Socio-Economic Fabric of Malappuram;
A Collection of Regional Studies

(A collection of papers published by the students of B.A. Economics 2024)

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Chief Editor.

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PREFACE

This collection of undergraduate research projects presents a diverse exploration of socio-economic issues across various regions of Kerala, particularly focusing on the rural and semi-urban areas. Each study sheds light on the economic, social, and cultural challenges faced by different communities, providing valuable insights into the dynamics that shape their lives. The research topics range from the socio-economic integration of migrant workers in Cheekode Panchayat to the unemployment crisis among B-Tech graduates in Malappuram District. Studies on the economic impact of returning Keralites in Kavanur Panchayat and the financial planning behaviour of retirees offer a broader understanding of the economic landscape in Kerala. Additionally, the analysis of daily wage-earning women's household expenditure and the effects of the COVID-19 pandemic on business operations in Areekode Panchayat highlight the diverse economic challenges in these regions.

The compilation also includes studies on microfinance in Kudumbasree, the socio-economic conditions of delivery boys, and the agricultural practices in Areekode Panchayat. By examining the specific issues faced by taxi drivers in Manjeri Municipality and petroleum retail shops in Areekode Block Panchayat, the research further contributes to a deeper understanding of local economies.

We hope that these studies will inspire further research and contribute to meaningful discussions on socio-economic development in Kerala.

Department of Economics, Sullamussalam Science College, Areekode.

SOCIAL INTEGRATION OF MIGRANT WORKERS IN KERALA: A STUDY WITH SPECIAL REFERENCE TO CHEEKODE PANJAYAT

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1.Abstract

This study investigates the social integration of migrant workers in Kerala, with a specific focus on Cheekode Panchayat. Migrant workers play a vital role in Kerala's economy, yet little research has explored their integration into local communities. By employing a mixed-method approach, this study aims to shed light on the socio-economic conditions of migrant workers, the attitude of locals towards them, and the factors influencing migration to the region. Primary data, gathered from 50 migrant workers using a convenient sampling method, is supplemented with secondary data to provide a comprehensive analysis. Findings reveal several key insights into the lives of migrant workers in Cheekode Panchayat. Language barriers emerge as a significant challenge, with the majority of respondents reporting difficulties in communication vulnerabilities are also prevalent, with over half of the migrant workers surveyed falling below the poverty line. Family dynamics further complicate their living arrangements, with a preference for renting rooms and varying family sizes. Despite these challenges, there is a positive attitude towards migrant workers among locals, indicating potential for cultural integration. Participation in local festivals and weddings reflects a level of engagement within the community. However, recommendations are proposed to enhance social integration further. These include implementing language integration programs to address communication barriers, targeted poverty alleviation initiatives to uplift economic status, and support for family dynamics to ensure the well-being of migrant workers and their families.

Overall, this study contributes valuable insights into the social integration of migrant workers in Kerala.

2.1 Introduction

Migrant workers are an integral part of Kerala's economy, contributing in various sectors and driving the state's economic growth. 3.5 million inter-state migrant workers form an indispensable part of Kerala's economy alone. Their contribution has been significant and has helped create employment, increase productivity and stimulate the economy. Although a lot of studies recording the socio-economic conditions of migrant workers, (Shameer 2017 , Mohan 2017, Ajith 2011 , Ahammed 2018 , Jomon 2014) a detailed study regarding the integration of migrant workers is very limited (Lizyjames 2016) and its not ever conducted in Malappuram district about the attitude of the Malayalees towards the workers with regard to the integration of migrant workers . To understand and assess the Malayali attitude towards migrant workers, social economic conditions and reasons for migration are studied. So in this context we are trying to analyst the integration of migrant workers**.**

Migrant workers are individuals who move from one region or country to another in search of employment opportunities. They leave their native places to find employment in agriculture, construction, manufacturing and services. In Kerala, most of the migrant workers are migrants from the states of Bengal, Assam and Bihar. Due to the higher wage rate in Kerala compared to other states, the influx of migrant workers is high in Kerala (Shameer 2017), Another reason is poor economic conditions and low wages in their state. . The

reason why Malayalees have a poor attitude towards foreign workers is because they know about them committing crimes (Mohan 2017), and because of this situation, Malayalees keep some distance and show a poor attitude towards them. They are facing many socio-economic problems. That is, they are mostly uneducated, young and therefore they are mostly employed under contracts and under the owner, their participation can be seen in all other sectors except the primary sector (Muhammad shameer 2016). Migrant workers leave their homes for work and are forced to stay away from their families. Even though immigrants have made better progress, more people are still miserable. There are also unsanitary toilets in rented houses and people who do not even have access to clean drinking water. This is research about the migrant workers who are suffering economically and socially, as well as about the attitude of the Malayali towards them. Migrant workers are individuals who move from one region or country to another for the purpose of employment. They may migrate within their own country or cross international borders in search of job opportunities. Migrant workers contribute to the workforce of the destination area and often play a crucial role in sectors such as agriculture, construction, hospitality, and domestic work. The term encompasses a diverse group of people with varying skills, backgrounds, and reasons for migration. Migration can be categorized into different types, first one Internal Migration Movement within the borders of a specific country.

2.2 Statement of Study

3.5 million inter-state migrant workers form an indispensable part of Kerala's economy alone. Migrant workers in Kerala face many challenges (Mohan 2017).There are many reasons for the migration to Kerala, Low wage in their native place, illiteracy or low education qualification poor economy condition etc… some studies (Ahammed 2018 , Ajith 2011 , Sunil ,Prmod 2016) revealed that attitude towards malayali local workers to the migrant workers not good because they are foreign workers, economically and educationally illiterate and have caused a lot problems. There are many studies conducted regarding the socio-economic condition of migrant workers (Jomon 2014 , Mohan 2017 , Krishnan 2021) . The study related to the social integration of migrant workers is limited (Lizy 2016) . But a detailed study regarding the integration of migrant workers is not ever conducted in Malappuram District, especially in Cheekode Panjayath. Hence, the research problem is titled as "Social integration of migrant of migrant workers in Kerala a study with special reference to Cheekode Panjayath. The social integration of migrant workers: A study with reference to Cheekode Panchayat" is a research endeavor aimed at understanding and analyzing how migrant workers in the specific area of Cheekode Panchayat integrate into the local community. This study will investigate the various factors, challenges, and opportunities that influence the social integration process of migrant workers in this particular geographic context, shedding light on the unique dynamics and implications for both migrants and the host community in Cheekode Panchayat

2.3 Objectives

- ➢ To find the socio-economic conditions of migrant workers in Cheekode Panchayat.
- ➢ To analyze the attitude of Malayali's towards migrant workers in Cheekode Panchayat.
- ➢ To examine the social integration of migrant workers in Cheekode Panchayat.
- ➢ To analyze the push and pull factors of migrant workers to Cheekode Panchayat.

2.4 Methodology

Both primary data and secondary data will use in this study. Primary data mainly collected from 50 migrant workers in cheekodepanjayat. Convenient sampling method are used in the study. For selecting the sample Simple tables, diagrams, correlation and regression also used in this study. For it analysis purposes we used SPSS software. Secondary data mainly collected from article, journal, Internet and books etc…

3. Review of Literature

3.1 Introduction

In this chapter an attempt has been made to review some important studies which are relevant to present study. focusing on Cheekode Panchayat in Kerala. Emphasizing the significance of literature review in research, it aims to illustrate key concepts and ideas surrounding social integration within the migrant worker context.

Lizy James(2016): Social integration of migrant workers in Kerala : problems and prospects . This study indicates the attitude of Malayalees towards migrant workers, this report examined that even 83.76Per Cent Malayalees have a good attitude, there are people in Kerala who are not interested (16.33Per Cent) . This report also shows migrant workers quality of life. Asses the feelings and attitudes of migrant workers towards natives. This study seeks to understand the factors that prevent people from getting closer to the locals.

Nimisha Shreedharan / Murale(2018): They are studied the social integration of migrant workers in Kerala. It is a conceptual paper with the primary motive of studying the attitude and behavior of migrant workers towards the local population of Kerala. This paper also aims to check whether the contribution of these migrants is being duly recognized and appreciated by the inhabitants and residents of the state of Kerala. It also determines the extent to which the residents accept these workers and analyses how much these workers are integrated towards the society of Kerala.

Dilip Saikia(2017): Migrant workers in Kerala : A study on their socio economic condition. This paper reports on their socio-economic condition of migrants in Kerala. This report examined that people are coming to Kerala because the wage rate is high, it also calculates their behavior income and consumption. More people are miserable than they are able to generate income, for example sty in rented houses, unclean toilet. Mostly young people work. It reports which people are more frequent, in which sectors more people are employed and at what age groups are more frequent. This paper based on primary data.

Harikrishnan(2017): Inter-state migrant workers in Kerala: A study on their quality of life and welfare measures. This study reported that 3.5 million people have migrated to Kerala. Participation has increased in many fields of works. Studying migrant workers condition during covid-19. It mentions the welfare scheme implemented for them. This study assesses the demographic profile of migrant workers in Kerala, and understanding social security and welfare measures for non-state workers in Kerala. Secondary data is used for this study also NSO reports, internet, reference and organizational reports.

Mohan (2017): Migration to Kerala Issues and challenges. This report deals with the problem and challenges faced by migrant workers. Migrant workers are interested in working in Kerala, because of wage rate is higher. This study shows that they are causing many problems. This report also indicates that their health conditions is bad. The study relied upon secondary sources such as journals etc..

SaleelAhammed A.K (2018): Impact of Migration to Malappuram m District - An Analysis. This study examines emigration growth foreign remittance distribution and the impact of in-migration through a sample survey. Statistical tools such as averages, tables. Diagrams and Multiple regression were used to analysis the data. Emigration has sown a steep annual income, and more than 70Per Cent OF Internal migrant labours working as unskilled labours. Farther more, the majority OF internal labours originate from west Bengal.

S kamar /Dr pramod(2016**):** psychological problems of Migrant labors in Kerala: A study in Thiruvananthapuram and

Ernakulam districts. This report mainly deals with psychological problems among migrant workers and the emotional distress they experience. A distinction can be made between them. This study examines the loneliness experienced by Migrant workers and analyses the Fear migrant workers experience in relation to work. Among the psychological problems alienation is the most prominent among the migrant labors and depression is the least prominent problem.

Ajithkumar (2011): Vulnerability of migrants and Responsiveness of the state: The case of unskilled Migrant workers in Kerala-India. The paper examines how the state and other agencies in the host state (Kerala) responded to reduce the vulnerability of inter-state migrant workers. Report examining the dimensions of Vulnerability of migrant workers in Kerala. This paper Shows that migrant workers do not enjoy certain rights and Benefit.

Jomon Mathew,2014: Haman Rights Issues of Migrant Construction workers in Kerala. The study aims to achieve the knowledge of the social, economic, occupational and financial condition of migrant workers from various states in Kerala. The side identifies human rights issues and violations against them. The study is based on primary data. The area of Study is confined to Kerala. The study is based primary on a Sample survey conducted among migrant construction workers in Kerala. The main objectives are to understand the socio-economic States of migrant construction workers in Kerala.

Cyria c& Mathew, 2022: Quality of life of north Indian migrant workers in Kerala. He says in this study that the main reason behind every migration is to avoid poverty through work

as well as to get more wages. The main objective of this study is to analyses the socio-economic status and quality of life of North Indian migrant workers in Kerala. This study was conducted on 150 North Indian migrant workers in Kannur, Kozhikode and Ernakulam districts of Kerala. Analyzing their quality. The main objective is to understand their quality of life.

3.2 Conclusion

The studies on migrant workers in Kerala reveal socio-economic challenges, integration dynamics, and inadequacies in policies. Despite economic opportunities, migrants face obstacles like social integration issues and inadequate living conditions. Addressing these requires policy reforms, community engagement, and improved social services to create a more inclusive environment for all residents.

4. Data Analysis and Interpretations

The study delves into the dynamics of migrant workers in Kerala, focusing on their origins, attitudes of local communities, reasons for migration, employer perceptions, work experience duration, settlement preferences, cultural participation, language barriers, and financial aspects. Through data analysis, it offers insights into migrant worker integration and socio-economic factors influencing their livelihood

Table 4.1 Place of Origin the Respondents

Place	Frequency	Percent
Bengal	31	62
Assam	19	38
Total	50	100

Source: Calculated from the primary data

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The table 4.1 illustrates the distribution of migrant workers' origins, specifically from Bengal and Assam. Among the respondents, Bengal constitutes the majority with 62 Per Cent, representing 31 individuals, while Assam accounts for 38 Per Cent, comprising 19 individuals. This indicates a higher prevalence of migrant workers from Bengal compared to Assam in the surveyed population. The total count of respondents is 50, covering the entire dataset. The data underscores the significance of Bengal as a major contributor to the migrant worker population in contrast to Assam.

Table 4.2Attitude Malayali's People Towards Migrant Workers

Attitude	Frequency	Percent
Good	48	96
Bad	2	4
Total	50	100

Source: Calculated from the primary data

The table 4.2 provides an insight into the attitudes of local people towards migrant workers. Notably, 96 Per Cent of respondents expressed positive views, indicating an overall strong positive sentiment. In contrast, only 4 Per Cent had a negative opinion. Migrant workers are treated well by local workers and local shop owners. This highly favorable attitude suggests a welcoming and inclusive environment for migrant workers within the local community.

Table 4.3 Reason for Problem for the Kerala

Reason	Frequency	Percent
Wage problem	14	28
family problem	8	16
job problem	28	56
Total	50	100

Source: Calculated from the primary data

The table 4.3 outlines the reasons behind migrant workers coming to Kerala for employment. Among the respondents, 28 per Cent attribute their migration to wage problems, 16 per Cent cite both wage and family issues, while a significant majority (56 per Cent) indicate a combination of wage and job-related challenges. This distribution underscores the prominence of wage concerns and employment opportunities as key factors influencing migrant labour movements to Kerala.

Table 4.4 Attitude Employers Towards Respondents

Employer	Frequency	Percent
Friendly	30	60
Strict	20	40
Total	50	100

Source: Calculated from the primary data

The table 4.4 outlines perceptions of employers, with 60% of respondents characterizing them as friendly and 40% as strict. The dominant frequency of "Friendly" suggests a prevailing positive perception among the majority, indicating a potentially supportive and amicable work environment. The contrasting 40% who perceive their employers as strict may signify varied management styles or distinct preferences among workers.

Table 4.5 Number of Years Worked Kerala

Year	Frequency	Percent
1 to 5 years	21	42
5 to 10	21	42
10 to 15 years	7	14
Above 15 years	1	2
Total	50	100

Source: Calculated from the primary data

The Table 4.5 illustrates the distribution of frequencies based on the duration of experience. Notably, 42 Per Cent of individuals possess 1 to 5 years of experience, mirroring the same Per Cent for the 5 to 10-year bracket. A decline is observed in the 10 to 15-year category, constituting 14 Per Cent of the total. The "Above 15 years" group is minimal, representing 2 per cent. Overall, the majority fall within the 1 to 10-year range, suggesting a relatively young workforce.

**Figure 4.1: Settlement Status of the Migrant Workers**
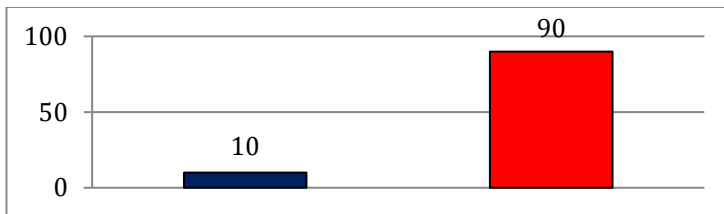
Source: Calculated from the primary data

The graph 4.1 indicate the settlement preference of migrant workers. And the data shows that 90 per Cent of migrant workers are not interested in settling permanently in Kerala,

while only 10 per Cent express a desire to do so. The majority preferring not to settle permanently suggests that Kerala may be viewed more as a temporary work destination for these migrants. Majority of them are not ready to settle in Kerala mainly because their family, most 98 percentage of the migrant workers family living in native place so the migrant workers are not ready to settle in Kerala. only few are ready to settle in Kerala because high wage (8 per Cent) and good climate (2 per Cent).

Figure 4.2: Participation to Kerala Wedding by the Migrant Workers
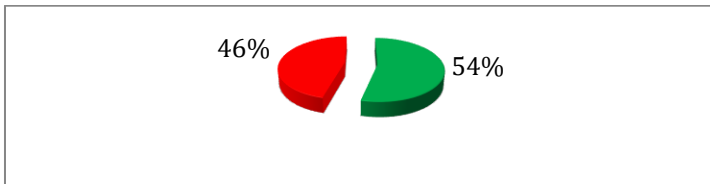
Source: Calculated from the primary data

The graph 4.2 illustrates that an overwhelming 98 per Cent of migrant workers participate in festivals from their native places, while only 2 per Cent do not. This high participation rate underscores the importance of cultural connections and the maintenance of traditions among migrant workers in Kerala. The minimal 2 per Cent non-participation could be attributed to individual circumstances.

Figure 4.3 Language Problems in the Job Conditions of Migrant Workers
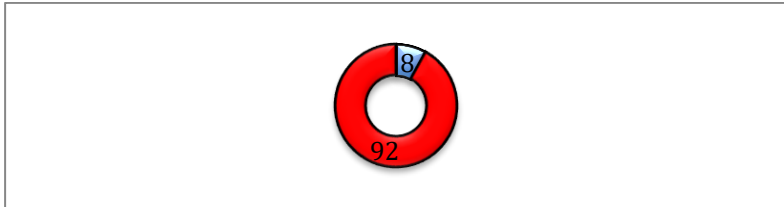
Source: Calculated from the primary data

The figure 4.3 shows the language effect of Respondent for the migrant workers the language problem never effected job opportunity. The data shows that only 8 Per Cent the respondent agreed that language problem effected their job opportunities and 92 Per Cent never effected job opportunities.

Figure 4.4 Monthly Income of the Respondents
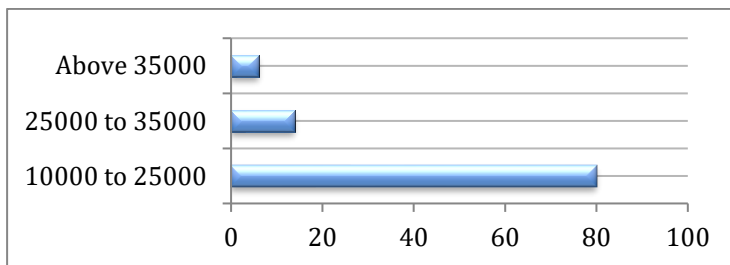
.Source: Calculated from the primary data

The table 4.4 illustrates monthly income distribution, with 80Per Cent earning between 10,000 to 25,000 units, 14 Per Cent between 25,000 to 35,000 units, and 6 Per Cent reporting incomes above 35,000 units within the surveyed group. The significant prevalence in the 10,000 to 25,000 range indicates a majority falling within a mid-income bracket. The smaller Per

Cents in the other categories suggest varying income levels, with 6 Per Cent earning above 35,000 units.

Figure 4.5 Monthly Expenditure of Migrant Workers
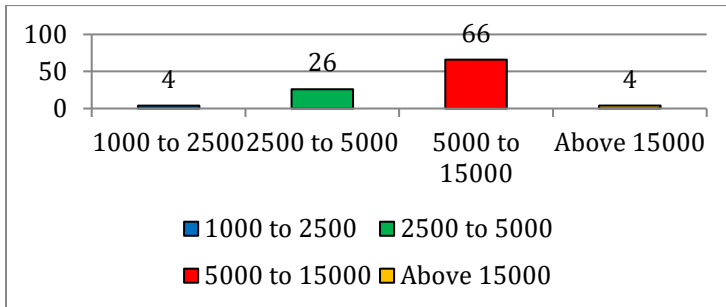
Source: Calculated from the primary data

The graph 4.3 shows monthly expenditure distribution, with 4Per Cent spending between 1000 to 2500 units, 26 Per Cent between 2500 to 5000 units, 66 Per Cent between 5000 to 15000 units, and 4 Per Cent reporting expenditures above 15000 units within the surveyed group. The substantial Per Cent in the 5000 to 15000 range suggests a prevalent mid-range expenditure pattern. The smaller Per Cents in other categories indicate varied spending habits, with 4Per Cent having higher expenditures.

Correlation:

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they

move oppositely. A zero correlation (r = 0) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analyzing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation to find Relationship Between Monthly income and Monthly Expenditure

Monthly Income	Monthly Expenditure in Kerala	Monthly Income	Monthly Expenditure in Kerala
17500	10000	17500	10000
17500	10000	17500	3750
17500	3750	17500	3750
17500	10000	17500	10000
17500	3750	17500	10000
17500	3750	35000	15000
17500	10000	17500	3750
17500	10000	30000	3750
35000	15000	30000	10000
35000	10000	17500	3750
17500	10000	17500	3750
17500	10000	30000	10000
17500	10000	17500	10000
17500	10000	17500	1750
17500	10000	17500	3750

17500	10000	17500	10000
17500	3750	17500	10000
30000	3750	17500	10000
30000	10000	17500	10000
30000	3750	17500	10000
30000	1750	17500	10000
17500	10000	17500	10000
17500	10000	17500	10000
17500	10000	17500	10000
17500	10000	17500	10000

Correlation Coefficient is **0.088946234**

A correlation value of 0.088946234 between monthly income and monthly expenditure indicates a weak positive correlation. This means that as monthly income increases, there is a slight tendency for monthly expenditure to also increase, but the relationship is not very strong. Other factors likely influence monthly expenditure as well.

Simple Linear Regression:

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta_0+\beta_1\times x+\epsilon$, where β_0 is the intercept, β_1 is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of y. Simple linear regression is

useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Regression to find Relationship Between Attitude of Local Workers   Towards Migrant Workers and Settlement Status of Migrant Workers

Attitude of local people towards Migrant workers	Settlement status of migrant workers	Attitude of local workers towards Migrant workers	Settlement status of migrant workers
1	2	1	2
2	2	1	2
1	2	1	2
1	2	1	2
1	2	1	2
1	2	1	1
1	2	1	1
1	2	1	2
1	2	1	2
1	2	1	1
1	2	1	2
1	2	1	2
1	2	1	2
1	2	1	2
1	2	1	2
1	2	1	2
1	2	1	1

1	2	1	2
1	2	1	2
1	2	1	2
1	2	1	1
1	2	1	2
1	2	1	2
1	2	1	2
1	2	1	2

The regression equation y = 0.102x + 1.7959 indicates that for every unit increase in the settlement status of migrant workers (x), there is a predicted increase of 0.102 units in the attitude of local people towards migrant workers (y). This suggests a positive relationship, implying that as the settlement status of migrant workers improves, the attitude of local workers towards them tends to become more favourable. However, the R² value of 0.0023 indicates that only approximately 0.23 Per Cent of the variability in the attitude of local workers towards migrant workers can be attributed to the settlement status of migrant workers. In other words, the settlement status of migrant workers explains very little of the variation in local workers' attitudes. This suggests that other factors beyond settlement status, such as cultural differences, economic

factors, and social dynamics, likely play a more significant role in shaping attitudes towards migrant workers.

The study reveals a predominant influx of migrant workers from Bengal over Assam in Kerala, with positive attitudes from locals and employers. Wage and job-related challenges are key migration drivers. Most migrants prefer temporary stays due to familial ties, despite high cultural participation. Income and expenditure patterns reflect a mid-range financial scenario.

5. Conclusion

This study examines migrant worker dynamics in Kerala, focusing on language preferences, settlement status, festival participation, migration reasons, and job conditions. Bengal is the dominant mother tongue, comprising 62% of respondents, followed by Assamese at 38%. Understanding these dynamics aids policymakers in fostering integration and socio-economic development.

5.1 Findings

1**. Religious and Cultural Composition:** The majority of migrant workers identify as Muslim (94Per Cent), with a smaller percentage being Hindu (6Per Cent). Understanding the religious and cultural diversity among migrant communities is essential for fostering inclusive environments and addressing potential cultural sensitivities.

2**. Poverty and Economic Status:** Over half of the migrant workers surveyed fall below the poverty line (54Per Cent), indicating a high level of economic vulnerability. The wage distribution highlights a significant proportion earning mid-

level incomes, with the majority falling within the 1000 to 25,000 units range. However, monthly expenditure data reveals that a substantial portion spends between 5000 to 15000 units, suggesting financial challenges despite earning moderate incomes.

3**. Living Arrangements and Family Dynamics:** The majority of migrant workers prefer renting rooms (60Per Cent) over other forms of accommodation, indicating a preference for flexibility and affordability. Family sizes vary, with the predominant range being 5 to 10 members (70Per Cent). Understanding family dynamics and living preferences is crucial for developing housing and support programs tailored to the needs of migrant workers and their families.

4. **Language and Integration Challenges:** Language barriers are prevalent, with 86Per Cent of respondents reporting language problems. However, only a minority (8Per Cent) experience language-related issues in their job conditions, suggesting some level of adaptation or support within workplaces. Addressing language barriers through language training programs and workplace integration initiatives can enhance communication and social integration for migrant workers.

5. **Attitudes and Social Integration:** The overwhelmingly positive attitudes of local people, workers, and employers (ranging from 96Per Cent to 98Per Cent) towards migrant workers reflect a welcoming and inclusive environment. Participation in local festivals and weddings further indicates a level of cultural integration and community engagement among migrant workers.

5.2 Suggestions:

1**. Language Integration Programs:** Given the significant prevalence of language problems faced by migrant workers, implementing language integration programs could be highly beneficial. These programs could include language classes, translation services, and cultural sensitivity training to facilitate effective communication and integration into the local community.

2**. Support for Poverty Alleviation:** With a substantial portion of migrant workers falling under the Below Poverty Line (BPL) category, targeted poverty alleviation programs should be implemented. These programs could focus on providing access to education, skill development, and employment opportunities to uplift migrant workers and improve their socio-economic status.

3. **Healthcare Access:** Despite the majority reporting no health problems, ensuring access to healthcare services for migrant workers is essential. Mobile healthcare clinics, awareness campaigns on preventive healthcare measures, and collaborations with local healthcare providers can help address the healthcare needs of migrant workers, especially those facing health challenges.

4. **Workplace Regulations:** Addressing the issue of overwork among migrant workers requires implementing and enforcing workplace regulations to ensure fair working hours and conditions. Collaboration between employers, government agencies, and migrant worker advocacy groups can help

establish and monitor compliance with labour laws to protect the rights of migrant workers.

6. **Cultural Sensitivity Training:** Given the positive attitudes expressed by both local people and workers towards migrant workers, fostering cultural sensitivity and understanding can further strengthen community cohesion. Cultural exchange programs, diversity training, and community events that celebrate different cultures can promote mutual respect and appreciation among diverse populations.

