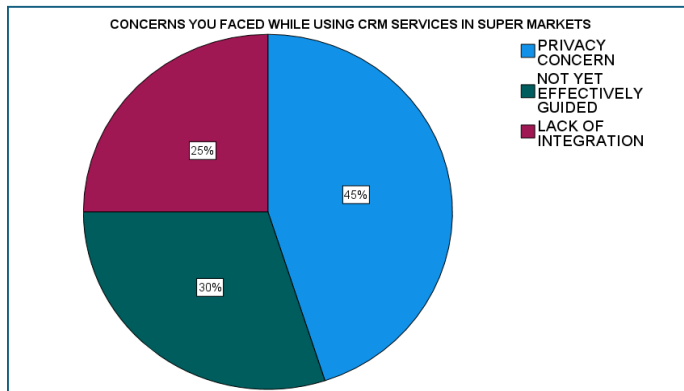
Source: Primary data

H0: There is no significant association between age and the communication channels you prefer for receiving CRM promotion from supermarket.
H1: There is a significant relationship between age and the communication channels you prefer for receiving CRM promotion from supermarket.

Table 6: Age and the Communication Channels You Prefer for Receiving CRM Promotion from Supermarket

Chi-Square Tests			
	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	22.828[a]	12	.029
Likelihood Ratio	19.612	12	.075
Linear-by-Linear Association	1.369	1	.242
N of Valid Cases	40		

Source: Primary data

Interpretation: From the Table 6, (Chi square test) reveals that there is no relationship between age and the communication channels you prefer for receiving CRM promotion from supermarket. The Chi square is calculated using SPSS. The calculation value (0.029) is greater than 0.05 value at 95% of the confidence level. So, the null hypothesis is accepted and alternative hypothesis rejected.
H0: There is no significant association between gender and concerns you faced while using CRM services in supermarkets.
H1: There is a significant relationship between gender and concerns you faced while using CRM services in supermarkets.

Table 7: Gender and Concerns You Faced While using CRM Services in Supermarkets

Chi-Square Tests			
	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	.249[a]	2	0.883
Likelihood Ratio	.250	2	0.883
N of Valid Cases	40		

Source: Primary data

Interpretation: From the Table 7, (chi square test) reveals that there is relationship between gender and concerns you faced while using CRM services in supermarkets. The Chi square is calculated using SPSS. The calculation value (0.883) is greater than 0.05 value at 95% of the confidence level. So, the null hypothesis is accepted and alternative hypothesis rejected.

9.0 Findings

1. Majority of the respondents 50% are comes under 21-30 age group.
2. The majority of the respondents 62.5% are Male.
3. The majority of respondents 50% prefer "SMS" as a communication channel for receiving CRM promotion from supermarket.
4. The majority of respondents 52.5% are "Agree" with CRM system services are user-friendly in supermarket.
5. The majority of respondents 45% are choose "Privacy concern" problem that faced by customers while using CRM services in supermarkets.

10.0 Suggestions

1. Enhance customer engagement in supermarket by influence CRM tools effectively.
2. Sent targeted SMS deals based on customer preference and buying history.
3. Protect customer data and be transparent about privacy policies.
4. Continuously gather feedback to improve CRM strategies.

11.0 Conclusion

In conclusion supermarkets need to put priority to SMS communication for CRM promotions and address privacy concerns to enhance customer engagement and satisfaction. Additionally, focusing on user-friendly CRM systems can further improve customer experience in supermarkets. CRM in supermarkets significantly impacts customer engagement through personalized offers, effective complaint resolution, and customized communication, enhancing overall experience. An outcome is increased satisfaction, loyalty, and sales.

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CHAPTER 11

Study on the Effects of Product Packaging and Brand Knowledge on Retail Consumers' Purchasing Decisions

Nivetha P.*, Nithya** and Ajithkumar***

ABSTRACT

The purpose of this study is to examine the consumer behaviour packaging and brand awareness on the retail consumer. An overview of packaging influences the behaviour of retail customers is provided. The study emphasizes product packaging, brand recognition, and consumer purchasing behaviour are related. The convenience sampling method was adopted to collect the primary data from 227 respondents. The data have been analysed using percentage analysis, chi-square it analysis to investigate to packaging affects customer behaviour and consumer behaviour in terms of brand awareness and loyalty. Customers are more inclined to select goods from brands they are familiar with because brand awareness encourages dependability and confidence. Strategic expenditures on brand development, packaging design. Packaging and brand awareness significantly influence consumer purchasing decisions, with visually appealing packaging and strong brand recognition positively impacting consumer perceptions, trust, and loyalty. Strategic investments in brand development and packaging design can yield substantial benefits for businesses seeking to influence consumer behavior.

***Keywords:** Packaging, Brand Awareness, Retail Consumer.*

1.0 Introduction

This think about points to investigate how customer behavior is affected by bundling and brand mindfulness in the retail environment. Understanding how these components affect customers' sees, choices, and generally fulfillment is vital in todays competitive advertise. By looking at the relationship between what clients purchase and why they purchase it, businesses can pick up important bits of knowledge to upgrade client fulfillment, refine their techniques, and eventually boost deals. This consider will dive into different components, such as product-related traits, taken a toll, bundling plan, and brand acknowledgment, to give a comprehensive understanding of their interconnecting and their noteworthiness in forming customer behavior.

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In outline, this consider appears that bundling and brand acknowledgment significantly impact how shoppers shop. Brands play a huge part in what individuals purchase, and bundling isn't fair around looks—it influences how customers feel approximately items. Understanding this association can offer assistance businesses make strides their techniques and make clients more joyful, driving to more sales.

2.0 Objectives

- To consider the bundling influences client behaviour.
- To survey customer conduct in terms of brand mindfulness and loyalty.

3.0 Statement of the Problem

The issue tended to in this ponder is the require to get it how bundling and brand mindfulness impact customer behavior in the retail segment. Particularly, it points to examine the effect of bundling plan, brand acknowledgment, and other related components on customers' discernments, decision-making forms, and by and large fulfillment when making obtaining choices. By tending to this issue, the consider looks for to give important bits of knowledge for businesses to progress their procedures, upgrade client fulfillment, and eventually drive deals in the competitive retail landscape.

4.0 Scope of the Study

The scope of this think about includes looking at how bundling and brand mindfulness affect shopper behavior in the retail segment. It investigates customers' recognitions, decision-making forms, and fulfillment levels concerning bundling plan, brand acknowledgment, and their impact on obtaining choices. The think about points to give bits of knowledge into the interconnected variables influencing buyer behavior, with a center on optimizing methodologies to improve client fulfillment and increment deals in the retail environment.

5.0 Review of Literature

Tekin (2016) considered shopper conduct on brand picture of the male. It appears customer conduct frame their planned both essential and auxiliary information werecollected customer discernment toward brand picture. The ponder strategy was quantitative and collected survey required from 104 members it summarize a few bits of knowledge in impact of brand picture on buyer conduct uncovers that the different components impact the shopper bundling conduct.

Chavda (2020) inspected the competition among the companies and raising requests of client, companies had to give inventive items with one of a kind introduction to fulfill the client. A survey is created with the offer assistance of a five point liker scale. Overview of 150 respondents has been done in Ahmedabad city. Components like Quality, Item capacity, Item highlights and Bundling makes a difference the company to make a brand situating in the shopper intellect and offer assistance them to maintain in the profoundly competitive advertise. The ponder concluded that companies consider bundling as a one of vital instrument to pull in the clients to purchase the product.

Agariya *et al.*, (2018) Analysed the clients are more likely to allow w eightage to branded item than to the bundle and shape of bundle is the noteworthy quality of communication through item bundling. The taking after objectives: to pull in the buyer; to communicate message to the buyer; to make want for the item; and to offer the item. Inspecting Components: Person respondents were the testing components. Testing Estimate: 103 respondents for survey and 15 respondents for beat rate different relapse examination, Beat rate estimation by convenient beat oxy meter. Crude information were captured in spreadsheet program (Microsoft Exceed expectations) and at that point imported to computer program factual bundle (SPSS 16 for windows). The investigate conducted on bundling qualities in the current inquire about work appears that buyer fascination was a critical calculate in the bundle plan and the companies are enhancing unused ways and implies to pull in clients through its appealing bundle design.

Daosue & Wanarat (2019) inspected the impact of seen publicizing spend and cost advancements on brand value over involvement merchandise and administrations. Surveys containing closed questions, and a test of 500 normal clients of the discount shops. The legitimacy and unwavering quality of the survey was to begin with tried utilizing a test of 50 clients. Investigate was based on a five point Likert- sort scale with an observational think about examination utilizing a Corroborative Calculate Examination. The test measure (n) of this consider was 500 standard clients of discount shops.the deals advancements have a noteworthy positive impact on brand mindfulness. The demonstrate demonstrates that promoting has both coordinate and roundabout impacts on brand mindfulness through deals promotion.

Rokka & Uusitalo (2008) Dissecting the relative significance of green bundling when compared with other important item qualities. The observational consider is based on a choice-based conjoint investigation of inclinations for utilitarian drink items of a test of 330 customers utilizing these products.to offer assistance decipher the fundamental comes about, graphic information on states of mind towards natural bundling and reusing were accumulated with a straightforward 11-item, five-point Likert survey. The discoveries emphasize the expanding significance of moral and natural measurement in item choices. The experimental strategy was quantitative and connected two multivariate strategies. This result goes well together with modern hypotheses on buyer culture: the (post)modern separation

and gathering of shoppers is based on common interface, inclinations and tastes or maybe than social background. Vasudevan (2017) examined the brand is built up in the minds of the shoppers, it possesses a special position and uncommon meaning and esteem is produced. Doughnuts are the stylish nourishment items, which came to India in 2000's. An Organized survey was managed to the clients who gone by the shopping center and 150 clients were studied. 2 Test Estimate: The test estimate of this study was 150. Devices for Examination: Rate Investigation, Chi-Square Analysis, and Weighted Normal Investigation. The major target clients for donut retail outlets are found to be youth populace and subsequently the inquire about is confined to 'Generation Y' clients.

6.0 Research Methodology

The total sample consisted of 227consumers towards packaging and brand awareness in retail the sample was collected on a basis of random sampling method by using primary data (Questionnaire). The collected data was analyzed by using SPSS software.

7.0 Data Analysis and Interpretation

- The majority of the respondents for the study is male. (55.9%)
- The Majority of the respondents are under the age group of 15-24. (77.1%)
- The majority of the respondents for the study is students (30.75%)

Statistical tools: To analyze the data statistical tools such as percentage analysis and chi-square analysis and Anova method were used.

Chi-square test: Income (Per Month) and aspects of packaging do you find most appealing.

7.1 Hypothesis

H0: there is no significant association between Income (Per Month) and aspects of packaging do you find most appealing.

H1: there is significant association between Income (Per Month) and aspects of packaging do you find most appealing.

Table 1: Income (Per Month)

Chi-Square Tests			
	Value	**Df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	26.556[a]	24	0.326
Likelihood Ratio	24.939	24	0.409
N of Valid Cases	227		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between Income (Per Month) and aspects of packaging do you find most appealing.Chi-square is calculated using SPSS. The calculation value (.326) is greater than 0.05 value at 95% level of confidence level. So, the null hypothesis is rejected and the alternative hypothesis is accepted.

7.2 Gender and switch to a different brand with similar product quality but better packaging

Hypothesis

H0: there is no significant association between Gender and switch to a different brand with similar product quality but better packaging.

H1: there is significant association between Gender and switch to a different brand with similar product quality but better packaging.

Table 2: Gender and Switch to a Different Brand

Chi-Square Tests		
Value	Df	Asymptotic Significance (2-sided)
6.608[a]	3	0.086
6.656	3	0.084
227		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between Gender and switch to a different brand with similar product quality but better packaging. Chi-square is calculated using SPSS. The calculation value (.086) is greater than 0.05 value at 95% level of confidence level. So, the null hypothesis is rejected and the alternative hypothesis is accepted.

7.3 Occupation and eco-friendly or sustainable packaging influence your purchasing decision

Hypothesis

H0: there is no significant association between Occupation and eco-friendly or sustainable packaging influence your purchasing decision.

H1: there is significant association between Occupation and eco-friendly or sustainable packaging influence your purchasing decision.

Table 3: Occupation and Eco-friendly Packaging

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.938[a]	6	0.006
Likelihood Ratio	16.967	6	0.009
N of Valid Cases	227		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between Gender and switch to a different brand with similar product quality but better packaging. Chi-square is calculated using SPSS. The calculation value (.006) is less than 0.05 value at 95% level of confidence level. So, the null hypothesis is accepted and the alternative hypothesis is rejected.

Table 4: Gender and Packaging

ANOVA						
		Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Gender	Between Groups	4.203	4	1.051	4.508	0.002
	Within Groups	51.744	222	0.233		
	Total	55.947	226			
Packaging	Between Groups	0.747	4	0.187	1.013	0.402
	Within Groups	40.927	222	0.184		
	Total	41.674	226			

Source: Primary data

8.0 Findings

The larger part of the respondents for the consider is male. The Larger part of the respondents are beneath the age gather of 15-24.The larger part of the respondents for the think about is understudies.

Salary and Bundling Preferences: The chi-square test shows a relationship between pay levels and viewpoints of bundling inclinations. With a calculated esteem of .326, which surpasses the basic esteem of 0.05 at a 95% certainty level, the invalid speculation (no relationship) is rejected, inferring that there is without a doubt a relationship between wage and favored bundling angles. This recommends that people with distinctive wage levels tend to have changing inclinations when it comes to bundling features.

Gender and Brand Exchanging Based on Packaging: The chi-square test illustrates a relationship between sexual orientation and the probability of exchanging to a distinctive brand with way better bundling but comparable item quality. With a calculated esteem of .086, which outperforms the basic esteem of 0.05 at a 95% certainty level, the invalid speculation (no relationship) is rejected, showing that there is a relationship between sex and brand-switching behavior. This infers that sex affects the affinity to switch brands based on packaging.

Alternative Examination of Sexual orientation and Brand Switching: In a isolated investigation of sex and brand exchanging, the chi-square test yields a calculated esteem of .006, which is underneath the basic esteem of 0.05 at a 95% certainty level. Thus, the invalid speculation (no relationship) is acknowledged, recommending that there is no critical prove to bolster a relationship between sexual orientation and brand exchanging based on bundling when considering this elective

importance threshold. Or Income levels impact bundling inclinations, dismissing the invalid hypothesis. Gender influences brand-switching behavior based on bundling, supporting the elective hypothesis. An isolated investigation recommends no noteworthy relationship between sexual orientation and brand exchanging at an elective noteworthiness threshold.

9.0 Conclusion

In outline, this ponder appears that bundling and brand acknowledgment incredibly affect how buyers shop. Brands play an enormous part in what individuals purchase, and bundling isn't fair approximately look it influences how customers feel approximately items. Understanding this association can offer assistance businesses progress their procedures and make clients more joyful, driving to more deals.

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CHAPTER 12

A Study on Work Life Balance of Women Social Entrepreneurs at South India

D. Umamaheswari* and R. Sowmiya**

ABSTRACT

A woman who founded, plans, and manages a social business with the goal of improving the community on a social level. In every phase of their lives, women assume multiple responsibilities. In order to handle both home and business responsibilities, many women choose to become social entrepreneurs. Effectively balancing one's personal and professional lives is meant by "work-life balance." Social entrepreneurs encounter several hurdles in today's competitive market, and those issues need to be managed correctly. Women social entrepreneurs are overworked and increasingly struggling to strike a balance between their professional and personal lives. Work-life balance and elements that influence and produce the division between one's personal and professional lives. Data were collected from 164 respondents by using the questionnaire method. Frequency and correlation were the main techniques used to analyse the data. Research highlights the significant challenges faced by women social entrepreneurs in balancing their professional and personal lives. Our study underscores the importance of work-life balance for women social entrepreneurs in South India.

Keywords: Women Social Entrepreneurs, Professional and Personal Life, Work-life Balance.

1.0 Introduction

 "When the women move forward the family moves, the village moves and the nation moves" -By Jawaharlal Nehru

　　A woman who establishes, plans, and manages a social business venture with the goal of enhancing community welfare. An atmosphere that is supportive of policy can inspire more women to start social enterprises and promote female leadership and involvement in the social economy. In every aspect of life, women are dynamic. Men are encouraged to work and engage in economic activity in culturally rich nations like India, but in more recent times, women have also been encouraged to do so.

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Following globalization, women's status and employment have seen a remarkable transformation. An individual who seeks innovative applications with the potential to address community-based issues is known as a social entrepreneur. Through their initiatives, these people are prepared to take the chance and put in the work necessary to alter society for the better.

2.0 Research Problem

The research problem is - What effect does work-life balance have on Women social entrepreneurs? Why do social entrepreneurs struggle with work-life balance?

3.0 Review of Litrature

Pareek (2021), women was traditionally seen as homemakers with a variety of roles to fulfil. A need for research on entrepreneurship and work-life balance, particularly with regard to female entrepreneurs. Both primary and secondary data sources are used. Such locations are Bhubaneswar and Cuttack. Sample Size: Finally, 362 questionnaires were taken into consideration for the research. The study ends with a brief overview of the work-life balance experienced by Odisha female entrepreneurs.

Christy *et al.*, (2021), the survey approach was used to obtain data for the descriptive and empirical investigation. There were three sections to the questionnaire.WLB of workers from all across Bangalore. 108 respondents from various businesses across the city filled out the questionnaire. The SPSS program and a few statistical methods, such as correlation and regression analysis, were used to evaluate the acquired data.

Balamurugan & Sreeleka, (2020), the article discusses the elements influencing women employees' work-life balance as well as how content and balanced female employees are in the IT sector. The structured questionnaire was used to gather the primary data. 60 responders' details were gathered in detail. Chi-square and the correlation test were the statistical methods used to examine the job satisfaction of female employees.

Swatishastri *et al.*, (2022), this article aims to examine the motivational factors that drive women entrepreneurs and provide light on the obstacles that these women confront when running micro, small, and medium-sized businesses in Rajasthan from an institutional standpoint. The report is based on information gathered from a questionnaire survey given to 347 female business owners who operate in seven districts in Rajasthan. The reasons and difficulties faced by female entrepreneurs are examined in this study.

Narotam (2020), women are becoming increasingly important in both the home and the career. The social lives of women are strongly ingrained with the

traditional roles of homemakers and caregivers. Random selections were made of 150 women each from the IT and higher education sectors. A set of 35 multiple-choice questions has been created for the questionnaire."Work-life balance is highly significant and requires a balance between the family and work with satisfaction without any psychological distress," the study's findings stated.

3.0 Objectives

- To study the work-life balance of Women Social Entrepreneurship.
- To analyze the Women Social Entrepreneurs in south India.
- To explore the challenges faced by social women entrepreneurs in maintaining a harmonious work-life balance.

4.0 Scope of the Study

The research will enter into the impact of work-life balance on the well-being, productivity, and success of women social entrepreneurs, both personally and professionally.

5.0 Research Gap

While existing literature offers valuable insights into work-life balance and entrepreneurship, there is a noticeable gap in research specifically focusing on women social entrepreneurs. Our study aims to address this gap by exploring the work-life dynamics of women social entrepreneurs in South India.

6.0 Women Social Entrepreneurs

Social change agents are female innovators who pursue social entrepreneurship. An atmosphere that is supportive of policy can inspire more women to start social enterprises and promote female leadership and involvement in the social economy. Similarly, enlightening customers about the advantages of female-led social companies might entice them to inquire about their offerings, thereby augmenting the local economy and community.

7.0 Work-life Balance

7.1 Self-management

It can be difficult to take care of oneself sufficiently, especially when it comes to getting enough sleep, exercise, and diet. Self-management is the understanding that life, time, and resources are limited, and that making the most of the spaces in our lives is essential.

7.2 Time management

Making the most of your day and the available resources is essential to effective time management. When your resources are equal to your obstacles, you stay up. Setting realistic goals and differentiating between vital and urgent tasks will improve your time management.

7.3 Stress management

Societies by their very nature grow increasingly complicated throughout time. Stress is unavoidable when one deals with growing complexity. There are more people, distractions, and noise around us, therefore we all need to learn how to remain calm and remove ourselves from stressful situations. In the end, most multitasking methods make us more stressed.

8.0 Methodology

A mixed-methods approach was employed to gather comprehensive insights into the work-life balance of women social entrepreneurs in South India. This approach involved both quantitative and qualitative methods to capture diverse perspectives and experiences.

Questionnaires: A structured questionnaire was designed to collect quantitative data on various aspects of work-life balance, challenges faced, and coping strategies employed by women social entrepreneurs. The questionnaire included both closed-ended and Likert scale questions to facilitate statistical analysis.

Interviews: Semi-structured interviews were conducted with a subset of participants to gain deeper insights into their experiences, perceptions, and personal narratives related to work-life balance. The interviews allowed for a more nuanced understanding of individual experiences and contextual factors influencing work-life dynamics.

Sampling Techniques and Sample Size: Convenience sampling was used to select participants for this study due to the accessibility and availability of women social entrepreneurs in South India. A sample of 164respondents was chosen to ensure an adequate representation of diverse experiences and perspectives within the target population.

9.0 Results and Discussion

In this section, present the key findings of our research on the work-life balance of women social entrepreneurs in South India. The results are organized based on the themes explored in the study, including work-life balance challenges, coping strategies, and the impact of work-life balance on entrepreneurial outcomes.

1. Work-life Balance Challenges:

2. The most commonly reported challenges faced by women social entrepreneurs include juggling multiple roles, time constraints, and boundary blurring between work and personal life.
3. Coping Strategies:
- Coping Strategies Employed by Women Social Entrepreneurs
- Seeking social support: 40%
- Time management techniques: 35%
- Setting boundaries: 20%
- Self-care practices: 15%
- Delegating tasks: 10%

Table 1: Summary of Work-life Balance Challenges

Challenges	Frequency (%)
Juggling multiple roles	65
Time constraints	52
Boundary blurring	48
Lack of support	37
Financial pressures	28
Work-related stress	25
Family responsibilities	20

Source: Primary data

Women social entrepreneurs predominantly employ seeking social support and time management techniques as coping strategies to manage work-life balance challenges.
4. Impact of Work-life Balance on Entrepreneurial Outcomes:

Table 2: Correlation Analysis Results

Variable	Correlation Coefficient	p-value
Work-life balance	0.65	<0.001
Entrepreneurial success	0.52	<0.05

Source: Primary data

5. There is a strong positive correlation between work-life balance and entrepreneurial success among women social entrepreneurs, indicating that those who achieve better work-life balance tend to have higher levels of entrepreneurial success.

10.0 Interpretation and Discussion

The findings of our research highlight the significant challenges faced by women social entrepreneurs in balancing their professional and personal lives. The

most prevalent challenges include juggling multiple roles, time constraints, and boundary blurring, which can lead to increased stress and decreased well-being. However, our study also reveals the variety of coping strategies employed by women social entrepreneurs, with seeking social support and time management techniques being the most common.

Furthermore, our results demonstrate a clear positive association between work-life balance and entrepreneurial success. Women social entrepreneurs who effectively manage their work-life balance tend to achieve greater success in their ventures, highlighting the importance of prioritizing personal well-being alongside professional goals. Overall, our research underscores the importance of addressing work-life balance challenges faced by women social entrepreneurs and emphasizes the need for holistic support mechanisms to enable their success and well-being in the entrepreneurial journey.

11.0 Findings

- 72% of the respondents living in urban.
- 47% of the respondents age group falls between 35 to 40 years.
- 54% of the respondent's qualification is under graduate.
- 50% of the respondent's income is 80000-90000
- 40% of the respondents Reason for choosing social entrepreneurship are through careers.
- 34% of the respondent's mentorship supports are Disagree.
- There is a strong positive correlation between work-life balance and entrepreneurial success among women social entrepreneurs, indicating that those who achieve better work-life balance tend to have higher levels of entrepreneurial success.

12.0 Conclusion

People select to prioritize their work above their personal lives in this competitive world, ignoring friends, family, and relatives in favour of managing their professional lives. Conflicts arise between personal and professional lives as a result. Women who run social enterprises need to be fully aware of how their roles in the home and at work are evolving. In order to maintain a healthy balance between their personal and professional lives, women social entrepreneurs need to acquire the necessary skills.

13.0 Suggestions for Maintaining the Work-life Balance

- In order to maintain a healthy balance between your personal and professional lives, effective time management is crucial.

- Social women business owners might delegate their tasks to competent personnel.
- Without fail, they must to spend some time with their family each day.
- Avoid clear of work-related emails and calls after these hours.
- Allocate dedicated time for family, friends, and personal hobbies.

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CHAPTER 13

A Comparative Study on Own Food Business and Franchise Food Business

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ABSTRACT

The food industry is characterized by diverse business models, including own food businesses and franchise operations. This comparative study explores the nuances and implications of both approaches. Own food businesses afford entrepreneurs autonomy and creativity in menu creation, branding, and operational strategies. However, they also entail higher risks and demand comprehensive market research, financial investment, and management skills. On the other hand, franchise food businesses offer the advantage of established brand recognition, operational systems, and marketing support, reducing initial hurdles for aspiring entrepreneurs. Nonetheless, franchise agreements often come with stringent guidelines, royalty fees, and limited control over certain aspects of the business. This study synthesizes existing literature, industry data, and case studies to analyze factors such as startup costs, profitability, market adaptability, and long-term sustainability. By examining the strengths and limitations of both models, this research aims to provide insights beneficial for prospective food business owners in making informed decisions tailored to their objectives and circumstances.

Keywords: Own Food Business, Franchisee Operations, Brand Recognition, Comparative Study.

1.0 Introduction

In the dynamic landscape of the food industry, entrepreneurs often face the critical decision of whether to embark on their own culinary journey or opt for the established path of franchising. This study delves into the intricacies of both avenues, aiming to provide insights into their respective merits and demerits. The allure of owning a food business lies in the freedom it offers, allowing entrepreneurs to infuse their creativity and vision into every aspect of their venture. On the contrary, franchising offers a proven business model, mitigating some risks associated with starting from scratch.

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In this comparative analysis, we explore various dimensions such as initial investment, operational flexibility, brand recognition, market penetration, and profitability. Understanding these factors is essential for aspiring food entrepreneurs to make informed decisions tailored to their goals and resources. While owning a food business fosters autonomy and innovation, franchising provides a ready-made framework for success, often accompanied by comprehensive support systems and established customer bases. Through examining case studies, market trends, and industry statistics, this study aims to equip entrepreneurs with the knowledge needed to navigate the complexities of the food business landscape and make strategic choices that align with their aspirations and circumstances. Join us on this journey as we unravel the nuances of owning versus franchising in the ever-evolving world of food entrepreneurship.

2.0 Objectives

- To evaluate the initial investment required for starting an own food business versus acquiring a franchise food business.
- To compare the operational costs including rent, utilities, labor, and supplies between own food business and franchise food business.
- To evaluate the overall satisfaction and success rates of owners in both own food businesses and franchise food businesses based on qualitative and quantitative metrics.

3.0 Problem Statement

In the dynamic landscape of the food industry, entrepreneurs often face the critical decision of whether to establish their own food business or invest in a franchise. This study aims to explore and compare the intricacies, challenges, and potential advantages associated with initiating an independent food venture versus opting for a franchise model. By examining factors such as initial investment, operational autonomy, brand recognition, market competitiveness, and long-term sustainability, this research seeks to provide valuable insights to aspiring entrepreneurs and stakeholders navigating the complex terrain of the food business.

4.0 Review of Literature

Achievement Motivation Theory and Theory of Planned Behaviour: Croonen *et al.*, (2021), examined the combining Achievement Motivation Theory and Theory of Planned Behaviour reveals that need for achievement influences attitude towards franchising and perceived behavioral control, with a negative linear association with attitude towards franchising, highlighting the need for further research. The global franchise market is rapidly developing: Honchar *et al.*, (2022), Explores the global franchise market is rapidly developing, primarily in the hotel and restaurant industry.

The fast food sector is the most active, with the pandemic causing a decline. Franchising stimulates employment, improves service quality, and stimulates small businesses. Threats include Americanization, cultural importance reduction, excessive standardization, and inefficient franchising. Franchising is a successful business model: Soliman (2022), franchising is a successful business model where a franchisor sells a product or service to a franchisee, allowing them to expand without debt, increase brand awareness, and expand without competition. It's well-known in fast-food, with famous franchisors like McDonald's and KFC. However, it also has disadvantages like control issues.

Factors affecting franchise performance in developed countries: Bui *et al.*, (2022), explores the factors affecting franchise performance in developed countries, focusing on franchisor-related, franchisor-choice-related, relationship factors, and external environments. It highlights the importance of franchisor resources and franchisee entrepreneurial orientation for enhancing performance. Identifies three key success factors in franchising businesses: Hanafiah *et al.*, (2023), aims to identifies three key success factors in franchising businesses, particularly in developing nations like Malaysia, based on focus group methods with franchisors, franchisees, and academicians. Key elements include franchisor capability, interconnection with franchisees, and constant innovation, suggesting expansion opportunities and guiding future research.

5.0 Scope of Research

1. Investigate the initial startup costs, ongoing expenses, and potential profitability of both owning a food business independently and investing in a franchise.
2. Examine the importance of brand recognition in attracting customers and generating revenue.
3. Evaluate the risks associated with each option, including market competition, industry trends, and the potential for financial loss.
4. Investigate the marketing support provided by franchises versus the autonomy to develop your own marketing campaigns for an independent business.
5. Examine potential profit margins, revenue-sharing agreements in franchises, and the time it takes to break even and generate profits in each scenario.

6.0 Research Design

1. In this study, the primary data's are collected through questionnaire with 135 respondents.
2. The collected data were analyzed through statistical tools such as Percentage analysis and chi-square tests. It allows researchers to assess whether there is a significant difference between observed and expected means, which can provide insights into the relationships between variables in a dataset. Statistical software

[SPSS software] was utilized to perform the data analysis, ensuring accuracy and reliability of the results.

7.0 Data Analysis

Age: 43% of them are between the age group of 25-30 and 38.5% of them are between 30- 35.

Gender: 92.6% of the respondents are male and 7.2% of them are female.

Education: 78.5% of the respondents are completed secondary education, 15.6% of the respondents have completed graduate and 5.9% of the respondents have no formal education.

Marital status: The majority of 7.4% of the respondents are unmarried and 92.6% of the respondents are married.

8.0 Percentage Analysis

Level of risk of your investment: 66.7% of them have moderate risk to their investment.

Control to operating business: 33.3% of them have complete control to operating business.

Timeframe for return their investment: 66.7% of them take 3-5 years to return their investment.

Lower rental cost business model: 97% of them said own food business tends to have lower rental costs.

Cost of considering utilities expenses: 85% of them said cost of utilities expenses is higher in franchise food business.

Important of ongoing support and guidance in business: 45.9% of them value continuous support and guidance.

Overall satisfaction in food business: 70.4% of them satisfied in food business.

9.0 Hypothesis

Hypothesis 1
H0: There is no association between educational background and support and guidance in business journey.
H1: There is an association between educational background and support and guidance in business journey.

Table 1: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.155[a]	4	0.885
Likelihood Ratio	1.237	4	0.872
N of Valid Cases	135		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between educational background and support and guidance in business journey. Chi-square is calculated using SPSS. The calculation value (.885) is greater than 0.05 at 95% level of confidence level. So, that null hypothesis is rejected and the alternative hypothesis is accepted.

Hypothesis 2

H0: There is no association between business trends with lower rental cost and profitability in business.

H1: There is an association between business trends with lower rental cost and profitability in business.

Table 2: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.236[a]	2	0.539
Likelihood Ratio	1.556	2	0.459
N of Valid Cases	135		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between business trends with lower rental cost and profitability in business. Chi-square is calculated using SPSS. The calculation value (.539) is greater than 0.05 at 95% level of confidence level. So, that null hypothesis is rejected and the alternative hypothesis is accepted.

Hypothesis 3

H0: There is no association between overall satisfaction with food business and the level of risk regarding investment.

H1: There is an association between overall satisfaction with food business and the level of risk regarding investment.

Table 3: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	0.370[a]	2	0.831
Likelihood Ratio	0.377	2	0.828
N of Valid Cases	135		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between satisfaction with overall food business and the level of risk regarding investment. Chi-square is calculated using SPSS. The calculation value (.831) is greater than 0.05 at 95% level of confidence level. So, that null hypothesis is rejected and the alternative hypothesis is accepted.

Hypothesis 4

H0: There is no association between control over business operations and expenses that incurs higher costs.

H1: There is an association between control over business operations and expenses that incurs higher costs.

Table 4: Chi-Square Tests

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	4.533[a]	2	0.104
Likelihood Ratio	4.645	2	0.098
N of Valid Cases	135		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between satisfaction with overall food business and the level of risk regarding investment. Chi-square is calculated using SPSS. The calculation value (.104) is greater than 0.05 at 95% level of confidence level. So, that null hypothesis is rejected and the alternative hypothesis is accepted.

10.0 Conclusion

In conclusion, this comparative study has shed light on the nuanced differences between owning a food business and opting for a franchise model. Both avenues present distinct advantages and challenges that entrepreneurs must carefully weigh. While owning a food business offers greater autonomy and flexibility, franchise models provide established branding and support systems. Understanding the unique dynamics of each approach is crucial for aspiring entrepreneurs to make informed decisions aligned with their goals and resources. Ultimately, the choice between independent ownership and franchise affiliation depends on factors such as risk tolerance, capital availability, and long-term objectives. By comprehensively evaluating the pros and cons outlined in this study, individuals can navigate the complex landscape of the food industry with confidence and strategic foresight.

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CHAPTER 14

The Influence of Pharmacy Retailer on the Customer Buying Preference

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ABSTRACT

Pharmacy is a vital field within clinical health sciences, encompassing the discovery, production, disposal, and safe use of drugs and pharmaceuticals. It demands a comprehensive understanding of drug actions, toxicity, and kinetics, as well as treatment. Specialized areas like clinical pharmacy require additional skills such as interpreting laboratory and physical data. The survey conducted revealed that 80% of respondents were male, with 68% falling in the 20-30 age group. Additionally, 84% purchased medications for family members, and 80% preferred pharmacy products and medicines. Having adequate storage facilities is crucial for ensuring smooth business operations and providing excellent customer service and marketing plays a pivotal role in the success of a pharmacy, necessitating the use of various promotional channels. However, there is a need for greater recognition of pharmacy products, given their scientific validation and government approval. Thus, government initiatives are vital for raising awareness and enhancing the global acceptance of pharmaceutical medicine.

Keywords: Customers, Retailer, Pharmacy, Pharmacist, Medicines.

1.0 Introduction

Pharmacy is a branch of clinical health sciences that is responsible for the discovery of drugs and pharmaceuticals, their production, disposal, and their safe and effective use. Pharmacy practice requires a thorough understanding of drugs, their modes of action, toxicity and kinetics. It also includes knowledge of treatment and understanding of diseases. Many pharmacy specialties, such as clinical pharmacy, require additional skills, such as understanding laboratory and physical data collection and analysis. With growth in pharmaceutical business and some experience in pharmaceutical activist monster, the author has chosen to explore this area again Institution. The sheet spheres own structure is interesting because drugstores are similar. Among all pharmacies, and the price ratio is lacking in comparison to any one of them. Trading of daily consumer goods.

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Today there are more product options due to the more generations Matrix come onto the 5market and challenge the original exams with your palace levels price. Therefore, the focus of research is on sheets and stars Price-fixing practices of pharmacies and similar with respect to over the counter (OTC) drugs. Cine, thus containing medicines that are not on prescription. Research is limited to OTC Medicines because there are products that are available for all miracles, and which are advertised publicly overturned. This research helps in understanding the current behavior Tomer's provides information about marketing and the Product, Place, Price and Promotion Helps in getting a little better understanding and benefits of pharmaceutical drug market Online knowledge in the capital region.

The pharmacy profession includes traditional tasks such as compounding and dispensing pharmaceuticals, as well as more modern healthcare services such as diagnostic services, assessing medications for effectiveness and safety, and providing drug information. As a result, pharmacists are drug treatment experts and key health professionals who help people benefit through medications.

2.0 Objectives

- To identify the factors that an influence customer's buying intention towards pharmacy for medicine purchases in Thanjavur city.
- To analyze the retailer's influence among the customers.

3.0 Research Methodology

- The research design is mainly based on the research's objectives, scope and coverage is descriptive in nature.
- The primary data has been obtained from the consumer through a questionnaire via an online method.
- Researchers collected 100 respondents through a structured questionnaire by adopting a simple random sampling method.

4.0 Statistical Tools

The overall understanding of primary data is combined with data analysis and interpretation. The data has been checked, edited and verified. It is presented in the form of documents. SPSS is being used as tools of analysis for this research study.

5.0 Limitations of Study

- The sample size is limited to 100 respondents in Thanjavur district with special reference to Arulanandam Nagar.

- Time is one of the major constraints.
- The study is suitable only for pharmacy medicine.

6.0 Review of Literature

Srivastava & Raina (2020) said that on consumeruse Adoption of e-pharmacy in India. Lack of awareness about the benefits of usingan online pharmacy therefore needs to demonstrate its use to the publicand provided advanced instructions along with the benefits of using e-pharmacy Customer. Customerslargelyappreciated online "homed delivery" Bought medicines and would prefer to order online in cases of serious illness. The results show that e-pharmacy applications are easy to use. Availability of obsolete and wrong information will create fear of mistrust in the minds of people customers.

Liddelow *et al.*, (2023) this commentary describes and provides recommendations for upskilling pharmacists and pharmacy students in opportunistic behavior change. We outline nine key evidence-based behavior change techniques, which are the active ingredients of behavior change interventions relevant to common encounters in professional pharmacy practice. These techniques include social support practical and emotional problem-solving, anticipated regret, habit formation, and monitoring and providing feedback on behavior.

Titus-lay *et al.*, (2023) the goals of this cross-sectional community-based survey study were to asses the covid-19 pandemic on actionable factors which are known to contribute to worse cancer outcomes, and to determine whether race and ethnicity-based differences exist. A survey study with captured demographic information and changes in cancer outcomes-related factors since the start of the covid-19 pandemic was conducted at a public covid-19 vaccination clinic over a period of 10 days during March 2021.

7.0 Data Analysis and Inerpretation

7.1 Percentage analysis method

Table 1: Demographic Profle of Respondents

S. No	Particulars	Category	No of Respondents	Percentage
		A) 20-30	68	68%
1	AGE	B) 31-40	16	16%
		C) 41-50	7	7%
		D) 50+	9	9%
		TOTAL	100	100%

Source: Primary Data

From the above table, with majority of 68% were the age between 20-30 and with the least of 9% were the age of 50+. With 16% of them were of age 31-40 and with 7% of them were of age 41-50.