5.3 Conclusion

The data reveals insights into migrant workers' lives, emphasizing the prevalence of Muslims and those below the poverty line. It underscores the need for cultural sensitivity, poverty alleviation, affordable housing, language integration, and community engagement initiatives to address their challenges comprehensively and foster inclusivity and socio-economic empowerment.

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UNEMPLOYMENT AMONG B-TECH GRADUATES: A STUDY WITH SPECIAL REFERENCE TO MALAPPURAM DISTRICT

FAMA CM

BA Economics at Sullamussalam Science College, Areekode

"Unemployment is not just an economic issue, but a societal concern that requires nuanced understanding and localized solutions, especially among B-Tech graduates in regions like Malappuram District." - Arundhati Roy

Abstract

The project titled "Unemployment among B-Tech Graduates" ventures beyond the surface to explore the multifaceted challenges faced by individuals with a Bachelor's degree in technology. Embracing a holistic approach, this research initiative goes beyond mere narration, providing a rich array of supplementary materials to offer a comprehensive understanding. For those inclined towards quantitative analysis, detailed tables and charts present demographic data and survey responses, allowing for a nuanced comprehension of the surveyed graduates' circumstances. Meanwhile, qualitative enthusiasts will find transcripts of interviews and coding schemes seamlessly integrated, unveiling the diverse spectrum of experiences within this demographic. Moreover, contextual documents and references are strategically woven throughout the project, enriching readers' understanding of the broader landscape surrounding unemployment among B-Tech graduates. This layered approach not only diagnoses the challenges but also equips readers with the necessary tools to interpret and navigate this intricate journey. The deliberate inclusion of these materials underscores our commitment to providing a holistic and enlightening experience for all stakeholders grappling with the complexities of this societal issue. By offering a multi-dimensional perspective, we aim not only to shed light on the challenges but also to empower stakeholders with actionable insights, fostering meaningful dialogue and driving

impactful change in addressing unemployment among B-Tech graduates. The intentional inclusion of these materials underscores our commitment to delivering a holistic and enlightening experience for all stakeholders grappling with the complexities of this societal issue. By presenting a multi-dimensional perspective, our goal is to not only shed light on the challenges but also empower stakeholders with actionable insights.

Key words: Unemployment, B-Tech graduates, quantitative analysis, qualitative research, demographic data, survey responses, impactful change.

1. Introduction

India boasts one of the largest pools of graduates globally, yet a significant proportion grapples with unemployment. This predicament often stems from a lack of informed career decisions, influenced by societal norms and parental pressures. Many individuals follow conventional paths, opting for careers that may not align with their passions or skills, exacerbating the issue. Furthermore, inadequate knowledge about their chosen fields compounds the problem. Addressing unemployment among B-Tech graduates is paramount, as it directly impacts education, skills development, job market dynamics, and overall economic growth. The scope of unemployment among B-Tech graduates varies based on factors like location, specialization, and economic conditions. While B-Tech graduates possess valuable technical skills, staying updated with industry trends and actively pursuing job opportunities is crucial to mitigate unemployment risks and secure a promising future. Educated unemployment presents a paradox where qualified individuals struggle to find suitable employment. This phenomenon not only affects individuals but also has wider

ramifications for the economy and society. This project aims to delve into the complexities of educated unemployment among B-Tech graduates, examining its causes, consequences, and potential solutions. Through thorough research, data analysis, and insights from B-Tech graduates, this project seeks to provide a comprehensive understanding of the challenges within the engineering sector. It also aims to propose strategies and policy recommendations to alleviate the impact of educated unemployment and improve employment prospects for B-Tech graduates. As we navigate the evolving landscape of education and employment, addressing educated unemployment among B-Tech graduates is imperative. This requires a holistic approach, including educational reforms, parental guidance, regional considerations, mentorship programs, and a commitment to lifelong learning. As we traverse the dynamic terrain of education and employment dynamics in the 21st century, the imperative to confront the specter of educated unemployment among B-Tech graduates assumes ever-greater urgency. This necessitates the implementation of a comprehensive strategy encompassing not only systemic reforms within the educational framework but also fostering greater parental engagement, accommodating regional variations, fostering robust mentorship initiatives, and instilling a culture of continuous learning and professional development.

In conclusion, tackling unemployment among B-Tech graduates demands a multifaceted strategy. By incorporating educational reforms, fostering parental support, considering regional dynamics, implementing mentorship initiatives, and promoting continuous learning, we can create an environment

where graduates not only possess technical prowess but also resilience for a fulfilling career journey.

2. Statement of the Study.

Despite the burgeoning number of B-Tech graduates in India, a troubling trend of unemployment pervades this demographic. This study aims to dissect and analyze the pivotal factors driving the high rates of unemployment among B-Tech graduates, delving into educational mismatches, industry collaborations' efficacy, regional disparities, societal influences on career trajectories, technological advancements' impact, and the significance of soft skills. By unraveling these intricacies, the research endeavors to furnish insights that can underpin targeted interventions and policy prescriptions, mitigating unemployment hurdles and augmenting the employability of B-Tech graduates within the ever-evolving job market. Educational mismatches loom large as a prime contributor to B-Tech graduates' unemployment, where acquired skills often fail to sync with industry requisites. Assessing the efficacy of collaborations between educational institutions and industries becomes imperative, given their profound impact on graduates' readiness for employment. Regional disparages further exacerbate unemployment challenges, with job opportunities skewed by geographical factors. Societal expectations and parental pressures also exert significant sway, steering graduates toward career paths misaligned with their passions or proficiencies, creating a divergence between aspirations and realities. Technological advancements and evolving industry trends necessitate graduates' perpetual upskilling to bolster employability. Soft skills and communication acumen gain

increasing prominence, alongside technical prowess, in the contemporary job landscape.

3.Objectives/Methodology and data sources.

1. Understand the socio-economic conditions of unemployment among B-Tech graduates in Malappuram district.
2. Evaluate the quality of education and training provided by B-Tech programs to identify areas for improvement.
3. Address the psychological challenges faced by unemployed graduates and provide mental health support and counselling.

Both primary and secondary data were utilized for this study. Primary data primarily comprised observations, mailed questionnaires, surveys, personal interviews, and telephonic interviews. The main primary data were collected from individuals residing in various areas of Malappuram district. The questionnaire comprised a total of 35 questions, including some related to the respondents' profiles. A convenient sampling method was employed, resulting in the selection of 35 samples. For data analysis, correlation and regression techniques were utilized. Tables, diagrams, and simple percentages were also employed for analysis purposes in this study.

4. Review of Literature

This chapter provides a review of relevant studies pertaining to "Educated Unemployment among B-Tech Graduates in Malappuram District." It highlights key articles exploring the causes of unemployment among engineering graduates,

emphasizing the importance of literature review in contextualizing the research topic.

Abishek Vijayan,(2023) unemployment among b tech graduates: according to him engineering is a field that requires a lot passion for mathematics and science. Only people who have a genuine interest in this subject should opt for engineering but many students take up engineering because of the social pressure of choosing a safe, career option or because they want to please Thayer parents as a result they struggle

Natasha rastogi (2019) why are millions of engineers in India qualified but unemployment: they found that India producer one of the largest graduates in the world every year but most of them are jobless. Every person not mature enough to choose careers but going with the flow and doing what every second individual was aspire to do

Dr sandeep (2019) unemployment of b tech graduates-A major concern that needs attention: this point out that the 6214 engineering institutions are there total number of students enrolled is around 2.9 million average of 1.5 million students get their degree. but employment Remains Confined with in the 20% on even less of the total No. of Students because lack of Skills required in their core demine. in order to Fair competition with ones countries. world is moving very fast in the technology Field avoid this problem get implementing outcome-based education in colleges.

Pankaj Tiwari (2022) why Engineers are unemployed in India: getting a job for students is becoming very tough After the study is completed. There are many reasons why students are still

Jobless because of the competitive market, Lack of practical knowledge, lack of guidance, no interest many organizations looking for a candidate who has not only a degree but also some sort of practical Knowledge because they don't want to waste their time Training candidate fort mooning it.

Jitendrakumardixit (2011) educated unemployment: A challenge before sustainable education: India's educated youths are facing some serious issues like educated unemployment and under employment. Educated unemployment is due to mismatch between aspirations of graduates and employment opportunity available to them. Unemployment refers to the state of being unemployed of not having a job - Joblessness

Dr kumar(2022) Higher education Stagnated in India, 48% engineers unemployed: he says that highest education is stagnant in the Country and consequently, institutions like IIM also suffering from low enrolment about 45 per cent of management and 44 percent of engineering students in the country are unemployed. management Colleges should start job-oriented courses like Artificial Intelligence, machine Learning, Deep Learning for meet The Industry needs Emphasizing the needs to understanding the industry needs.

Soorya Narayan(2020) study about employment status of b tech graduates in Kerala: As There are 166 engineering colleges in Kerala and nearly one lakh students appear for the engineering entrance examination. it is very impotent to assess the quality of engineering education in this study it was found that nearly 75% of the graduates are unemployed and also majority of the people who are employ are not working in their core fields.

Jandhyala B G Tilak(2021) Employment and employability of engineering graduates in India while highest education system in India produces in The second largest numbers of engineering graduated in the world every year, the employability of the graduates in the world every year, the employability of the graduates is questioned both in the domestic and international labor market many rightly observe that India is overproducing engineering graduates with poor quality.

Salina rasil (2021) Unemployment crisis among fresh graduates: according to them 2 mains objectives of the study are to examine Influence factors of the unemployment crisis among Fresh graduates in Malaysia and the primary determine has culminated in many policy implications for higher Education unemployment rate among fresh graduates increases to 25% in 2020 Then the year before jumping from 13 .8% The null hypomnesia is that employers Preference candidate attributes and economic instability have no significant effect on the unemployment crisis.

Jandhyalab. gtilak(2013) Engineering graduates in India-Determinants of their employment and earnings: Eighty parent of engineers are not employable for any Job in the knowledge economy. only forty-nine parent of engineering graduate have employable talent. Higher education in India has expanded vary fast, particularly since the mid-1980s compared to 3.6 million Students enrolled in 5227 institutions of higher education in the academic calendar year 1985-86.

The culmination of various studies reveals a concerning trend of educated unemployment among B-Tech graduates in India, attributable to factors such as societal pressure, educational

mismatches, and a lack of practical skills. Urgent policy interventions and educational reforms are imperative to address this pressing issue.

5. Data Analysis and Interpretations.

The analysis reveals insightful patterns among respondents in regards to gender distribution, age demographics, perceived skills development, satisfaction levels during their B-Tech course, technological proficiency, and specialization preferences. A balanced representation between genders is evident, with slightly more females participating. The age distribution showcases a diverse sample, notably concentrated between 25 to 35 years old. Skills development and satisfaction levels during the course indicate overall positive sentiments, albeit with room for improvement in certain areas. Technological proficiency varies among graduates, reflecting the need for tailored training programs.

Table 5.1: Gender Distribution of Respondents

Sl. No	Gender	Frequency	Percentage
1	Male	16	45.71
2	Female	19	54.29
3	Total	35	100

Source: Calculated from the primary data

Table 5.1 shows that the gender distribution of the respondents. It illustrates a balanced representation among 35 respondents, with 45.71 Percent identified as male and 54.29 Percent as female. This suggests a slightly higher female participation. Understanding such demographics is vital for tailoring products, services, or communication strategies.

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Table 5.2: Age Wise Distribution of the Respondents

Sl. No	Age	Frequency	Percentage
1	Below 25	14	40
2	25 to 35	21	60
3	Total	35	100

Source: Calculated from the primary data

Table 5.2 show that the age wise distribution of respondents. The age distribution table indicates a diverse sample of 35 respondents, with 40 Percent below 25 years and 60 Percent aged between 25 and 35. This suggests a relatively even distribution across these two age brackets. Understanding such age demographics is crucial for tailoring products, services, or communication strategies to different life stages.

Table 5.3: Fostering Critical Thinking and Problem-solving Skills in B tech Program

Sl. No	Skills development level	Frequency	Percentage
1	very well	6	17.1
2	well	16	45.7
3	Neutral	11	31.4
4	Not well	2	5.8
5	Total	35	100

Source: Calculated from the primary data

Table 5.3 illustrates the perceived level of skills development among 35 respondents. A significant portion, 45.7 percentage, feel they are developing their skills "well," while 17.1 percentage indicate they are developing them "very well." However, 31.4 percentage express a neutral stance, suggesting

uncertainty or a lack of strong opinion. Only a small percentage, 5.8 percentage, report not developing their skills well, indicating room for improvement in addressing skill development needs.

Table 5.4: Satisfaction Levels During B-tech Course

Sl. No	Satisfaction level	Frequency	Percentage
1	Very satisfied	9	25.71
2	Satisfied	22	62.86
3	Neutral	4	11.43
4	Total	35	100

Source: Calculated from the primary data

Table 5.4 show that the satisfaction levels experienced by individuals during their pursuit of a BTech degree. Among the respondents, 25.71 percentage reported feeling very satisfied, while a majority of 62.86 percentage indicated satisfaction with their experience. Additionally, 11.43 percentage expressed a neutral stance regarding their satisfaction levels. These findings suggest that a considerable portion of individuals found their BTech degree experience fulfilling, with most either very satisfied or satisfied. This positive sentiment towards their educational journey implies that the BTech program likely met or exceeded their expectations, contributing to their overall satisfaction. The relatively low percentage of respondents expressing neutrality indicates a general trend towards positive experiences during their time pursuing the degree

Table 5.5: Technological Proficiency Levels of BTech Graduates

Sl. No	proficiency level	Frequency	Percentage
1	Highly proficient	4	11.43
2	proficient	14	40
3	Moderate	17	48.57
4	Total	35	100

Source: Calculated from the primary data

Table5.5 show that the provides insights into the technological proficiency levels of BTech graduates. Among the respondents, 11.43 percentage reported being highly proficient, 40.00 percentage indicated proficiency, and 48.57 percentage claimed a moderate level of proficiency. These findings suggest a mixed distribution of technological skills among BTech graduates, with a significant portion falling into the proficient and moderate categories. Such diversity in proficiency levels underscores the importance of tailored training and education programs to address the varying skill levels within this demographic.

Table 5.6: B-tech Branches of the Respondents

Sl. No	B-tech branches	Frequency	Percentage
1	Civil	16	45.71
2	Mechanical	9	25.71
3	Computer Science	10	28.57
4	Total	35	100
5	Total	35	100

Source: Calculated from the primary data

Table 5.6 presents data on the distribution of respondents across different branches of BTech studies. Among the respondents, 45.71 percentage were from the Civil Engineering branch, 25.71 percentage from Mechanical Engineering, and 28.57 percentage from Computer Science Engineering. The varying percentages reflect the diversity of specializations within the BTech program and possibly mirror the popularity or demand for these disciplines among students.

Figure 5.1: Program Participation During Unemployment
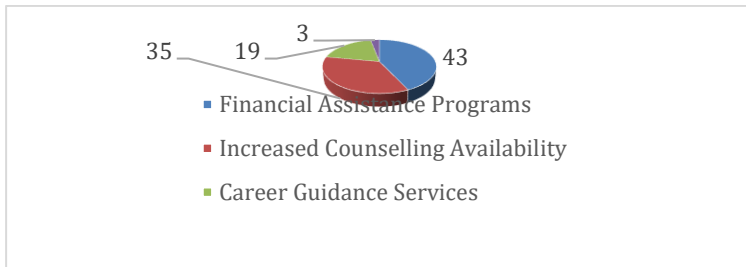
Source: Calculated from the primary data

Figure 5.1 show insights into the preferences of 35 respondents regarding improvements or additional services for enhancing mental health support among unemployed graduates. The data indicates a strong emphasis on financial assistance programs, with 45.71 percent of respondents highlighting this as a key area for improvement. Increased counselling availability is also a significant concern, mentioned by 37.14 percent of respondents. Overall, these findings underscore the multifaceted nature of support needed for the mental well-being of unemployed graduates, with financial assistance and counselling being primary focal points

Figure 5.2: Importance of Mental Health in Educational Curriculum
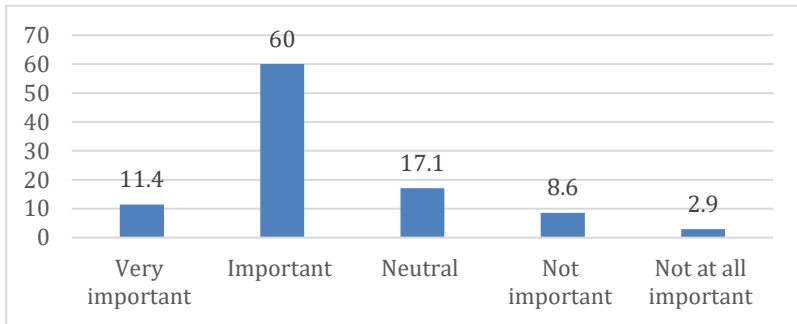
Source: Calculated from the primary data

Figure 5.2 show that the varying levels of importance assigned by respondents to a certain topic or set of options. The majority, comprising 60 Percentage of the total respondents, deemed the subject matter as 'important,' indicating a significant level of relevance or significance. Meanwhile, a notable portion, accounting for 11.4 Percentage, considered it 'very important,' suggesting a heightened degree of significance.' Overall, the data highlights a range of perspectives, with the majority attributing varying degrees of importance to the subject matter, underscoring its relevance and impact across the respondent base.

**Table 5.7: Strategies Recommended for Promoting Mental Health Awareness in Unemployment**

SL.NO	Strategies	Frequency	Percentage
1	Educational workshops	20	57
2	collaboration with employers	11	31

3	Social media campaign	2	6
4	Community events	2	6
5	Total	35	100

Source: Calculated from the primary data

Table 5.7 show that the breakdown of respondents' preferences regarding strategies to address a particular issue. Educational workshops emerged as the most favoured strategy, selected by 57 Percentage of respondents. This suggests a strong inclination towards hands-on learning and interactive sessions as effective means of tackling the identified problem. Collaboration with employers was the next most popular choice, with 31 Percentage of respondents endorsing it. This indicates a recognition of the importance of involving key stakeholders from the industry to address the issue comprehensively. Overall, the data underscores a diverse range of strategies considered by respondents, with a notable emphasis on educational initiatives and collaboration with industry partner

Figure 5.3: Reason For Unemployment Among B Tech Graduates
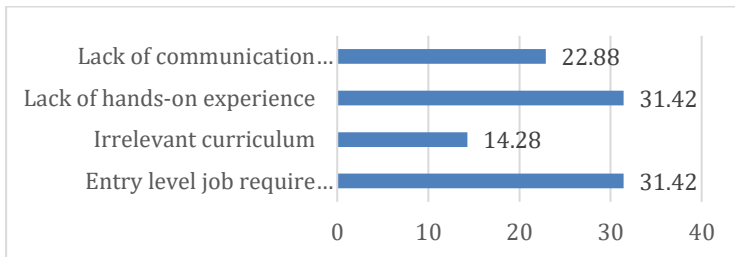
Source: Calculated from the primary data

Figure 5.3 sheds light on the factors contributing to unemployment, presenting a breakdown of responses in terms

of frequency and percentage. Among the notable reasons, the challenge of entry-level jobs requiring experience stands out, accounting for 31.42 percent of the responses. This indicates a significant hurdle for individuals seeking employment without prior work experience. Another substantial concern, at 31.42 percent, is the lack of hands-on experience, suggesting that theoretical knowledge may not be effectively translated into practical skills. Additionally, 14.28 percent attribute unemployment to an irrelevant curriculum, signifying a misalignment between education and job market demands. The importance of effective communication emerges as well, with 22.88 percent highlighting a lack of communication between students and faculty.

Correlation and simple linear regression
Correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they move oppositely. A zero correlation ($r = 0$) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analyzing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation to find relationship between age and primary mode of transportation.

A ge	primary mode of transportation	A ge	primary mode of transportation
2	1	1	1
2	1	1	2
2	2	1	2
2	2	2	1
2	2	1	2
2	1	2	2
2	1	2	2
1	1	1	2
2	1	2	1
2	1	1	2
2	1	1	2
2	2	1	2
2	2	1	2
2	2	2	2
2	2	1	2
2	2	1	1
1	2	2	2
1	2		

Correlation Coefficient is **-0.22116**

Considering the variables are age and primary mode of transportation, a correlation coefficient of **-0.22116** suggests a weak negative linear relationship between two variables.

Interpreting this correlation in the context of these variables:

- The absolute value of the correlation coefficient is 0.221, which is relatively close to zero. A value close to zero indicates a weak correlation. In this case, the strength of the relationship between the two variables is considered weak.
- With a weak negative correlation, you can say that there is a slight tendency for the variables to move in opposite directions.
- When one variable increases, the other tends to decrease, but the association is not strong. The relationship between the variables is not prominent.

Overall, this correlation suggests that age and primary mode of transportation are related to some extent. weak negative linear relationship between the two variables being analysed. The negative sign suggests that as one variable tends to increase, the other tends to decrease, but the strength of this relationship is considered weak. The magnitude of the correlation coefficient, being relatively close to zero, further emphasizes the weak nature of the association.

Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta 0+\beta 1\times x+\epsilon$, where $0\beta 0$ is the intercept, $1\beta 1$ is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of y. Simple linear

regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Regression to find the relationship between the Age and current living arrangement

Age	current living arrangement	Age	current living arrangement
2	1	1	1
2	1	1	1
2	1	1	1
2	1	1	1
2	2	2	1
2	1	1	1
2	1	2	1
1	1	2	1
2	1	1	1
2	1	2	1
2	1	1	1
2	1	1	1
2	1	1	1
2	1	1	1
2	1	2	1
2	1	1	1
1	1	1	1
		2	1

Simple Linear Regression Graph

Simple linear regression

$y = 0.0476x + 0.9524$
$R^2 = 0.0196$
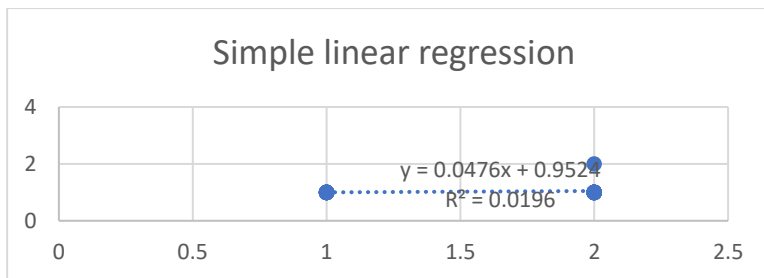
If y represents the age (dependent variable) and x represents the current living arrangement (independent variable), the equation can be rewritten as:

Current living arrangement=0.0476×Age+0.9524Current living arrangement=0.0476×Age+0.9524

$y = 0.0476x + 0.9524$

This equation represents a simple linear regression model where (y) is the dependent variable, (x) is the independent variable, and the coefficients are (0.0476) for the slope and (0.9524) for the y-intercept.

The (R^2) value of (0.0196) indicates the proportion of variability in the dependent variable (y) that is explained by the linear relationship with the independent variable (x). In this case, the (R^2) value is relatively low, suggesting that the linear model does not explain much of the variability in (y), and there may be other factors influencing the dependent variable that are not captured by the model.

The correlation analysis between age and primary mode of transportation reveals a weak negative relationship, suggesting a slight tendency for variables to move in opposite directions.

While regression analysis indicates a linear model between age and current living arrangement, the low R-squared value implies limited explanatory power of the model, indicating unaccounted factors influencing living arrangements. Thus, age may not be a significant predictor of living arrangements. Both analyses provide insights into the relationships but underscore the complexity of factors influencing transportation choices and living arrangements, warranting further investigation for a comprehensive understanding of these dynamics.

6. Findings, Suggestions and Conclusion

6.1 Findings

Fostering Critical Thinking and Problem-Solving Skills shows that 45.7% felt their skills were developing well, and 17.1% felt they were developing very well. Satisfaction Levels During BTech Course shows that 62.86% were satisfied, and 25.71% were very satisfied with their BTech experience. Technological Proficiency Levels shows that 11.43% were highly proficient, 40.00% were proficient, and 48.57% had moderate proficiency. Reasons for Unemployment shows that 31.42% cited entry-level jobs requiring experience, while 31.42% mentioned a lack of hands-on experience. Program Participation During Unemployment shows that 43% emphasized financial assistance programs, and 35% advocated for increased counseling availability. Rating of Overall Quality of Education shows that 57.1% rated the quality of education as good, while 37.1% rated it as excellent.

6.2 Suggestions

To address the multifaceted challenges faced by unemployed graduates, comprehensive strategies are essential. Enhanced financial support programs should be developed, offering flexible funding structures to tackle immediate financial hurdles. Integrated mental health initiatives must be implemented within education, encompassing curricular integration, counseling services, and supportive workplace environments. Strengthening career guidance entails industry collaborations, internships, and aligning educational programs with market demands. Targeted outreach and networking initiatives, utilizing social media and community events, should cater to diverse demographics, especially underrepresented groups. Advocacy for inclusive educational policies that recognize varying living arrangements, family dynamics, and income levels is crucial for effective support mechanisms.

6.3 Conclusion

This chapter offers a thorough insight into the challenges, preferences, and traits of unemployed graduates. It highlights critical areas for enhancement during unemployment, pinpointing the necessity for improved financial aid initiatives and expanded access to counseling services. The emphasis is on both monetary support and mental health assistance. Although career guidance and networking opportunities are acknowledged as significant, they are mentioned relatively less frequently. Overall, the chapter underscores the importance of addressing financial and mental health needs while also recognizing the value of career guidance and networking in supporting unemployed graduates effectively.

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HOW DOES THE RETURN KERALITIES AFFECTED KERALA ECONOMY: A STUDY WITH SPECIAL REFERENCE TO KAVANUR PANCHAYATH

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"Return migrants play a vital role in shaping the economic landscape of their home regions, infusing them with fresh perspectives, skills, and resources." - Amartya Sen

Abstract

The self-employment of Gulf returnees in Kerala embodies a multifaceted phenomenon with far-reaching implications for the state's economy and society. This study delves into various aspects including demographic characteristics, employment intentions, financial situations, challenges, and reasons for return among Gulf returnees engaged in self-employment. Predominantly, respondents were male, shedding light on gender disparities in self-employment opportunities and advocating for initiatives to foster female entrepreneurship. Diverse age distribution, notably with a substantial proportion in the 45-54 age bracket, signifies active involvement in self-employment pursuits. The dominance of Muslim respondents underscores the importance of inclusive self-employment avenues. Educational backgrounds varied among respondents, accentuating the necessity for skill-building programs. Despite encountering challenges, a significant portion expressed intent to persist in self-employment, showcasing resilience and resourcefulness. This study illuminates the resilience, adaptability, and entrepreneurial spirit of Gulf returnees, suggesting pathways to harness their skills and experiences to propel economic growth and foster social cohesion in Kerala. Additionally, the varied educational backgrounds among respondents highlight the importance of ongoing skill development and training programs tailored to the needs of Gulf returnees. By equipping individuals with the necessary skills and knowledge, Kerala can enhance their competitiveness and empower them to

succeed in their entrepreneurial endeavors. Despite facing challenges such as financial constraints and logistical hurdles, the resilience and determination exhibited by a significant proportion of respondents signify their commitment to continue their self-employment endeavors. This resilience, coupled with the evident entrepreneurial spirit among Gulf returnees, presents an opportunity for Kerala to harness their talents and experiences to drive economic growth and foster social integration within the state.