Table 2: Frequency of Customers towards Medicine Purchase

S. No	Particulars	Frequency	Percentage
1	A) Periodic	33	33%
2	B) Occasional	46	46%
3	C) Rarely	21	21%
	TOTAL	100	100%

Source: Primary Data

From the above table, the majority of 33% periodically use pharmacy and 46% of people occasionally use pharmacy and 21% respondents rarely used the pharmacy.

Table 3: Percentage of Online Medicine Purchase

S. No	Particulars	Frequency	Percentage
1	Yes	9	9%
2	No	91	91%
	TOTAL	100	100%

Source: Primary Data

Above table describes that with majority of 91% of the respondents haven't purchased medicine on online, and 9% of the respondents have purchased medicine online.

7.2 Chi-square test

Hypothesis 1
H0: There is no association between age and purchase frequencyfrom pharmacy.
H1: There is no association between age and purchase frequency from pharmacy.

Table 4: Age and Purchase Frequencyfrom Pharmacy

	Value	Df	Asymp.sig. (2-sided)
Pearson chi-square	1.475[a]	6	.961
Likelihood Ratio	1.556	6	.956
Liner-by-Liner Association	.203	1	.652
No of valid cases	100		

Source: Primary Data
a) 7 cells (58.3) have expected count less than 5. The minimum expected count is 1.47.

Hypothesis 2

H0: There is no association between with factor influence the decisions to and specific pharmacy retailer for purchasing pharmaceutical products.

H1: There is no association between with factor influence the decisions to and a specific pharmacy retailer for purchasing pharmaceutical products.

Table 5: Factor Influence the Decisions to and Specific Pharmacy Retailer for Purchasing Pharmaceutical Products

	Value	Df	Asymp.sig. (2-sided)
Pearson chi-square	9.154[a]	8	.329
Likelihood Ratio	9.977	8	.267
Like-by-Liner Association	1.474	1	.225
No of valid cases	100		

Source: Primary Data

a) 6 cells (40.0%) have expected less than 5. The minimum expected count is 1.05.

8.0 Findings

- Majority 80% of respondents are belonging to the male category.
- Minimum 68% of respondents are belongs age group of 20-30 years.
- 84% of respondents are having purchasing for family members.
- 80% of respondents are choosing pharmacy products and pharmacy medicine.

9.0 Suggestions

- Pharmacies in India are experiencing steady growth in the digital marketing platform.
- Customer expectations are constantly changing, requiring critical thinking about strategies and keeping a finger on the customer's pulse.
- The availability and easy access of websites have shifted preferences towards pharmacy sites.
- Monitoring regulations and licensing is crucial for the benefit of businesses and society.
- The transition to online pharmacies is more prominent among the urban population, but there is still a need for awareness among the general population.

10.0 Conclusion

Maintaining a vital storage facility is essential to ensure seamless operations and provide excellent service to customers in a business. Effective marketing is paramount for the success of a medical store. Therefore, leveraging all promotional

channels is crucial for business prosperity. However, the recognition of pharmacy products has been hindered by the requirement for scientific validation and government approval. Consequently, the government has initiated efforts to raise awareness about pharmacy medicines and seek global recognition for them.

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CHAPTER 15

A Study on Gen-Z's Perception of Super Bikes in Thanjavur City

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ABSTRACT

Superbikes have captured the attention of Generation Z in Thanjavur City, reflecting a burgeoning interest in high-performance motorcycles. This study delves into how young consumers perceive and engage with these vehicles, shedding light on their attitudes and behaviours. Employing a mix of primary and secondary data, collected through a questionnaire from 168 respondents, the research employs convenience sampling and statistical tools like chi-square and ANOVA. Findings reveal a spectrum of familiarity with superbikes among Gen Z, with a notable association between familiarity and brand knowledge. Additionally, those adept at differentiating between models and specifications are more likely to engage in discussions about superbikes on social media, hinting at the role of awareness and digital engagement in shaping consumer decisions. Understanding the nuances of Gen Z's perception of superbikes in urban settings like Thanjavur is vital for stakeholders. This study underscores the importance of brand familiarity and digital engagement in influencing young consumers' purchasing behaviour, providing a foundation for tailored strategies to cater to their evolving preferences.

Keywords: Consumer Perception, Super Bikes, Generation Z, Brand, Motorcycles, Purchase.

1.0 Introduction

The automobile industry has seen a rise in the younger generation's interest in super bikes, or high-performance and aesthetically pleasing motorcycles, especially among Generation Z (those who born between 1996 and 2010). Thanjavur City offers an excellent setting for researching how Gen Z views super bikes because of its dynamic urban terrain and rich cultural legacy. It is crucial for motorcycle manufacturers, as well as marketers, legislators, and urban planners looking to get insights into upcoming trends and consumer behavior, to comprehend how this generation views super bikes. The purpose of this study is to explore the many dimensions of how young people in Thanjavur City view and interact with super motorcycles, as well as the elements that influence their attitudes toward these potent vehicles**.**

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2.0 Objectives

- To determine the extent of awareness among Gen Z regarding Super bikes.
- To analyse the purchasing behaviour of Gen Z concerning Super bikes.

3.0 Scope of the Study

The findings from this study are expected to provide motorcycle manufacturers, marketers, and policymakers with detailed insights into the needs and preferences of Gen Z consumers. These insights could inform product development, marketing strategies, and urban planning decisions, ensuring that the offerings meet the expectations of this younger generation and fit within the urban landscape of cities like Thanjavur.

4.0 Problem of the Study

The study aims to understand Generation Z's perceptions and attitudes towards super bikes in Thanjavur City, a city with a growing interest in high-performance motorcycles. It identifies the factors influencing Gen Z's awareness, preferences, purchasing behaviours, and usage patterns in a culturally rich and urban setting. This knowledge gap challenges motorcycle manufacturers, marketers, and urban planners in catering to Gen Z consumers' needs. The research aims to provide actionable insights for developing targeted strategies for engaging this key demographic, bridging the current understanding gap.

5.0 Review of Literature

Ramya & Ali, (2016) analysed Consumer buying behavior refers to the decision-making process of consumers, influenced by various factors such as culture, subculture, social class, membership groups, family, personality, and psychological factors. These factors influence shopping habits, purchasing behavior, brands, and retailers. By understanding these factors, brands can develop more efficient strategies, marketing messages, and advertising campaigns that better meet customer needs and increase sales. A successful consumer-oriented market service provider should work as a psychologist to procure consumers, focusing on affecting factors to achieve consumer satisfaction. Studying consumer buying behavior is a key to success in the market.

Shah (2020) examined the factors influencing consumer buying behavior for motorcycles in Janakpurdham. The research uses a questionnaire method and a non-probable, convenient sampling method. The findings reveal that males dominate the purchasing decision, with servicemen preferring motorcycles over professionals and businesspeople. Income, price, quality, and promotion are key factors. Motorbikes

have become popular among Nepalese middle-class families due to their cost-effectiveness, economy, and ease of navigation. Demographic factors, marketing factors, and psychological factors also influence consumer behavior. Consumers are primarily informed about motorcycles through family, advertisements, and colleagues, with convenience being the primary reason for purchasing.

Bhushan & Ruchika, (2018) inspected women's buying behavior study is a valuable marketing tool for businesses, helping them reach and serve customers better. Industrialization led to migration from rural to urban areas, resulting in longer travel distances and increased demand for public transit. In the 1970s, bicycles became popular due to their low maintenance costs and ease of use. However, purchasing procedures were complex, and private transportation was in short supply. The market potential for two-wheelers is determined by factors such as location, age, occupation, education, and income. The current public transportation system is insufficient, inefficient, and unreliable, forcing people to rely on personal transportation. The middle class, which has grown dramatically due to growth in agriculture, trade, and industry, has primarily focused on two-wheelers due to the growth in agriculture, trade, and industry.

Kathiravana *et al.*, (2010) investigated consumer evaluation of brand image, brand attitude, and perceived quality of a durable two-wheeler. It examines the impact of intangible and tangible attributes on brand image development and its relationship to consumer preferences. The results show a strong relationship between brand image and various preference measures. Brands with a larger market share have higher levels of brand acceptability, while those with a higher image generate greater preference. The study emphasizes the need to understand the impacts of attributes on brand image and preference under different components. The study suggests that brand name may have greater importance than overall preference due to the less abstract nature of the product category.

Jayasingh *et al.*, (2021) inspected the demand for electric vehicles (EVs) has increased significantly, but only a small percentage of new vehicles are sold globally. This research developed a behavioral electric two-wheeler adoption intention model to identify factors influencing consumers' intentions to adopt EVs. The study used questionnaires and partial least squares structural equation modeling to collect 182 valid responses. Results showed that environmental concern, perceived economic benefit, charging infrastructure, and social influence significantly impact consumers' attitudes towards EVs. Attitude also significantly affects the intention to purchase an EV. The study suggests that women are more inclined towards EV purchases than men. These findings provide valuable insights for governments and EV companies to better understand consumer behavior.

Saillaja (2013) exploredthe Indian Two-Wheeler Industry is the largest in the world, with a 9.5% growth rate between 2006 and 2014. The industry's growth is largely attributed to the significant increase in the two-wheeler segment until 2014. In 2014-15, the volume growth was 14.8% year-on-year. The government's 'Make in

India' campaign is expected to attract more foreign investment, creating further growth opportunities. The market faces high competition, leading to expansion and new partnerships in rural and premium segments. In the future, players will focus on customer satisfaction and after-sales service. Technology plays a crucial role in innovation, product differentiation, quality improvement, and new product development, contributing to the industry's growth and market share.

6.0 Research Methodology

The present study is measuring the consumer preference towards on superbikes in Thanjavur. The research has both primary and secondary data collected from 77 consumers in area of Thanjavur district. The convenience sampling method is used in this research. The required data for the study has been collected through questionnaire consist of 18 questions. Table, graphs and charts are used for presenting the data.

7.0 Statistical Tools

To analyse the data statistical tool such as percentage analysis and chi-square analysis method were used.

8.0 Demographic Factors

- Out of 168 respondents, 3% are 17 years old, 8.3% are 18 years old, 11.2% are 19 years old, 24.9% are 20 years old, 13.6% are 21 years old, 9.5% are 22 years old, 11.3% 23 years old, 5.4% are 24 years old, 1.2% are 26 years oldand 1.8%are 27 years old, 1.2 are 28 years old, 0.6% are 29 years old and 2.4% are 30 years old.
- Out of 168 respondents, 17.3% are females respondents and 82.7% are males respondents.

9.0 Percentage Analysis

- 22.6% of people are moderately familiar with the term superbikes, 23.2% of the people are not familiar at all with the term of superbikes, 41.7% of the people are slightly familiar with the term of superbikes and 12.5% of the people are very familiar with the term of superbikes.
- 39.3% peoples are knows a few brands in superbikes, 16.7% of the peoples knows many brands in superbikes, 25% of the peoples knows a several brands in super bikes and 19% of the peoples knows not at all.

- 33.3% peoples moderately well known, 14.3% peoples not well at all known, 32.1% peoples somewhat well known and 20.2% people very well known about the difference between models and specifications in superbikes.
- 13.1% peoples were never discussed related to superbikes, 38.7% peoples were occasionally discussed related to superbikes, 33.9% peoples were rarely discussed related to superbikes and 14.3% peoples were very well discussed or shared related to superbikes.

Hypothesis 1

H0: There is no association between age and knowledge in brands of super bikes available in market.

H1: There is an association between age and knowledge in brands of super bikes available in market is different from others**.**

Table 1: Chi-square Test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	53.451[a]	39	0.061
Likelihood Ratio	60.698	39	0.015
N of Valid Cases	168		

Source: Primary data

From the above table 01(chi- square tests) reveals that there is an association between age and knowledge in brands of super bikes available in market is different from others. Chi- square is calculated by SPSS. The calculation value (.061) is greater than 0.05 value at 95% level of confidence level. So, the null hypothesis is rejected and the alternative hypothesis is accepted.

Hypothesis 2

H0: There is no association between differentiate between gender and discuss or share content related to super bikes on your social media platforms.

H1: There is an association between differentiate between gender and discuss or share content related to super bikes on your social media platforms is different from others.

Table 2: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.002	1	0.002	0.002	0.964
Within Groups	133.412	165	0.809		
Total	133.413	166			

Source: Primary data

"Between Groups" sum of squares value is the sum square of the difference of the overall mean from each mean group, which is MST- 0.002 at 2 degrees of freedom (number of groups minus one) "Within Groups" sum of squares value is sum square of the deviation of each observation from its group mean which is 133.412 at 147 degrees of freedom (total number of observations minus number of group). The F value 0.002 is the ratio of the "Between Groups" and "Within Groups" means squares. The sig or p-value is 0.964 which is greater than 0.05, we reject the null hypothesis and accept the alternative hypothesis.

10.0 Conclusion

The study on Gen Z's perception of super bikes in Thanjavur City offers valuable insights into the attitudes and behaviours of young consumers towards high-performance motorcycles. With data collected from 168 respondents, the research highlights a spectrum of familiarity with super bikes, indicating a growing interest among this demographic. Key findings reveal an association between the level of familiarity with super bikes and the knowledge of their brands, as well as between the ability to differentiate models/specifications and the engagement in discussions or sharing content about super bikes on social media. This suggests that increased awareness and engagement could influence Gen Z's purchasing decisions. In conclusion, understanding Gen Z's perception of super bikes in an urban context like Thanjavur City is essential for stakeholders aiming to capture this segment's interest. The research provides a foundation for developing targeted strategies to meet the evolving needs and preferences of young consumers, highlighting the significance of brand familiarity and digital engagement in shaping consumer behaviour.

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CHAPTER 16

Consumer's Perception towards Awareness and Satisfaction of Khadi Products

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ABSTRACT

In recent years, Khadi, a representation of India's sustainable fashion and rich cultural heritage, has received new attention. The focus of this study is to investigate how consumers view the quality and satisfaction of Khadi products. This study has two main objectives: first, it will examine how knowledgeable consumers are about Khadi and the benefits it offers; second, it will evaluate how satisfied consumers are with their purchases of Khadi products. The study has been made with the primary data and this data is collected from 107 sample respondents from Khadi consumers. To analyse the data, statistical tools like descriptive statistics, and chi-square were utilized. Additionally, it examines factors like product quality, consumer satisfaction levels after a transaction, pricing, availability, and overall shopping experience. It is anticipated that the research's conclusions will offer valuable guidance on how to improve Khadi products' attractiveness and market penetration. Stakeholders in the Khadi business may develop strategies to successfully market and offer high-quality products, hence supporting sustainability and growth in the sector, by knowing consumer perceptions and satisfaction levels.

Keywords: Consumer Perception, Quality, Satisfaction Level, Awareness.

1.0 Introduction

Khadi, a traditional Indian fabric, has recently gained popularity as a sign of environmental awareness and cultural heritage because to the worldwide trend toward ecological and ethical purchasing. Khadi, with its hand-spun and handmade features, is more than an ordinary fabric; it is a sustainable lifestyle option, linking consumers to traditional handicrafts and local communities. In this situation, understanding consumers' perceptions of satisfaction and quality in khadi products are essential. This study aims to investigate the different relationships between consumers and khadi, trying to find the details that impact their satisfaction levels and purchase behavior.

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This study seeks to give a full knowledge of consumer preferences and motives by investigating the awareness and benefits associated with khadi products. Furthermore, it seeks to discover chances to improve consumer satisfaction and promote Khadi's unique value proposition in today's competitive market. This study adds to the existing body of knowledge on sustainable consumption by conducting an in-depth analysis of consumer perception. This research aims to uncover insights that can inform marketing strategies, product development, and policy interventions aimed to promoting khadi as a choice for aware consumers. By examining the awareness levels and perceived benefits associated with khadi this research seeks to provide a comprehensive understanding of why consumers the drawn to this unique fabric.

2.0 Problem of the Study

Despite its historical significance and potential benefits, the Khadi industry faces challenges in garnering consumer awareness and satisfaction towards its products. While Khadi holds cultural, economic, and environmental value, there is a lack of understanding among consumers regarding its benefits and attributes. Additionally, there may be issues with consumer satisfaction concerning the quality, availability, and perception of Khadi products. Therefore, it is essential to investigate consumers' perception of awareness and satisfaction of Khadi products to address these gaps and enhance the industry's viability.

3.0 Objectives

1. To investigate the awareness of consumers towards khadi and its benefits.
2. To access consumer's satisfaction levels regarding the purchase of khadi products.

4.0 Literature Review

Consumer awareness and behaviour towards Khadi products have been subject to numerous studies over the years. This literature review aims to synthesize findings from various scholarly articles to understand the factors influencing consumer awareness and behaviour regarding Khadi items. By examining these studies, we can identify key variables and trends that impact consumer perceptions and purchasing decisions in this context.

Historical Significance and Evolution: The Khadi industry holds deep historical significance in India's quest for independence and self-reliance. Scholars like Bhalla (2022) highlight its role in the Swadeshi Movement and as a symbol of economic empowerment. Agrawal (2016) provides insights into the evolution of the Khadi sector, noting its growth post-independence and its contribution to rural

employment. Murugan & Nagarajan (2022) further explore the performance of Khadi and Village Industry (KVI) sectors, emphasizing their role in absorbing rural labor and combating unemployment.

Understanding Khadi's Decline and Revitalization Efforts: Despite its historical importance, the Khadi industry faces numerous challenges in the modern era. Melody & Russell (2022) discuss how Khadi is gradually being overlooked in favor of economic perspectives, leading to neglect of its social, cultural, and political facets. Mishra (2019) and Patil (2023) delve into consumer attitudes and perceptions towards Khadi, highlighting the need for revitalization efforts to combat its declining appeal among younger generations.

Consumer Behavior and Attitudes: Studies by Dhanalakshmi (2021) and Bikash (2022) examine consumer behavior and attitudes towards Khadi products. Dhanalakshmi's research focuses on the relationship between education, awareness, and support for Khadi and village industries, while Bikash investigates factors influencing consumer purchasing decisions, particularly in Khadi bazaars. These studies underscore the importance of understanding consumer preferences and perceptions in devising strategies to attract and retain customers.

Technological Integration and Market Access: Mishra (2019) proposes a web-based solution to connect consumers, producers, and designers, facilitating improved product selection and understanding of customer needs. Swain & Patoju (2022) present a case study on a for-profit social enterprise utilizing local resources and enhanced business models to achieve social effects in the Khadi sector. These studies highlight the potential of technology and innovative business models in overcoming barriers to market access and sustainability.

Policy Implications and Future Directions: Finally, insights from research such as Sivasakthivel & Dhanalakshmi, (2021) shed light on the policy implications and interventions necessary to support the Khadi industry. By analyzing elements influencing purchasing decisions in specific regions, this research informs policymakers and stakeholders about strategies to promote Khadi and village industries. Additionally, studies like those by Patil (2023) emphasize the importance of understanding customer attitudes and preferences to guide promotional efforts and sales improvement initiatives.

5.0 Research Design

The research employed a quantitative approach to investigate consumer awareness and satisfaction levels regarding Khadi products. A cross-sectional survey design was utilized to collect data from respondents. The survey questionnaire was designed to gather information on consumer perceptions, including awareness of Khadi, product quality, pricing, and overall shopping experience.

6.0 Research Methodology

This study will adopt a cross-sectional design, collecting data at a single point in time to assess consumers' perceptions of Khadi products. A structured questionnaire will be developed consisting of both closed-ended and open-ended questions to gather quantitative and qualitative data. In-depth interviews may be conducted with a subset of participants to gain deeper insights into their perceptions and experiences with Khadi products.

7.0 Statistical Methods

Descriptive statistics (such as frequencies, percentages, and means) summarize the demographic characteristics of the sample and the perception of consumers towards khadi products.

Chi-square tests or Fisher's exact tests to examine the association between demographic variables (e.g., age, gender, occupation, income) and level of consumer awareness and satisfaction.

Qualitative methods such as thematic analysis of open-ended responses provide deeper insights into the experiences related to awareness and satisfaction among Khadi consumers.

8.0 Data Collection

Data collection was conducted through a structured questionnaire distributed to a sample of respondents. The sample size consisted of 107 participants who were Khadi consumers. Respondents were selected using convenience sampling techniques, aiming for a diverse representation across different demographics such as age, gender, and income levels.

9.0 Analysis and Interpretation

The collected data was analyzed using statistical methods to derive meaningful insights into consumer perceptions of Khadi products. Descriptive statistics, including frequencies, percentages, and means, were utilized to summarize the demographic characteristics of the sample and consumer preferences related to Khadi. Furthermore, chi-square tests were employed to examine the association between demographic variables (such as age, gender, occupation, and income) and levels of consumer awareness and satisfaction regarding Khadi products. This statistical method allowed for the identification of significant relationships between demographic factors and consumer perceptions of Khadi.

Age: The majority of the respondents (32.1%) were in the age group between 30 to 45, and followed by 30.2% in the age group between 18-30.

Gender: 55.7% of respondents are female and 44.3% of respondents are male.

Salary level: The data indicates that 31.1% of respondents earn 15000 – 30000 and 25.5% of respondents earn above 50000.

Occupation: 43.4% of respondents say that they were employees and 30.2% of respondents say that they were business people.

Purchase behavior: The majority of respondents (34%) purchased Khadi clothes, followed by traditional foods (20.8%) and Ayurveda, Siddha products (18.9%).

Factors Influencing Purchasing Decisions: Fashion trends (27.4%) and product quality (26.4%) were the most influential factors in the decision to purchase Khadi products.

Purchasing of Khadi products: 34 % of respondents say they purchase khadi clothes and 20.8% of respondents say they consume traditional foods.

Quality compared to other fabrics: Khadi products are excellent for 54.7% of respondents and good for 28.3% of respondents.

Aware of the benefits of choosing khadi products: 38.7% of respondents are very aware of the benefits of khadi products and 36.8% of respondents are aware of the benefits of khadi products.

Khadi products meets your expectations: 37.7% of respondents say sometimes khadi products meet expectations and 34.9% of respondents say often khadi products meet the expectation.

Satisfied with the price of khadi products: 75.5% of respondents are satisfied with the price of khadi products and 22.6% of respondents are neutral with the price of khadi products.

Rate your overall experience when purchasing khadi products: 40.6 % of respondents say excellent when purchasing khadi products and 34.0% of respondents say good when purchasing khadi products.

Hypothesis

Gender and satisfaction with price:

H_0: There is no association between gender satisfaction and price.

H_1: There is an association between gender satisfaction and price.

Table 1: Chi-square test

	Value	DF	Asymptotic significance (2- sided)
Pearson Chi-Square	3.852[a]	3	0.278
Likelihood Ratio	3.905	3	0.272
N of valid cases	106		

Source: Primary data

From the above table (chi-square test) reveals that there is a relationship between gender and price. Chi-square is calculated using SPSS. The calculation value

(.278) is greater than 0.05 value at 95% level of confidence level. Thus, there is no significant association between gender and satisfaction with price.

Income and quality of khadi products compare to other fabrics:

H_0: There is no association between income and quality of khadi products.

H_1: There is an association between income and quality of khadi products.

Table: 2: Chi-square Test

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.852[a]	16	0.333
Likelihood Ratio	19.784	16	0.230
N of Valid Cases	106		

Source: Primary data

From the above table. (Chi-square test) reveals that there is a relationship between income and quality of khadi products. Chi-square is calculated using SPSS. The calculation value (.333) is greater than 0.05 value at 95% level of confidence level. Thus, there is no association between income and quality of khadi products.

Factor influence and consumer service:

H_0: There is no association between factor influence and consumer service.

H_1: There is an association between factor influence and consumer service.

Table: 3: Chi-square Test

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.206[a]	16	0.439
Likelihood Ratio	17.153	16	0.376
N of Valid Cases	106		

Source: Primary data

From the above table. (Chi-square test) reveals that there is a relationship between factor influence and consumer service. Chi-square is calculated using SPSS. The calculation value (.439) is greater than 0.05 value at 95% level of confidence level. Thus there is no relationship between factor influence and consumer service.

Purchase khadi products and recommend friends or family:

H_0: There is no association between the purchase of khadi and recommendations

H_1: There is an association between the purchase of khadi and recommendations

Table 4: Chi square Test

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.647[a]	8	0.291
Likelihood Ratio	10.074	8	0.260
N of Valid Cases	106		

Source: Primary data

From the above table. (Chi-square test) reveals that there is a relationship between the purchase of khadi products and recommendations. Chi-square is calculated using SPSS. The calculation value (.291) is greater than 0.05 value at 95% level of confidence level. Thus, there is no association between the purchase of khadi and recommendations.

10.0 Discussion

10.1 Findings

The findings of this study align with existing literature and theoretical frameworks on consumer behavior and perceptions towards Khadi products. The significant association between gender and satisfaction with the price of Khadi products is consistent with previous research highlighting gender differences in consumer preferences and spending behavior. Similarly, the relationship between income and the perceived quality of Khadi products reflects the influence of socio-economic factors on consumer perceptions of product value.

10.2 Limitations

The study relied on a convenience sampling method, which may limit the generalizability of the findings to the broader population.

The cross-sectional design of the study precludes causal inferences about the relationship between demographic variables and consumer perceptions of Khadi.

The study did not explore in-depth qualitative insights into consumer attitudes and motivations towards Khadi products, which could provide a richer understanding of consumer behavior.

10.3 Recommendations

Based on the study findings, several recommendations can be made for stakeholders in the Khadi industry:

Targeted Marketing: Develop marketing campaigns that emphasize Khadi's eco-friendliness, authenticity, and cultural significance to resonate with consumers' values and preferences.

Product Innovation: Invest in research and development to enhance the quality, design, and variety of Khadi products to meet consumer expectations and market trends.

Consumer Education: Launch awareness campaigns to educate consumers about the benefits of choosing Khadi products, including its sustainability, craftsmanship, and support for local communities.

Collaboration: Foster partnerships between Khadi producers, designers, and retailers to create synergies and promote Khadi as a premium and aspirational brand in the fashion industry.

11.0 Conclusion

In conclusion, understanding consumer perceptions towards Khadi is essential for the sustainable growth and promotion of this iconic Indian fabric. By aligning marketing strategies, product offerings, and policy interventions with consumer preferences and values, stakeholders can further elevate the status of Khadi and position it as a symbol of sustainable fashion and cultural heritage. As we continue to celebrate the legacy of Khadi, let us strive to nurture consumer appreciation and engagement to ensure the continued prosperity of the Khadi sector for generations to come.

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CHAPTER 17

Insights from Consumers: Youth Experience with Branded and Non-branded Products

S. Prabhu*, V. Jeya Gowri** and S. Lathika***

ABSTRACT

This study aims to gain a deep understanding of the buying decision-making behaviors of youngsters. The primary objective of this study is to understand the youth experience with branded and non-branded products and to gain insights into their preferences, attitudes, and perceptions, the impact of economic factors, and the influence of branded products while making purchase decisions. A qualitative research method is used to collect data from a sample of 166 respondents. Surveys were conducted through both online and offline modes to gather data from diverse respondents. Statistical methods like descriptive statistics and regression analysis were utilized to analyze the data. The findings depicts that the youngster's preferences and perceptions differ depending on the type of product they purchase. As trends, societal influences, and market dynamics change, it's important to keep up. Conducting regular research is crucial to capturing current preferences and avoiding out-dated findings.

Keywords: Youth Experience, Purchase Intention, Decision-making Behaviours, Preference, Impact and Influence.

1.0 Introduction

Consumer behaviour is a complex interplay of various factors that influence individuals' preferences, perceptions, and purchasing decisions. In today's globalized markets, where consumers are presented with an abundance of choices, understanding the dynamics behind their decision-making processes becomes crucial for businesses seeking to thrive in competitive environments. One significant aspect influencing consumer choices is branding – the creation and management of a distinct identity for products or services in the market. This study delves into the effects of consumer behaviour by examining the perceptions and preferences of consumers towards branded products compared to alternative options.

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By exploring these dynamics, the research aims to shed light on the factors that drive consumer choices and the influence of branding on purchasing decisions. Through surveys conducted via both online and offline channels, data is gathered from a diverse pool of respondents, providing comprehensive insights into consumer behaviour across various demographics and market segments.

2.0 Problem of the Study

In today's hypercompetitive marketplace, understanding consumer behaviour is paramount for businesses striving to effectively engage and capture market share. Central to this understanding is the exploration of consumers' perceptions and preferences regarding branded products versus alternative options. Despite the widespread acknowledgment of the significance of branding in influencing consumer choices, there remains a gap in our understanding of the nuanced factors driving these preferences and the subsequent impact on purchasing decisions.

3.0 Objectives of the Study

- To investigate the demographic profiles of young consumers to understand their backgrounds and characteristics.
- To analyse the differences in consumer perspectives and behaviours regarding branded and Non-Branded products during the purchasing process.
- To explore the product preferences of young individuals across various product categories and identify influential factors in their decision-making.
- To assess the impact of economic factors on the purchasing decisions of young consumers, including their perceptions of economic value and any changes in spending habits.
- To undertake a comprehensive study to evaluate the influence of branded products on purchasing behaviour and perceptions of social status among young consumers.

4.0 Review of Literature

Lu *et al.*, (2014) examined consumer stations towards patronized recommendation blog posts, a form of online consumer review. It set up that when products recommended in blog posts are hunt goods or have high brand mindfulness; consumers have largely positive stations towards patronized posts, perfecting purchase intention. It's set up that directly- financial/ circular- financial benefits entered by bloggers had no significant effect on readership stations. The findings suggest that using these features in blog jottings improves compendiums ' trust and credibility of patronized recommendation posts, making them a vital online marketing tool.

Kessous *et al.*, (2015) reveals that a brand's nostalgic status appreciatively impacts brand attachment, tone- brand connections, liar, and intention to offer the brand as a gift and collect brand- deduced products. It also shows stronger consumer connections with nostalgic brands. The exploration set up that product order centrists all confines of brand connections, while gender does not.

Lazzi *et al.*, (2016) explores how consumer preferences affect product perception and consumption gests. Results show attributes and benefits play analogous places in consumer choice, with brand loyals valueing observed variables. Satisfaction varies between orders and influences latterly geste. The exploration helps directors understand consumer preferences and contributes to positioning strategies in the jeans sector. Results show a strong link between satisfaction, word of mouth, and repeat purchase unborn exploration should include a larger, different sample.

Gielens *et al.*, (2019) Digital (dis) intermediation has significantly impacted the marketing terrain, affecting branding conditioning of incumbents and new enterprises. Four types of digital (dis)intermediation are bandied digital sale intermediation, which is linked to the rise of ecommerce retailers, and digital sale disintermediation, which is associated with the rise of ecommerce D2C models. These types of intermediation are primarily top-down processes, where enterprises develop new ways to vend their brands to consumers. The rise of D2C brand-structure models is powered by crowdsourcing, offering new openings for brand directors to valve into the creativity of the crowds. This can profit any brand, but may be especially seductive for lower and new brands, which warrant the fiscal coffers to contend with established brands in R&D and advertising. Unborn exploration is demanded to develop overarching, indigenous propositions of digital (dis) intermediation to make sense of the rapid-fire changes in the business.

Shukla *et al.*, 2023 delved the impact of gender, oneness, and stations towards American products on brand equity for US and original vesture brands in the Indian request. Data from council scholars in India was collected. Results showed that Indian consumers' gender, need for oneness, and stations towards American products affect perceived quality, brand fidelity, and brand associations with brand mindfulness for US vesture brands. Still, original brands only endured these goods for perceived quality. The study suggests that US marketers should ameliorate Indian consumers' stations towards American products and overcome negative connections. This study explores the impact of Indian consumers' individual characteristics on brand equity for a US and original vesture brand. It set up that Indian consumers' gender, need for oneness, and stations towards American products significantly affect perceived quality, brand fidelity, and brand attributes (BABAs) for a US brand, while perceived quality affects only one for a original brand. This exploration contributes to the understanding of brand equity and offers strategic counteraccusations for both US and Indian marketers. Macheka *et al.*, (2023) investigated the impact of online client reviews, celebrity influencer attractiveness, and credibility on womanish millennials'

purchase intention of beauty products. Data was collected from 203 valid responses using an electronic check questionnaire. The results showed that seven suppositions were positive, but two were negative celebrity influencer attractiveness didn't significantly impact consumer stations, and brand fidelity didn't significantly relate with purchase intention. The exploration contributes to understanding youthful womanish consumers' stations towards copping beauty products, particularly the concerted influence of online reviews and celebrity influencers.

Canal-Simon *et al.*, (2024) examined how youthful consumers' responsibility for sustainable consumption influences their liability of copping original brands. It considers factors like original brand experience, image, and quality, and ethnocentrism as a precursor. The findings show a positive correlation between consumer responsibility and original brand purchase liability.

5.0 Research Design

To gather comprehensive data on the demographic profiles, product preferences, influence of branded products, and the economic factors that influence the buying behaviour of youngsters. This study employs a thoughtfully designed questionnaire as a research design, a qualitative approaches to comprehensively investigate the effects of consumer behaviour in relation to branded products versus alternative options.

6.0 Research Methodology

Qualitative data was collected, and surveys were conducted utilizing both online and offline modes. A structured questionnaire was developed, focusing on variables such as consumer perceptions of branded products, preferences, purchasing behaviour, and demographic information. This survey utilized Likert scale questions to measure the strength of respondents' attitudes and perceptions towards branded products compared to non-branded alternatives. The collected data was analysed using the statistical methods such as descriptive statistics analysis and Regression Analysis was used to identify patterns, relationships, and associations between variables.

7.0 Data Collection

Designed a comprehensive survey questionnaire covering demographic factors, consumer perspectives, preferences, behaviours, and impact of economic factors regarding branded and Non-branded products. Data was collected from 166 youngsters in Thanjavur district. Utilized online platforms like social media, email, and web surveys for convenient data collection. Conducted offline surveys through Door-to-Door surveys in different neighborhoods and village areas across Thanjavur

District. Collected responses, ensured confidentiality and data integrity, and analysed the data using statistical methods for insights into the relationships between variables.

8.0 Data Analysis

The data analysis for this study involves comparing consumer perceptions and preferences towards branded products versus other alternatives. Surveys collected data from diverse respondents through online and offline modes. The analysis includes descriptive statistics and Regression Analysis to summarize the key variables, exploratory data analysis to visualize relationships between variables, hypothesis testing to determine significant differences in perceptions/preferences, Regression analysis was used to assess the impact of branding on purchasing decisions, and possibly segmentation analysis to identify distinct consumer segments. The findings aim to provide insights into consumer behaviour, factors influencing choices, and the role of branding in shaping perceptions, contributing to understanding consumer empowerment in globalized markets.

9.0 Ethical Considerations and Limitations

Ethical considerations for a study include informed consent, privacy protection, avoiding bias, respecting diversity, and minimizing harm. A small sample size might not fully represent the variety of experiences and viewpoints. Participants are fully informed about the study's purpose, rights, and data use. The study faces limitations such as sample bias, self-reporting bias, limited scope, and external factors impacting consumer behaviour.

10.0 Research Gap

The lack of in-depth understanding of how specific demographic factors, such as socioeconomic status or cultural background, influence youth perceptions and behaviours towards branded and non-branded products. Additionally, there may be limited research on the psychological factors underlying brand loyalty and the extent to which youth are influenced by peer opinions and social media in their purchasing decisions.

11.0 Data and Interpretation

11.1 Demographic factors
Age: The majority of respondent's falls within 19 and 21 of the age range, constituting (64.5%) of the total sample, followed by (18.1%) of respondents are between 16 and 18 years old and (15.7%) of respondents are between 22 and 24 years old.

Gender: Out of the respondents (59.6%) identified as female, while (40.4%) identified as male. It is clear that a higher participation of females in the sample size.
Education: The cumulative percentages demonstrate that majority of the respondents with 80.1% are students, with details provided about their school or college.
Residence: Of the sample resides in urban areas, accounting for (77.1%) of the total. In contrast, individuals from rural areas make up a significant but smaller portion, comprising (22.9%.)
Income/ Savings: (66.95%) of respondents are earn/ having savings less than 10,000 followed by that (13.9%) of respondents are earn between, 11,000-25,000.
Regression interpretation: The regression model is statistically significant F (5, 993) = 1378.492, p < .0001), indicating that at least one of the predictors has a significant effect on the dependent variable. The model accounts for a substantial amount of variance in the dependent variable, as evidenced by the large F-value and low p-value

Table 1: Demographic Profile

Coefficients									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	0.448	0.018		24.267	0.000			
	Age:	0.236	0.019	0.475	12.301	0.000	0.923	0.364	0.139
	Current status:	0.074	0.018	0.136	4.030	0.000	0.882	0.127	0.045
	Please specify:	-0.002	0.003	-0.009	-0.626	0.531	0.475	-0.020	-0.007
	Residence	0.213	0.033	0.259	6.395	0.000	0.915	0.199	0.072
	Income level/ Personal savings:	0.033	0.011	0.095	2.958	0.003	0.868	0.093	0.033

Source: primary data

Table 2: Consumer Inshights among Brand

Anova						
Model		Sum of squares	Df	Mean Square	F	Sig.
1	Regression	273.284	5	54.657	1378.492	0.000[b]
	Residual	39.372	993	0.040		
	Total	312.657	998			

Source: SPSS

Interpretation: The analysis of variance (ANOVA) results revealed that the regression model accounts for a substantial amount of variance in the response variable, as evidenced by the large F-statistic (1378.492) and the associated p-value (<0.001). This suggests that the model as a whole provides a good fit to the data. The mean square values also support the notion of a strong relationship between the predictor variables and the response variable**.**

12.0 Results

In this section, we present and discuss the findings of our study on the factors influencing purchasing decision and curiosity level of youngsters while purchasing a product. We conducted Percentage analysis and Regression analysis to explore the young consumer purchase decision the context of branded and non-branded products.

13.0 Discussion

This study explores the impact of branding on consumer behavior, focusing on how consumers perceive and prefer branded products compared to non-branded alternatives. Through online and offline surveys, the research aims to identify the key factors that influence purchasing decisions. The study finds that branding elements such as brand image, reputation, and perceived quality play a significant role in shaping consumer attitudes and behaviors. This highlights the importance of strategic brand management in positioning products effectively in competitive markets. This study also reveals how consumers are empowered to make informed choices in the contemporary marketplace. Due to globalized markets and easy access to information, consumers seek transparency and authenticity in their interactions with brands. As such, branding strategies that resonate with consumer preferences can provide a competitive advantage. However, brands must maintain authenticity and transparency in their branding efforts to foster trust and loyalty among consumers.