1. Introduction

The self-employment endeavors of Gulf returnees in Kerala hold significant implications for the state's economy, touching upon various sectors and aspects of its developmental trajectory. Kerala's history of emigration has deeply influenced its socio-economic landscape, and the return migration between May 2020 and April 2021 saw approximately 1.43 million emigrants coming back, with over 40% choosing to engage in the agricultural sector upon their return. This surge in return migration not only reflects global circumstances such as the COVID-19 pandemic but also signals a transformative phase for Kerala. The reintegration of over 1.43 million return Keralites, with a substantial percentage opting for agricultural pursuits, unveils a shift in occupational preferences and raises intriguing questions about the evolving dynamics of the state's workforce. However, the implications of self-employment among Gulf returnees extend beyond agriculture. Exploring how their skills, experiences, and financial contributions ripple through different domains will provide valuable insights into

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the broader economic and social changes that Kerala is experiencing. Beyond economic considerations, the return migration presents an opportunity to explore how the cultural nuances brought back by return Keralites contribute to the state's rich tapestry. Their experiences abroad, coupled with a return to familiar soil, create a unique blend of cultural exchange that shapes the social fabric of Kerala. This cultural exchange enriches the diversity of Kerala's society, fostering a deeper understanding and appreciation of different cultures among its residents. Moreover, the returnees' role in enriching tourism is an aspect that merits further exploration. The experiences, stories, and newfound perspectives of return Keralites can serve as a compelling draw for tourists, providing a fresh narrative for Kerala's tourism industry. Their insights into diverse cultures and lifestyles from their time abroad can enhance the authenticity and appeal of Kerala's tourism offerings, attracting visitors seeking immersive cultural experiences. In essence, this research endeavors not only to scrutinize the economic impacts but also to unravel the intricate threads of cultural exchange and tourism enrichment that accompany the return of Gulf returnees to Kerala.]

2. Significance of the study

This research holds significant relevance and potential contributions to understanding the multifaceted impacts of return migration on Kerala's economy. By delving into the experiences, challenges, and contributions of return Keralites from the Gulf, this study addresses critical gaps in current understanding. Firstly, it provides insights into the shifting occupational preferences and economic dynamics within Kerala following a surge in return migration. Understanding the

factors driving returnees' choices, particularly their inclination towards self-employment and sectors like agriculture, offers valuable insights into the evolving labor market landscape and its implications for economic development. Secondly, by exploring the broader impacts of return migration beyond mere economic considerations, such as cultural exchanges and tourism enrichment, the research illuminates the holistic effects of returnees' reintegration into Kerala's society. This understanding is crucial for policymakers, businesses, and communities alike, as it informs strategies for harnessing the diverse contributions of returnees to drive sustainable growth, foster social cohesion, and promote cultural exchange.

3.Objectives/Methodology and Dara sources.

1. To examine the reasons behind the return of return Keralites, the research will delve into personal, economic, and global factors, providing a nuanced understanding of their motivations.

2. Predictions about the socio-economic conditions of returning return Keralites will consider factors such as their role in community development, potential shifts in societal norms, and the overall impact on the state's quality of life.

3. Identifying instances of self-employment among Gulf returnees in Kavanur Panchayath will involve mapping out success stories, challenges faced, and the broader implications of their entrepreneurial endeavors.

Both primary and secondary data were utilized for this study. Primary data primarily comprised observations, mailed questionnaires, surveys, personal interviews, and telephonic

interviews. The main primary data were collected from individuals residing in various areas of Kavanur panchayath. The questionnaire comprised a total of 38 questions, including some related to the respondents' profiles. A convenient sampling method was employed, resulting in the selection of 30 samples. For data analysis, correlation and regression techniques were utilized. Tables, diagrams, and simple percentages were also employed for analysis purposes in this study.

4. Review of literature

In this chapter an attempt has been made to review some important studies which are relevant to present study. A literature review is a piece of academic writing demonstrating knowledge and understanding of the academic literature on a specific topic place in a context. Performing literature search and then reviewing and critiquing it are essential to any research report. The main objective of the review of literature is to illustrate the idea or concept. The chapter deals with the several studies conducted on the topic "return migration In Kavanurpanchayath'. Here are some of articles

TittoD'Cruz and Joseph Manuel (2017) conducted a study on the needs and problems of gulf returnees. Many emigrants ventured to the Middle East independently, driven by various reasons, including occupational and family or social issues. A significant portion of these individuals had limited education qualifications and often worked in challenging conditions in low-end jobs.

Rajeev Kumar (2012) studied the aspects of returnees, emigrant workers from the Gulf. Most return migrants with

acquired skills from overseas employment prefer self-employment, such as agriculture, or simply remaining idle at home. Engagement in low-paying full-time employment in the informal sector is quite rare among them.

Piyasiri Wickramasekara (2019) discussed the effective return and reintegration of migrant workers. He emphasized the right of citizens to return to their home countries as a human right, acknowledging its recognition in various human rights instruments. Return migration is considered a strategy to "reverse the brain drain" caused by permanent migration of skilled individuals abroad. Forced migration in destination countries has also led to assisted return and deportation programs, although return migration remains one of the least researched areas.

Faliz Kunuorogue (2016) provided an overview of the literature on return migration, focusing on traditional immigrants motivated by "pull" factors such as economic or educational opportunities. The paper examined various models and theories, discussing their strengths and weaknesses in explaining the causes and consequences of remigration experiences.

K.C. Zacharich and P.R. Gopinathan Nair (2013) studied return emigrants in Kerala, addressing rehabilitation problems and development potential. Reasons for return included the expiration of contracts or job terminations. Additionally, challenging working conditions in Gulf countries prompted over a fifth of return emigrants to come back.

Irudaya Rajan (2022) explored distress return migration amid COVID-19, particularly among emigrants from Kerala, India. COVID-19 led to job losses, decreasing wages, inadequate social protection, xenophobia, and overall uncertainty, resulting in large-scale return migration. This raised questions about the voluntary nature of return, reintegration challenges, and the sustainability of re-embedding in the home country.

Anja Wiesbrock (2004) discussed return migration as a tool for economic development in China and India, focusing on highly skilled individuals. The paper emphasized that return migration can benefit sending and receiving countries, as well as the individuals involved, if supported by appropriate policies and environments. It provided an overview of policy frameworks for return and circular migration in China and India and analyzed the role of return migrants in the economic development of these countries, considering personal characteristics and migration reasons.

Palais Wilson (2018) highlighted the importance of protecting the human rights of migrants in the context of return. The rights of migrants, particularly those without legal permission to stay in their host countries, must be safeguarded. States have the authority to regulate the entry and exit of non-nationals but should always do so while respecting human rights obligations.

Dilip Saika (2008) conducted a case study in Thiruvananthapuram, Kerala, analyzing the economic conditions of migrant workers. The study focused on aspects like savings, income, consumption patterns, and the nature of work before and after migration. It found that the saving and investment habits of migrant workers were generally poor.

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Yadvender Singh (2016) discussed the role of migrant workers in India, emphasizing the push and pull factors driving migration. Urbanization was identified as a significant aspect of modernization, with studies indicating that small cultivators and landless individuals migrated to urban areas for employment. This report begins by providing an overview of contemporary trends in international migration, specifically intercontinental migration within the geographical region. It then delves into the implications of such migrations on domestic labor markets, the effects of migrant remittances, and the phenomenon of brain drain. The return of migrants is addressed in a separate section

5. Data analysis and interpretations

The data collected from Kavanur Panchayath provides valuable insights into various aspects of the respondent population. Gender distribution reveals a significant majority of male respondents, indicating potential gender disparities in participation. Age distribution reflects a diverse range, with the majority falling within the 45-54 age bracket. Marital status predominantly comprises married individuals, emphasizing its relevance in demographic analysis. Education levels vary among respondents, with notable proportions having completed primary or secondary education.

5.Data analysis and interpretations

Table 5.1: Gender distribution table of the respondent

Sl. No	Gender	No of respondent	Percentage
1	Male	23	76.67
2	Female	7	23.33
3	Total	30	100

Source: Primary data collected from Kavanur Panchayath by using standard questionnaire on 1/2024

In the above table 5.1 show that the gender distribution of the respondents. The provided table presents data on the gender distribution of respondents. It shows that the majority, comprising 76.67%, are male, while females constitute 23.33% of the respondents. In total, there are 30 respondents included in the survey. This data highlights a significant gender disparity in the respondent pool, with males being disproportionately represented compared to females. Such an observation could have implications for the interpretation and generalizability of any findings derived from this sample, emphasizing the importance of considering gender diversity in research and analysis.

Table 5.2: Age distribution Summary of the respondents

Sl.No	Age group	No of respondent	Percentage
1	25-34	1	3.33
2	35-44	7	23.33
3	45-54	13	43.33
4	55-64	8	26.68
5	65 or older	1	3.33
6	Total	30	100

In the above table 5.2 show that the "Age Distribution Summary" The data represents the distribution of respondents across different age groups. The majority fall within the 45-54 age range, comprising 43.33 Percentage of the total, followed by the 35-44 age group at 23.33 Percentage. Those aged 55-64 constitute 26.68 Percentage, while the 25-34 and 65 or older categories each represent 3.33 Percentage. In summary, the dataset reflects a diverse age distribution, with a concentration in the middle-aged range.

Figure 5.1: Marital Status Distribution Summary of the respondents
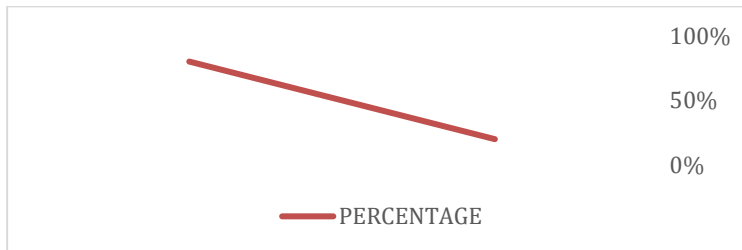
100%

50%

0%

PERCENTAGE

In the above figure 5.1 show that the "Marital Status Distribution Summary" The presented table outlines the marital status distribution among 30 respondents. A significant majority, comprising 80 Percentage of the surveyed individuals, are married, while the remaining 20 Percentage identify as unmarried. This data highlights the predominance of married individuals within the sample. Understanding marital

status is crucial for comprehensive demographic analysis, as it can influence various aspects of life and behaviour. In summary, the majority of respondents are married, emphasizing the relevance of marital status in the context of this study.

Table 5.3: Education Level Distribution Summary of the respondents

Sl. No	Education level	No of respondent	Percentage
1	Primary school	10	33.33
2	Secondary school	10	33.33
3	Bachelor's degree	7	23.33
4	Post-graduate	3	10.01
5	Total	30	100

Source: Primary data collected from Kavanur Panchayath by using standard questionnaire on 1/2024

In the above table 5.3 show that the "Education Level Distribution Summary" The table provides insights into the education levels of 30 respondents. A third each have completed primary or secondary school, contributing 33.33 Percentage each. Bachelor's degree holders constitute 23.33 Percentage, while post-graduates make up 10.01 Percentage. This distribution reflects a varied educational background within the sample. Understanding the education levels of respondents is crucial for contextualizing their perspectives and potential contributions to research or surveys. In summary, the data highlights the diverse educational profiles present among the surveyed population.

Fique 5.2: Employment intentions summary of the respondents
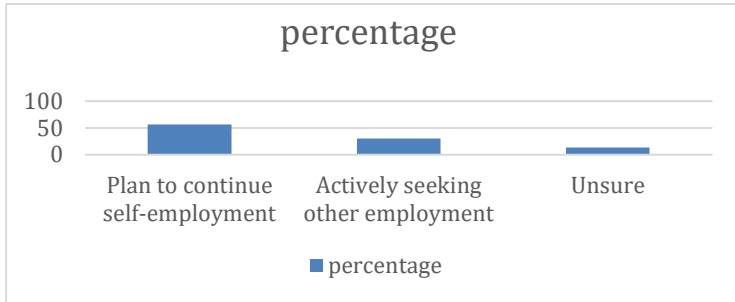
Source: Primary data collected from Kavanur Panchayath by using standard questionnaire on1/2024

In the above figure 5.2 show that the "Employment Status Summary" The table outlines the employment intentions of 30 respondents. A significant majority, constituting 56.70 Percentage, express the intention to continue with self-employment. Meanwhile, 30 Percentage are actively seeking other employment opportunities, and 13.30 Percentage are unsure about their future employment plans. This data suggests a diversity of employment aspirations within the sample, with a notable inclination towards self-employment. Understanding respondents' intentions is crucial for gauging the dynamics of the job market and individual career trajectories.

Table 5.4: Rea*son for Return Summary* of the respondents

Sl. No	Reason for return	No of respondent	Percentage
1	Low salary	14	46.67
2	Health conditions	11	36.67
3	Job opportunities	2	6.67
4	Education	1	3.33
5	Family reasons	4	13.33
6	Retirement	3	10
7	Total	30	100

The "Reasons for Return Summary" The table 5.4 delineates reasons for respondents' returns, with various factors contributing to their decisions. Notably, 46.67 Percentage cite low salary, indicating financial considerations. Health conditions are a significant factor at 36.67 Percentage, underlining the impact of well-being on relocation. Job opportunities (6.67 Percentage), education (3.33 Percentage), family reasons (13.33 Percentage), and retirement (10.00 Percentage) also play roles. The data reveals a multifaceted landscape of return motives, emphasizing the importance of considering diverse factors influencing individuals' choices to return.

**Table 5.5: Self - employed work summary of the respondents**

Sl. No	Type of work or service	No of respondent	Percentage
1	Service industry	9	30
2	Agriculture or farming	9	30
3	Construction or trade	6	20
4	Creative or professional services	3	10
5	Retail	2	6.7
6	Other	1	3.3
7	Total	30	100

Source: Primary data collected from Kavanur Panchayath by using standard questionnaire on 1/2024

In the above table 5.5 show that the "Self-Employed Services Summary" The table depicts the diversity in the types of work or services among 30 respondents. Thirty percent are engaged in the service industry and an equal percentage in agriculture or farming. Construction or trade accounts for 20 Percentage, while creative or professional services represent 10 Percentage. Retail constitutes 6.70 Percentage, and 3.30 Percentage falls

under the category of "Other." This data underscores the varied occupational landscape within the sample, reflecting a broad range of employment sectors. Understanding these distributions aids in comprehending the economic diversity of the surveyed population.

Figure 5.3: Distribution of Monthly Income Ranges among Respondents
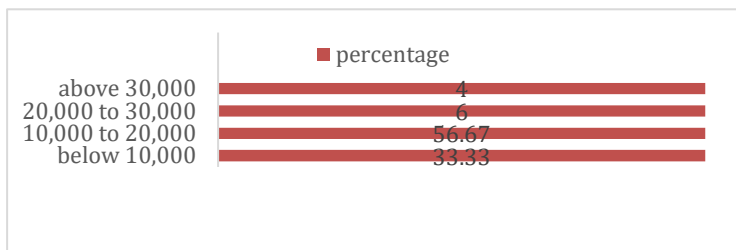
Source: Primary data collected from KavanurPanchayath by using standard questionnaire on 1/2024

The figure 5.3 illustrates the distribution of monthly income among 30 respondents. The majority (56.67 Percentage) falls within the 10,000 to 20,000 range, while 33.33 Percentage have an income below 10,000. A smaller percentage (6 Percentage) earns between 20,000 and 30,000, and 4 Percentage have an income above 30,000. This data indicates a varied income distribution, highlighting the economic diversity within the surveyed population and emphasizing the prevalence of incomes in the 10,000 to 20,000 range. Figure 4.9: "Distribution of Monthly Income Ranges among Respondents.

Table 5.6: Impact of exchange rate on financial situation summary of the respondents

Sl. No	Impact on financial situation	No of respondent	Percentage
1	No significant impact	28	93.3
2	Positive impact	2	6.7
3	Total	30	100

Source: Primary data collected from KavanurPanchayath by using standard questionnaire on 1/2024

The table 5.6 "Impact on Financial Situation" illustrates respondents' perceptions of a particular factor's influence on their finances. A significant majority, 93.3 Percentage, noted no significant impact, while a minority, 6.7 Percentage, reported a positive effect. This data underscores varying perspectives on the factor's financial implications. While most respondents didn't perceive notable changes, a small portion experienced positive outcomes Understanding these perceptions provides valuable insights into individuals' financial priorities and how they navigate economic circumstances.

Table 5.7: Self-Employment Business Operating Structure Overview of the respondents

Sl. No	Self -employment arrangement	No of respondent	Percentage
1	Alone	14	46.67
2	With family members	13	43.33
3	With hired employee-s	3	10
4	Total	30	100

Source: Primary data collected from KavanurPanchayath by using standard questionnaire on 1/2024

The table 5.7 depicts the self-employment arrangements of respondents, categorized into working alone, with family members, or with hired employees. Nearly half, 46.67 Percentage, work alone, while 43.33 Percentage collaborate with family members. Only 10.00 Percentage have hired employees. This distribution highlights a significant reliance on family support in self-employment endeavors, with a smaller portion opting for solo ventures or employing others. Understanding these arrangements provides insights into collaborative dynamics and resource utilization in self-employment

4.3 Correlation and Regression

Correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they move oppositely. A zero correlation ($r = 0$) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analysing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation to find relationship between Age of the household and Education of the Household.

Age of the Household	education

4	2
3	1
4	1
3	3
2	2
4	2
3	1
1	4
4	1
5	1
4	2
3	3
2	3
4	2
3	1
4	1
3	3
4	1
3	1
2	2
3	4
2	2
3	2
3	2
3	3
3	4
3	3
3	2
3	3

4	2
4	2

Correlation Coefficient is **-0.49570894**

Considering the variables are age of the household and education level of the household, a correlation coefficient of -0.49570894 suggests moderate negative correlation between two variables. As one variable changes, there is a tendency for the other variable to change in the opposite direction.

Interpreting this correlation in the context of these variables:

●The absolute value of the correlation coefficient indicates the strength of the relationship. In this case, the absolute value of -0.49570894 is less than 0.7, suggesting a moderate strength of correlation.

● The value is -0.49570894, which is closer to -0.5, suggesting a moderate negative correlation. This means that as one variable increases, the other tends to decrease, and vice versa, but the relationship is not extremely strong.

Overall, correlation coefficient of -0.49570894 indicates a moderate negative correlation between the age of the household and the education level of the household, suggesting a tendency for these variables to move in opposite directions.
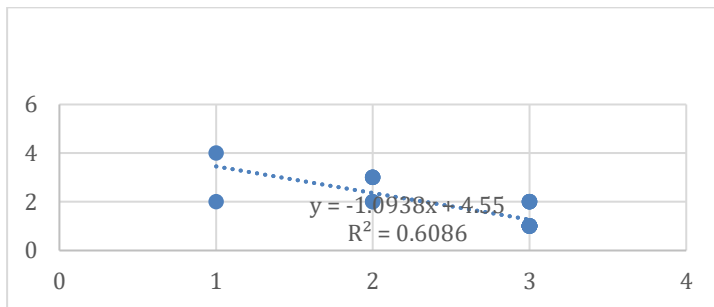
Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta 0+\beta 1\times x+\epsilon$, where $0\beta 0$ is the

intercept, $1\beta1$ is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of y. Simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Regression to find the relationship between the Ration card and House type

Ration card	House type
3	1
3	1
2	3
3	2
3	1
3	1
3	1
3	2
2	3
3	1
3	2
2	3
3	1
3	2
3	1
1	4
3	1
3	2
3	1

2	3
3	1
1	2
2	2
2	2
3	1
3	1
3	1
3	1
3	1
3	1
3	1

If y represents the house type of the family (dependent variable) and x represents the ration card of the family (independent variable), the equation can be rewritten as:

house type of the family= -1.0938×Ration card of the family+4.55

In this context: The coefficient -1.0938

R square value of 0.6086

to predict the type of household based on whether they have a ration card or not. With an R-squared value of 0.6086, it suggests that about 60.86% of the variability in the type of household (dependent variable) can be explained by whether or not they have a ration card (independent variable). This indicates a moderate level of predictive power in your model, but there are still other factors beyond having a ration card that influence the type of household. Further analysis or inclusion of additional variables may help improve the model's accuracy.

The regression equation ($y = -1.0938x + 4.55$) suggests that there is a linear relationship between the independent variable x and the dependent variable y . In this equation:

● The coefficient of (x) is -1.0938, indicating that for every one unit increase in (x) , (y) decreases by approximately 1.0938 units.

● The intercept term is 4.55, representing the value of y when x is equal to 0.

The analysis revealed a moderate negative correlation (-0.4957) between the age and education level of households, suggesting that as one variable increases, the other tends to decrease. In contrast, regression analysis indicated a predictive model for household type based on the possession of a ration card, with an R-squared value of 0.6086, suggesting that 60.86% of the variability in household type can be explained by ration card possession. The regression equation ($-1.0938x + 4.55$) suggests that for each unit increase in ration card possession, the household type decreases by approximately 1.0938 units.

Overall, these analyses offer valuable insights into the relationships and predictive capabilities within the dataset.

6 Findings, Suggestions and Conclusion.

6.1 Findings.

Gender distributions reveal a substantial male majority at 76.67%, emphasizing the need for gender-inclusive approaches in support initiatives. The age distribution shows a significant presence of middle-aged individuals (45-54 age group at 43.33%), impacting reintegration experiences. Education levels vary, from basic to post-graduate qualifications, showcasing diverse skills among returnees. A notable 56.70% express a desire for self-employment, reflecting autonomy in economic pursuits. Financially, 93.3% report no significant impact post-return, influencing entrepreneurial decisions. Self-employment durations vary, indicating a mix of recent entrants and established businesses among returnees, highlighting the dynamic entrepreneurial landscape.

6.2 Suggestions

To comprehensively understand the impacts of Gulf expatriate return migration on Kerala, conduct an in-depth analysis encompassing various sectors beyond agriculture. Explore how their skills, experiences, and financial contributions ripple across different domains, shedding light on broader economic and social changes. Delve into the multifaceted contributions of returning expatriates, including their cultural enrichment of Kerala's social fabric, shaping the state's identity and community dynamics. Additionally, investigate the potential of expatriates in enhancing Kerala's tourism industry, leveraging

their experiences and perspectives to attract tourists and boost the tourism economy. Employ holistic research approaches to unveil cultural exchange and tourism enrichment, informing policy decisions and strategic planning for harnessing positive aspects of return migration while addressing associated challenges.

6.3 Conclusion

The comprehensive data analysis provides a nuanced understanding of Gulf returnees' self-employment in Kerala, delving into their demographic profiles, employment aspirations, financial stability, encountered challenges, and underlying reasons for repatriation. This thorough examination underscores the critical importance of comprehending the intricate dynamics of return migration and its far-reaching implications for both the economic landscape and social fabric of the state. Such insights are invaluable for policymakers, stakeholders, and communities alike, as they navigate the complexities of integrating returnees into various sectors and harnessing their potential contributions towards sustainable development and inclusive growth in Kerala.

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RETIREMENT FINANCIAL PLANNING BEHAVIOUR:AN INVESTIGATION AMONG RETIREES.

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Abstract

Retirement Financial Planning Behavior (RFPB) is crucial for individuals navigating their post-employment years amidst shifting responsibilities from institutions to personal prerogatives. This study investigates the multifaceted dimensions of RFPB, exploring psychological, economic, social, and technological influences. Despite its importance, a significant gap persists in RFPB awareness, particularly in India, leaving retirees financially vulnerable. Through primary data collection and secondary research, this study identifies challenges, behavioral factors, and levels of financial literacy, shedding light on the complexities of retirement preparedness. Methodological constraints include potential respondent reticence and time limitations. The chapter scheme outlines an introductory chapter, literature review, study profile, data analysis, and interpretation, culminating in findings, suggestions, and implications for future research and policy interventions. The findings reveal pervasive psychological biases, economic disparities, and social influences shaping RFPB. Furthermore, the study underscores the critical role of financial literacy in mitigating retirement planning challenges. Suggestions include targeted educational initiatives and policy interventions to enhance RFPB awareness and accessibility. By addressing these issues, the study aims to contribute to the ongoing discourse on retirement planning, providing guidance to individuals, policymakers, and financial institutions for better-prepared retirement futures. Ultimately, the study seeks to foster financial security, autonomy, dignity, and societal prosperity in old age, underscoring the importance of proactive retirement planning in ensuring a fulfilling and dignified post-employment life journey.

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1. Introduction

Retirement Financial Planning Behavior is more than just a financial obligation; it's a fundamental aspect of an individual's overall life journey. With shifting dynamics in life expectancy and transformations in traditional pension systems, the responsibility for retirement funding is increasingly falling on individuals rather than institutions. Consequently, understanding and effectively navigating retirement financial planning behavior have become crucial for ensuring a secure and fulfilling post-employment life. This introductory discourse aims to explore the intricacies of retirement planning behavior, delving into its underlying motivations, key determinants, and broader implications for individuals, families, and society. Retirement planning behavior encompasses a wide spectrum of actions, including setting financial goals, implementing saving strategies, making investment decisions, and considering post-retirement lifestyles. At its core, it reflects individuals' attitudes, beliefs, and actions towards preparing for their financial needs during retirement. Understanding these behaviors necessitates an interdisciplinary approach, drawing insights from psychology, economics, sociology, and finance. A fundamental aspect of retirement planning behavior lies in its psychological dimension. Human decision-making is influenced by various cognitive biases and psychological tendencies, such as present bias, loss aversion, and optimism bias, which can lead to under-saving or suboptimal investment choices for retirement. Additionally, individuals' risk preferences, time horizons, and

perceptions of retirement significantly shape their planning behavior.

Economic factors also play a pivotal role in retirement planning behavior. Income levels, employment stability, access to retirement plans, and government policies all affect individuals' capacity and inclination to save and invest for retirement. Macro-economic trends, including inflation rates, interest rates, and stock market performance, further impact retirement planning strategies. Social and demographic factors contribute to shaping retirement planning behavior as well. Cultural norms, family structures, and social support systems influence expectations about retirement and willingness to engage in proactive planning. Furthermore, demographic trends like changes in life expectancy and household composition have implications for retirement saving and spending patterns. Technological advancements and financial innovations have transformed retirement planning behavior, providing individuals with convenient tools and resources for budgeting, saving, and investing. Digital platforms, robe-advisors, and retirement planning calculators empower individuals to make more informed decisions about their financial futures. The consequences of retirement planning behavior extend beyond individual households to broader societal outcomes. Inadequate retirement savings can strain social safety nets and government pension systems, while effective planning can foster economic resilience and promote intergenerational wealth transfer.

2. Statement of the Problem

Despite the unequivocal significance of retirement financial planning, a palpable gap exists, particularly in the Indian

landscape. A significant portion of the population grapples with an alarming lack of awareness and understanding regarding the intricacies of retirement planning. This financial unpreparedness leaves individuals vulnerable to a myriad of challenges, including financial instability and dependency on external support during their retirement years. The prevailing mind set of relying on social security or government pensions, often insufficient to maintain a comfortable standard of living, exacerbates the issue. Furthermore, the absence of a comprehensive pension system for informal sector workers compounds the challenge, leaving them with limited options for accumulating a substantial retirement corpus. Immediate needs, such as healthcare, education, and housing, coupled with the responsibility of supporting family members, takes precedence, limiting the ability to save for the distant future. Retirement planning behavior is a critical aspect of individuals' financial well-being and societal stability, yet it presents several key challenges across psychological, economic, social, and systemic dimensions. Psychological barriers, such as present bias, loss aversion, and procrastination, impede individuals' ability to engage in proactive retirement planning.

3. Objectives/Methodology and data sources

- Identify the multifaceted problems individuals encounter in the process of retirement planning.
- Illuminate the intricate behavioral factors that influence decision-making in the realm of retirement preparedness.

- Gauge the prevailing level of financial literacy among individuals, recognizing its pivotal role in shaping effective retirement planning.

To address these objectives comprehensively, a meticulous methodology was adopted. Primary data, considered the heartbeat of this research, was collected from 30 respondents in Malappuram. The structured questionnaire, a robust instrument for data collection, was meticulously designed to capture the diverse nuances of retirement financial planning behavior. For data analysis, correlation and regression techniques were utilized. Tables, diagrams, and simple percentages were also employed for analysis purposes in this study.

4. Review of Literature

The literature review explores diverse scholarly works on retirement planning, spanning financial literacy, behavioral economics, and demographic influences. Authors such as Lusardi, Beshears, and others shed light on the importance of financial literacy, behavioral factors, and gender dynamics in shaping retirement preparedness, laying the groundwork for further analysis.

Lusardia. (2009): In the United States, it was observed that individuals who engaged in retirement planning experienced greater wealth post-retirement compared to those who did not engage in financial planning. This not only impacted individual wealth but also influenced the overall performance of financial markets. The study underscored the connection between financial literacy and retirement planning, revealing that

increased financial literacy correlated with improved retirement planning, especially among the low-income demographic.

***Beshears** (2011):* The paper offers a comprehensive overview of the U.S. public sector pension landscape, distinguishing between Defined Benefit (DB) and Defined Contribution (DC) Plans. The complexity of these plans is discussed, and insights from behavioral economics research are applied to employees' choices in retirement plans. The limitation of choices in public sector DC plans aims to eliminate unfavorable savings outcomes due to financial illiteracy and immediate consumption gratification. The authors call for further research to comprehend the intricacies of pension plan design.

***Bipilkumar** (2012):* Applying the theory of planned behavior, this study delves into the consumption of environmentally sustainable products. The author explores the strong association between consumers' attitudes towards sustainable products and their buying behavior. By utilizing the Theory of Planned Behavior framework, the study evaluates the link between environmental knowledge, attitudes, and the purchase intention of sustainable products, revealing significant determinants in this context.

***M Krishna moorthi** (2012):* Examining the influence of demographic and psychological factors on retirement planning behavior, the authors consider age, education, and income as demographic factors. Psychological factors, including goal clarity, potential conflicts in retirement planning, and attitude towards retirement, are also analyzed. The research, involving 300 respondents aged 25 to 55 years, emphasizes the significant

impact of demographic and psychological factors on retirement behavior.

Pant gargi (2013): Focused on female faculty members at Banasthali University, this study divides participants into married and unmarried categories. It concludes that married women exhibit higher awareness and engagement in retirement planning compared to their unmarried counterparts. Additionally, it notes that married women are moderate risk bearers, preferring less risky investment avenues, catering to different investor profiles.

Kadam and Thakar *(2014):* Addressing the prime asset of knowledge-based IT companies - human resources, the study conducted in Pune explores the reasons behind attrition. With employees averaging 26 years of age and 2 to 4 years of experience, dissatisfaction with salary and career advancement emerges as a prime driver for leaving jobs. Non-monetary benefits also play a crucial role, highlighting the multifaceted reasons behind attrition in the IT industry.

Fatemeh Kimiyaghalam *(2017):* Motivated by a report from the Employees Provident Fund in Malaysia, the study investigates financial retirement planning. With a focus on two behavioral theories, 'planned behavior' and 'time perspective theory,' the research, involving 900 respondents, establishes a direct relationship between individuals' planned behavior, future orientation, and retirement planning behavior.

Nurul faezah mohd talib*(2017):* Conducted among employees of the Employees Provident Fund (EPF) in Malaysia, the research considers 'self-awareness,' 'organization role,' and

'environmental factors' as independent variables impacting 'retirement planning behavior.' Despite awareness of financial needs post-retirement, a notable lack of financial literacy is observed, with 71 percent of respondents not following any retirement plan.

Yao,hanna and Montalto (2003): Policymakers' attention to retirement planning is emphasized due to the significant influence of older individuals on general decisions. Retirement planning remains a persistent concern, reflecting its ongoing importance in policymaking.

Joo and Grable (2005): Factors such as population aging, volatile financial markets, the baby boomer generation, and diverse retirement plans contribute to the heightened significance of retirement status.

The synthesis of diverse literature on retirement planning underscores the crucial role of financial literacy, demographic factors, and pension system complexities. Understanding these interrelated dynamics informs targeted interventions vital for enhancing retirement preparedness amidst evolving societal and economic landscapes.

5. Data analysis and Interpretation.

This introduction presents findings from a survey on financial literacy and retirement attitudes among diverse respondents. It emphasizes the critical need for enhanced financial education to support informed decision-making in retirement planning. The analysis aims to uncover the relationship between financial literacy and retirement behaviors.

Data analysis and Interpretation

Figure:5.1 Income wise distribution
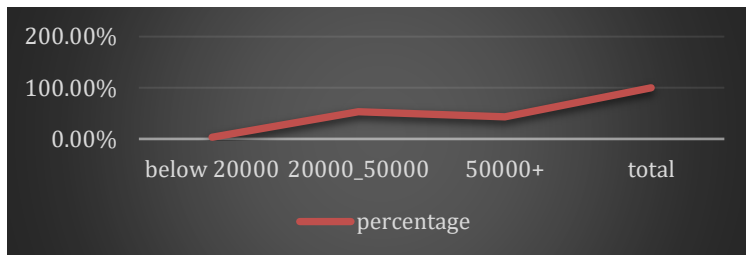
Source: Data collected from primary survey using a standard questionnaire.

From the data, it's evident that a majority (53.33%) of respondents have a monthly income ranging between 20,000 and 50,000. About 43.33% earn 50,000 or above monthly, while only 3.33% earn below 20,000. This suggests a relatively balanced distribution of income among respondents, with a significant portion falling into the middle-income bracket.

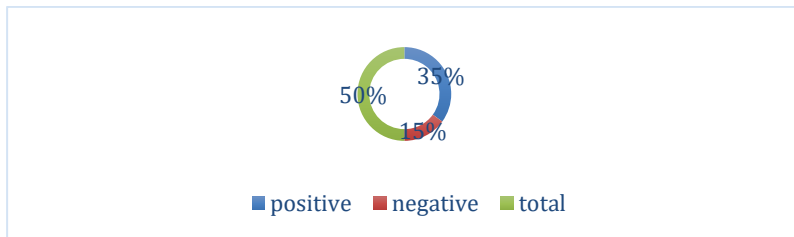**Figure:5.2 Educational status among the respondents**
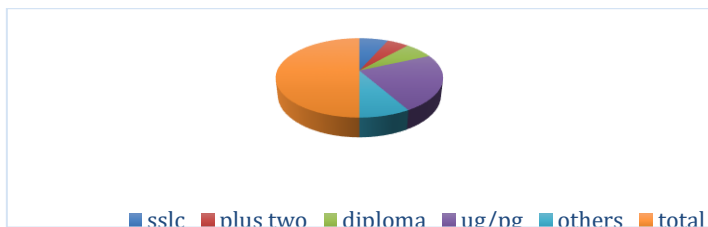
Source: Data collected from primary survey using a standard questionnaire.

The data indicates a diverse educational background among respondents. The majority (46.67%) have completed undergraduate (UG) or postgraduate (PG) education, followed by 13.33% with SSLC and another 13.33% with diploma

qualifications. Plus two accounts for 10% of respondents, while 16.67% fall into the "others" category. This suggests a varied educational profile among the surveyed individuals.

Figure:5.3 Investment awareness among the respondents

Source: Data collected from primary survey using a standard   questionnaire.

The data illustrates a relatively high level of investment awareness among respondents, with 70% expressing a positive attitude towards investment. Conversely, 30% hold a negative view. This indicates a significant portion of respondents are knowledgeable and inclined towards investing, while a notable minority are not. It underscores the importance of promoting investment literacy to improve financial decision-making across the board.

Figure:5.4 Retirement awareness among the respondents

Source: Data collected from primary survey using a standard   questionnaire.

From the data provided, it's evident that there is a moderate level of retirement awareness among respondents, with 56.66% expressing a positive attitude towards retirement planning and 43.33% indicating a negative sentiment. While a majority have a positive outlook, the significant minority with negative perceptions suggests there may be areas for improvement in retirement education and planning initiatives to ensure broader preparedness across the population.
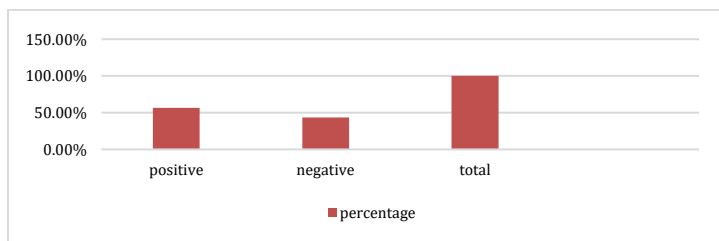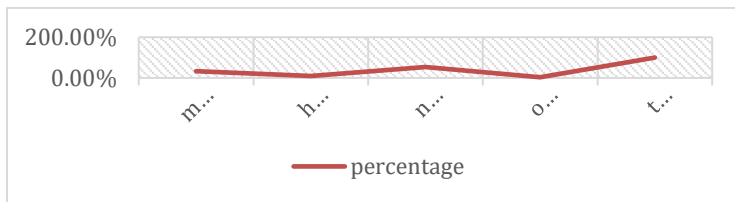
Figure:5.5 Investment pattern among the respondents

Source: Data collected from primary surveyusing a standard questionnaire.

The data Indicates that a majority of respondents (53.33%) do not invest, while 33.33% opt for monthly or quarterly investments. Only a small proportion (10%) prefer half-yearly or annual investments, and 3.33% have alternative patterns. The significant portion not investing suggests a potential need for financial literacy initiatives to encourage investment, diversification, and long-term wealth accumulation strategies among respondents.

Figure:5.6 Saving pattern among the respondents
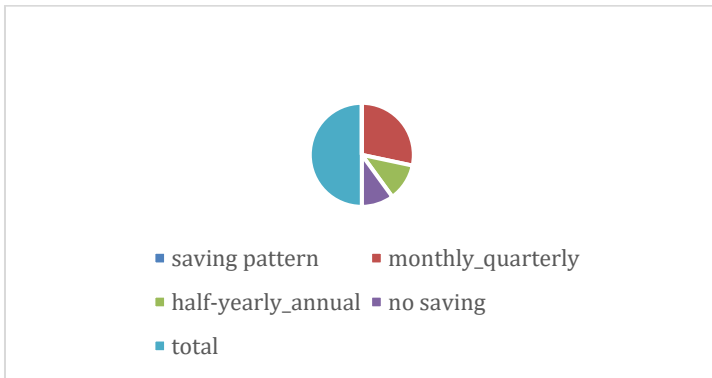
Source: Data collected from primary survey using a standard questionnaire.

From the data provided, it's evident that the majority of respondents, comprising 56.66%, prefer saving on a monthly or quarterly basis. About 23.33% opt for half-yearly or annual saving patterns. Interestingly, 20% of respondents do not engage in any saving activities. This analysis highlights diverse saving habits among the surveyed population, with a significant preference for more frequent saving intervals.

Figure:5.7 Saving objective among the respondents

The data indicates varied saving objectives among respondents. Thirty percent aim to save for buying a house, while 36.66% prioritize saving for education. Only 6.66% are saving for marriage, while 26.66% have other saving goals. This distribution suggests a diverse range of financial priorities among respondents, with a notable emphasis on housing and education as primary saving objectives.
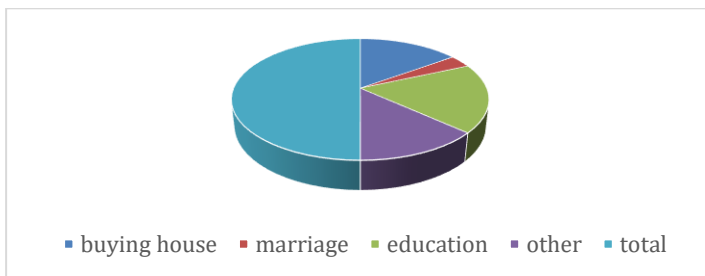
Figure:5.8 Retirement planning behavior among the respondents
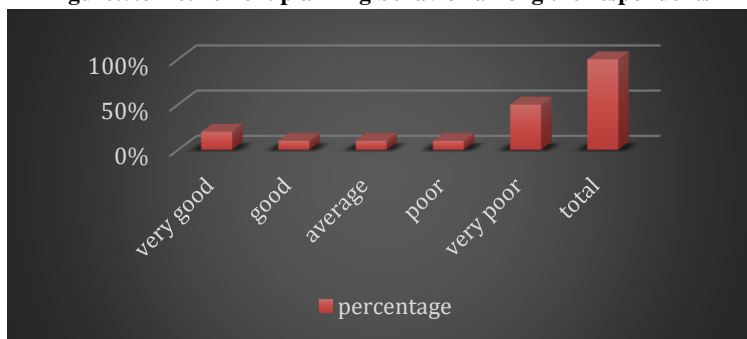
Source: Data collected from primary survey using a standard questionnaire.

The data reveals a concerning trend in retirement planning behaviour among respondents, with 50% rating their planning as "very poor." Additionally, 10% each consider their planning as poor, average, and good, while only 20% rate their planning as "very good." This suggests a significant portion of respondents may be inadequately prepared for retirement, highlighting the need for increased financial education and planning support.

Figure:5.9 Future time perspective among the respondents
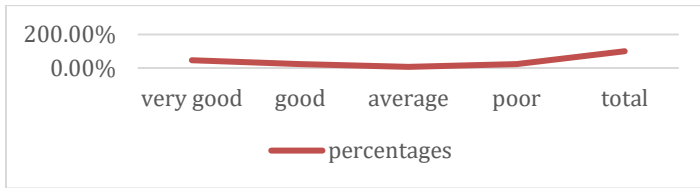
From the data, 46.66% of respondents have a "very good" future time perspective, while 23.33% have a "good" perspective. However, 23.33% perceive their future perspective as "poor." Only 6.66% rate it as "average." Overall, there is a notable positive outlook with a majority rating their future as "very good" or "good," despite a significant minority expressing pessimism with a "poor" perspective.

Figure:5.10 Risk tolerance among the respondents
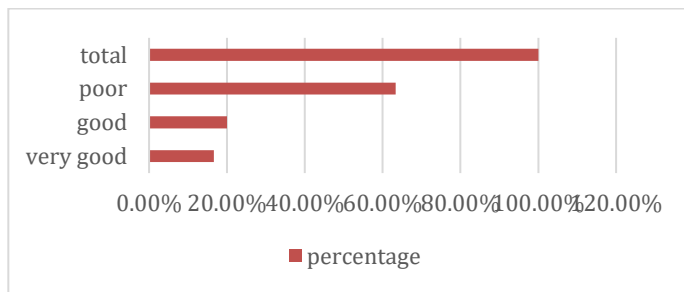
Source: Data collected from primary survey using a standard questionnaire.

The data Indicates a stark contrast in risk tolerance among respondents. A significant majority, 63.33%, perceive their risk tolerance as "poor," while only 20% rate it as "good" and 16.66% as "very good." This suggests a prevailing conservative approach to risk among the respondents, with a notable

minority expressing confidence in their risk tolerance. Overall, caution seems to dominate the respondents' risk perception.

5.2 Simple Correlation and Regression

Simple Correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation (r > 0) indicates both variables move in the same direction, while a negative correlation (r < 0) suggests they move oppositely. A zero correlation (r = 0) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analysing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Risk tolerance	educational status
2	2
3	5
1	5
2	5
3	1
2	5
3	5
4	1
3	4
2	1

3	5
2	1
3	5
2	4
2	5
2	3
4	5
2	3
4	3
2	4
2	5
2	5
4	4
2	3
2	2
2	5
2	5
4	5
2	2
1	3

The correlation coefficient of 0.032299 indicates a very weak positive correlation between risk tolerance and educational status. This value suggests that there is almost no linear relationship between the two variables in the dataset provided. A correlation coefficient close to zero implies that there is little to no linear association between the variables. In this case, it means that knowing someone's risk tolerance doesn't give much information about their educational status, and vice versa, based on the data available.

It's important to note that correlation does not imply causation. Even though there is a weak positive correlation between risk tolerance and educational status, it doesn't mean that one variable causes the other to change. Other factors not accounted for in this analysis could be influencing both variables independently.

Simple linear regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta 0+\beta 1\times x+\epsilon$, where $0\beta 0$ is the intercept, $1\beta 1$ is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of y. Simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Risk tolerance	educational status
2	2
3	5
1	5
2	5
3	1
2	5
3	5
4	1
3	4

2	1
3	5
2	1
3	5
2	4
2	5
2	3
4	5
2	3
4	3
2	4
2	5
2	5
4	4
2	3
2	2
2	5
2	5
4	5
2	2
1	3

$y = 0.0559x + 3.5621$

$R^2 = 0.001$

The equation provided seems to be a linear regression model:

$$y = 0.0559x + 3.5621$$

Where:

- y represents the predicted educational status.

- x represents the risk tolerance of government employees.

And $R^2 = 0.001$ is the coefficient of determination, which indicates the proportion of the variance in the dependent variable (educational status) that is predictable from the independent variable (risk tolerance) in the model.

Here's an analysis of the equation and R^2:

Intercept: This represents the predicted educational status when the risk tolerance x is zero. However, it might not have a practical interpretation in this context since risk tolerance is unlikely to be zero.

Slope 0.0559: This indicates the change in the predicted educational status for a one-unit increase in risk tolerance. In this case, for every unit increase in risk tolerance, the predicted educational status increases by 0.0559 units.

In summary, the model suggests a very weak relationship between risk tolerance and educational status among government employees, and the model has limited predictive power for explaining educational status based on risk tolerance alone. Further investigation into other potential factors influencing educational status would be warranted. The analysis reveals disparities in financial literacy and retirement planning behaviors among respondents, emphasizing the need

for comprehensive financial education initiatives. Addressing knowledge gaps and demographic disparities is crucial for fostering inclusive financial literacy and ensuring equitable access to resources, promoting long-term financial resilience and prosperity.

6.Findings, Suggestions and Conclusion

6.1 Findings

The findings reveal a balanced income distribution among respondents, with a significant portion falling into the middle-income bracket. Educational diversity is evident, with many having completed undergraduate or postgraduate education. While a majority exhibit a positive attitude towards investment and retirement planning, a notable minority expresses negative sentiments, indicating room for improvement in financial education. Investment and saving patterns show potential gaps, with a significant proportion not investing or saving regularly. Retirement planning behavior is rated poorly by half of the respondents, suggesting a lack of preparedness for retirement. Most respondents perceive their risk tolerance as poor, indicating a conservative approach to financial risk. Although the majority have a positive attitude towards retirement, a minority holds negative perceptions, emphasizing the need for targeted interventions to improve retirement readiness and promote a more proactive approach to financial planning.

6.2 Suggestions

The suggestions aim to address key findings and promote financial well-being among respondents. Enhanced financial education programs should target diverse demographics to

improve financial literacy and decision-making. Tailored retirement planning strategies, considering demographic characteristics and risk tolerance, can ensure broader preparedness. Investment literacy initiatives should encourage diversification and long-term wealth accumulation. Gender disparities in financial literacy and retirement planning participation must be addressed through targeted interventions. Supporting and incentivizing regular saving and investment habits, especially among those with limited engagement, is crucial for long-term financial security. These suggestions collectively aim to empower individuals to make informed financial decisions, mitigate disparities, and foster a proactive approach to financial planning, ultimately promoting greater financial resilience and prosperity across diverse demographic groups.

6.3 Conclusion

In conclusion, addressing financial literacy and retirement preparedness among government employees necessitates tailored initiatives. economic variations, and diverse educational backgrounds underline the importance of targeted financial education. Urgent intervention is crucial to improve retirement planning behavior and foster confidence in investment decisions. Collaborative efforts between educational institutions, government agencies, and financial institutions are essential to develop comprehensive retirement planning initiatives. By promoting financial literacy, encouraging savings, and instilling a positive attitude towards retirement, government employees can be empowered to navigate financial markets effectively and achieve long-term financial security.

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INCOME AND HOUSEHOLD EXPENDITURE OF DAILY WAGE-EARNING WOMEN IN KAVANUR PANCHAYAT

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It's not your salary that make you rich, it is your spending

habits -Charles A. Jaffe

Abstract

The project titled "income and household expenditure patterns of daily wage-earning women in Kavanur Panchayat". It aims to understand their socio-economic conditions, income sources, expenditure allocation, and the resulting impacts on household welfare. By analyzing these dynamics, the study sheds light on gender inequalities, economic empowerment, and poverty alleviation strategies. The findings underscore the importance of targeted interventions addressing socio-economic disparities, healthcare accessibility, and financial literacy to enhance the well-being and livelihoods of daily wage-earning women in the community. Insights from this research contribute to a broader understanding of women's economic empowerment and offer policy recommendations to improve their financial conditions in Kerala, fostering sustainable development and improved quality of life within the community.

1. Introduction

The exploration of income and household expenditure among daily wage-earning women in Kerala's Kavanur Panchayat provides crucial insights into their socio-economic conditions and challenges. This research aims to understand their financial well-being, expenditure patterns, and income sources, shedding light on gender dynamics and inequalities within households. By analyzing how these women allocate their earnings towards essential expenditures like food, housing, education, and

healthcare, we can grasp their economic empowerment and its impact on overall household welfare. Understanding the economic landscape and income sources of daily wage-earning women allows for targeted interventions and policy recommendations to improve their financial conditions. Moreover, this study's scope encompasses various dimensions, including income disparities and expenditure patterns, which are vital for poverty alleviation efforts and community development planning. By documenting these insights, advocating for policy changes, and promoting skill enhancement and employment opportunities, we can pave the way for better economic prospects and sustainable development within the community. In summary, this research holds significant importance in fostering gender equality, empowering women economically, and catalyzing positive changes for local development and social welfare in Kavanur Panchayat, Kerala.

2. Statement/significant of the study.

The examination of income and household expenditure among daily wage-earning women in Kavanur Panchayat, Kerala, holds significant implications for economic development and social welfare initiatives. This empirical study offers a data-driven insight into the economic circumstances of these women, guiding policymakers in formulating targeted interventions to enhance economic conditions and livelihood opportunities. By understanding the sources of income, the study facilitates the development of financial inclusion strategies, ensuring access to banking services and credit facilities. Moreover, insights into household expenditures inform the design of poverty alleviation programs, focusing on crucial needs such as healthcare, education, housing, and

nutrition. Addressing income disparities underscores the importance of education and skill development initiatives for economic upliftment within the community. Additionally, the research sheds light on socio-economic empowerment, advocating for gender-sensitive policies to challenge inequalities. Understanding expenditure patterns opens avenues for community development, positively impacting infrastructure, sanitation, and public services. The findings also provide valuable data for advocacy groups, highlighting the study's role in catalyzing positive changes and promoting gender equality.

The statement of the problem delves into investigating income sources, levels, and expenditure patterns of daily wage-earning women in Kavanur Panchayat. This research aims to uncover the intricacies of income generation, identifying factors influencing economic stability, socio-economic disparities, and household well-being. By examining challenges faced by these women and analyzing income allocation to household expenses, the study aims to understand the financial impact on families and the broader community. The identified research gap underscores the need for comprehensive investigation to inform targeted policies and interventions, ultimately fostering economic empowerment and enhancing household welfare in Kavanur Panchayat.

3. **Objectives/Methodology and Dara sources.**
   - ➢ Understanding the economic conditions of daily wage-earning women.
   - ➢ Assessing the impact of daily wage work on household income.
   - ➢ Identifying patterns and trends in expenditure.

The study uses both primary and secondary data and collected 30 samples in kavanur panchayat and various reports and online sources. A detailed questionnaire was used for the interviews, and rigorous data processing techniques like coding, tabulation, and visualization were applied to present clear findings.

Primary data:

The primary data directly collected from women workers in kavanur panchayath through a snow ball method and structured questionnaire. Questions like open ended close ended and multiple-choice type have been used for the choice type have been used for the purpose for the data collection.

Secondary data: Secondary data have sourced from various reports and online media.

Data analysis techniques: Graphical method, line diagram, bar diagram

Statistical tools: Statistical tools such as correlation and regression

4. Review of Literature

This literature review provides a comprehensive exploration of the multifaceted roles, motivations, and challenges faced by women in various economic contexts. It highlights the significant contributions of scholars like Sreelekha (2005), Lalithadevi (2006), Myrdal, and Klein (2006), and Kalarani (2005) in understanding the complexities of women's economic participation. By examining factors such as extra income generation, family needs, industry demands, and personal motivations, this review offers insights into socio-economic

conditions, working environments, and policy implications for women worldwide.

Sreelekha (2005) emphasizes the crucial role of extra income for women in developing countries, particularly in alleviating poverty. She suggests that government incentives are necessary to empower women bound by tradition, highlighting the untapped potential of women aged 15 to 59 as valuable resources.

Lalithadevi (2006) highlights the dual incentive of fulfilling family needs and meeting industry demand as a significant motivator for female workers. The availability of household gadgets has lightened domestic burdens, enabling women to engage in paid employment.

Myrdal and Klein's (2006) international survey identify economic necessity and national demand as primary motivations for women's work. They also note a sense of vocation and social responsibility as factors influencing women's continued participation in the labor force.

Kalarani (2005) categorizes motivations for women's employment into monetary, social, and personal factors, with education and economic status playing significant roles. Her analysis reveals correlations between age, education, and motivation for work.