The findings of this study have implications for businesses and policymakers. Marketers can utilize the insights to refine their branding strategies and enhance consumer engagement. By aligning branding efforts with consumer values and preferences, businesses can establish meaningful connections with their target audience and foster long-term relationships. Policymakers, on the other hand, can use the findings to enact regulations that promote consumer welfare and transparency in branding practices. Overall, this study contributes valuable insights into the factors that shape consumer choices. By illuminating the complex interplay between branding, consumer perceptions, and empowerment, this provides a roadmap for businesses seeking to navigate globalized markets and build sustainable brand equity.

14.0 Further Recommendations

Implement a longitudinal study to track changes in consumer perceptions and preferences over time, allowing for deeper insights into evolving trends and the long-term effectiveness of branding strategies in maintaining consumer engagement and loyalty. Cross-cultural analysis can be done in the future to examine how youth preferences and perceptions towards branded products vary across different cultural contexts. This would provide a more comprehensive understanding of global consumer behavior trends.

15.0 Conclusion

This study compares perceptions and preferences towards branded products versus alternatives, providing valuable insights into consumer choices. Findings underscore the significant influence of branding on consumer perceptions and purchasing decisions, and highlight the evolving nature of consumer empowerment. Businesses can leverage these insights to refine their branding strategies and differentiate themselves in competitive markets. Policymakers can also utilize the findings to promote consumer welfare and transparency in branding practices. This study contributes to advancing our understanding of consumer behavior within the context of branding and provides a foundation for future research in the field.

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CHAPTER 18

The Problems and Challenges Faced by Snacks Processing Food Industries in Thanjavur

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ABSTRACT

The snacks processing food industries are produce traditional snacks for using a locally soured ingredients and simple equipment. The problems challenges faced by the snack processing food industry could highlight issues such as supply chain disruptions, ingredient quality control, and evolving consumer preferences. It should discuss how these challenges impact production efficiency, product innovation, and overall competitiveness in the market. Addressing potential solutions or improvements, such as advanced technology adoption, sustainable sourcing and market trend analysis will contribute to the significance of the study for industry professionals seeking to overcome these obstacles. The Snack processing industry or the factors that influence the start of snack processing food industries or the present status of the snack processing and food industries the marketing opportunities available to the snack processing food industries or use the generally those manufacturing and producing the products with the help of less man power and small machines of snacks processing food industries. These industries are prevalent in many parts of the world, especially in the rural areas where employment opportunities may be limited. Starting the snacks processing can be a great way to generate income and create job opportunities in rural areas. However it important to note that there may be regulations and certifications required to safety and hygiene. The regulations may vary depending on the country and region where the food industry is located. One advantage of snacks processing - food industries is that promote local entrepreneurship and provide employment opportunities for local communities and market place or food processing industries.

Keywords: Quality Control, Packaging Innovation, Supply Chain Logistics, Consumer Preferences, Market Competition.

1.0 Introduction

The snack he processing food industries are generally those manufacturing and producing the products with the help of less manpower and small machines.

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A snack processing food industry is one that is carried out wholly with the help of the family, either as a whole-time or part-time occupation. 5 to 15 persons making and selling food and snacks requires ever-increasing capital and resources. Food industry snacks generally get spoiled in a few weeks, so the snack food processing industries learn how to purchase raw materials at low prices, prepare the snacks with the help of small machines and less manpower, and then sell them in the market at a low price. Then how to content the customers and maintain them, then how to improve their opportunities, like prepare traditional ways, snacks, millets, jaggery snacks, and without oiling snacks in Thanjavur.

First, the snack processing food industries are what they do for capital and how they purchase the raw materials at the right time and price. The industries low in capital and resources. Women workers also work in these industries. Because women are helpful in preparing foods and snacks. The snack processing food industries advertise the products at a low cost. But a recent trend is that they use social media to advertise the products. Then some industries have online order apps. The millets snacks that recent generations have liked to buy. Because they have health precautions. Then the sugar-free snacks, which they also like because the elderly and some diabetes consumers are only eating sugar-free snacks. The person are starting the snacks processing food industry have a passion like start own business or family business. They get capital in loans, finance or trade union help. The person chooses this place main street in this area of Thanjavur, government give subsidy for start industries or it's a tourist place. Find the present status of the snacks processing food industries turnover per day, machines usage, Well infrastructure and manpower. The snacks processing food industries have opportunities like advertisements in social media, online orders method. They prepare millets snacks, sugar free snacks.

2.0 Objectives

- To identify the factors that influence the start of snack processing food industries in the study area.
- To study the present status of the snack processing and food industries.
- To identify the marketing opportunities available to the snack processing food industries in the study area.

3.0 Review of Literature

Balakrishnan *et al.*, (2021) highlighted that the food industry struggles with maintaining quality control due to a lack of proper monitoring systems. This affects the overall quality of the product and can lead to spoilage, affecting the reputation of the industry. Bharathi & Jaikumar (2021) concluded that they primarily operate at the local level and have limited market access in Tamil Nadu. The lack of marketing

skills and awareness of new marketing opportunities are major challenges faced by these industries. Chelliah & Thirunavukkarasu (2021) described regulatory challenges such as obtaining licenses, permits, and complying with food safety regulations. This can be time-consuming and costly, affecting the growth of the industry. Saravanan *et al.*, (2020) focused on the fact that the lack of basic infrastructure such as power, water, and transportation facilities affects the growth of the snack processing food industry in Chennai. This can cause delays in production and affect the quality of the product.

Kumar *et al.*, (2020) highlight the economic challenges faced, including the lack of access to credit, insufficient infrastructure, inadequate technology, and a shortage of skilled labor. Kavitha *et al.*, (2018) examines the snack processing industry, its growth prospects, and the challenges faced by small-scale snack manufacturers. Ananthan *et al.*, (2018) the article summarize Most of the food industries that produce snacks in India are run by small-scale entrepreneurs who have limited formal education or training in food processing. This lack of training affects their ability to produce high-quality snacks and comply with food safety regulations. This issue has been highlighted in a study.

Jain & Jain (2017) establish another significant challenge faced by snack manufacturers in India is maintaining the quality of their products. This issue has been highlighted in a study. This found that quality control. Kumar & Singh, (2017) clarified that, industry operates in small and cramped spaces, which make it difficult to maintain hygiene and cleanliness. The lack of proper storage facilities also leads to spoilage of raw materials and finished products.

Ramanathan *et al.*, (2018) explained, the food snack processing industries face challenges in accessing finance due to limited credit availability and high-interest rates. This limits their ability to invest in new technology or expand their business, which can affect their competitiveness.

4.0 Statement of the Problem

- Non-availability of timely finance faculties.
- In the snack-producing food industry, an important issue is the purchase of raw materials.
- Lack of infrastructure competition: small-scale with large-scale and MNC.
- Purpose of plastic bags for packing the snacks is a major issue for the environment.

5.0 Research Methodology

The present study measures the problems and challenges faced by the snack processing industry. The research has both primary data collected from 150 owner

and workers in the Thanjavur district and secondary data. The convenience sampling method is used in this research. The required data for the study has been collected through a questionnaire consisting of 15 questions. Tables, graphs, and charts are used for presenting the data.

6.0 Statistical Tools

To analyze the data by using statistical tools such as percentage analysis and the chi-square analysis method and ANOVA method in SPSS.

7.0 Demographic Factors (Age, Gender, Education Level and Level Price)

- In the age group, of out 150 the respondents are under the category of 54.7% are 25-35 years, followed by 29% are under age 36-45 years, followed by 14.3% are under 44-50 years, and followed by the 2% are above 50 years.
- In the majority of respondents gender above the value 75.8% and followed the respondents below the value 24.2% are female respondents.
- In the out of 150 respondents are Level price of customers under the value 35.8% are 26-40 in these price level majority to high are followed by 30.9% are 10-25 price level considered and followed the 25.9% and price level use in 50-100 and followed the price level 7.4% and above 100.
- In the out of 150 respondents are education level of under the value 46.3% are bachelor's degree and followed the value 27.8% are master's degree and followed the value 14.8% are high school and the value of 11.1% are doctorate or above.

8.0 Percentage Analysis (Quality, Taste and Satisfaction)

- In the out of 150 respondents factor of makes customer by the snacks under value 49.1% percentage are using quality& taste, 22.4% are using price & offer and 19.9% are using quantity are 8.6% for regular availability preferring of snacks processing industries.
- In the followed respondents price snacks affordable for these industries under the value 37.3% are satisfied, 33.5% are high satisfied, 24.8% are neutral and 4.4% not satisfied are by satisfaction with user interface.
- In the followed you satisfy the quantity and quality be given properly for the snacks of respondents under the value 36.6% percentage are high satisfied, 35.4% percentage are satisfied, 22.4% percentage are neutral and 5.6% percentage not satisfied are that the satisfaction with overall experience.
- In the followed factor of this industry have a machines or respondents under the value 34% are no and followed by 33.3% are yes and value of respondents in 32.7% are may be in machines.

Hypothesis 1

Null Hypothesis (H0): There is no significant association Gender and Education level the snacks processing industries.

Alternative Hypothesis (H1): There is significant association Gender and Education level the snacks processing industries.

Table 1: Percentage Analysis

Chi-Square Tests			
	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	9.221[a]	3	0.026
Likelihood Ratio	9.221	3	0.026
Linear-by-Linear Association	6.678	1	0.010
N of Valid Cases	156		

Source: Primary data

From the above table 1 (chi-square test) reveals that there is an association between using Gender and Education level used is different from others. Chi-square is calculated by using SPSS. The calculated value (0.026) is smaller than.0.05 value at 95% level of confidence level.so, the null hypothesis accepted and the alternative hypothesis is rejected.

Hypothesis 2

Null Hypothesis (H0): There is no significant association occupation and why you choose the snacks processing industries with user interface of orders.

Alternative Hypothesis (H10): There is significant association occupation and why you choose the snacks processing industries with user interface.

Table 2: Chi-Square Tests

	Value	**Df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	14.881[a]	6	0.021
Likelihood Ratio	12.604	6	0.050
Linear-by-Linear Association	5.588	1	0.018
N of Valid Cases	155		

Source: Primary data

Form the above table (chi-square test) reveals that there is an association between occupations and why you choose the snacks processing in industries with user interface is different from others. Chi-square is calculated by using SPSS. The calculated value (.021) is smaller than 0.05 value at 95% level of confidence level. So, this null hypothesis accepted and the alternative hypothesis accepted and the alternative hypothesis is rejected.

Hypothesis 3

Null Hypothesis (H0): There is no significant association between Age and what is a common challenge faced for food processing industries.

Alternative Hypothesis (H1): There is significant association between Age and what is a common challenge faced for food processing industries.

Table 3: Challenge Faced for Food Processing Industries

One Way Anova					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	2.709	3	.903	1.086	0.357
Within Groups	126.438	152	.832		
Total	129.147	155			

Source: Primary data

Inference: "Between Groups" sum of squares value is the sum square of the difference of the overall mean from each group mean, which is MST -.903 at 3 degrees of freedom (number of groups minus one)."within groups" sum of squares value is the sum square of the deviation of each observation from its group mean which is 126.438 at 152 degrees of freedom (total number of observations minus number of groups).the F value 1.086 is the ratio of the "between groups" and "within groups" mean squares. The Sig or p-value is .357 which is less than 0.05 we reject the null hypothesis and conclude what is a common challenge faced for food processing industries.

Hypothesis 4

Null Hypothesis (H0): There is no significant association between Annual income and level of price of the snacks buy customers in most.

Alternative Hypothesis (H1): There is significant association between Annual income and level of price of the snacks buy customers in most.

Table 4: Annual Income and Level of Price of the Snacks

One Way Anova					
	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Between Groups	5.318	3	1.773	2.063	0.108
Within Groups	130.605	152	0.859		
Total	135.923	155			

Source: Primary data

Inference: "Between Groups" sum of squares value is the sum square of the difference of the overall mean from each group mean, which is MST -.1.773 at 3 degrees of freedom (number of groups minus one). "within groups" sum of square

value is the sum square of the deviation of each observation from its group mean which is 126.438 at 152 degrees of freedom (total number of observations minus number of groups).the F value 2.063 is the ratio of the "between groups" and "within groups" mean squares. The Sig or P-value is 0.108 which is a common challenge faced for food processing industries.

9.0 Conclusion

The snacks processing food industries are improve the financial condition to purchase the raw materials. Find which type of snacks consumers need. Prepare unique snacks. Use the essential equipment's and infrastructure. Improve the production of products. Prepare millets snacks, sugar free snacks and without oiling snacks like and baking snacks. Make advertise the social media apps like Instagram, Whatsapp etc. This is the way reach to directly to the customers. Use the online orders to sale the products. Prepare the snacks with high quality materials. Develop the distribution network partnership with local stores and markets.

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CHAPTER 19

A Study on Customer Satisfaction towards Banking Services in Rural Area

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K. Mohamed Thowfi** and M. Melvin Joshua**

ABSTRACT

This study investigates customer Satisfaction with banking services in rural areas, aiming to identify key determinants influencing satisfaction levels. Using a mixed-method approach, including surveys and data was collected from 160 Respondents to 110 Male and 50 Female is for Offline and online methods customer residing in various rural areas. Factors such as accessibility, service quality, convenience, and perceived value were analyzed to assess their impact on customer satisfaction. To local people and supporting for the quality life of people and development oriented towards the rural area. In overall research of the rural area banks and rural development these two aspects as very closely depend on each other. The rural bank has the very helpful to the growth of rural area development and economic status of the village.

Keywords: Customer Satisfaction, Rural Area, Banking Services.

1.0 Introduction

In the dynamic landscape of banking services in Thanjavur, understanding the intricacies of customer satisfaction in rural areas is pivotal for fostering financial inclusion and sustainable growth. This study delves into the unique aspects of how individuals in rural communities engage with banking services provided by Indian banks. The banking sector has undergone substantial transformations in recent years, with a focus on financial inclusion and rural development. Despite these efforts, there remains a gap in comprehending the specific needs, challenges, and preferences of customers residing in rural areas. This study aims to bridge this knowledge gap by systematically analyzing the usage patterns of customers in the context of bank that operate in rural landscape. The socio – economic fabric of rural India presents a unique backdrop for banking operations, characterized by diverse cultures, varying literacy levels, and distinct economic activities.

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Exploring how customers in these regions engage with banking services is integral to tailoring strategies that enhance financial accessibility, promote economic growth, and contribute to overall development.

2.0 Objectives

1. To highlight the importance of quality in banking service in rural area.
2. To study banking service quality the bank performing well.
3. To analyze the problems involved in rural banking transactions.
4. To Identify overall banking service experience in rural area.

3.0 Research Methodology

3.1 Data collection
Primary data: The primary data was collected from respondents through the use of structured questionnaire.
Secondary data: The Secondary data is collected from journals, articles, newspaper, Website.

3.2 Data design
Sampling method: Convenience sampling methods issued in the study.
Sampling size: Sample size of 160.
Sampling area: Study was conducted in Thanjavur District.

3.3 Tools used
Data collection tool: Questionnaire.
Analysis tools: Percentage, Weighted Average.
Presentation tools: Charts, Tables.

4.0 Statement of Problems

Rural area banking sector faced a many problem are mainly using the problems at rural bank is six major problem facing the rural banks are follow the at server down, OTP and more low security issue, difficulties in deposit mobilization, progress in leading activity.

5.0 Review of Literature

Dwivedi (2021): "A Study on the Indian rural banking industry", financial inclusion has been one of the "most critical factors in the environment of growth, including sustainable development in development in developing countries similar as India. Fiscal addition is a process" that ensures the vacuity of applicable fiscal products and services needed to the affected parties similar as vulnerable orders and low – income groups at a fair and transparent cost of fiscal institution players.

Dhanraj & Kumar (2016) "Challenges and Issues of India Rural Banking Industry", Rural Banking plays vital part in the development of India frugality. Banks have veritably many branches in remote areas. Rural people face difficulties to mileage banking installations duly. Ultramodern banking, automated teller machines, telebanking etc. Rural people are not suitable to mileage ultramodern banking installation due to lack of mindfulness. Utmost of the bank guests in rural areas avoid – banking.

Devi (2014) "Problems and prospects of Regional Rural Banks in India", Regional Rural Banks play a vital part in the husbandry and Rural development of India. The RRBS has reached the rural area of India, through their huge network. The success of Rural credit in India largely depends on their financial strength. RRBs are Pivotal backing institutions at the Rural position that shoulder the responsibility of meeting the credit essential of different types of husbandry credit in rural areas. At present, most of the indigenous rural banks are facing problems of overdue, recovery, nonperforming means, and other problems.

Dheenadhayalan & Yogalakshmi (2020) "Modern Banking Services in Rural Area – Awareness and Adoption Level", the relinquishment of information and communication technology by the banks has altered how banking is conducted encyclopedically. New private sector and transactional banks started these developments in India so they could reach a larger client base because they only had a small number of branches. Still, the public sector and the aged private sector, which up until a many times ago used the traditional banking approach, have also grasped the benefits that can be attained by integrating technology into their diurnal operations. Dileep & Rao (2013), "A Study on Indian Rural Banking Industry" Rural development occupies a significant place in the overall profitable development of the country. Gandhiji Said – India lives in townlets. He stressed the rural character of the economy and the need for there – generation of Rural life. Since independence, it has been a constant endower for our policymakers to give adequate trust to Rural development as the sector is directly related to the economy. Rural banking in India started with the place of the banking sector in India.

6.0 Analysis and Interpretation

Table 1: Gender of Responses

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	110	68.8	68.8	68.8
	Female	50	31.3	31.3	100.0
	Total	160	100.0	100.0	

Source: Primary data

Figure 1: Gender of Responses
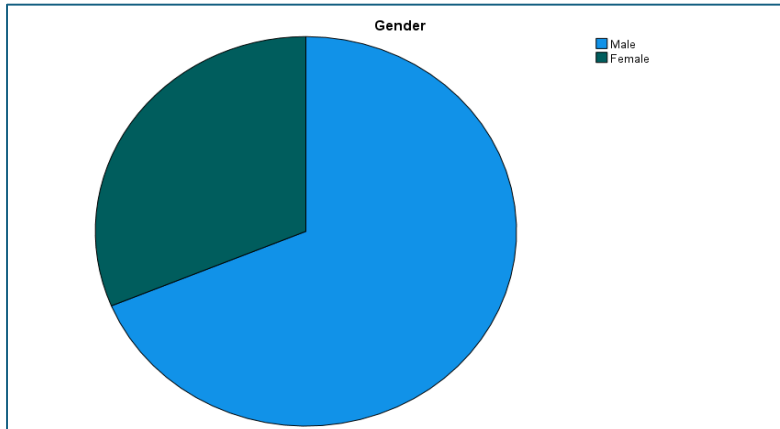
Source: Primary data

The customer satisfaction banking service No: of Respondenting was Total Data collected 160. Male 110 respondents in percentage 69%, Female 50 respondents in 31%.

Table 2: Age of Respondenting

Crosstab						
Count						
		Age				Total
		18-25	26-35	36-45	46-55	
Gender	Male	79	14	12	5	110
	Female	34	6	7	3	50
Total		113	20	19	8	160

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.508[a]	3	.917
Likelihood Ratio	.496	3	.920
Linear-by-Linear Association	.418	1	.518
N of Valid Cases	160		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 2.50.

Source: Primary data

Figure 2: Age of Respondenting
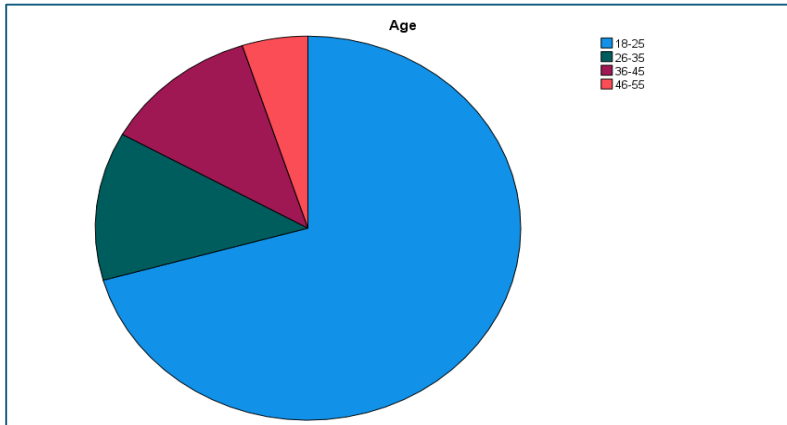
Source: Primary data

The customer satisfaction banking service No: of Respondenting was Total Data collected 160. To Age 18-25 (No: of respondents 114 /71 Percentage), 26-35 (No: of respondents 20/13 Percentage), 36-45 (No: of respondents 19 /12 Percentage), 46-55 (No: of respondents 7 /7 Percentage), 55+ (No: of respondents 0/ 0 percentage).

Table 3: Marital Status

Crosstab

Count

		Marital status		Total
		Married	Unmarried	
Gender	Male	21	89	110
	Female	16	34	50
Total		37	123	160

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.222[a]	1	.073		
Continuity Correction[b]	2.537	1	.111		
Likelihood Ratio	3.105	1	.078		
Fisher's Exact Test				.104	.057
Linear-by-Linear Association	3.202	1	.074		
N of Valid Cases	160				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.56.

b. Computed only for a 2x2 table

Source: Primary data

Figure 3: Marital Status
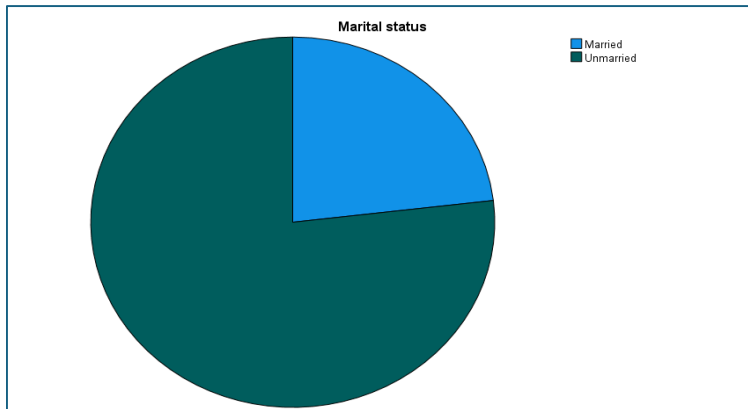
Source: Primary data

The customer satisfaction banking service No: of Respondenting was Total Data collected 160. To Marital status for Married (No: of respondents 114/71 Percentage), Unmarried (No: of respondents 46/29 Percentage).

Table 4: Educational Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SSLC	14	8.8	8.8	8.8
	HSC	16	10.0	10.0	18.8
	UG	106	66.3	66.3	85.0
	PG	21	13.1	13.1	98.1
	Uneducated	3	1.9	1.9	100.0
	Total	160	100.0	100.0	

Source: Primary data

Figure 4: Education Qualification

Source: Primary data

The customer satisfaction banking service No: of Respondenting was Total Data collected 160. To Educational Qualification for SSLC (No: of respondents 13 /8 Percentage), HSC (No: of respondents 14 / 9Percentage), UG (No: of respondents 99 /62 Percentage), PG (No: of respondents 21 /13 Percentage), Uneducated (No: of respondents 13 / 8 Percentage).
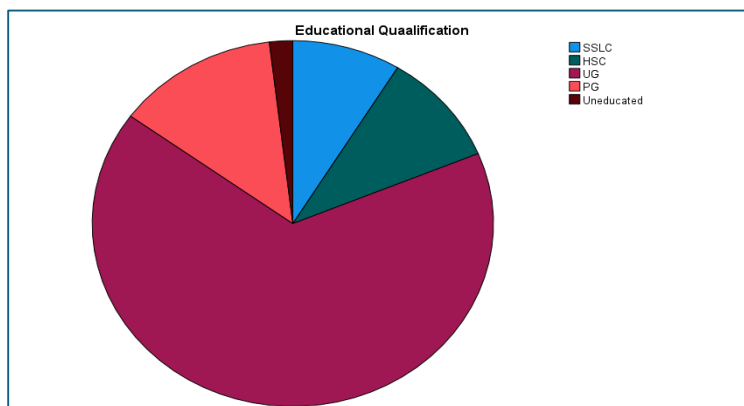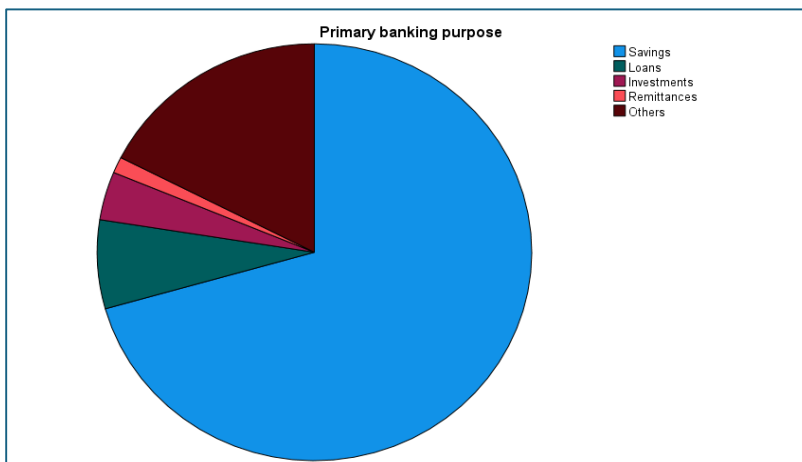
Table 5: Primary Banking Purpose

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Savings	113	70.6	70.6	70.6
	Loans	11	6.9	6.9	77.5
	Investments	6	3.8	3.8	81.3
	Remittances	2	1.3	1.3	82.5
	Others	28	17.5	17.5	100.0
	Total	160	100.0	100.0	

Source: Primary data

Figure 5: Primary Banking Purpose
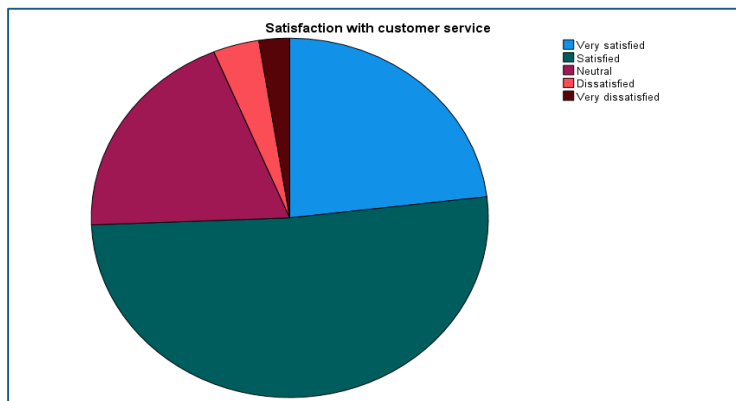

Source: Primary data

The customer satisfaction banking service No: of Respondenting was Total Data collected 160.To Primary banking purpose for savings (No: of respondents 113 /73 Percentage), Loans (No: of respondents 11 / 7Percentage), Investments (No: of respondents 6 / 4 Percentage), Remittances (No: of respondents 2 /1 Percentage), others (No: of respondents 28 /17 Percentage).

Table 6: Satisfaction with Customer Services

Satisfaction with customer service		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very satisfied	37	23.1	23.1	23.1
	Satisfied	82	51.2	51.2	74.4
	Neutral	31	19.4	19.4	93.8
	Dissatisfied	6	3.8	3.8	97.5
	Very dissatisfied	4	2.5	2.5	100.0
	Total	160	100.0	100.0	

Source: Primary data

Figure 6: Satisfaction with Customer Service

Source: Primary data

The customer satisfaction banking service No: of Respondenting was Total Data collected 160. To Satisfaction with customer services for Very satisfied (No: of respondents 38 /24 Percentage), Satisfied (No: of respondents 31 /51 Percentage), Neutral (No: of respondents 31 /19 Percentage), Dissatisfied (No: of respondents 6 / 4 Percentage), Very dissatisfied (No: of respondents 4 / 2 Percentage).

Table 7: Overall Banking Experience

Overall banking experiance		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	43	26.9	26.9	26.9
	Good	78	48.8	48.8	75.6
	Average	29	18.1	18.1	93.8
	Poor	5	3.1	3.1	96.9
	Very poor	5	3.1	3.1	100.0
	Total	160	100.0	100.0	

Source: Primary data

Figure 7: Overall Banking Experience
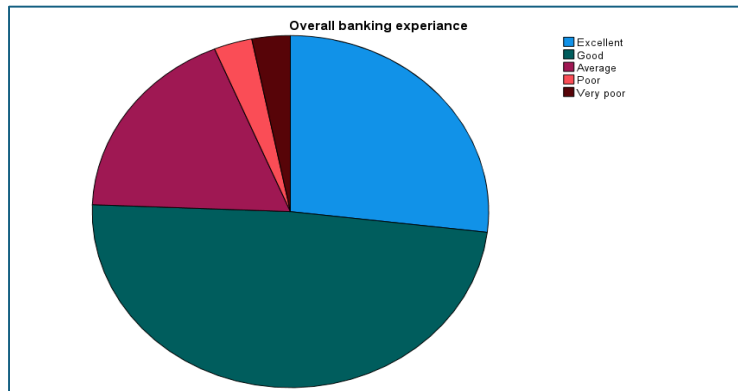

Overall banking experiance

- Excellent
- Good
- Average
- Poor
- Very poor

Source: Primary data

The customer satisfaction banking service No: of Respondenting was Total Data collected 160. Overall banking experience for Excellent (No: of respondents 43 / Percentage), Good (No: of respondents 78 / Percentage), Average (No: of respondents 29 / Percentage), Poor (No: of respondents 5 / Percentage), Very poor (No: of respondents 5 / Percentage).

7.0 Conclusion

In the Rural customer usage for banking services is playing the vital role in the rural development activities in providing financial services to the rural socio-economical activities, such as agriculture loan, self-loan, rural development activities, educational loans service, and self-help group for women empowerment in the rural area. The rural area bank is the main objective for the financial the rural area sectors and provides is banking service. To local people and supporting for the quality life of people and development oriented towards the rural area. In overall research of the rural area banks and rural development these two aspects as very closely depend on each other. The rural bank has the very helpful to the growth of rural area development and economic status of the village.

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CHAPTER 20

Explore the Impact of Environmental Consciousness on the Willingness to Switch from Conventional to Electric Vehicles

P. Nagalakshmi*, A. Jamal Mohamed** and J. Divya Prabha***

ABSTRACT

This study is mainly focused on the impact of environmental consciousness on the willingness to switch from conventional to electric vehicles. Mainly selected showrooms are (Ola ExperienceCentre, RA Ebikes, VK Eco motors). The Two main objective are there, we check why the consumers most preferred conventional to electric vehicles & how much consumers satisfied with the preferring electric vehicles. Then we started a survey with questionnaires based on our objectives & researcher took 50 respondents from various areas in Thanjavur Town. This study is not only based on why consumer preference but also the respondents answered our questions for consumer needs & wants and what they expected from electric vehicles. These survey data are explained with formulas under this heading data analysis & interpretation. We suggests our points from this study. The most important factor of electric vehicles is fast - moving consumer goods in India, good infrastructure, driving experience and environmental friendly in the market. These are the factors that consumer are mostly preferred electric vehicles in India.

Keywords: Impact of Environmental Consciousness, Conventional to Electric Vehicles, Consumer Preferences, Environmental Friendly.

1.0 Introduction

In recent years, heightened environmental consciousness has spurred significant shifts in consumer behaviour across various industries, none more evident than the automotive sector. As concerns over climate change, air pollution, and resource depletion intensify, individuals are increasingly seeking greener alternatives to conventional vehicles. This burgeoning environmental awareness has catalyzed a growing interest in electric vehicles (EVs) as a sustainable mode of transportation. The transition from conventional internal combustion engine vehicles to electric vehicles represents a pivotal moment in the automotive industry's evolution. EVs promise reduced greenhouse gas emissions, decreased reliance on fossil fuels, and improved air quality, aligning with the global imperative to mitigate climate change and safeguard the environment.

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As such, understanding the impact of environmental consciousness on consumers' willingness to embrace EVs is paramount for stakeholders across the automotive value chain, from manufacturers and policymakers to consumers themselves.

1.1 Electric cars

Electric cars, propelled by electric motors powered by rechargeable batteries, represent a transformative shift in the automotive industry. With zero tailpipe emissions, they offer a promising solution to reducing greenhouse gas emissions and combating climate change. Beyond environmental benefits, electric cars boast smooth and silent operation, instant torque delivery, and lower maintenance costs due to fewer moving parts.

1.2 Electric bikes

Electric bikes, also known as e-bikes, have emerged as a popular alternative to traditional bicycles, blending pedal power with electric assistance. These innovative two-wheelers integrate an electric motor and battery to provide riders with an extra boost, making cycling easier and more accessible to a broader range of people. E-bikes offer numerous advantages, including extended range, especially beneficial for commuting or leisure rides over hilly terrain, and the ability to carry heavier loads with less effort.

1.3 Consumer preference

The impact of environmental consciousness on the willingness to switch from conventional to electric vehicles is significant. Consumers who are more environmentally conscious tend to prioritize reducing their carbon footprint and mitigating climate change. Therefore, they are more inclined to choose electric vehicles (EVs) over conventional vehicles powered by internal combustion engines, as EVs produce fewer emissions. Factors driving this preference include:
1. Reduced Emissions
2. Renewable Energy Integration
3. Public Policy and Incentives
4. Social Influence and Perception
5. Cost Savings
6. Technological Advancements

Overall, environmental consciousness plays a pivotal role in shaping consumer preferences towards electric vehicles, driving the transition towards cleaner and more sustainable transportation options.

2.0 Statement of the Problem

As society increasingly recognizes the urgency of addressing environmental

issues, there is a growing emphasis on transitioning to more sustainable modes of transportation. One significant shift is the move from conventional gasoline-powered vehicles to electric vehicles (EVs). However, the willingness of individuals to make this transition varies widely and is influenced by numerous factors, including environmental consciousness. Specifically, it seeks to address the following questions:

- Understanding Environmental Consciousness
- Perceived Benefits of Electric Vehicles
- Barriers to Adoption
- Policy and Market Interventions

By addressing these questions, this research project aims to provide insights into the interplay between environmental consciousness and the willingness to switch to electric vehicles. Ultimately, the findings will inform strategies to accelerate the transition towards more sustainable transportation systems.

3.0 Objectives

- To analyze the level of awareness among consumers of electric vehicles.
- To Investigate the consumers' perceptions of electric vehicles,

4.0 Review of Literature

Kumar & Tiwari, (2021). Factors Influencing the Adoption of Electric Vehicles in India: An Empirical Analysis. This empirical study analyzes the factors affecting EV adoption in India, including environmental concerns. It suggests that increasing environmental consciousness can positively influence the willingness to switch to electric vehicles. Roy & Choudhury, (2018) Perception and Preferences towards Electric Vehicles: A Study among Indian Urban Consumers. Focusing on urban consumers in India, this study explores perceptions and preferences regarding electric vehicles. It indicates that heightened environmental awareness contributes to a greater willingness to consider EVs as an alternative.

Sinha & Mishra, (2019) Assessing the Role of Environmental Attitudes in the Adoption of Electric Vehicles: Evidence from Indian Cities. This study investigates the role of environmental attitudes in the adoption of electric vehicles across various Indian cities. It highlights the importance of eco-consciousness in shaping consumer choices. Das & Pradhan, (2020) Promoting Electric Vehicle Adoption in India: The Role of Environmental Concerns and Policy Interventions. Examining the interplay between environmental concerns and policy interventions, this research suggests that heightened environmental consciousness, coupled with supportive policies, can drive the transition to electric vehicles in India.

Verma & Jain, (2018) Understanding Consumer Preferences for Electric

Vehicles: An Empirical Analysis in India. This empirical analysis explores consumer preferences for electric vehicles in India, considering factors such as environmental consciousness. It underscores the need for targeted marketing strategies to promote eco-friendly transportation options.

Singh & Pathak, (2019) Environmental Awareness and the Adoption of Electric Vehicles: A Study in Indian Metropolitan Cities. Focusing on metropolitan cities in India, this study examines the relationship between environmental awareness and the adoption of electric vehicles. It suggests that increasing environmental consciousness can drive EV uptake in urban areas.

5.0 Research Methodology

This study is both descriptive and exploratory to know the consumer preferences towards environmental consciousness to switch from conventional to electric vehicles. The data were collected from the 50 respondent chosen from among the population in Thanjavur Town. The researcher obtained secondary data collected from various Books, journals, and websites and Primary data were collected through questionnaires. The frequency analysis and chi-square test are used in this study for analyzing the collected data.

6.0 Limitations

The research is subject to the following limitations.
1. The study is made in Thanjavur town only.
2. Only 50 respondents have been taken for the study.
3. The select brands have been Consider for this study.

7.0 Data Analysis and Interpretation

From Table 1 shows percentage wise respondents of different age groups. The higher response of 92% has been received from the age group of 18-28. 6% of the respondents from the age group of 29-38. 2% of the respondents from 39- 48 age group. And this table shows below response by the respondents whose age from Above 50.

Table 1: Respondent Opinion - Age

S. No.	Age	No of respondents	Percentage
1	18-28	46	92
2	29-38	3	6
3	39-48	1	2
4	Above 50	-	-
	Total	**50**	**100%**

Source: Primary data

Table 2: Respondent Expectations- Education Level

S. No.	Education Level	No of respondents	Percentage
1	High school	4	8
2	Bachelor's Degree	40	80
3	Master's Degree	4	8
4	Doctorate or above	2	4
	Total	**50**	**100%**

Source: Primary data

From the above table 8% of the response has been received from high school. 80% of response from bachelor's Degree. And 8% of the response received from Master's Degree and 4% response for Doctorate or above.

Table 3: Respondent Opinion - Occupation

S. No.	Occupation	No of respondents	Percentage
1	Student	39	78
2	Professional	5	10
3	Home-maker	2	4
4	others	4	8
	Total	**50**	**100%**

Source: Primary data

From the above table 78% of the response has been received from student. 10% of response for Professional. And 4% of the response received from Homemaker and 8% response for others.

Table 4: Respondent Opinion - Awareness of Environmental Impact

S. No	Awareness of environmental impact	No of respondents	Percentage
1	Aware	36	72
2	Unaware	3	6
3	Neutral	8	16
4	Partially	3	6
	Total	**50**	**100%**

Source: Primary data

From the above table 72% of the response has been received for Aware. 6% of response for Unaware. And 16% of the response received for Neutral and 6% response for partially.

Hypothesis: Table 5 shows calculated value is less than P value (0.00<0.05).So the research hypothesis is accepted and the null hypothesis is rejected. Therefore research Hypothesis is associated.