Kaur and Punia (2005) observe that economic necessity predominantly drives women to seek employment, followed by aspirations to improve economic status and utilize education. They note that many women, including widows and divorcees, work to support themselves and their families.

Rahka Sharan's (2005) survey of women workers in Kanpur city highlights issues of socio-economic status and participation in trade union activities. The study indicates dissatisfaction with working conditions and low involvement in union activities among women workers.

Mannheim (2007) discusses research on household consumption and income as measures of living standards, focusing on expenditure patterns, income distribution, and factors influencing consumption levels.

Anila Balan (2020) raises questions about women's control over household income and expenditure decisions, highlighting the importance of women's autonomy and independence within the family and society, particularly in Kerala and among marginalized groups.

5. Data analysis and Interpretation.

The demographic and socio-economic landscape of Kavanur Panchayat is unveiled through a comprehensive analysis of various aspects of its population. Gender-wise distribution reveals a sample dominated entirely by females, indicating a lack of gender diversity in the surveyed group. Marital status data showcase a mix of married individuals, widows, unmarried, and divorced respondents, painting adverse marital landscape. Educational attainment highlights a significant proportion with education below SSLC, suggesting potential educational gaps and areas for improvement. Ration card distribution reflects economic diversity, with a majority holding Above Poverty Line (APL) cards. Income allocation prioritizes family-related expenditures for the majority, while employment sectors demonstrate a mix of manual labor-intensive jobs, other sectors, and agriculture, showcasing

occupational diversity. Family dynamics, religious affiliations, and health issues offer insights into the varied experiences and challenges faced by individuals within the community. Factors such as income satisfaction, work experience, and debt burden provide nuanced perspectives on the financial well-being and resilience of the population.

Figure 5.1 Marital status of the respondents.
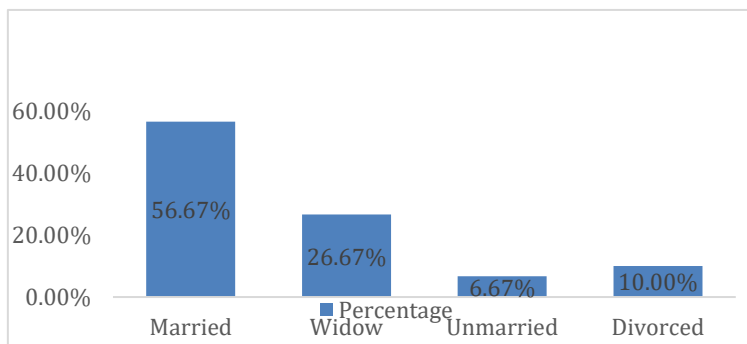
Source: Field Survey

The table displays demographic data on marital status with 30 respondents. The majority, 56.67%, are married, indicating a significant portion. Widows account for 26.67%, highlighting a notable presence. Unmarried individuals constitute 6.67%, while the divorced category makes up 10.00%. This distribution provides insights into the marital landscape among respondents, showcasing the diversity within the sample group.

Figure 5. 2: Education status of the respondents.
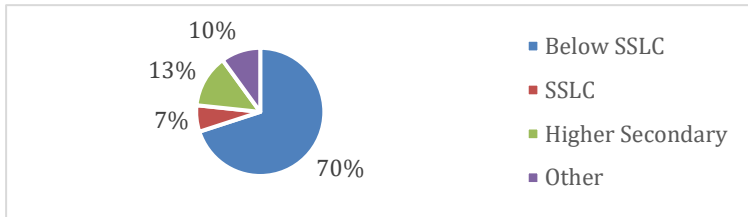
Source: Field Survey

The table presents educational levels of 30 respondents, revealing a predominant group with below SSLC education at 70.00%. SSLC and Higher Secondary categories constitute 6.67% and 13.33%, respectively. The "Other" category stands at 10.00%. This distribution underscores a notable prevalence of respondents with education below SSLC, suggesting a potential focus area for educational initiatives. The diverse educational backgrounds within the sample add nuance to understanding the respondent demographic.

Figure 5.3: Category wise distribution of the respondents.
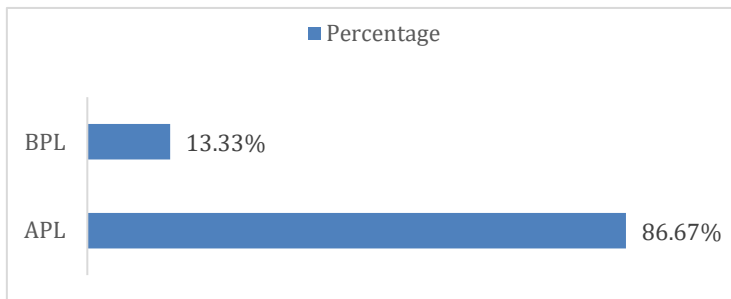
Source: Field Survey

The table illustrates the distribution of ration card types among 30 respondents. A significant majority, 86.67%, possess Above Poverty Line (APL) cards, reflecting higher socio-economic

status. Conversely, Below Poverty Line (BPL) cards are held by 13.33%, indicating a minority with a lower economic standing. This disparity in ration card types highlights economic diversity within the respondent group, shedding light on socio-economic dynamics and potential disparities in resource access.

Figure 5.4: Income allocation of the respondents.
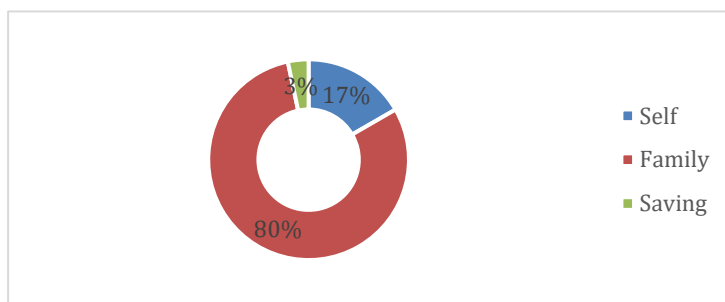
Source: field survey

The table illustrates the spending preferences of 30 respondents. A significant 80.00% prioritize family-related expenditures, emphasizing the importance of familial financial responsibilities. Meanwhile, 16.67% allocate income for personal expenses (Self), showcasing a diverse range of financial priorities within the group. A minimal 3.33% direct income towards savings, indicating a lesser focus on building financial reserves among the surveyed individuals. This distribution reflects varied approaches to income management and financial planning.

Figure 5.5: Employment sector of the respondents.
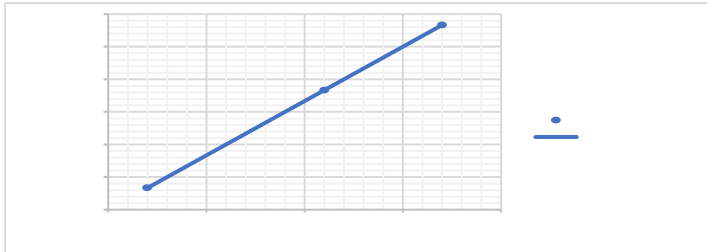
Source: field survey

The table delineates employment sectors of 30 respondents, revealing a diversified occupational landscape. The majority, 56.67%, are engaged in sectors categorized as "Other," showcasing occupational diversity. Small Scale employment accounts for 36.67%, indicating a substantial presence in smaller enterprises. Agriculture constitutes 6.67%, suggesting a minor but notable representation in the agricultural sector. This distribution underscores a mix of employment opportunities, reflecting a varied economic landscape within the surveyed population.

Table 5.1: Health issues of the respondents.

Health Issues	Number of Respondents	Percentage
Yes	18	60.00%
No	12	40.00%

Source: field survey

The table explores health issues among 30 respondents, uncovering a significant 60.00% who report facing health challenges. This majority suggests a noteworthy prevalence of health concerns within the surveyed population. Conversely, 40.00% indicate being without health issues. This distribution

emphasizes the importance of health considerations and suggests potential implications for overall well-being, calling for attention to healthcare accessibility and support within the community to address the prevalent health challenges reported by a substantial segment of respondents.

Table 5.2: Monthly expenditure of the respondents.

Sl.No	Expenditure	No. of Respondent	Percentage
1	BELOW 5000	8	26.67%
2	5000 - 10000	1	13.33%
3	10000 - 15000	2	6.67%
4	ABOVE 15000	19	63.33%

Source: Field Survey

The table outlines expenditure levels among 30 respondents, revealing diverse spending patterns. A significant 63.33% allocate funds above 15000, indicating a substantial portion with higher expenditure. The 5000-10000 bracket represents 13.33%, showcasing a smaller group with moderate spending habits. Below 5000and 10000-15000 categories constitute 26.67% and 6.67%, respectively, reflecting minorities with lower and mid-range expenditure. This distribution underscores the varied financial capacities and lifestyles within the surveyed population.

Figure 5.6: Debts and liabilities of the respondents.
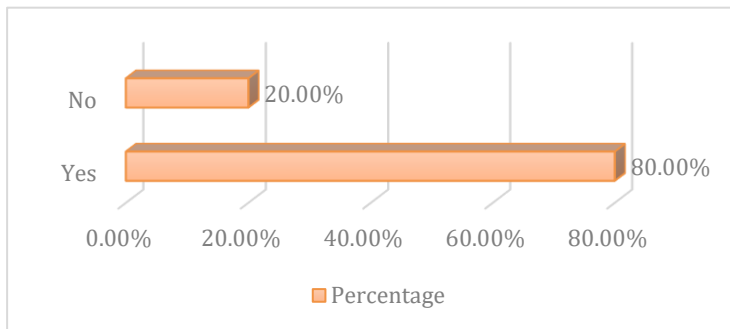
Source: field survey

The table illustrates the prevalence of debt or liability among 30 respondents, showcasing a substantial 80.00% burdened by financial obligations. This majority indicates a significant portion of the surveyed population grappling with debt-related challenges. Conversely, 20.00% report being free from debt, suggesting a minority without financial liabilities. This distribution underscores the pervasive nature of debt within the community, emphasizing the need for targeted financial assistance or education to address the prevalent financial challenges reported by the majority.

Figure 5.7: Satisfaction of income
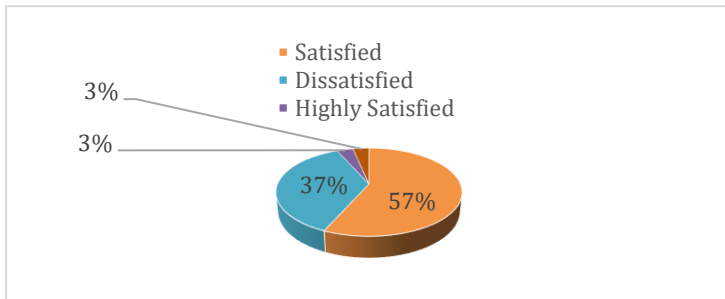
Source: Field Survey

The table gauges income satisfaction among 30 respondents, showcasing a range of sentiments. A majority, 56.67%, express satisfaction, while 36.67% are dissatisfied, revealing a notable portion facing financial discontent. A minimal 3.33% report both highly satisfied and highly dissatisfied sentiments each, indicating extreme views within the surveyed population. This distribution highlights the nuanced nature of income satisfaction, emphasising the need for targeted interventions to address the varying financial well-being perceptions among respondents.

Figure 5.8: Challenges of the respondents.
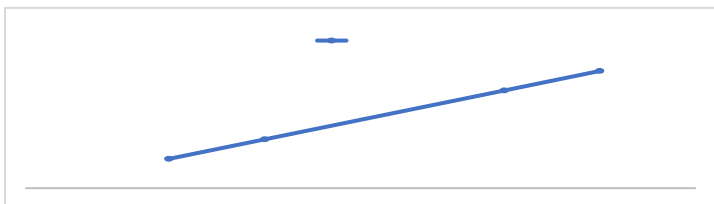
Source: Field Survey

The table highlights work-related challenges among 30 respondents, illustrating diverse concerns. A notable 40.00% face an overload of work, indicating a significant portion grappling with heavy job responsibilities. Another 33.33% encounter challenges related to extra time demands. Low wages impact 16.67%, suggesting a subset of the workforce facing financial constraints. The "Other" category at 10.00% underscores additional, varied difficulties, emphasizing the multifaceted nature of workplace issues within the surveyed community.

Simple correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation (r > 0) indicates both variables move in the same direction, while a negative correlation (r < 0) suggests they move oppositely. A zero correlation (r = 0) implies no systematic relationship.

Correlation to find relationship between monthly income and monthly expense.

Monthly income	monthly expense
1750	5000
5000	1750
5000	1750
5000	1750
5000	1250
5000	1750

5000	1250
5000	1750
5000	1750
5000	1750
5000	1250
5000	5000
5000	1750
5000	1750
5000	1750
5000	1750
1750	1750
1750	1250
1750	1750
1750	1750
1750	1750
1750	1750
5000	1250
5000	1250
5000	1750
5000	1750
5000	1750
1750	1750
5000	1250
5000	1750
5000	5000

A correlation value of **0.122040306** between monthly income and monthly expenses suggests a relatively weak positive correlation between these two variables.

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1. Weakness of the correlation: The correlation coefficient is close to zero, indicating that there is little to no linear relationship between monthly income and monthly expenses.
2. Positive correlation: The positive sign indicates that as monthly income increases, monthly expenses tend to increase as well. However, the strength of this relationship is quite weak.
3. Limited predictability: With such a low correlation coefficient, it's challenging to predict monthly expenses based solely on monthly income. There may be other factors or variables that have a stronger influence on monthly expenses.

Simple linear regression
Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta_0+\beta_1 \times x+\epsilon$, where β_0 is the intercept, β_1 is the slope, and ϵ is the error term.
Regression to find the relationship between the monthly income and monthly expense**.**

Monthly income	monthly expense
1750	5000
5000	1750
5000	1750
5000	1750
5000	1250
5000	1750
5000	1250
5000	1750

5000	1750
5000	1750
5000	1250
5000	5000
5000	1750
5000	1750
5000	1750
5000	1750
1750	1750
1750	1250
1750	1750
1750	1750
1750	1750
1750	1750
5000	1250
5000	1250
5000	1750
5000	1750
5000	1750
1750	1750
5000	1250
5000	1750
5000	5000

y = -0.0589x + 2196.9
R² = 0.0068

Each row represents a pair of values indicating the monthly income and corresponding monthly expenses of individuals. For example, in the first row, the monthly income is 1750, and the monthly expense is 5000. Similarly, the subsequent rows show different combinations of monthly income and expenses. The regression value provided is a simple linear regression equation, which is used to analyses the relationship between the monthly income and monthly expenses. The equation is represented as:

$$Y = 0.0589x + 2196.9$$

In this equation:

- Y represents the predicted monthly expenses based on the monthly income.
- x represents the monthly income.

The coefficient0.0589 indicates the slope of the regression line, suggesting that for every unit increase in monthly income, the predicted monthly expense increases by approximately 0.0589 units.

The intercept term 2196.9 represents the predicted monthly expenses when the monthly income is zero. However, in

practical terms, this value might not have a meaningful interpretation since monthly expenses are unlikely to exist without any income.

The analysis unveils Kavanur Panchayat's demographic and socio-economic landscape, highlighting a predominantly female population with diverse marital statuses and educational backgrounds, suggesting areas for educational improvement. Economic diversity is evident in ration card distribution, with most holding Above Poverty Line cards. Income allocation prioritizes family-related expenses, while employment sectors exhibit diversity. Insights into family dynamics, religious affiliations, and health issues reveal varied experiences and challenges.

6.Findings, Suggestions and Conclusion.

6.1 Findings.

The survey reveals a predominantly female sample, signaling a gender imbalance. Most respondents are married, but significant proportions are widows, unmarried, or divorced. A noteworthy portion lacks education beyond SSLC level, highlighting an area for educational interventions. Majority possess Above Poverty Line cards, indicating higher socio-economic status. Family-related expenses take precedence in income allocation, with minimal savings. Manual occupations are prevalent among respondents, reflecting reliance on labor-intensive work. Smaller family sizes are common. The sample shows religious diversity, with Hindus as the majority and Muslims as a significant minority. A majority earn below 5000 monthly, indicating limited financial resources. Work-related

challenges such as workload and overtime demands are prevalent. Most respondents express satisfaction with their income, but health issues are widespread, underlining the need for accessible healthcare. Financial burdens, including debts, weigh heavily on the community, despite a mix of saving and investment preferences and varying spending habits.

6.2 Suggestions

Implement gender-inclusive data collection methods, provide educational support for those with education below SSLC level, and enhance financial literacy programs. Introduce skill development initiatives beyond manual labor, strengthen healthcare services, and address work-related challenges through policy interventions. Promote inclusive economic growth by supporting small-scale enterprises and agriculture, and offer financial assistance and debt relief programs to alleviate financial burdens.

6.3 Conclusion

The study explores income and expenditure among daily wage-earning women in Kavanur Panchayat, Kerala, reflecting their vital role in the state's economy. Despite their contributions, these women face financial challenges due to irregular income and household expenses. Understanding their circumstances unveils their resilience and the barriers they encounter. The research aims to provide actionable insights for policymakers and empower women through evidence-based strategies. It also addresses gender dynamics in financial management, advocating for inclusive policies and grassroots initiatives to enhance their economic empowerment and social inclusion.

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IMPACT OF COVID19 PANDEMIC ON BUSINESS OPERATION IN AREAKODE PANCHAYATH

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Abstract

The COVID-19 pandemic catalysed a seismic shift in business operations, compelling organizations worldwide to swiftly adapt to unprecedented challenges. This study examines the impact of the pandemic on businesses in Areakode Panchayath, analysing pre- and post-pandemic conditions, strategies employed, and long-term implications. Through empirical analysis, utilizing both quantitative and qualitative data collection methods, the study investigates income dynamics, financial performance, and adaptive strategies of local businesses. Findings reveal diverse income distributions during the pandemic, with notable resilience and adaptation among respondents. Government policies, stimulus packages, and digital transformation emerged as critical factors influencing business recovery. Despite challenges, the majority of businesses overcame pandemic-induced obstacles, with many leveraging online platforms and social media for sales promotion. The study underscores the importance of resilience, innovation, and government support in navigating crises, providing insights for future preparedness and decision-making in a dynamic business landscape.

1. Introduction

The pandemic's onset forced businesses of all sizes and industries to rethink their strategies, embrace remote work, and reimagine their supply chains. As lockdowns and restrictions were imposed to control the wide spread of the virus, traditional business models were opened, and many enterprises faced an

existential crisis. The pandemic acted as a catalyst for digital transformation, pushing companies to rapidly innovate and adopt technology to ensure continuity. Also the pandemic helped more for business for doing their business through social media. Too many people changed their business in to social media and this helped them to improve their business strategies. From leveraging digital technologies to enable remote work and virtual collaboration to diversifying supply chains and reconfiguring production processes, organizations demonstrated remarkable resilience and agility in the face of adversity. Moreover, businesses explored novel revenue streams, embraced e-commerce platforms, and prioritized employee safety and well-being to navigate the uncertainties of the new normal. Also, it will analyses that what kind of measures were promoted for the employees what health and safety precautions were taken for the customers and employers in their business. This project delves into the multifaceted and far-reaching consequences of the Covid-19 pandemic on business operations. It aims to provide a comprehensive analysis of the challenges and opportunities that arose during this tumultuous period, drawing insights from diverse perspectives and across various industries. Through this exploration, we hope to not only illuminate the pandemic's immediate disruptions but also identify the long-term shifts in business practices and strategies that have emerged in its wake. Also, this will study about the financial condition of the business at the time of the pandemic also it will analyses about what strategies had the business taken for the well-being of their business and also it will analyses about what support had the government had provided for them. For this study I have collected many samples from my locality and conducted a

detailed study based on this topic This project endeavors to provide a comprehensive exploration of the transformative impact of the COVID-19 pandemic on business operations, analyzing the multifaceted challenges faced by organizations, the strategies employed to adapt, and the long-term implications for the future of work and commerce.

2. Significance of the study

This study on the impact of the COVID-19 pandemic on business operations holds significant relevance as it provides practical insights for businesses to adapt to unprecedented challenges, informs policymakers in crafting crisis-resilient policies, contributes to economic analysis, and enriches academic understanding by examining the real-world consequences of a global crisis.

3. Objective / methodology

The main objective of the present study is to explore and to compare the business condition before and after of coved 19 pandemic. Beside we have the following broad objectives: -

1. To explore the role of government policies, stimulus packages, and regulatory changes in influencing business recovery trajectories post-COVID-19.
2. To make a comparative study on the performance of business before, during and after of coved 19.
3. To examine the impact of COVID 19 on business operations and to analyses the strategies that are adopted to overcome the problems.

The Primary data collected from Areekode panchayath. Data are mainly collected from the business person, entrepreneurs, industrialist, manufacturer, tycoon etc.25 samples will collect from the respondent mainly convenes sample method used for data collection. For the data analysis purpose will use SPSS software, Using table, diagram, bar diagram, Correlation, regression, statistical tools etc.

4. Review of literature

A view of the available literature on this theme is attempted to survey the ideas and concepts and to appraise the methodology and findings of earlier studies in to have a deeper understanding of the issued for formulating appropriate framework for analysis.

The study by *Bartik (2022)* from Columbia University investigates the impact of COVID-19 on small businesses, surveying over 5,800 of them between March 28 and April 4, 2020. They found that mass layoffs and closures occurred swiftly, revealing the fragility of many small businesses. Despite varying beliefs about the duration of the crisis, most businesses planned to seek funding through the CARES Act, although accessing it posed challenges. The study underscores the urgent need for streamlined processes and clearer eligibility criteria.

Alsamhi.'s (2021) study assesses COVID-19's impact on Indian sectors, analysing data from 371 firms. Significant differences in financial metrics were observed, with tourism, hospitality, and consumer sectors most affected. The study offers valuable insights for policymakers, uniquely evaluating post-pandemic financial performance in the Indian context.

Qadri's (2022) study investigates COVID-19's impact on South Asian banks' financial performance. It highlights negative effects such as reduced profits and increased non-performing loans. However, technological advancement, per studies, has helped mitigate some impacts. The findings underscore the need for coordinated policy responses and continued investment in digital technology for resilience.

Abriham Ebabu Engidaw's (2022) study investigates the challenges faced by small businesses in Ethiopia during the COVID-19 pandemic. It highlights issues such as reduced demand, supply chain disruptions, and difficulty accessing financing. The study underscores the need for government support, including financial assistance, reduced regulatory burdens, and investment in technology infrastructure.

The literature reveals (2021) a profound impact of the COVID-19 pandemic on global businesses and economies. Studies by the World Bank, International Labour Organization, and World Trade Organization underscore significant declines in GDP, job losses, and trade disruptions.

McKinsey Global Institute's (2021) findings highlight an accelerated shift to online commerce, while the World Economic Forum emphasizes a heightened emphasis on resilience and sustainability among businesses. These findings affirm the challenges outlined in the article, signaling long-term shifts in business operations and economic structures worldwide. The ongoing repercussions of the pandemic necessitate continuous assessment and adaptation strategies.

Pinzaru, Zbuchea, and Anghel's (2022) preliminary overview highlights the significant impact of the COVID-19 pandemic on businesses, necessitating adaptation to survive and thrive. Drawing from **Sneader** and **Singhal's** resilience framework, the paper underscores the importance of resilience in navigating disruptions. Strategies for recovery, including revenue diversification and digitalization, alongside adaptive marketing approaches, are crucial.

Stemmler's (2022) study scrutinizes the impact of government classifications on firm performance during COVID-19. Key firms, deemed essential, demonstrated resilience with fewer sales declines and employee furloughs. Non-key firms, more adaptable but vulnerable, struggled with sales and innovation. Results suggest diverse government support needs. Policy implications underscore the necessity of targeted assistance for non-key firms post-pandemic, encouraging further research in this area.

Donthu and *Gustafsson's (2022)* article examines the enduring impacts of pandemics, focusing on economic, behavioral, and societal shifts. Highlighting historical evidence and behavioral changes, they forecast a prolonged influence on society, with implications for businesses including reduced growth, altered consumer behavior, and the need for digital adaptation. This comprehensive analysis offers valuable insights for post-pandemic strategizing among business leaders and policymakers.

Liu, Chang, and *Chang's (2022)* study assess the COVID-19 impact on population mobility and business operations, focusing on Taiwan High Speed Rail and 7-Eleven stores. They

find decreased mobility negatively affecting businesses reliant on foot traffic. Consistent with global trends, their findings stress the importance of understanding the nexus between mobility and economic activity, urging policymakers and businesses to adapt strategies for future resilience.

Svabova, Kramarova*, and **Chabadova's** (2021)* study scrutinizes the COVID-19 impact on Slovakia's economy, particularly on SMEs, tourism, and the automotive industry. Using public data, they assess pandemic repercussions on employment, sales, and business continuity, identifying areas for targeted support. While acknowledging limitations in data frequency, their findings underscore the necessity for nuanced, timely interventions to address both immediate and long-term economic consequences.

In conclusion, the literature review underscores the multifaceted impact of the COVID-19 pandemic on businesses globally. Studies highlight widespread disruptions across various sectors, with profound implications for economic stability and workforce dynamics. Key findings emphasize the urgent need for government support, technological adaptation, and policy interventions to navigate the crisis. Insights into sector-specific vulnerabilities, resilience strategies, and long-term implications inform future decision-making and adaptation strategies.

5. Empirical Analysis

This paper conducts an empirical analysis on the COVID-19 pandemic's impact on business operations in Areekode Panchayath, India. Using mixed-methods, it examines

disruptions, financial health, and adaptive strategies. Findings will illuminate vulnerability, resilience, government support effectiveness, and implications for economic recovery in the region.

Figure 5.1 Income before COVID 19 of the respondent
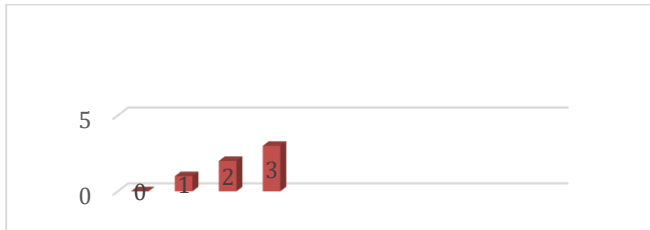
Source: Calculated from the primary data

The table reveals pre-pandemic income levels of respondents: 32% outstanding, 44% average, and 12% each for excellent and good. This varied distribution indicates a significant proportion with higher-than-average income. Understanding this distribution offers insights into how respondents may have been affected by the pandemic economical.

Figure 5.2 Income During COVID 19 of the respondent
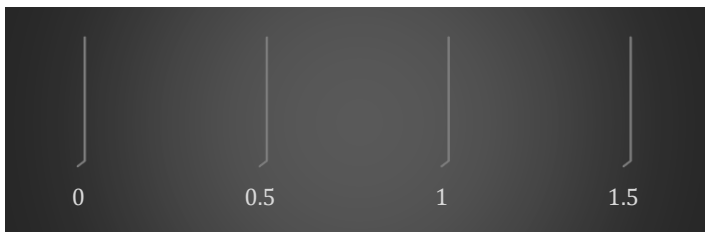
The table displays income levels during the pandemic, with 32% in the Average category and 24% in Outstanding. Good and Bad categories each represent 12% and 16%, respectively. This varied distribution underscores diverse financial impacts influenced by occupation, industry, and government support, highlighting the need for tailored strategies.