Table 5: Source to Get Information – Electric Vehicles

Chi-Square Tests			
	Value	**Df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	12.596[a]	6	0.050
Likelihood Ratio	7.822	6	0.251
Linear-by-Linear Association	0.544	1	0.461
N of Valid Cases	50		

Source: Primary data

Table 6: Chi-Square Tests

	Value	**Df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	22.492[a]	9	0.007
Likelihood Ratio	18.369	9	0.031
Linear-by-Linear Association	1.178	1	0.278
N of Valid Cases	50		

Source: Primary data

Hypothesis: The above table shows (Table 6) calculated value is less than P value (0.00<0.05). So, the research hypothesis is accepted, and the null hypothesis is rejected. Therefore, research Hypothesis is associated.

8.0 Findings

- Most of the people aware of environmental impact of conventional vehicles.
- Most of the said air pollution are the main contribute to environmental problems.
- 42% of people are using alternative transportation (e.g, electric vehicles, public transportation, cycling).
- Percentage of consumers perceiving environmental benefits of EVs 75%.
- Positive impact of EVs on reducing greenhouse gas emissions 85%.
- Impact of improved battery technology on willingness to switch 70%.

9.0 Suggestion

- Inform Consumers: Educate the public about the environmental advantages of electric vehicles through accessible and engaging campaigns.
- Financial Incentives: Offer financial incentives such as tax credits or subsidies to make electric vehicles more economically appealing to a wider audience.
- Accessible Charging: Expand the availability of charging stations in public spaces and residential areas to increase convenience and alleviate concerns about range limitations.

- Streamline Regulations: Implement policies that streamline the process of purchasing, registering, and owning electric vehicles, reducing barriers for consumers.
- Promote Innovation: Support research and development efforts to improve battery technology and reduce the cost of electric vehicles over time.

10.0 Conclusion

This Study Environmental awareness and concerns, such as climate change, air pollution, and resource depletion, play a pivotal role in shaping consumer attitudes towards EV adoption. Those who prioritize environmental sustainability are more inclined to perceive the benefits of EVs, including reduced greenhouse gas emissions and decreased reliance on fossil fuels. Moreover, environmental consciousness extends beyond individual beliefs and values to encompass social influences, community norms, and policy interventions, all of which contribute to the willingness to switch to EVs.

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CHAPTER 21

A Study on Risk Assessment of Street Food Vendors

A. Anthoniammal*, J. Haja Najmudeen**, A.H. Shahul Hameed***

ABSTRACT

This study delves into the multifaceted realm of risk associated with street food vending, a ubiquitous yet often overlooked sector of the food industry. By exploring factors such as social problems and environmental conditions, the study seeks to provide insights into the potential health, safety, and economic risks inherent in street food vending activities. The research examines the perceptions and experiences of both vendors and consumers regarding risk mitigation strategies and the role of regulation in ensuring food safety and vendor livelihoods. Through a combination of qualitative interviews, observational studies, and quantitative surveys, this research aims to identify and assess the various risks faced by street food vendors, ranging from food safety hazards to socio-economic challenges. To collect primary data, a structured questionnaire was administered to 121 Street vendors in Thanjavur district. To analyze these collected data, simple percentage analysis from SPSS were used. The findings of this study can inform policymakers, regulatory authorities, and stakeholders in developing effective risk management strategies to enhance the safety, sustainability, and resilience of street food vending operations. The street food vendors are facing many problem like, weather condition, licence issues etc. Conducting thorough inspections of street food vendors' operations can help identify their risk, economic status and their legal problems. Additionally, conducting surveys or interviews with vendors and consumers can provide valuable insights into perceptions of food safety and potential areas for improvement.

Keywords: Street Food Vendor, Livelihoods, Stakeholders.

1.0 Introduction

Street food are ready to eat food and beverages prepared and are sold by vendors. Street vendors are an integral component of urban economics around the world since ancient times. To especially on street and public places, street food vendors play an important role in the lives of urban population members in developing countries.

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Street food are being prepared and sold at places like street, school, train station, bus station terminal, entertainment and festival area whose people are crowded. Their earnings are extremely low and in by any relevant authority and is often informal. The street food seems to be imposed on them will both advantage and disadvantage. Street food vendors provide benefits to lower income group people mostly purchases foods from street food vendors because their foods cheap and affordable. India's street foods vendors are poor people running a risky business with very little margins most of them are honest bringing an essential services to people's.

2.0 Objectives

- To study the social economic status of the street food vendors.
- To assess the risk faced by the street food vendors.

3.0 Scope of the Study

Study the socio-economic status of street food vendors involves analyzing various factors such as income levels, educational background, access to the resourse, and living condition, the research aims to understand the challenges and opportunities faced by this segment of the population in urban areas.

4.0 Statement of Problem

The problem statement for a street food vendor might include challenges such as finding suitable locations, complying with health and safety regulation managing inventory and supplies attracting customers, dealing with competition, and maintaining consistent quality and profitability amidst fluctuating demand.

5.0 Limitation of Study

- This study convers only the area of Thanjavur district.
- The collection of primary data is taken from the respondent employees is 121 out of 300.
- The period of the study is very short so that the primary data is analysed to a percentage analysis method and chi-square test.
- We used the simple random sampling method to collect the data from the individuals.

6.0 Research Methodology

The study aims to know about the risk assessment of street food vendors. The samples are collected in Thanjavur district. Which the total size of respondents is 121

out of 300 population for the data collection. The data was gathered through a structured questionnaire, employing a simple random sampling technique for this study.

Sampling method: This study used Easy and Convenience Sampling method.

Sampling area: The data will be collected from the Thanjavur district only.

Sampling size: To collect primary data the total respondents is 121.

Tools used to analyse: This study employed Statistical Package for the Social Science (SPSS) tool for analysing the data.

7.0 Review of Literature

Lubos (2014): A survey conducted in Cagayan de Oro City found that 22% of street food vendors lack formal training in food preparation, while only 30% possess annual medical health certificates. It is recommended to provide training on hygiene and sanitation, along with improving basic infrastructure.

Mwove & Imathiu (2023): Conducted a study that assessed lead and cadmium contamination in street vended foods (SVFs) in Thika town, Kenya. The results revealed that at least one type of food sample was contaminated with lead, with groundnuts exhibiting the highest levels. The concentrations of lead exceeded the recommended limits set by the Joint Food and Agriculture Organization/World Health Organization. The presence of these heavy metals raises public health concerns and underscores the necessity for continuous monitoring and enforcement of policies.

Ekobi (2022): It found that street food vending creates jobs and improves the standard of living for vendors, while also reducing poverty incidence. However, challenges such as lack of working capital, credit, and infrastructure hinder the sector's growth and profitability.

D.Widyaningrum, A.A. Muhammad: Conducted a study which revealed that during the COVID-19 pandemic, consumers prioritized personal hygiene, environmental sanitation, price, and food freshness when selecting food vendors. The respondents preferred vendors with clean displays, prices within the range of 20.000-25.000 IDR, and freshly cooked food. This suggests that food vendors should focus on these factors to meet student expectations and increase sales.

## 8.0 Data Analysis and Interpretation

8.1 Demographic factors
- In this study, out of 121 samppling size, 84.3 % respondents are male and rest of them are female.
- The age group with the highest number of respondents is "35-45", accounting for 35.5% of the total respondents.

8.2 Percentage analysis

- The table indicates the distribution of individuals' work experience. The largest proportion, at 37.2%, falls within the 1-2 year range, followed by 26.4% for 3-5 years, 22.3% for less than 1 year, and 14% for more than 5 years.

- The predominant monthly income range among respondents is 10000-20000, representing 44.6% of respondents, followed by 25000 and above with 31 respondents, and 5000-10000 with 36 respondents.

Figure 1: How do You Ensure Food Safety and Hygiene
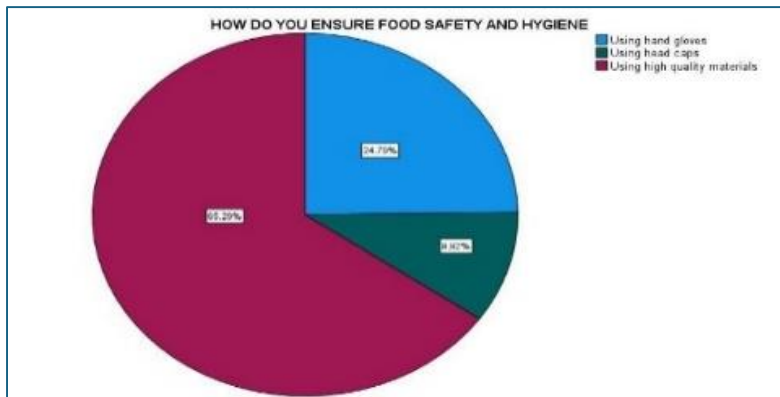
Source: Primary data

Table 1: How do You Ensure Food Safety and Hygiene

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Using hand gloves	30	24.8	24.8	24.8
	Using head caps	12	9.9	9.9	34.7
	Using high quality materials	79	65.3	65.3	100.0
	Total	121	100.0	100.0	

Source: Primary data

The table shows that the food safety and hygiene. There are 30 valid cards using hand gloves. There are 12 valid cards using head caps. There are 79 valid cards using high quality materials. The survey found that 65% of respondents, totaling 79 individuals, opted for hidh quality materials.

Table 2: What Type of Shop
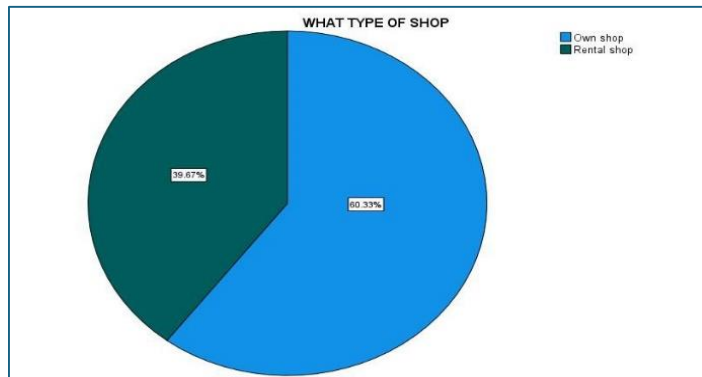
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Own shop	73	60.3	60.3	60.3
	Rental shop	48	39.7	39.7	100.0
	Total	121	100.0	100.0	

Source: Primary data

The table shows that the individuals shop type. There are 73 respondents having own shop. There are 48 respondents having rental shop. The survey found that 60.3% of respondents, totaling 73 individuals having own shop.

Figure 2: What Type of Shop

Source: Primary data

Table 3: Have You Register Your Shop in FSSAI

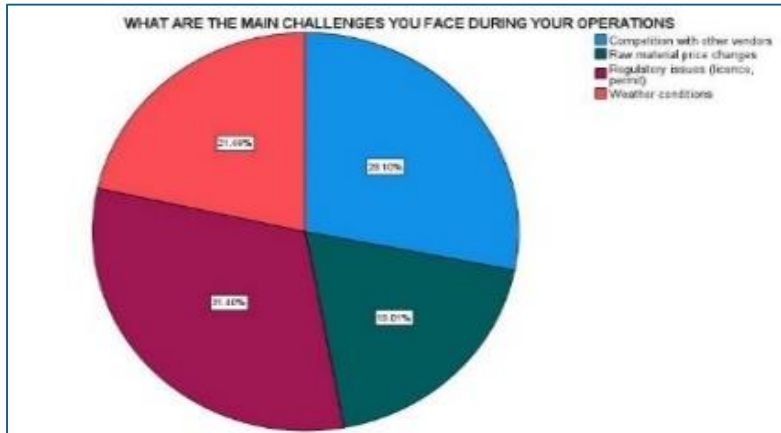|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	83	68.6	68.6	100.0
	No	38	31.4	31.4	31.4
	Total	121	100.0	100.0	

Source: Primary data

The shows that the individuals register shop in fssai. There are 68.6% of respondents, totaling 83 individuals, having FSSAI. There are 31.4% of respondents, totaling 38 individuals, not having FSSAI.

Figure 3: Have You Register Your Shop in FSSAI

Source: Primary data

Figure 4: What are the Main Challenges You Face

Source: Primary data

Table 4: What are the Main Challenges You Face during Your Operations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Competition with other vendors	34	28.1	28.1	28.1
	Raw material price changes	23	19.0	19.0	47.1
	Regulatory issues (licence, permit)	38	31.4	31.4	78.5
	Weather conditions	26	21.5	21.5	100.0
	Total	121	100.0	100.0	

Source: Primary data

The table shows that the individuals facing the main challenges during the operation. There are 34 rspondents facing competition with other vendors. There are 23 respondents facing raw materials price changes. There are 38 respondents facing regulatory issues. There are 26 respondents facing weather conditions. The survey found that 31.4% of repondents, totaling 38 individuals facing the main challenges of regulatory issuses.

Table 5: How do You Decide on the Location for Vending

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High foot traffic areas	52	43.0	43.0	43.0
	Near schools/markets/offices	27	22.3	22.3	65.3
	Personal preference	42	34.7	34.7	100.0
	Total	121	100.0	100.0	

Source: Primary data

The table shows that the decidde on the location for vending. There are 52 respondents choose high foot traffic areas. There are 27 respondents choose near schools/markets/offices. There are 42 respondents choose pesonal preference. The survey found that 43% of respondents, totaling 52 individuals choose high foot traffic areas.

Figure 5: How do You Decide on the Location for Vending
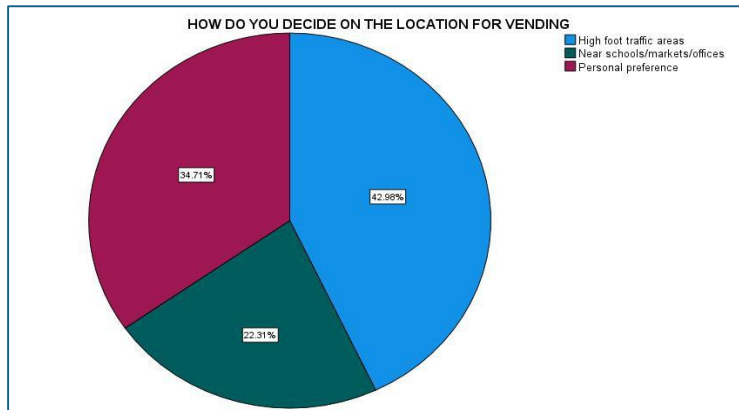
Source: Primary data

9.0 Findings

1. Majority of respondents (84.3%) are Male.
2. Majority of the respondents (35.5%) comes under 35-45 years age group.
3. Majority of the respondents monthly income (44.6%) are comes under 10000-20000.
4. Majority of the working experience of the respondents are 1-2 years at (37.2%)
5. Majority of the respondents (34.7%) have graduate.
6. Majority of the respondents (30.6%) sell Snacks.

10.0 Suggestion

Based on the findings of the study on risk assessment of street food vendors in Thanjavur district, it is evident that there are various challenges and opportunities faced by this segment of the population. To mitigate the challenges, it is recommended to focus on improving hygiene and sanitation practices through training programs, ensuring compliance with regulatory requirements such as obtaining FSSAI registration, and addressing issues related to competition and fluctuating raw material prices. Additionally, efforts should be made to explore alternative locations for vending, prioritize high foot traffic areas, and consider diversifying the product offerings to cater to changing consumer preferences. These

measures can contribute to enhancing the livelihoods and sustainability of street food vendors while promoting public health and safety.

11.0 Conclusion

The study on the risk assessment of street food vendors in Thanjavur district reveals a landscape marked by both challenges and opportunities. With the majority of vendors being male and falling within the 35-45 age group, and most earning between 10000-20000 monthly, it's evident that the sector is a vital source of income for many. However, issues such as inadequate hygiene practices, regulatory compliance, and fluctuating raw material prices pose significant hurdles. To address these challenges, recommendations include implementing hygiene training programs, ensuring FSSAI registration, and exploring alternative vending locations. By embracing these suggestions, stakeholders can not only enhance the livelihoods of street food vendors but also promote public health and safety in the community.

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CHAPTER 22

A Study on Customer Preference and Factor Influencing towards Event Management

T. Baskaran* and Anis Fathima**

ABSTRACT

This study delves into the intricate realm of customer preferences and the factors that significantly influence event management decisions. With a sample size of 153 respondents, data was meticulously collected and scrutinized using the Chi-Square test within the Statistical Package for the Social Sciences (SPSS) software. The primary objective was to discern and compare the diverse preferences exhibited by customers towards various facets of event management while identifying the pivotal factors that shape their decision-making processes. The findings underscored substantial disparities in preferences across different demographic segments, shedding light on the nuanced intricacies of customer choice within the event management landscape. Notably, factors such as cost-effectiveness, convenience, and event quality emerged as prominent determinants influencing customer decisions. By employing rigorous statistical analyses, this study not only elucidates the multifaceted nature of customer preferences but also provides actionable insights for event managers seeking to enhance their service offerings. Understanding the nuanced interplay between customer preferences and influential factors is pivotal for crafting tailored event experiences that resonate with target audiences. Ultimately, the insights gleaned from this comparative study serve as a valuable roadmap for event management professionals, enabling them to navigate the dynamic landscape of customer expectations and refine their strategies accordingly, thus fostering enhanced customer satisfaction and loyalty in the ever-evolving realm of event management.

Keywords: *Customer Preferences, Event Management, Customer Service, Customer Expectations, Customer Satisfaction, Influencing Factors.*

1.0 Introduction

Event management involves the planning and execution of an event, from pre-event preparation to post-event strategist.

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The application of event management to the planning and implementation of big or small events, such as conferences, festivals, formal parties, concerts, or ceremonies, is known as event management. The planning of events has expanded quickly in the last few years. This study explores customer preferences and decision-making processes in event management, focusing on corporate gatherings, cultural celebrations, and entertainment. It aims to understand the complexities of customer choices and the factors influencing them using quantitative and qualitative research methodologies. The study aims to provide insights for event management professionals, helping them refine their strategies and contribute to the broader knowledge in the field. The goal is to offer actionable insights, empowering them to adapt their approaches, enhance their offerings, and enhance customer satisfaction in a dynamic and evolving industry.

2.0 Scope of the Study

Study on customer preferences in event management may explore venue selection, pricing, service quality, customization, and technology integration, analyzing cultural and regional variations for insights and effective service tailoring.

- To evaluate consumer preferences for event planning.
- To comprehend the elements that impact a customer's decision to use event management services.

3.0 Objectives

- To analyse the customer preference towards event management.
- To understand the factor influences customer to take services from event management.

4.0 Review of Literature

Tharun (2023) have studied the Customer Preference and Factor Influencing towards Event Management with Special Reference to Coimbatore City.The data has been collected through questionnaires filled by 100 respondents. This study aims to understand consumers' needs and preferences for event management, particularly in rural areas. It reveals that consumers are aware of event management, find it accessible, and prefer traditional patterns over modern ones. The findings could serve as a starting point for new businesses entering the market.

Ritchie (2011) has reported Risk management: Event managers' attitudes, beliefs, and perceived constraints. This paper contributes significantly to the development of knowledge and understanding of the individual-level factors that may influence the implementation of risk planning in the event setting. More specifically,

this study looked at individual psychological aspects such as event managers' attitudes, beliefs, influences, and restrictions across a variety of events. Many event managers are aware of and understand the necessity of risk management, but most prioritize safety and physical hazards over other risks (such as social and environmental). Event risk assessment and analysis techniques must be holistic as the range and extent of risk emulating from and repercussions of occurrences expand. Event managers gain from the implementation of a holistic risk management approach because it meets moral standards.

Liu *et al.*, (2007) have studied a formal modeling approach for supply chain event management. Global competitiveness and the requirement for close interorganizational cooperation are driving businesses to optimize their supply chains and make them more responsive, adaptable, and agile. We created a method using Petri-nets to model event linkages in a supply chain. Formalism captures cause-and-effect linkages in petri networks through seven fundamental patterns.

These designs can be assembled as building blocks to form more intricate petri-nets and other patterns. We demonstrated this method in detail using a large-scale example, demonstrating how dependency graph analysis may be utilized to identify causal linkages between occurrences in a dynamic supply chain. It should be mentioned that these connections are intricate and contingent on precise timing. We showed that even small adjustments to temporal linkages can produce radically different dependence graphs and outcomes. Petri net simulation provides an established method for examining.

Henderson (2011) has reported the development of competitive advantage through sustainable event management. The goal of this paper is to provide a framework that enables event organizers to think about whether implementing sustainable practices could give them a competitive edge. Despite being mostly a conceptual discussion, certain conclusions have been drawn: The absence of a consensus on what constitutes a sustainable eventUpon examining the definition of a sustainable event, industry participants have two options to choose from when determining the extent of sustainability for their events. First, how much of the organization's goals take into account profit, the environment, and people—the triple bottom line? Second, how much attention is paid to sustainability concerns related to the actions of all parties involved in the event? Sustainable event policies may be adopted by public-sector events. Celuch (2021) His research lays out an agenda for future directions on how technological innovations can support sustainability in the events industry and offers a bibliometric review of the most advanced information and communication technologies (ICTs) in the context of events.

5.0 Research Methodology

In this research, the researcher adopted the most commonly used research method which is descriptive research type under quantitative research design. For this

research the data's were collected through questionnaires from a specific population. By using this method, it is easy to identify the clients preference and factor influencing towards event management. The questionnaires collected from particular peoples.

Sample size: Sample Size of 153 respondents from Urban Areas.

Sample method: Chi-Square Sampling Method has been used for this study.

Sample tool: SPSS (Chi-Square)

5.1 Percentage analysis

People enjoying most about the event: Out of 153 respondents, 36.60% of respondents are enjoying Talk about the things in the event, 25.50% of respondents are enjoying Dressings in the event, 36.60% of respondents are enjoying Food in the event, and 1.30 of respondents shows others. Most of the people prefers that Talk about the things & Food in the events.

Food preferences of guest in the event: Out of 153 respondents, 11.8% of respondents are prefers veg items in the event, 25.5% of respondents are prefers non-veg items in the event.62.7% of respondents are prefers both veg & non-veg items in the event. Most of the people prefers that both veg & non-veg items in the event.

5.2 People dislike about the event

Out of 153 respondents, 37.9% of respondents are dislike crowd in the event, 20.8% of respondents are dislike anxiety in the event, 43.8% of respondents show others. Most of the people dislikes that Others in the events.

People like the event to be held: Out of 153 respondents, 19% of respondents are prefers Mahal, 26.1% of respondents are prefers party hall, 17% of respondents prefers wedding hall, 34.6% of respondents are prefers event venue, 13.1% of respondents shows other. Most of the people prefers that event venue for the event to be held.

5.3 Hypothesis 1: Location and the area where the event is being held

Null Hypothesis (H0) - there is no significant association between state/city and the area where the event is being held.

Alternative Hypothesis (H1)-there is significant association between state/city and the area where the event is being held.

Table 1: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.877[a]	12	0.866
Likelihood Ratio	7.079	12	0.852
Linear-by-Linear Association	0.519	1	0.471
N of Valid Cases	153		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between Location and the area where the event is being held. Chi-square is calculated using SPSS. The calculation value (.866) is greater than 0.05 value at 95% level of confidence level. So, the null hypothesis is rejected, and the alternative hypothesis is accepted.

5.4 Hypothesis 2: Gender and the amount to be paid

H0- there is no significant association between Gender and the amount to be paid.
H1-there is significant association between Gender and the amount to be paid.

Table 2: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.246[a]	3	0.523
Likelihood Ratio	2.264	3	0.520
Linear-by-Linear Association	0.719	1	0.396
N of Valid Cases	153		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between Gender and the amount to be paid. Chi-square is calculated using SPSS. The calculation value (0.523) is greater than 0.05 value at 95% level of confidence level. So, the null hypothesis is rejected and the alternative hypothesis is accepted.

5.5 Hypothesis 3: Gender and their food preferences in event

Null Hypothesis (H0): There is no significant association between Gender and their food preferences.
Alternative Hypothesis (H1): There is a significant association between Gender and their food preferences.

Table 3: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.880[a]	2	0.391
Likelihood Ratio	1.886	2	0.389
Linear-by-Linear Association	0.002	1	0.960
N of Valid Cases	153		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between Gender and their food preferences. Chi-square is calculated using SPSS. The calculation value (.391) is greater than 0.05 value at 95% level of confidence level. So, the null hypothesis is rejected and the alternative hypothesis is accepted.

5.6 Hypothesis 4: Gender and their need for a sponsor for their event

Null Hypothesis (H0): There is no significant association between Gender and their need for a sponsor for their event.

Alternative Hypothesis (H1): There is a significant association between Gender and their need for a sponsor for their event.

Table 4: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.880[a]	2	0.391
Likelihood Ratio	1.886	2	0.389
Linear-by-Linear Association	0.002	1	0.960
N of Valid Cases	153		

Source: Primary data

From the above table, (chi-square test) reveals that there is relationship between. Chi-square is calculated using SPSS. The calculation value (0.391) is greater than 0.05 value at 95% level of confidence level. So, the null hypothesis is rejected and the alternative hypothesis is accepted.

6.0 Conclusion

In conclusion, providing successful and customized experiences requires an awareness of client preferences and the variables influencing them in the field of event management. Through the analysis of these preferences, organizers of events can modify their approaches to cater to the varied requirements of their guests, resulting in events that are effective and memorable. The future of event management will surely be shaped by innovation, flexibility, and a customer-centric mindset, assuring ongoing success in this fast-paced sector. In addition, achieving client expectations in event management requires an awareness of how technology and social trends are changing. Digital tools, customized experiences, and environmental objectives are now inextricably linked. By remaining aware of these factors, event planners can surpass client expectations and meet their needs.

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CHAPTER 23

Possibilities for Beginning Entrepreneurship in the Organic Production with Reference to Thanjavur City

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ABSTRACT

The organic agricultural industry is now expanding quickly. Proficiency in entrepreneurship plays a crucial function in enhancing natural business growth. Thus, the study aims to identify the level of personal competence in terms of traits like originality, self-assurance, risk-taking, problem-solving, focus on interpersonal ability, and openness to learning; Assess the level of technical competence in terms of traits like input creation skills, improving production skills, and quality skills; and comprehend the level of management competence in terms of general planning abilities, monitoring and evaluation, networking, customer management, and marketing management. The primary data was acquired using the simple random approach from 150 respondent. This study involved interviewing organic producers of fruits, vegetables, and Thanjavur District.

Keywords: Organic Farming, Natural, Entrepreneurship, Vegetable.

1.0 Introduction

It is known that clean chemical-free vegetables are available in this era, diseases like cancer and heart attacks are caused due to consumption of vegetables grown with chemical fertilizers. Environmentally friendly, socially equitable, and financially successful agricultural outputs are the goals of ecological agriculture as a management approach. The purpose of entrepreneurship is to initiate business ventures and production with the aim of developing new goods with added value. It is a crucial component of the production factor and the cornerstone of economic growth. Agriculture-related entrepreneurship is essential to the population's nutrition, raw material production, and access to services. It also serves as the engine for the growth of the whole economy. The purpose of the study is to assess the current condition and future prospects of entrepreneurship in the production of ecological agriculture.

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An essential component of organic farming's existence is entrepreneurship. Furthermore, several scholars have noted that entrepreneurship serves as the catalyst for society's cultural and economic growth. Entrepreneurship lowers unemployment, boosts resource and human production, and eventually raises community income. Gaining competence helps an entrepreneur become more capable.

Competence is a fundamental human quality that leads to exceptional and successful performance. The success and expansion of a company are directly impacted by entrepreneurial competency. Additionally, some academics contend that an awareness of competency on the part of entrepreneurs can result in a successful small business and be leveraged to further the expansion of larger enterprises.

There is a growing need for creative solutions to address the growing dangers to Earth's biodiversity. It will be necessary to successfully introduce these technologies into markets and other institutions in addition to creating them in order to realize their full potential. As a vital catalyst for institutional change and an engine for the implementation of innovations in market economies, entrepreneurship has the potential to play a significant role in society.

2.0 Objectives

- To study the Preserve and promote Organic farming practices unique to Thanjavur.
- To increase market penetration, establish alliances and distribution networks.

3.0 Review of Literature

Terzeiv (2016). Entrepreneurship in organic production – an incentive for sustainable rural development: Organic production is a sustainable method that provides high-quality, high-tech food, increasing demand, and attracting foreign investments. It contributes to sustainable development by increasing employment, reducing poverty, and attracting foreign investments. Organic farming focuses on strategic goals such as competitiveness, human resources development, employment, incomes, and social integration. It also promotes economic, social, and ecological sustainability, ensuring a common framework for environmental protection, health, and welfare.

Magnaye (2016). Smallholder Organic Farming: An Entrepreneurial Strategy in Harmony with Nature: The case studies highlight the importance of multi-stakeholder participation and collaboration in smallholder organic farming. Organic farmers value the cyclic use of natural resources, the tradition and culture of their families, and the community's support. The success of a farmer depends on their training and awareness about organic farming. To improve organic farming, the Department of Education and the DA-Agricultural Training Institute should enhance

programs for grassroots education and training. The Department of Health should engage in mass media to disseminate information on health issues associated with chemical use in farms. Development planning for smallholder organic farming and entrepreneurship is crucial, with the government's commitment to support smallholder farming in organic certification, research, development, and extension.

Rahmawati *et al.*, (2016) mentioned that organic rice farmers' entrepreneurial behaviour is important. Natural ranchers ought to build their cultivating pay and family government assistance. Hence, they have to rival the non-natural it being the lookout. High capability of natural item ought to be trailed by ranchers 'ability in dealing with their item in the field and market.

Chandrashekar (2017). Organic Farming and Rural Entrepreneurship Development: A Study in Mysore District, Karnataka: Organic farming is gaining popularity worldwide for its potential to address food self-reliance, rural development, and nature conservation. This approach involves sustainable use of biodiversity, contributing to both agriculture and biodiversity. In India, organic farming was once a way of life, but to meet the growing population, dams, irrigation systems, high-yielding crop seeds, and chemical fertilizers were developed. This shift towards organic farming is driven by people's awareness of healthy food, ecology, and pollution-free environments.

Sartaj *et al.*, (2017). Organic farming: Present status, scope and prospects in northern India: Organic farming in northern India offers numerous advantages, including diverse flora and fauna, traditional farming systems, indigenous knowledge, self-sustaining agriculture, skilled manpower, and low chemical fertilizer and pesticide consumption. In Himachal Pradesh, horticultural crops like walnut cultivation can be considered "organic by default." Himachal farmers benefit from off-season vegetables, cash crops, niche crops like peas and exotic vegetables, and premium quality fruits from the cold desert zone. The North Eastern Region (NER) is home to niche crops like Assam lemon, Joha rice, medicinal rice, and passion fruits, with high market demands. Sikkim is the largest producer of large cardamom and has an Agri-Export Zone (AEZ) for ginger.

Arora & Talwar (2019). Rural Entrepreneurship and Organic Farming in India: Present Status, Challenges and Technological Break through: Organic produce is expensive due to methods, production, supply chain irregularities, and market competition. However, government support and proper supply chain mechanisms can reduce prices. Public awareness and understanding of the long-term benefits of organic food are crucial for consumers and the government, ultimately benefiting all parties. Patle *et al.*, (2020). Impact of Organic Farming on Sustainable Agriculture System and Marketing Potential: A Review: Conventional mechanized farming has increased food production but has raised issues like human health, pollution, soil degradation, and ecosystem impact. Organic farming, which uses crop rotations, residues, animal manures, organic waste, and biological systems, can potentially serve food security and environmental protection. Further improvement is needed.

Dhivya & Karthikeyan (2021). A Case study of an organic Agripreneur adopting integrated farming System model at Kullagoundenpudur village of Erode district in Tamil Nadu, India: The growing demand for organic products has led to a shift towards integrated farming systems, which help manage resources effectively and generate income for the rural poor. A case study demonstrates the success of the Integrated Farming System (IFS) model, which integrates all farm components for a balanced diet. This study emphasizes the need for exploring synergistic interactions to enhance resource-use efficiency and recycling of farm by-products.

Ambikapathy & Premaselvaraji (2023). A Study on Awareness and Challenges of Organic Products among the Students with Reference to Coimbatore City: Organic products are gaining popularity among people due to their health and safety consciousness. Social media plays a crucial role in raising awareness, with many organic shops in Coimbatore City promoting their products. People search for information on the benefits and usage of organic products through web, magazines, and social media.

Bordoloi (2023). Status and scope of organic farming for Entrepreneurship development among rural youth of North East India: Organic farming in the North Eastern region is growing due to policies, market demand, and civil society initiatives. It offers sustainable livelihood options for rural youth, but further expansion requires government, research institutes, private sector, and communities. Prioritizing capacity development, finance, market integration, value addition, and quality control can foster sustainable prosperity.

4.0 Problem of the Study

Timeless is the main reason for organic farming it takes too much time to produce the output and the labour cost is too high for organic farming. The lack of cows is one of the reasons for organic farming. They don't have proper awareness about organic farming.

5.0 Data Collecton Method
The data was collected by constructed questionnaire.

6.0 Research Methodology

Techniques for gathering Data Conduct customer surveys to learn more about their tastes, shopping habits, and propensity to purchase organic goods. Interviews to learn about the potential and problems facing the regional organic agriculture business, speak with farmers, seasoned organic producers, and industry professionals.
We are collected data (150) from Thanjavur district Elangadu village.

Tools are used: Percentage analysis, chi- square test.

Our article is mostly consider primary data.

Sampling method: In this study, the convenience sampling approach is Entrepreneurship.

Sampling area: The study's concentration is on Thanjavur Corporation's rural populations.

Sampling size: The size of sampling greatly depends upon the types of the undertaken and size the number of samples taken 150.

Tools used to analyse:

Percentage analysis

Ch-square analysis

Hypothesis: 1

H0: There is no association between gender and think about organic farming.

H1: There is an association between gender and think about organic farming.

Table 1: Chi-Square Test

	Value	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.601[a]	0.935
Likelihood Ratio	7.832	0.798
Linear-by-Linear Association	1.269	0.260
N of Valid Cases	70	

Source: Primary data

From the above table 01(chi-square test) reveals that there is an association between gender and think about organic farming. Chi square is calculated by using SPSS. The calculated value (0.935) is greater then 0.05 value at 95% level of confidence, So, Null hypothesis rejected and the alternative hypothesis accepted.

Hypothesis: 02

H0: There is no association between gender and are you aware of the government schemes for organic farming.

H1: There is an association between gender and are you aware of the government schemes for organic farming.

Table 2: Chi-Square Test

	Value	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.506[a]	0.089
Likelihood Ratio	5.886	0.117
Linear-by-Linear Association	3.223	0.073
N of Valid Cases	70	

Source: Primary Data

From the above table 01(chi-square test) reveals that there is an association between gender and Are you aware of the government schemes for organic farming. Chi square is calculated by using SPSS. The calculated value (0.089) is greater then 0.05 value at 95% level of confidence, So, Null hypothesis rejected and the alternative hypothesis accepted.

6.1 Percentage analysis

Farmers have a higher percentage of 134 out of 88.6% than students in this table. Percentage contributed students 11.2%. 16 in percentage contributed.

Practice organic farming for 71.4% of the respondent are "yes" 28.6% of the respondent are "No" with the Practice organic farming.

Is organic farming difficult for 2.8% of the respondent are "Strongly agree", 12.9% of the respondent are "Agree" 80.0% of the respondent are "Neutral", 4.3% of the respondent are "Disagree", so the majority of respondent are "Neutral" with the Is organic farming difficult.

Are you aware of the government schemes for organic farming for 11.4% of the respondent are "Strongly agree", 80.1% of the respondent are "Agree", 7.1% of the respondent are "Neutral", 1.4% of the respondent are "Disagree", so the majority of respondent are "Agree" with the are you aware of the government schemes for organic farming.

Benefited from government incentives for 7.1% of the respondent are "Strongly agree", 11.4% of the respondent are "Agree",74.3% of the respondent are "Neutral", 7.2% of the respondent are "Disagree", so the majority of respondent are "Agree" with the benefited from government incentives

Nutritious vegetables grown by using chemical fertilizers for 75.7% of the respondent are "Strongly agree", 14.6% of the respondent are "Agree", 8.7% of the respondent are "Neutral", 1% of the respondent are "Disagree", so the majority of respondent are "Strongly agree" with the nutritious vegetables grown by using chemical fertilizers.

Profited from organic farming for 17.1% of the respondent are "Strongly agree", 71.4% of the respondent are "Agree", 11.5% of the respondent are "Neutral", 0.0% of the respondent are "Disagree", so the majority of respondent are "Agree" with the profited from organic farming.

Expenditure by chemical fertilizers Controllable for 7.1% of the respondent are "Strongly agree", 75.7% of the respondent are "Agree", 10.1% of the respondent are "Neutral", 7.1% of the respondent are "Disagree", so the majority of respondent are "Agree" with the expenditure by chemical fertilizers Controllable.

The reason for organic farming for 7.1% of the respondent are "Profitable motive", 11.4% of the respondent are "Social motive", 71.5% of the respondent are "Personal interes", 10% of the respondent are "Support for local economy", so the majority of respondent are "Social motive" with the reason for organic farming.

Under development of organic farming (currently) for 7.1% of the respondent are "Research and innovation", 75.7% of the respondent are "Infrastructure support",10.1% of the respondent are "Education and training", 7.1% of the respondent are "Market access", so the majority of respondent are "Research and innovation" with the under development of organic farming (currently).

Organic farming protect the environment for 78.6% of the respondent are "Strongly agree", 10.0% of the respondent are "Agree", 4.3% of the respondent are "Neutral", 7.1% of the respondent are "Disagree", so the majority of respondent are "Strongly agree" with the organic farming protect the environment.

Does organic farming conserve soil fertility for 9.9% of the respondent are "Strongly agree", 2.3% of the respondent are "Agree", 78.8% of the respondent are "Neutral", 9% of the respondent are "Disagree", so the majority of respondent are "Agree" with the does organic farming conserve soil fertility.

Nature waste (fertilizer) like, animal wastage and food wastage help to promote the organic forming for 77.1% of the respondent are "Strongly agree", 18.6% of the respondent are "Agree", 1.4% of the respondent are "Neutral", 2.9% of the respondent are "Disagree", so the majority of respondent are "Strongly agree" with the nature waste (fertilizer) like, animal wastage and food wastage help to promote the organic forming.

7.0 Conclusion

The reason for doing this study is to create awareness among the people about organic farming and to inform the people about the programs and benefits offered by the government. This research is being done to improve organic farming and provide a way to grow Organic Production.

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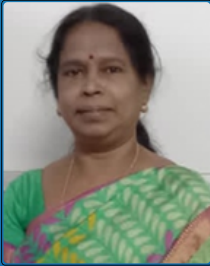
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