Figure 5.3 Income after COVID 19
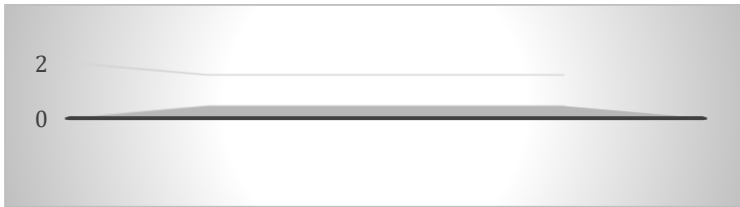
Source: *Calculated from the primary data*

The data reveals a promising trend in post-COVID-19 income levels, with 84% reporting outstanding financial status, indicating substantial stability or improvement. Despite this, 16% are split between Excellent and Good categories, suggesting varied economic outcomes. Tailored support initiatives are crucial for addressing disparities and ensuring inclusive recovery strategies.

Table 5.1 Years of Business in Operation

Years of business in operation	Frequency	percent
more than 10 years	13	52
less than 10 years	11	44
3 years	1	4
Total	**25**	**100**

Source: Calculated from the primary data

The data illustrates the tenure of surveyed businesses, with 52% operating for over a decade, 44% for less than 10 years, and 4% for 3 years. This diversity underscores market maturity and entrepreneurial resilience, informing tailored support strategies for businesses at different developmental stages.

Table 5.2 Rate of Financial Performance before COVID 19 of the respondent

Rate of financial performance before COVID 19	Frequency	Valid Percent
Excellent	7	28
Outstanding	8	32
Good	4	16
Average	6	24
Total	**25**	**100**

Source: Calculated from the primary data

The data displays pre-COVID-19 financial performance ratings, with 60% in Excellent or Outstanding categories, indicating robust business standing. Good ratings represent 16%, and Average, 24%. While perceptions suggest favorable pre-pandemic conditions for many businesses, actual financial health may vary.

Table 5.3 Rate of Business Financial Onset COVID19 of the respondent

Rate of business financial onset covid19	Frequency	percent
Excellent	10	40
Good	3	12
Average	7	28
Poor	5	20
Total	**25**	**100**

Source: Calculated from the primary data

The data depicts perceptions of businesses regarding the onset of financial challenges due to COVID-19. A significant portion, 68%, rated it as Excellent or Average, indicating varied experiences. While 12% rated it as Good, 20% perceived it as Poor, highlighting diverse responses and the need for deeper analysis.

Figure 5.4 Received Financial Support from Government at COVID 19 or Satisfied with Support.

Source: Calculated from the primary data

The table indicates that 36% received government aid during COVID-19, while 64% did not. Interestingly, those who received support, mainly operating abroad, didn't yield significant profits. Factors like eligibility, outreach effectiveness, and socio-economic disparities likely influenced this distribution, underscoring the complexities of aid accessibility.

Figure 5.5 Satisfaction Level of the Respondents

					Missing	Total
■ Valid Percent	55.6	11.1	22.2	11.1	100.0	
■					36.0	64.0 100.0
■ Frequency	5	1	2	1	9	16 25
■	0	0	0	0	0	0
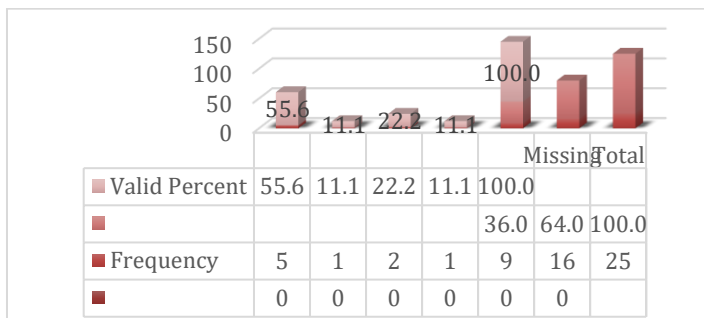
Among those receiving government aid during COVID-19, 55.6% were very satisfied, 11.1% satisfied, and 11.1% dissatisfied, with 22.2% remaining neutral. The majority expressed satisfaction, suggesting effective aid delivery, though dissatisfied responses indicate areas for improvement. Missing data further complicates the analysis, hinting at potential dissatisfaction not captured.

In conclusion, the empirical analysis of the impact of the COVID-19 pandemic on business operations in Areekode Panchayath reveals a multifaceted picture of resilience and adaptation. Despite the challenges posed by the pandemic, a significant majority of businesses reported outstanding income levels post-COVID-19, indicating recovery and growth. The data shows a diverse mix of business types, with a considerable number of respondents identifying as owners and a significant tenure of operation. This suggests that established businesses, alongside newer ventures, navigated the economic disruptions with strategic adaptations.

Regression

Regression analysis is a statistical method used to understand and quantify the relationship between one dependent variable and one or more independent variables.
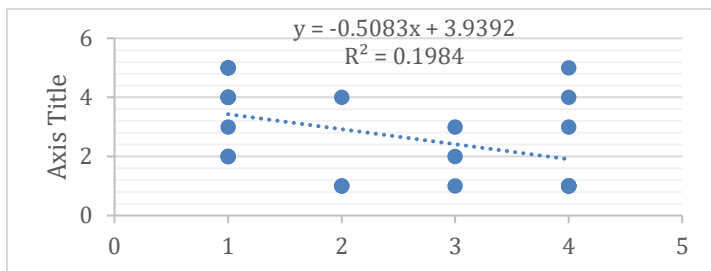
Source: Calculated from the primary data

The regression equation provided indicates a relationship between income before and during the COVID-19 pandemic. Let's analyze the components of the equation and the coefficient of determination R^2.

1. Regression Equation:

   The regression equation is expressed as:

$$y = -0.5083x + 3.9392$$

   Here, y represents the income during the COVID-19 pandemic, and x represents the income before the COVID-19 pandemic. The equation suggests that there is a negative relationship between income before COVID-19 (x) and income during COVID-19 (y). This means that as income before COVID-19 increases, income during COVID-19 decreases. The negative slope coefficient (-0.5083) indicates

that for every unit increase in income before COVID-19, income during COVID-19 decreases by 0.5083 units.

In summary, the regression equation suggests a negative relationship between income before and during the COVID-19 pandemic, meaning that higher income before the pandemic tends to be associated with lower income during the pandemic.

Simple Linear Correlation

Correlation, in its essence, measures the degree to which two variables change together. It quantifies the strength and direction of the relationship between variables, allowing researchers to discern patterns and associations within data sets. Correlation coefficients range from -1 to +1, where +1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 signifies no correlation.

Rate of financial performance before cov19	Rate of business financial onset cov19
2	3
4	1
1	1
1	4
1	1
2	3
4	4
2	2
1	3

2	3
4	4
2	1
4	4
2	1
2	3
3	4
3	1
1	3
2	2
1	1
3	1
4	1
4	3
3	2
1	1

Source: Calculated from the primary data

The correlation value of 0.224222558 between the rate of financial performance before COVID-19 and the rate of business financial onset during COVID-19 suggests a weak positive correlation between these two variables.

6. Findings

This study examines the COVID-19 impact on Areekode Panchayath businesses, analyzing demographics, financial performance, operational changes, and resilience strategies. Through diverse respondent data, it explores adaptive measures like government aid, digital transformation, and market

adaptability for business continuity and post-pandemic recovery.

The survey results reveal key insights into the respondents' demographics and experiences during the COVID-19 pandemic. A significant portion of respondents (44%) are middle-aged, falling within the 27-40 age group, with a higher representation of males (68%). The most common types of businesses among respondents include wheel shops, cosmetic shops, and supermarkets (16%). Before COVID-19, 44% of respondents reported an average income, which remained consistent for 32% during the pandemic. Remote work was adopted by nearly 48% of respondents, and 36% received government financial support, with 55.6% expressing satisfaction with this assistance. Additionally, 44% introduced new items during the pandemic, while 56% noted an increase in competition. A significant majority (76%) implemented health and safety measures in their businesses, reflecting their adaptability to the challenges posed by the pandemic. These findings highlight the economic resilience and adaptive strategies employed by small business owners during a challenging period.

7. Suggestions

Businesses should be encouraged to diversify their products and enhance their digital presence to meet evolving consumer demands. Strengthening financial resilience through effective planning is crucial for future crises. Collaboration between businesses and government agencies is essential to create tailored support programs that address entrepreneurs' specific needs. In conclusion, The findings indicate that businesses have

shown resilience and adaptability in response to the challenges posed by the COVID-19 pandemic. Despite facing difficulties, many businesses have managed to maintain their operations and even thrive. However, there are areas where improvements can be made to enhance the resilience of businesses in the face of future crises. Collaboration between stakeholders, investment in digital infrastructure, and strategic diversification are key strategies to ensure the long-term sustainability of businesses.

8. Conclusion

The COVID-19 pandemic significantly impacted businesses across demographics and sectors. Primarily affecting individuals aged 27-40, with a notable gender disparity favouring males, it highlighted inequalities in business ownership. Despite healthy pre-pandemic financial performance, COVID-19 led to income declines for many, although most rebounded post-pandemic. Operational changes included physical location closures and remote work adoption, with a shift towards digital marketing. Government aid, though received by many, varied in satisfaction. Innovation was crucial, with businesses introducing new products and revenue streams. Looking ahead, businesses anticipate lasting changes in consumer behavior and emphasize cybersecurity. Overall, resilience, adaptation, and supportive policies are paramount for future success.

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DIGITAL PAYMENTS A CREATIVE COMFORT IN THE ERA OF COVID -19 PANDEMIC- A STUDY WITH SPECIAL REFERENCE TO ANAKKAYAM GRAMA PANCHAYAT

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Abstract

The COVID-19 pandemic has spurred a rapid surge in the adoption of digital payments, reshaping consumer behavior worldwide. This shift is propelled by imperatives to minimize physical contact, the inherent convenience of digital transactions, and the proliferation of diverse digital payment options. Digital payments offer distinct advantages over cash, including contactless transactions, convenience, and heightened security, thus serving as a creative solace during the pandemic. They facilitate the maintenance of social connections, support for small businesses, access to essential goods and services, financial management, and the alleviation of anxiety and stress. This study endeavors to assess the impact of COVID-19 on digital payment adoption and consumer behavior. Utilizing primary data gathered through structured questionnaires and augmented by secondary sources such as journals and articles, statistical analysis tools were employed to scrutinize trends, employing tables, diagrams, and charts. Findings reveal widespread acceptance of digital payment methods across various demographic segments, spanning age, gender, marital status, education, income levels, housing types, and vehicle ownership. Notably, a notable uptick in online transactions, bill payments, and positive user experiences underscores the efficacy and satisfaction associated with digital payments. The pandemic has further catalyzed digital payment adoption, fostering increased trust and marked shifts in user behavior, particularly among younger cohorts. Drawing from these insights, recommendations are proffered to bolster the adoption and efficacy of digital payment systems. These include bolstering security protocols, enhancing accessibility, prioritizing convenience,

heightening awareness, offering incentives, mitigating challenges, cultivating merchant partnerships, and innovating to align with evolving user preferences and technological advancements. This study underscores the transformative influence of digital payments amidst the COVID-19 pandemic and underscores the imperative for policymakers, businesses, and individuals to embrace these technologies wholeheartedly.

1. Introduction

The COVID-19 pandemic has profoundly reshaped nearly every aspect of our lives, prompting a seismic shift in how we approach work, daily activities, and interpersonal interactions. Among the most notable transformations has been the swift ascent of digital payments as a preferred method of financial transaction. Prior to the pandemic, cash held sway as the primary mode of payment for many individuals. However, the outbreak of COVID-19 accelerated the trajectory towards digital payments, driven by a confluence of factors such as the imperative to minimize physical contact, the inherent convenience of digital transactions, and the expanding accessibility of digital payment platforms. Digital payments confer numerous advantages over cash transactions, particularly within the context of the pandemic. Chief among these benefits is the contactless nature of digital transactions, which serves as a crucial measure in reducing the risk of virus transmission. Moreover, digital payments offer unparalleled convenience and versatility, enabling transactions to be conducted seamlessly from any location with an internet connection. Beyond their practical utility, digital payments also afford a sense of comfort and security amid the uncertainties of the pandemic. By eliminating the need to handle physical currency and minimizing face-to-face interactions, digital

payments help assuage concerns surrounding hygiene and safety. This, in turn, contributes to a reduction in anxiety and stress levels, fostering a greater sense of control over one's financial transactions and overall well-being. In this project, we embark on an exploration of the myriad ways in which digital payments serve as a source of comfort and support during the pandemic. Specifically, we delve into their role in maintaining social connections, bolstering small businesses, facilitating access to essential goods and services, aiding in financial management, and alleviating anxiety and stress. Digital payments serve as vital tools for maintaining social connections in an era characterized by physical distancing measures. Whether through peer-to-peer payment apps facilitating virtual gatherings or online platforms enabling financial support for loved ones, digital transactions serve as conduits for sustaining interpersonal bonds amidst spatial separation. Moreover, digital payments play a pivotal role in supporting small businesses, providing them with avenues to expand their customer base and navigate the challenges posed by the pandemic-induced economic upheaval. By enabling swift and secure transactions, digital payment solutions empower entrepreneurs to adapt to evolving consumer behaviors and sustain their livelihoods.

Significance of the study

During the COVID-19 pandemic, digital payments have emerged as a vital source of creative comfort, serving multiple functions essential to navigating these challenging times. Firstly, they facilitate the maintenance of social connections by enabling seamless transactions between friends and family, fostering support and solidarity even in the absence of physical proximity. Additionally, digital payments empower individuals

to bolster their favorite small businesses by providing avenues for online transactions, thereby sustaining local economies amidst closures and restrictions. Moreover, digital payments serve as indispensable tools for accessing essential goods and services, offering a safe and efficient means of procurement while minimizing exposure to potential health risks. Furthermore, they aid in financial management by facilitating easy tracking of spending and budgeting, providing a sense of control during periods of economic uncertainty. Lastly, digital payments contribute to reducing anxiety and stress levels by eliminating the need for in-person interactions, particularly beneficial for vulnerable populations or those with underlying health conditions. In essence, the versatility and convenience of digital payments offer a valuable lifeline during the pandemic, addressing various practical and psychological needs while fostering resilience in the face of adversity.

2. Statement of the problem

The COVID-19 pandemic has spurred a notable shift towards digital payments, offering a host of advantages amidst the ongoing health crisis. Notably, digital transactions provide a contactless alternative, mitigating the risk of virus transmission. Their convenience and accessibility, enabled by internet connectivity, further enhance their appeal. Despite these benefits, challenges persist. Digital payments face vulnerabilities to fraud and identity theft, posing risks to users. Moreover, accessibility issues hinder adoption, as some lack access to digital payment methods or feel uneasy using them. However, amidst these hurdles, digital payments offer a creative source of comfort during the pandemic. They afford a secure and flexible means of conducting transactions, aiding

individuals in navigating the challenges posed by the crisis while maintaining a semblance of normalcy in their lives. Thus, despite the challenges, digital payments serve as a valuable tool for individuals seeking to adapt to the evolving realities of the COVID-19 era**.**

3. Objectives

- To access the impact of COVID-19 pandemic on the adoption of digital payments methods and how it changes consumer behavior preference
- Evaluate the user experience of different digital payment platforms and identify areas for improvement, considering the increased reliance on these platforms due to the pandemic.
- Examine the technological advancements in the field of digital payments that emerged as a response to the pandemic, such as contact less payments and QR code-based systems.

4. Methodology

Both primary data and secondary data will use in this study. Primary data mainly collected from Digital payment users in Anakkayam Grama Panchayt method are used in the study. For selecting the sample Simple tables, diagrams, correlation and regression also used in this study. For its analysis purposes we used SPSS software. Secondary data mainly collected from article, journal, Internet and books etc…

5. Review of Literature

This chapter aims to review relevant studies pertinent to the present research, acknowledging the cumulative nature of

knowledge. Literature review serves to synthesize existing ideas, emphasizing the integration of threads from previous research. Through this process, the groundwork is laid for the current study, ensuring a comprehensive understanding of the topic.

Deshwal, (2015): -Study covered how important mobile phones have been in India for providing financial services and how they have helped the country's economy flourish at a lower cost. She thinks that reaching out to the most rural areas of the nation is a good approach to 9464 promote inclusive growth for the average person. To boost the adoption of mobile banking from high end users to low end users and from major metropolitan regions to rural areas, collaborations between various organizations are required. She goes on to explain how different advertising efforts might encourage users to use mobile banking.

Goyal, Pamdey,&Batra (2012): -They have found that removing the different barriers in the areas of security and privacy is essential for ensuring the successful adoption of online payments and their widespread acceptability. They also emphasized the need for companies and retailers to take the initiative and make value-adding investments to win over customers and get them to accept this payment mechanism. They also highlighted how countless efforts are being made to develop prospective technological improvements that can address customers' security issues and address their complaints even though many solutions to extending safe transactions have failed.

Sreelakshmi & Prathap 2020: In their study, it was suggested that launching various health and awareness campaigns about the dangers of COVID-19 will help to promote mobile banking and raise knowledge of preventive health issues. They also talk about how crucial it is to stress the importance of encouraging customers' self-efficacy through online literacy and promotion campaigns for them to use the services. Their study also seen that the uptake of mobile payment services might be further accelerated by the inclusion of other features and products on a single platform.

Priya, Gandhi, & Shaikh, Mobile Banking Adoption in An Emerging Economy An Empirical Analysis of Young Indian Consumers, (2018): -In their study, the authors noted that mobile banking should be viewed as an efficient, easy, quick, and comfortable method of carrying out banking activities. They think that to promote the mobile banking platform, banks should take advantage of this chance and provide clients with more valuable services.

Sudha. G, Sornaganesh. V, Thangajesu Satish. M, Chellama. A.V, (August 2020): -This paper discusses the different digital payment mechanisms used in the event of a pandemic based on primary data by gathering data from 220 respondents and the Digital India initiative is an Indian government flagship program whose vision is to turn India into a digital society and an information economy. In this futuristic world, all purchases can be made by contactless cards, smart phone apps and other electronic means.

Arpita Pandey, Mr. Arjun Singh Rathore (April,2018): This article focused on how digitalization will aid the growth of the

Indian economy and the adoption of the new technologies for globalization and modernization of our region, which contributes to development. All the measures and policies put in place by the Government of India enable the Indian Community to build information and understanding, and clarified how digital payment is becoming the powerful factor that it provides.

Dr Rajeshwari M May-(June 2019): This article explaining the operating cost of banks has been significantly decreased by Digital Banking. This has made it easier for banks to charge lower service fees and provide higher interest rates for depositors as well. The decrease in operational costs meant more benefit for the banks. Digital transformation is moving from traditional banking to a digital world.

Jayalakshmi. S And Parvathi. S, (July 2019): This article showed that digital payment is an effective means of doing business of all sectors to reach out to prospective clients and to examine the idea of digital banking, digital payment and digital payment methods. Digital payments have many benefits over cash, such as simplicity, security and clarity.

Duvvuri Subbarao (2016): This book revealed about the suggestion to take the step by the Government. Both the Government and RBI keep on moving India towards a less cash economy by encouraging people to shift from cash to electronic payments for all transactions. The shift from cash to electronic payments is a continuous process and is happening all the time, but its implementation will depend on the public's acceptance, which is in part a question of making it convenient for people to use electronic payments.

Dr.V.SornaganeshAnd Dr.M.Chelladurai(2016):In his article revealed about the situation at the time of demonetization. The researcher tried to study about the demonetization impact and financial technology company. The researcher also analyses about payment service sector during the demonetization period. Fast Moving Consumer Goods have extended their credit cycle to address this liquidity situation some of the consumer's companies have extended some credit to the distributors through RTGS. Digital payment is the largest bet in the mobile internet space from the technology point of view.

The reviewed literature highlights the transformative impact of digital payments and mobile banking in India, emphasizing financial inclusion, government initiatives like Digital India, and events such as demonetization and the COVID-19 pandemic. It underscores the importance of addressing barriers and promoting continued efforts to shape the country's economy.

6.Data Analysis and Interpretation

The study explores the role of digital payments as a creative comfort during the COVID-19 pandemic, focusing on Anakkyam Grama Panchayath. Using a sample of 30 respondents, analysis via questionnaires, tables, and charts elucidates variables such as age, marital status, education, and poverty status, offering clear interpretations for each analysis.

Figure 6.1 Devices Used by Respondent for Digital Payments:
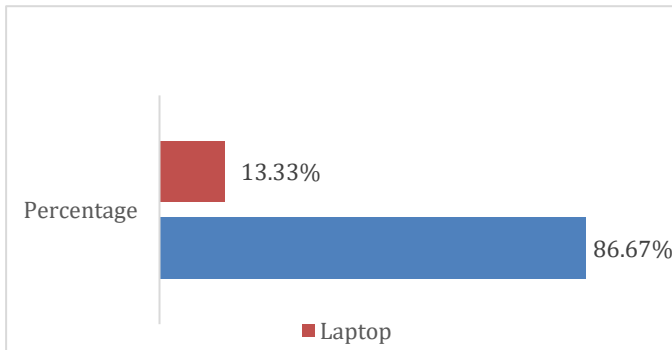
Source: - calculated from the primary data

The breakdown of devices used for digital payments reveals a dominant preference for mobile devices, with 86.67% of users utilizing their smart phones. In contrast, laptops constitute a smaller share at 13.33%. This data underscores the convenience and portability of mobile devices in facilitating digital transactions, aligning with the widespread use of smart phones for various daily activities, including financial interactions. The overwhelming majority choosing mobile devices highlights their central role in the digital payment landscape.

Figure 6.2 Duration Status of Using Digital Payments:
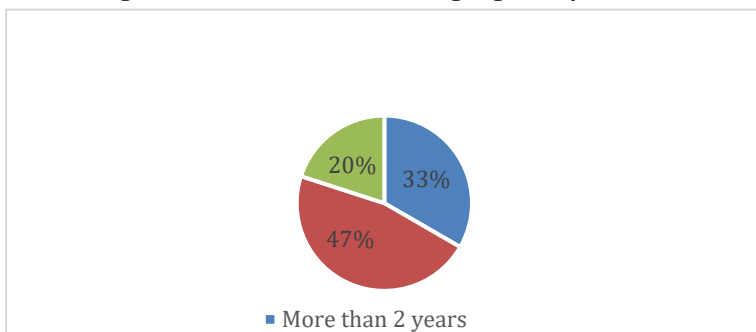
The analysis of usage duration indicates a varied adoption timeline, with 46.67% of users using digital payment methods for 1-2 years, 33.33% for more than 2 years, and 20.00% for less than 1 year. This distribution suggests a gradual and steady increase in user engagement over time. The data reflects a maturing user base, highlighting sustained interest and integration of digital payment methods into the financial routines of individuals over varying time frames

Table 6.1 Bill payments through digital payments

Bill Payments through Digital Payments	Users	Percentage
Yes	29	96.67%
No	1	3.33%
Total	30	100%

Source: - calculated from the primary data

The analysis of bill payments through digital methods shows a substantial adoption rate, with 96.67% of users utilising digital payments for settling bills. Only 3.33% indicate not using digital platforms for bill payments. This data underscores the widespread integration of digital payment methods into daily financial responsibilities, emphasizing their efficiency and convenience for managing various bills.

Figure 6.3 Rating of online transaction
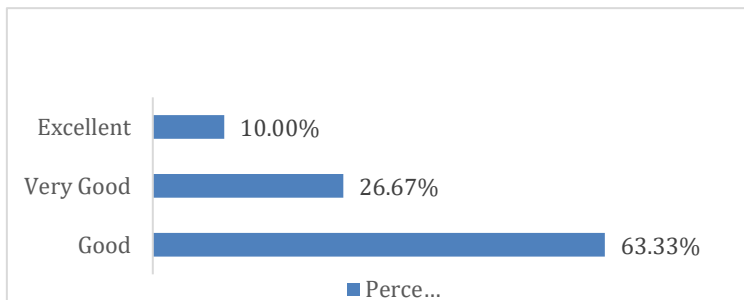
Source: - calculated from the primary data

The user ratings for online transactions indicate positive perceptions, with 63.33% rating them as "Good," 26.67% as "Very Good," and 10.00% as "Excellent." This data reflects a generally favourable opinion toward online transaction experiences facilitated by digital payment methods. The majority considering transactions as "Good" or "Very Good" underscores the overall satisfaction, while the presence of an "Excellent" rating highlights a notable percentage expressing exceptional approval of their online transaction experiences.

Figure 6.4 Preference for online goods
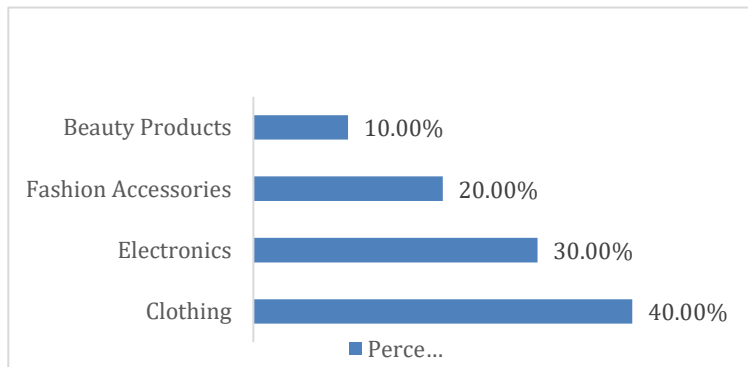
Source: - calculated from the primary data

The breakdown of preferred goods for online purchases reveals diverse choices among users. Clothing emerges as the most favored category, constituting 40.00%, followed by electronics at 30.00%. Fashion accessories and beauty products represent 20.00% and 10.00%, respectively. This distribution highlights a range of consumer interests, indicating that users engage in digital payments for various product categories, emphasizing the versatility and adaptability of online platforms to cater to different shopping preferences.

Table 6.2 Convince in online shopping.

Convenience in Online Shopping	Users	Percentage
Yes	27	90.00%
No	3	10.00%
Total	30	100%

Source: - calculated from the primary data

The analysis of whether digital payments enhance online shopping convenience indicates a significant positive response, with 90.00% of users affirming the increased convenience. A smaller percentage, 10.00%, suggests a minority not experiencing enhanced convenience through digital payments. This data underscores the widespread perception that digital payment methods contribute substantially to the ease and efficiency of online shopping, with the majority recognizing their positive impact on the overall shopping experience.

Table 6.3 Financial benefits from digital payments

Financial Benefits from Digital Payments	Users	Percentage
Yes	22	73.33%
No	8	26.67%
Total	30	100%

Source: - calculated from the primary data

The data on experiencing financial benefits from digital payments indicates a majority, with 73.33% of users affirming positive outcomes. A notable 26.67% suggests not experiencing financial benefits. This reflects a substantial portion of users

recognizing the advantages, such as cost savings or incentives, associated with digital payment methods.

Table 6.4 Expectation of Future Changes in Shopping, Bills and Finances

Expectation of Future Changes in Shopping, Bills, and Finances	Users	Percentage
Yes	26	86.67%
No	4	13.33%
Total	30	100%

Source: - calculated from the primary data

The analysis of expectations regarding future changes due to digital payments shows a high affirmative response, with 86.67% of users anticipating changes. A smaller percentage, 13.33%, indicates those not expecting significant alterations. This data suggests a widespread anticipation of ongoing developments and transformations in financial practices facilitated by digital payments.

Table 6.5 Trust in Digital Payments Influenced by COVID-19

Trust in Digital Payments Influenced by COVID-19	Users	Percentage
Yes	22	73.33%
No	8	26.67%
Total	30	100%

Source: - calculated from the primary data

The data on trust in digital payment systems influenced by the COVID-19 pandemic indicates a substantial positive impact, with 73.33% of users expressing increased trust. A minority, 26.67%, suggests no significant influence. This reflects a

notable shift in perception during the pandemic, highlighting the role of digital payments in providing secure and reliable financial solutions during challenging times.

Figure 6.5 Digital Payment Methods

95%

2%1%
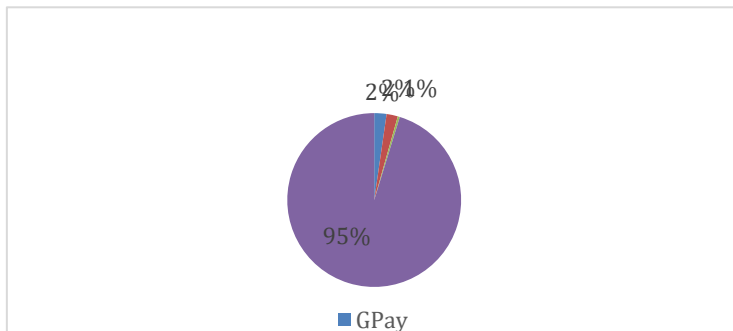
GPay

Source: - calculated from the primary data

The breakdown of preferred payment methods reveals diverse choices among users. GPay emerges as the most popular, with 50.0% usage, followed by PhonePe at 28.6%. Debit card/Credit cards constitute 21.4%, and Paytm represents 14.3%. This distribution reflects a varied user preference for digital payment platforms, emphasizing the competitive landscape. GPay's prominence suggests a strong user base, while the diverse usage of other platforms underscores the dynamic nature of digital payment adoption.

Correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive

correlation (r > 0) indicates both variables move in the same direction, while a negative correlation (r < 0) suggests they move oppositely. A zero correlation (r = 0) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analyzing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation to find relationship between monthly income and monthly expenditure.

Monthly expenditure	Income level	Monthly expenditure	Income level
7500	7500	5000	2000
5000	2000	7500	7500
5000	2000	5000	2000
7500	7500	5000	2000
5000	2500	5000	2000
5000	2000	5000	2000
7500	7500	7500	10000
5000	7500	7500	10000
5000	7500	5000	2000
5000	7500	10000	10000
5000	2000	10000	10000
5000	2500	10000	7500
7500	2500	7500	10000
5000	2000	5000	2000
5000	2000	10000	2000

Correlation coefficient is**0.624913**

The correlation coefficient, in this case, measures the strength and direction of the relationship between monthly expenditure and income level. A correlation coefficient of 0.624913 indicates a moderately positive correlation between these two variables.

Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta_0+\beta_1 \times x+\epsilon$, where β_0 is the intercept, β_1 is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimises the difference between observed and predicted values of y. Simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables. Regression to find the relationship between income and monthly expenditure.

Monthly expenditure	Income level	Monthly expenditure	Income level
7500	7500	5000	2000
5000	2000	7500	7500
5000	2000	5000	2000
7500	7500	5000	2000
5000	2500	5000	2000
5000	2000	5000	2000
7500	7500	7500	10000

5000	7500	7500	10000
5000	7500	5000	2000
5000	7500	10000	10000
5000	2000	10000	10000
5000	2500	10000	7500
7500	2500	7500	10000
5000	2000	5000	2000
5000	2000	10000	2000

simple linear regression

The regression equation and R^2 value provided offer insights into the relationship between monthly expenditure (y) and income level (x).

1. Regression Equation (y = 1.1353x - 2340.5):

- This equation represents the best-fit line through the data points. In this equation:

- The coefficient of x (1.1353) represents the slope of the line. It indicates that for every one unit increase in income level, monthly expenditure is predicted to increase by approximately 1.1353 units.

- The constant term (-2340.5) represents the y-intercept of the line. It indicates the value of monthly expenditure when the

income level is zero. However, in practical terms, it may not have a meaningful interpretation since income level is unlikely to be zero in this context.

2. Coefficient of Determination (R^2) = 0.3905:

- This value indicates the proportion of the variance in the dependent variable (monthly expenditure) that is predictable from the independent variable (income level) using the regression model.

- In this case, R^2 = 0.3905 means that approximately 39.05% of the variability in monthly expenditure can be explained by variability in income level using the linear regression model.

- The remaining percentage of variability is attributed to other factors not accounted for in the model.

Analysis:

- The regression equation suggests that there is a positive relationship between income level and monthly expenditure. As income level increases, monthly expenditure is predicted to increase.

- However, the R^2 value of 0.3905 indicates that the regression model explains only about 39.05% of the variability in monthly expenditure. This suggests that other factors besides income level may also influence monthly expenditure.

- Additionally, it's worth noting that the regression model assumes a linear relationship between income level and monthly expenditure. If the relationship is more complex, a different type of model might be more appropriate.

A study on digital payments in Anakkyam Grama Panchayat during COVID-19 reveals broad acceptance across ages,

genders, and socioeconomic backgrounds. Mobile devices are preferred for transactions, with increased trust due to the pandemic. Insights can guide policy and business strategies for a more inclusive financial landscape**.**

7. Conclusion

This chapter summarizes the pandemic's acceleration of digital payments, highlighting benefits like convenience and social connection. Challenges remain in accessibility and security. Recommendations include infrastructure support, business innovation, and individual education. Embracing digital payments can foster a more inclusive and sustainable future.

7.1 Findings

The study reveals a diverse user demographic embracing digital payments, with significant appeal among 18-24 and 25-34 age groups, balanced gender representation, and usage across marital, religious, and income backgrounds. Graduates lead in engagement, while mobile devices dominate transactions. Users show universal adoption, preferring two-wheelers for mobility. High rates of online purchases and bill payments reflect efficiency, with positive ratings and financial benefits. Trust in digital payments surged during COVID-19, driven by security and convenience. Challenges persist, particularly among younger users. GPay and PhonePe are favored platforms, highlighting varied preferences in digital payment methods.

7.2 suggestions

To promote digital payment systems, strategies include enhancing security for user trust, improving accessibility to bridge the digital divide, and focusing on convenience. Increased awareness through education and marketing, alongside incentives, can encourage broader adoption. Addressing user challenges and fostering partnerships with merchants expand acceptance. Innovation to adapt to evolving preferences and technological advancements is crucial. These measures collectively aim to create a robust digital payment ecosystem, catering to diverse user needs while ensuring security, accessibility, and convenience, ultimately driving widespread adoption and usage.

7.3 Conclusion

The demographic analysis underscores broad acceptance of digital payments across diverse demographics. High adoption rates for online transactions and bill payments, alongside positive ratings, highlight convenience and satisfaction. The COVID-19 pandemic accelerated adoption, boosting trust and prompting significant shifts, especially among younger demographics. This data emphasizes the widespread appeal and utility of digital payments, showcasing their pivotal role in modern transactions.

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A STUDY ON SOCIO-ECONOMIC CONDITION OF DELIVERY BOYS IN AREEKODE PANCHAYAT

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"The rise of the gig economy is essentially the rise of the individual." - Diane Mulcahy

Abstract

In the study of domestic labor, there is a focus on the intricate dynamics faced by domestic workers, particularly maids. The study aims to shed light on their often over looked contributions and challenges. Through a multidimensional analysis encompassing factors such as gender, class, race, and immigration status, the research explores the complexities of the socio-economic landscape within which maids operate. It highlights the essential yet marginalized role of domestic workers in upholding household functionality and familial well-being, while also examining the broader implications of their labor relations. By scrutinizing income disparities, working conditions, legal protections, and access to social benefits, the investigation aims to unveil the nuanced nuances of domestic work and its impact on both individual lives and societal structures. The study seeks to rectify the imbalance in societal narratives surrounding domestic labor by elevating the voices and experiences of maids. Through this exploration, it aims to foster a deeper understanding of their professional trajectories and the underlying societal structures that shape their realities.

1.Introduction

The gig economy, particularly the role of delivery drivers, encompasses several important aspects such as flexibility,

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income generation, on-demand services, economic growth, and growth market adaptability. However, it also raises concerns about job security, labor rights, and worker benefits, leading to ongoing debates about regulations and protections for gig workers. Balancing these benefits and challenges is a complex issue that requires attention from policymakers, businesses, and workers themselves.

The scope of the gig economy is broad, offering opportunities for individuals to earn income and gain flexibility, but it also presents challenges related to job security, worker rights, and fair compensation. As the gig economy evolves, it will be important for policymakers, businesses, and workers to address these challenges while harnessing the benefits of gig work in the delivery sector.

The gig economy for delivery boys, also known as delivery drivers or couriers, is a rapidly growing sector in which individuals work as independent contractors or freelancers to deliver goods and services to customers. This workforce often relies on platforms and mobile apps to find and complete delivery tasks for various businesses, including food delivery, package delivery, groceries, and more.

Delivery drivers in the gig economy enjoy flexibility in work hours, allowing them to choose when and how much they want to work. However, this flexibility also brings challenges related to job security, benefits, and income stability. The nature of gig work as independent contractors can lead to concerns about stability and access to benefits such as healthcare and retirement plans.

The gig economy for delivery drivers has seen significant expansion in recent years, driven by the rise of e-commerce and on-demand services. Delivery drivers rely on platforms and mobile apps to find and complete delivery tasks for various businesses. This sector offers flexibility in work hours, allowing drivers to choose when and how much they want to work. However, along with the benefits of flexibility and income generation, the gig economy also brings challenges related to job security, worker rights, and fair compensation.

This project aims to explore the gig economy of delivery drivers, focusing on the benefits and challenges faced by these workers. By examining the role of delivery drivers in the gig economy, we can better understand how to address the concerns raised by this evolving sector. Through this research, we hope to contribute to the ongoing discussions about regulations, protections, and policies that can help balance the benefits and challenges of gig work for delivery drivers.

2.Statement/Significance of the study

Delivery drivers, often confronted with precarious working conditions, grapple with multiple challenges. Among these are job insecurity, the absence of traditional benefits like health insurance and retirement plans, and income variability due to the gig-based nature of their employment. Furthermore, safety concerns loom large as they navigate through traffic and deliver to unfamiliar or potentially hazardous locations. The physical demands of the job, characterized by long hours of standing, walking, or cycling, also raise health-related apprehensions. Balancing these challenges with the advantages of flexibility and income opportunities presents a multifaceted dilemma. To

address these issues, it is imperative for both employers and policymakers to collaborate in ensuring fair working conditions and providing adequate support for delivery workers in this burgeoning sector.

3.Objectives/Methodology and Data sources

3.1 Objectives

-To study the socioeconomic background of delivery boys

-To study the problems that faced by the delivery boys

-To study the income and financial stability of delivery boys

3.2 Methodology

The study uses primary data. The primary data for the study have been collected through survey conducted among the delivery boys with a structured questionnaire.

- Data analysis techniques: Graphical method Scatter diagram Line diagram Bar diagram
- Statistical tools: Chi-squared Correlation. Regression

4.Review of literature

The gig economy refers to a labor market where temporary or project-based employment is prevalent, often facilitated by online platforms. This review examines themes such as job satisfaction, income stability, platform influence, and broader implications for delivery boys, aiming to deepen understanding and guide future research.

Katz and Krueger (2016): This influential study found that the gig economy was growing, but most gig workers were not relying on it as their primary source of income. They emphasized the importance of understanding the diverse motivations for gig work. Alan B. Krueger and Lawrence F. Katz co-authored a notable study titled "The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015." This study, published in 2016, explored the changing landscape of employment in the United States, particularly the growth of alternative work arrangements, including gig work and independent contracting

Hamilton and Lin (2018): This research examined the benefits and challenges of gig work, highlighting that while it offers flexibility, it can also lead to income volatility and a lack of employment benefits.

De Stefano (2016): De Stefano discussed the legal implications of the gig economy and the classification of gig workers as independent contractors. This legal aspect has been a significant point of discussion and debate. The work by Valerio De Stefano in 2016, titled "The Rise of the Just-in-Time Workforce: On-Demand Work, Crowd work, and Labor Protection in the Gig-Economy," is a significant contribution to the literature on the gig economy and its legal implications. De Stefano's research primarily focuses on the following key aspects:

Woodcock and Graham (2020): They explored the role of digital platforms in shaping gig work and discussed how these platforms impact workers' autonomy, control, and precarity. The study by Jamie Woodcock and Mark Graham, titled "The

Gig Economy: A Critical Introduction," provides a comprehensive analysis of the gig economy, with a focus on the role of digital platforms in shaping contemporary work. Published in 2020, this research is part of the ongoing academic discourse surrounding the gig economy.

Benner and Karner (2018): Focusing on the inequalities within the gig economy, this study revealed that some gig workers benefit more than others due to differences in skills, access to technology, and geographical location.

Leighton and Willcocks (2017): Their work delved into the potential for automation in the gig economy and how it might affect job security and the demand for gig work.

Chen and Huang (2020): This study examined the impact of gig work on workers' well-being, emphasizing the importance of social support and protections for gig workers.

Berg, Furrer, and Harmon (2018): They discussed the global perspective of the gig economy, considering how it varies across different countries and cultures.

Sundararajan (2016): Sundararajan's book, "The Sharing Economy," provides an insightful overview of the gig economy, discussing its emergence, challenges, and potential policy solutions. Arun Sundararajan is the author of the book "The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism," which was published in 2016.

Mark R.Gleim, Catherine Johnson, Stephanie Lawson (2019): Studied about Sharers and sellers: A multi-group examination of gig economy workers' perceptions. The study

was done to find out the various perceptions of Gig economy workers. The literature on the gig economy of delivery boys highlights the transformative impact of gig platforms, offering flexibility but raising concerns about job security and benefits. Social and economic implications are central, urging policymakers and scholars to address challenges and foster a fair work environment.

4. Data analysis and Interpretation

This analysis presents key findings from the survey conducted among delivery boys, focusing on demographic, economic, and job-related aspects. It examines age distribution, income levels, factors influencing job satisfaction, common challenges faced, and technology adaptation

Figure 4.1. Marital Status among respondents
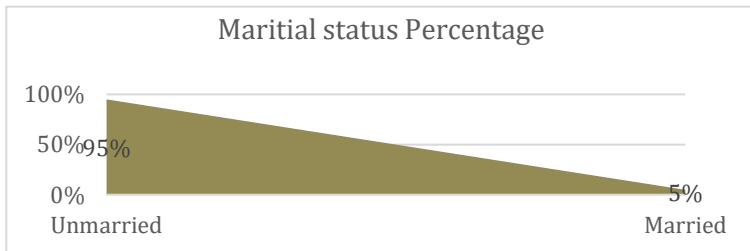
Source: Filed survey

The graph illustrates the marital status distribution among delivery workers in the gig economy, revealing that 95% of workers are unmarried, while only 5% are married. This finding suggests that the majority of delivery workers are in the younger demographic, as unmarried status is more common among younger adults. The high percentage of unmarried individuals in the delivery workforce could be attributed to several factors. Younger adults, who are more likely to be

unmarried, may be attracted to gig economy jobs due to the flexibility and autonomy they offer.

Figure 5.2. Product Type among respondents:
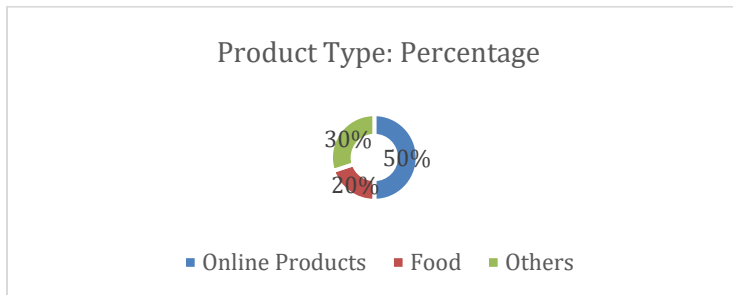
Source: Filed survey

The graph presents the distribution of product types delivered by gig economy workers, with 50% of deliveries comprising online products, 20% involving food, and the remaining 30% categorized as "others. The dominance of online products in the delivery sector reflects the growth of e-commerce and the increasing reliance on online shopping. Services like UberEats, Swiggy, and Zomato have transformed the way people access food, creating a sizable market for gig workers to fulfill these orders. The "others" category likely includes a variety of items, such as groceries, documents, and small parcels, reflecting the diverse nature of delivery services provided by gig workers.

Figure 5.3: Communication Skills among respondents:

Communication Skills Percentage
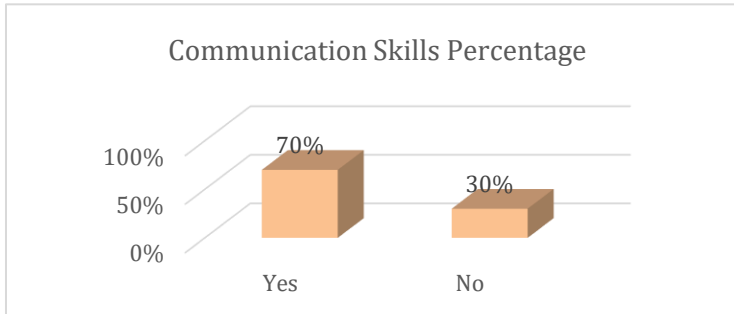
Source: Filed survey

The graph indicates the percentage of delivery workers in the gig economy who possess effective communication skills, with 70% of workers falling into this category and 30% lacking effective communication skills. Effective communication is crucial for delivery workers, as they often interact with customers, navigate delivery routes, and coordinate with dispatchers or colleagues. Workers with strong communication skills are better equipped to handle customer inquiries, resolve issues, and ensure smooth delivery operations.

Table 5.1: Education Level among respondents:

Education Level	Percentage
Any Degree	85%
Others	15%

Source: Filed survey

The table displays the education level distribution among delivery workers in the gig economy, revealing that 85% of workers have at least a degree, while the remaining 15% fall into the "Others" category, indicating they have education

levels below a degree. The high percentage of delivery workers with at least a degree suggests that many individuals in this sector have pursued higher education. This finding could be attributed to several factors, including the desire for better job opportunities, career advancement, or personal development.

Figure 5.4: Working Days among respondents:

Working days Percentage
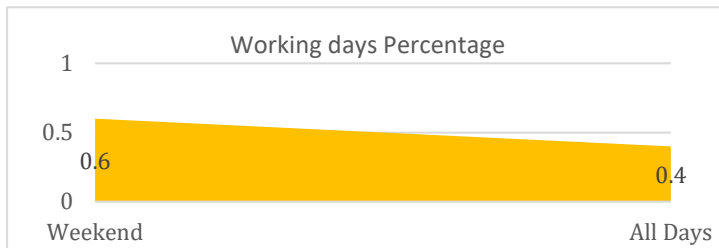
Source: Filed survey

The graph presents the distribution of working days among delivery workers in the gig economy, indicating that 60% of workers operate exclusively on weekends, while 40% work all days of the week. The predominance of weekend work suggests that many delivery workers in the gig economy may be engaging in part-time or supplementary work to complement other weekday commitments, such as full-time jobs or education. Weekend work offers flexibility and allows individuals to earn additional income without compromising their primary responsibilities. On the other hand, the 40% of workers who work all days of the week may be more reliant on gig work as their primary source of income.

Figure 5.5: Working hours per day among respondents:
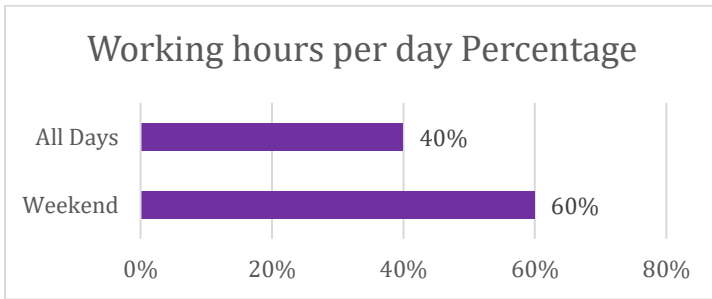
Source: Filed survey

The graph displays the distribution of working hours per day among delivery workers in the gig economy, with 50% of workers working 4-5 hours per day and the remaining 50% working 6 or more hours per day. The equal split between workers in the two categories suggests a balanced distribution of working hours among delivery workers. Those working 4-5 hours per day may be engaging in part-time or supplementary work, balancing their delivery gig with other commitments such as studies or another job.

Figure 5.6: Family Background among respondents:
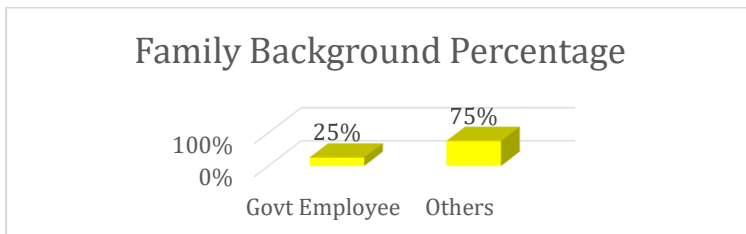
Source: Filed survey

The graph presents the distribution of family backgrounds among delivery workers in the gig economy, indicating that 25% of workers have a family background in government employment, while the remaining 75% have backgrounds in other sectors. The presence of workers with a family background in government employment suggests a diverse workforce with varied family backgrounds and experiences.

Figure 5.7: Income range per month among respondent:

Income range per month Percentage

20%

45%

35%

■ 3k-5k ■ 5k-8k ■ Above 8k
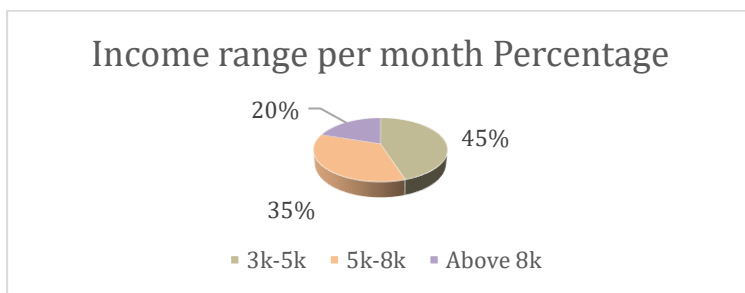
Source: Filed survey

The graph illustrates the distribution of income ranges per month among delivery workers in the gig economy, with 45% of workers earning between 3,000 and 5,000 units per month, 35% earning between 5,000 and 8,000 units per month, and 20% earning above 8,000 units per month. The majority of workers, accounting for 45%, fall into the income range of 3,000 to 5,000 units per month. The income range of 5,000 to 8,000 units per month, which represents 35% of workers, may include individuals who work more consistently in the gig economy and depend on it as a primary source of income.

5.8: Reasons for choosing job among respondents:

Reason for choosing Percentage
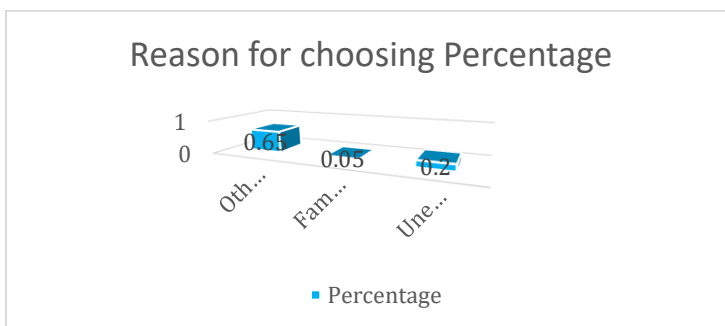
Source: Filed survey

The graph presents the reasons for choosing a job among delivery workers in the gig economy, indicating that 65% of workers chose the job for reasons other than family problems or unemployment, 5% chose it due to family problems, and 20% chose it due to unemployment. The majority of workers, comprising 65%, chose the job for reasons not specified in the table, suggesting a variety of motivations for entering the gig economy. These reasons could include flexibility, autonomy, income potential, or personal interest in the work. Understanding these diverse motivations is essential for companies and policymakers to design recruitment strategies and support systems that resonate with the workforce's needs and expectations. The 5% of workers who chose the job due to family problems may have sought out gig work as a means of addressing financial or personal challenges within their families. The 20% who chose the job due to unemployment may have turned to gig work as a temporary or alternative source of income during periods of job scarcity.

Correlation and Regression

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r" ranges from -1 to 1. A positive correlation (r > 0) indicates both variables move in the same direction, while a negative correlation (r < 0) suggests they move oppositely. A zero correlation (r = 0) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analyzing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation to find relationship between hours of working and daily earnings

Hours of working	Daily earnings
2	120
4	120
3	220
1	700
1	320
2	320
2	120
4	120
1	120
4	320
4	700
3	700
1	700

4	120
4	220
4	220
2	220
3	320
4	320
2	220
2	220
4	700
2	220
3	120
3	320
4	700
3	120
2	220
4	700
4	700
4	320

Correlation coefficient is**0.125196**

A correlation coefficient of 0.125196014 indicates a weak positive correlation between the variables being studied.

In general:

- The correlation coefficient ranges from -1 to 1.

- A positive correlation coefficient indicates a positive linear relationship between the variables, meaning that as one variable increases, the other tends to increase as well.

- The strength of the correlation is determined by how close the coefficient is to -1 or 1. A coefficient closer to 1 or -1 indicates a stronger correlation, while a coefficient closer to 0 indicates a weaker correlation.

In this case, a coefficient of 0.125196014 suggests a weak positive correlation. It implies that there is some tendency for the variables to move in the same direction, but the relationship is not very strong. Other factors may also influence the relationship between the variables being studied

Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta 0+\beta 1\times x+\epsilon$, where $0\beta 0$ is the intercept, $1\beta 1$ is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of y. Simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Regression to find the relationship between hours of working and salary satisfaction.

And how many hours in a day ?	Are you satisfied with this salary ?
2	2
4	2
3	2

1	2
1	2
2	2
2	2
4	1
1	2
4	1
4	2
3	2
1	1
4	2
4	2
4	2
2	1
3	1
4	1
2	2
2	1
4	2
2	1
3	2
3	2
4	1
3	2
2	2
4	1
4	1
4	2
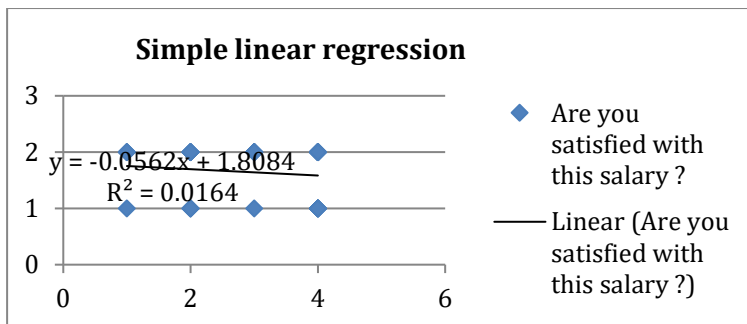
To analyze the regression values provided, let's start with the equation you provided:

[y = -0.0562x + 1.8084]

Here,(y) represents the response variable (possibly satisfaction with salary), and (x) represents the predictor variable (possibly hours in a day). The coefficient of (x) (-0.0562) indicates the rate of change of the response variable for each unit change in the predictor variable. In this case, it suggests that for every additional unit (hour?) in a day, the satisfaction with salary decreases by approximately 0.0562 units, holding all other variables constant. The intercept term (1.8084) represents the estimated value of the response variable when the predictor variable is zero. In this context, it may indicate the baseline level of satisfaction with salary when hours in a day are zero, though this interpretation depends on the specific meaning of the variables.

The coefficient of determination (R^2) value of 0.0164 suggests that approximately 1.64% of the variation in satisfaction with salary can be explained by the variation in

hours in a day according to the linear regression model. However, this (R^2) value is quite low, indicating that the linear model may not be a good fit for explaining the relationship between these variables.

Without more context about the variables and the purpose of the analysis, it's challenging to provide a comprehensive interpretation of the regression results. Additionally, the dataset provided seems to be a list of observations rather than paired (x) and (y) values, so further analysis would be needed to fully understand the relationship between hours in a day and satisfaction with salary.

Conclusion

The diagrams offer a detailed examination of delivery workers in the gig economy, revealing insights into their demographics, working conditions, and motivations. Findings include a male-dominated workforce, unmarried status among most workers, and a focus on delivering online products and food. This information can inform strategies to support and empower gig workers.

6. Findings, Suggestions and Conclusion

6.1 Findings

Findings concludes the study on delivery workers in the gig economy, emphasizing key findings. The predominantly male, unmarried workforce values flexibility, often supplementing income or balancing commitments. Handling online products and food, they reflect the rising demand for e-commerce and food delivery. Effective communication skills are prevalent,

vital for customer interactions. Income ranges vary, with many earning between 3,000 and 5,000 units monthly. Motivations for gig work are diverse, beyond family problems or unemployment. These findings underscore the need for strategies to support and empower gig workers, promoting a sustainable and inclusive gig economy.

6.2 Suggestions

Suggestions provides recommendations for stakeholders in the gig economy to improve working conditions and well-being of delivery workers. Suggestions include gender diversity initiatives, training for communication skills, income stability measures, flexible work arrangements, safety measures, collaboration with platforms, community engagement, and policy advocacy. These recommendations aim to address challenges and promote a sustainable and inclusive gig economy ecosystem, benefiting both delivery workers and society at large

6.3 Conclusion

Our study provides insights into the gig economy workforce, focusing on delivery workers. Findings reveal a diverse workforce facing unique challenges and opportunities. Gender disparity is evident, with a 100% male workforce, highlighting the need for greater diversity initiatives. Most workers are unmarried, indicating a younger demographic valuing flexibility. Online products and food delivery dominate, reflecting changing consumer preferences. Effective communication skills are prevalent. Recommendations include diversity initiatives, regulatory protections, and skill

development. Addressing these findings can create a more inclusive gig economy.

Bibliography

The literature review for this project is based on a comprehensive analysis of various studies and research articles related to the gig economy. The following are the key references used:

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A STUDY ON THE IMPORTANCE OF MICROFINANCE IN KUDUMBASREE: WITH SPECIAL REFRENCE TO MUTHUVALLUR PANCHAYATH

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Abstract

Microfinance plays a pivotal role in promoting financial inclusion and empowering economically disadvantaged individuals, particularly women, within initiatives like Kudumbashree in Kerala, India. This study delves into the significance of microfinance within the Kudumbashree Mission, emphasizing its impact on poverty eradication and women's empowerment. Through the provision of small loans, savings facilities, and financial services, microfinance aims to nurture entrepreneurship, boost income levels, and enhance the overall socioeconomic status of its beneficiaries. Research conducted by the Kudumbashree Mission underscores the positive outcomes of microfinance, including elevated employment rates, increased incomes, and greater asset ownership among members. Moreover, microfinance recipients demonstrate heightened community engagement and improved access to vital services such as healthcare and education. However, challenges persist, including high interest rates, over-indebtedness, and financial illiteracy. This study aims to tackle these challenges by scrutinizing the socioeconomic demographics and characteristics of respondents within the Kudumbashree framework. Findings reveal disparities in poverty, land ownership, education, and income levels among different demographic groups, underscoring the necessity for targeted interventions. Proposed solutions encompass data validation, tailored interventions, bolstering financial inclusion initiatives, and implementing education and skill development programs. At the policy level, recommendations center on ensuring

data accuracy, implementing precise interventions, fortifying financial inclusion efforts, investing in education and skill enhancement, and fostering community empowerment through microfinance availability. Through addressing these challenges and refining microfinance strategies, this research seeks to contribute to the empowerment of women, poverty alleviation, and sustainable development within the Kudumbashree community.

1 Introduction

Microfinance has emerged as a pivotal instrument for financial inclusion, particularly within the context of initiatives like Kudumbashree, a renowned women's self-help group endeavor in Kerala, India. Designed to empower and uplift economically disadvantaged individuals, particularly women, microfinance within Kudumbashree operates on the principle of providing small loans, facilitating savings, and offering tailored financial services. These efforts are geared towards catalyzing entrepreneurship, augmenting income streams, and ultimately, enhancing the overall socioeconomic status of its members. This multifaceted initiative has played a seminal role in fostering financial self-sufficiency and advancing women's empowerment, thereby making significant strides towards the broader objectives of poverty alleviation and gender equality in the region.

Kudumbashree, meaning 'prosperity of the family' in Malayalam, encapsulates the essence of community-driven development and empowerment. Established in 1998 by the Government of Kerala, Kudumbashree has evolved into one of the largest women's empowerment initiatives globally, with a primary focus on poverty eradication and social inclusion. At its core, Kudumbashree operates through neighborhood groups

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known as 'Kudumbashree units,' comprising women from economically marginalized backgrounds who come together to address common challenges and pursue collective economic activities. Microfinance serves as a cornerstone of Kudumbashree's approach towards fostering economic resilience and empowerment among its members. Through the provision of small loans, often referred to as microcredit, Kudumbashree enables women to embark on entrepreneurial ventures, ranging from small-scale businesses to agricultural enterprises. These loans, typically offered without collateral, empower women to invest in income-generating activities, thereby creating avenues for economic independence and self-sufficiency.

In addition to microcredit, Kudumbashree emphasizes the importance of savings and financial literacy among its members. By promoting a culture of saving and providing access to safe and affordable financial services, Kudumbashree equips women with the necessary tools to manage their finances effectively and plan for the future. This holistic approach to financial inclusion not only enhances the economic resilience of individual households but also strengthens the collective bargaining power of women within their communities. Moreover, microfinance within Kudumbashree transcends mere economic empowerment, encapsulating broader social and gender dimensions. By providing women with opportunities for skill development, leadership training, and capacity building, Kudumbashreeinstills confidence and agency among its members, enabling them to actively participate in decision-making processes at the household and community levels.

In conclusion, microfinance within Kudumbashree represents a transformative force in the realm of poverty alleviation and women's empowerment in Kerala, India. By fostering entrepreneurship, promoting financial inclusion, and nurturing social capital, Kudumbashree not only uplifts individual lives but also contributes to the creation of a more equitable and inclusive society. As such, microfinance within Kudumbashree stands as a beacon of hope and progress, illuminating pathways towards sustainable development and social justice in the region.

1.1 Significance of the study

Microfinance is integral to the Kudumbasree Mission, a community-driven initiative in Kerala, India, focused on poverty eradication and women's empowerment. Through this program, small loans are extended to women's self-help groups (SHGs) to facilitate microenterprise development, enhance agricultural productivity, and address household needs. By granting access to financial services to marginalized women, microfinance facilitates entrepreneurship, leading to increased incomes and improved living standards. Additionally, it fosters financial literacy and empowerment, empowering women to make informed financial decisions. Studies conducted by the Kudumbasree Mission reveal that microfinance beneficiaries experience higher employment rates, incomes, asset ownership, and engagement in community decision-making. Beyond economic gains, microfinance contributes to social cohesion, with beneficiaries reporting higher life satisfaction, self-esteem, and involvement in community activities. Overall, microfinance within the Kudumbasree Mission plays a pivotal role in promoting financial inclusion, fostering

entrepreneurship, enhancing women's empowerment, and advancing both economic and social development within the community.

1.2 Statement of the problem

Addressing these challenges is paramount to ensuring that microfinance initiatives within Kudumbashree remain aligned with their core objectives of empowering women, reducing poverty, and fostering sustainable development. This study endeavors to delve into these challenges, meticulously identify potential solutions, and offer insights to enhance microfinance strategies within the Kudumbashree framework. By conducting a comprehensive investigation and proposing actionable recommendations, this research aims to play a pivotal role in refining microfinance interventions, thereby bolstering their effectiveness and impact in advancing the socioeconomic well-being of women and communities served by Kudumbashree. Ultimately, the study seeks to contribute meaningfully to the ongoing efforts aimed at empowering women, alleviating poverty, and promoting sustainable development within the Kudumbashree ecosystem.

1.3 Objectives
1. To examine the influence of microfinance on the economic development of women Kudumbasree members.
2. To analyse the socio-economic condition of Kudumbasree members.

1.4 Methodology

Both primary and secondary data will be used in this study. Primary data will be collected from 30 Kudumbasree members in Muthuvallur Panchayat using a convenient sampling method. Simple tables, diagrams, correlation, and regression analysis will be utilized, with SPSS software employed for analysis. Secondary data will be gathered from articles, journals, the internet, and books.

2. Review of literature

This chapter undertakes a review of relevant studies essential for the present research, emphasizing the cumulative nature of knowledge. It stresses the importance of understanding previous research to provide a foundation and direction for the current study, highlighting the synthesis and integration of key findings from existing literature.

Irshad M.K and Dr. R. Sathyadevi emphasize that "real empowerment occurs only when the right things can be legitimately claimed and are universally acknowledged." Their paper examines the impact of microfinance on the beneficiaries and whether economic empowerment has led to the creation of self-reliant women. The study was conducted to assess the positive impact of the Kudumbashree development program and was designed as a descriptive study based on primary and secondary data. Various tools used to analyze the data include ANOVA, F-test, correlation, and weighted average.

K. Swapna describes microfinance as a growing and powerful instrument for poverty alleviation and empowering women. In her paper, she attempts to study the role of microfinance in

promoting women's entrepreneurship in India. This study is based on information gathered from secondary sources.

W.P. Wijewardana and H.H. Dedunu stated that microfinance institutions primarily address the needs of vulnerable groups such as women entrepreneurs, who are often overlooked by the formal financial system. The study involved 200 female entrepreneurs from the Mihinthala Pradeshiya Sabha area, with data collected through questionnaires. The findings indicate that the availability of loans, repayment procedures, and non-financial services positively affect the empowerment of women entrepreneurs.

Shihabudheen N. Jan *(2014)* discusses how microfinance programs not only aid in financial inclusion but also promote banking habits, saving behavior, and better financial utilization among the poor. The Kudumbashree movement in the study was found to have significantly influenced the awareness of bank linkage programs, better utilization of finances, and participation in the collective processes of self-help groups. The study suggests that providing the poor with microcredits can help meet their immediate needs, such as consumption and education.

Uma H.R and Rupa K.N (2013) found that the number of bank accounts, credit availed, and credit repayment showed a positive increase with membership in SHGs. The Global Financial Inclusion Database (2012) found that women are particularly disadvantaged when it comes to access to financial services. Only 37 percent of women in developing countries have bank accounts, compared to 46 percent of men.

K.B. Nidheesh (July 2009) notes that Kudumbashree became the lifeline for many poor women in Kerala. As a result, women in the state have become active participants in the planning and implementation of various anti-poverty programs. By participating in income-generating and developmental activities, the morale and confidence of women have significantly improved. Women who were once regarded as voiceless and powerless have started to recognize their inner strength, opportunities for growth, and their role in reshaping their own destinies.

Guha and Gupta (2005) argue that microfinance should be considered an interlinking vehicle between financial inclusion and improving the standard of living. They emphasize the need for a deliberate platform to improve the income and earnings of members through participative, productive activities.

Mahendra Varman P. (2005), in his study "Impact of Self-Help Groups on Formal Banking Habits," makes a modest attempt to examine whether there is any association between the growth of SHGs and the increase in female bank deposit accounts, and whether SHGs influence account holding in formal banks. The analysis reveals that being a member of SHGs, and more importantly, having leadership experience in SHGs, greatly influences bank account holding. Leadership experience in SHGs also improves an individual's banking habits.

K. Manoharan Nair and Girija B. (2005), in their work "Microfinance - The New Development Paradigm for Poverty Eradication and Women Empowerment," state that experience has shown that many poverty alleviation programs through

organized credit channels have not achieved the required success.

Meenakshi Malhotra (2004), in her work "Empowerment of Women" (in 3 volumes), deals with the issues leading to the empowerment of women, with particular reference to rural women. Volume one addresses issues such as gender inequalities in the labor market and entrepreneurship. Volume two focuses on microfinance options for women empowerment, including microcredit schemes for rural women and the microfinance movement in India.

3.Data Analysis and interpretation

Source: 3.1 Familiarity with Kudumbasree

Source: calculated from the primary data

Figure 3.1 outlines the familiarity of 30 individuals with Kudumbasree. A significant majority (71.88%) claim to be very familiar with the organization, indicating widespread awareness. Meanwhile, 18.75% report being somewhat familiar. However, 3.13% did not provide an answer, possibly due to a lack of knowledge or reluctance to disclose.

Table 3.1: Association With Kudumbasree.

Association with Kudumbasree	Count	Percentage
Morethan6years	10	31.25
4-6years	11	34.38
1-3years	5	15.63
Lessthan1year	2	6.25
NoAnswer	2	6.25
Total	30	100

Source: Calculated from the primary data.

Table 3.1 delineates the duration of association with Kudumbasree among 30 respondents. Notably, 31.25% have been associated for more than 6 years, while 34.38% have been associated for 4-6 years. Smaller percentages have associations of 1-3 years (15.63%) or less than 1 year (6.25%). Additionally, 6.25% did not provide an answer. The data indicates a diverse range of association durations with Kudumbasree among the surveyed individuals.

Figure 3.2: Access to Micro finance services
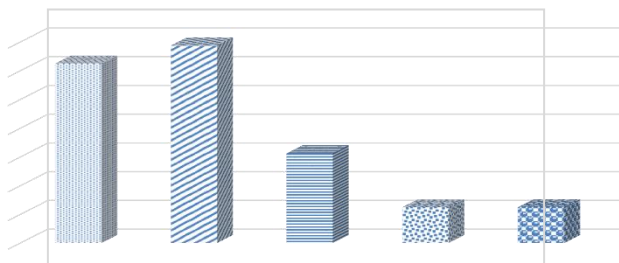
Source: Calculated from the primary data

Figure 3.2 illustrates access to microfinance services among 30 individuals. A significant majority (71.88%) report having

access to these services, indicating that a considerable portion of the sample benefits from financial support. Conversely, 21.88% state they do not have access to microfinance services. The data underscores the presence of financial inclusivity initiatives but also highlights a minority lacking access, potentially indicating areas for improvement in financial assistance outreach.

Table 3.2: Economic impact of Microfinance

Economic Impact of Microfinance	Count	Percentage
VeryPositive	15	46.88
SomewhatPositive	12	18.75
NoAnswer	3	3.13
Total	30	100

Source: Calculated from the primary data.

Table 3.2 presents the perceived impact of microfinance on the economic situation of 30 individuals. A notable 46.88% view it as very positive, while 18.75% consider it somewhat positive. However, 3.13% did not provide an answer. The data suggests a generally positive perception of microfinance's impact on economic situations among respondents, highlighting its potential as a tool for economic empowerment, though a portion refrained from expressing their opinion

Figure 4.3: Financial Services Utilized.
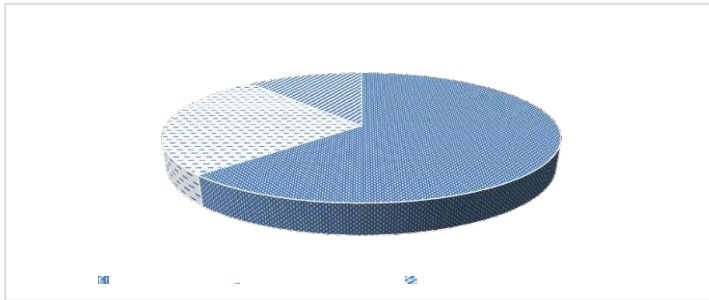
Source: calculated from the primary data

The figure 4.3 outlines the utilization of financial services among 30 individuals. Microloans are the most utilized service, with 53.13% of respondents availing them, indicating a reliance on borrowed funds for financial needs. Savings accounts are utilized by 21.88% of individuals, while 9.38% adjust cash from others. The data underscores a preference for microloans among the surveyed population, potentially indicating a need for more accessible credit options.

Table 3.3: Difficulties Facing Repaying Micro Finance Loans

Difficulties Facing Repaying Microfinance Loans	Count	Percentage
No	15	46.88
Yes	10	31.25
No Answer	5	15.63
Total	30	100.00

Source: calculated from the primary data

The table 3.3 depicts difficulties encountered in repaying microfinance loans among 30 individuals. A notable 46.88% claim to face no difficulties, while 31.25% acknowledge experiencing challenges in repayment. However, 15.63% did not provide an answer. The data suggests that a substantial portion of the surveyed population struggles with repayment, underscoring potential financial strains. Additionally, a minority refrained from disclosing their difficulties, potentially indicating reluctance or uncertainty in acknowledging such issues.

Figure 3.4 : Management of Challenges Facing Repaying Microfinance Loans
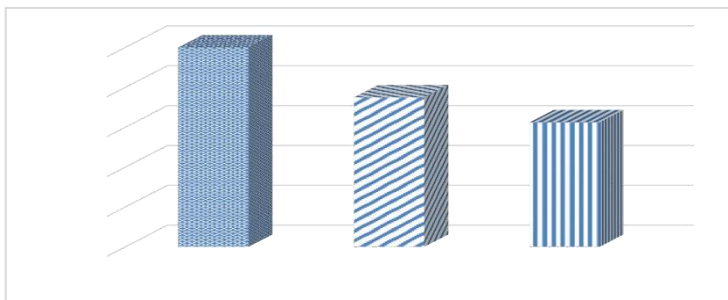
Source: calculated from the primary data

Figure 3.4 outlines strategies employed to manage challenges in repaying microfinance loans among 30 individuals. A quarter (25.00%) address repayment issues through additional microloans, while 18.75% utilize savings. Adjusting cash from outside members is employed by 15.63%. The data indicates a variety of approaches to tackle repayment challenges, including seeking further credit, utilizing personal savings, and leveraging external financial support, showcasing diverse

coping mechanisms within the surveyed population.

**Table 3.4: Influence of Microfinance on
Education and Skill Development of Children**

Influence of Microfinance on Education and Skill Development of Children	Count	Percentage
Yes	10	31.25
No	7	18.75
No Answer	13	40.63
Total	30	100.00

Source: calculated from the primary data

The table 3.4 presents perceptions regarding the influence of microfinance on the education and skill development of children among 30 respondents. While 31.25% affirm a positive impact, 18.75% deny such influence. However, a significant portion (40.63%) did not provide an answer. The data suggests mixed perceptions regarding microfinance's role in children's education and skill development, with a considerable proportion withholding their opinion, potentially indicating uncertainty or lack of awareness.

Figure3.5: Influence of Microfinance on Socio-Economic Development of Households
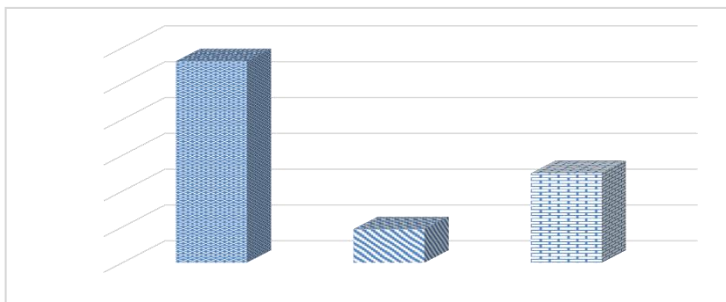
Source: calculated from the primary data

Figure 3.5 outlines perceptions regarding the influence of microfinance on the socio-economic development of households among 30 respondents. A majority (56.25%) affirm a positive impact, while only 9.38% deny such influence. Notably, 25.00% did not provide an answer. The data suggests a prevailing belief in microfinance's positive role in household socio-economic development, though a significant portion refrained from expressing an opinion, potentially indicating varying levels of awareness or uncertainty.

Table 3.5: Influence of Microfinance on Economic Status of Members

Influence of Microfinance On Economic Status of Members	Count	Percentage
Yes	21	65.63
No	4	9.38
NoAnswer	5	15.63
Total	30	100.00

Source: calculated from the primary data

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The table 3.5 illustrates perceptions regarding the influence of microfinance on the economic status of members among 30 respondents. A substantial majority (65.63%) perceive a positive impact, contrasting with only 9.38% who deny such influence. Notably, 15.63% did not provide an answer. The data underscores a prevalent belief in microfinance's positive role in improving the economic status of its members, though a notable proportion refrained from expressing an opinion, potentially indicating uncertainty or lack of awareness

Correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they move oppositely. A zero correlation ($r = 0$) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analysing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation Between Poverty Status and Landholding Pattern

S LNO	Poverty status	Land holding pattern	SL NO	Poverty status	Landholdingpattern
1	4	1	16	3	1
2	1	1	17	3	1
3	3	3	18	3	1
4	4	1	19	3	1
5	3	1	20	3	1
6	3	1	21	3	1
7	4	1	22	2	2
8	3	1	23	4	1
9	3	1	24	3	1
10	4	1	25	3	1
11	3	1	26	3	1
12	2	1	27	3	2
13	3	1	28	2	1
14	2	1	29	2	1
15	3	1	30	3	1

The correlation coefficient is **0.08423**.

Correlation coefficients measure the strength and direction of the linear relationship between two variables. Specifically, this value represents a **weak positive correlation** between the two variables. The absolute value of the correlation coefficient |r| indicates the strength of the relationship between the variables. In this case, |r| = 0.08423, indicating a **very weak relationship**.

Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent variable) **x** and the outcome (dependent variable) **y**. The model is represented by the equation:

y=β0+β1×x+ϵy = \beta_0 + \beta_1 \times x + \epsilony=β0+β1 ×x+ϵ

where **β₀** is the intercept, **β₁** is the slope, and **ϵ** is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of **y**. Simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Regression To Find the Relationship Between Poverty Status and Landholding Pattern,

SLNO	Povertystatus	Landholdingpattern	SLNO	Povertystatus	Landholdingpattern
1	4	1	16	3	1
2	1	1	17	3	1
3	3	3	18	3	1
4	4	1	19	3	1
5	3	1	20	3	1
6	3	1	21	3	1
7	4	1	22	2	2
8	3	1	23	4	1
9	3	1	24	3	1
10	4	1	25	3	1

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11	3	1	26	3	1
12	2	1	27	3	2
13	3	1	28	2	1
14	2	1	29	2	1
15	3	1	30	3	1

The regression equation is:

y=0.0529x+1.2885y = 0.0529x + 1.2885y=0.0529x+1.2885

This equation represents a linear relationship between two variables, xxx and yyy. In this equation:

- **yyy** represents the dependent variable.
- **xxx** represents the independent variable.

The coefficient of xxx, **0.0529**, indicates the slope of the regression line. It represents the rate of change of yyy for a one-unit change in xxx. In this case, the positive slope indicates that as xxx increases, yyy also increases.

The intercept, **1.2885**, represents the value of yyy when xxx is zero.

Coefficient of Determination R2R^2R2

The coefficient of determination R2R^2R2 measures the proportion of the variance in the dependent variable yyy

that is predictable from the independent variable xxx. In this case, R2=0.0071R^2 = 0.0071R2=0.0071, which is a very low value. The low value of R2R^2R2 indicates that only approximately 0.71% of the variability in the dependent variable yyy can be explained by the independent variable xxx using this linear regression model.

This suggests that the linear relationship between the variables is very weak, and the model does not provide a good fit to the data. The slope of the regression line is positive (0.0529), indicating an upward trend in the data, but the weak relationship suggests that the independent variable xxx does not have strong explanatory power for the variation in the dependent variable yyy.

4. Findings, Suggestions, Conclusion

The study provides insights into the socio-economic demographics and characteristics of respondents, highlighting disparities and areas for targeted interventions. Despite challenges, there is widespread awareness of Kudumbashree and access to microfinance services, indicating the potential for empowering marginalized communities. Mixed perceptions regarding the impact of microfinance on various aspects of socio-economic development underscore the need for further research and targeted interventions. Enhancing financial

inclusion, education, and skill development opportunities can contribute to improving the overall well-being and socio-economic status of the surveyed population.

4.1 Findings

Findings reveal a predominantly middle-aged respondent pool with notable gaps in age data. Hindus constitute the majority in religious affiliation, while Scheduled Castes dominate in caste representation. A significant portion holds Yellow Cards, indicating poverty prevalence. Most own less than 10 cents of land, showcasing small landholding patterns. SSLC is the common educational qualification. Anomalies exist in reporting marital status. Family size varies, with the majority having a family size of 4. Most respondents fall within low to moderate income brackets and do not own vehicles. Homeownership is prevalent, while monthly expenditures vary. Many are employed, and there is widespread familiarity with Kudumbashree. Access to microfinance services is notable, with mixed perceptions of its impact on development.

4.2 Conclusion

Microfinance within Kudumbashree stands as a potent tool for financial inclusion and women's empowerment in Kerala, India. It catalyzes entrepreneurship, augments incomes, and fosters socio-economic advancement.

Despite challenges like high interest rates and financial illiteracy, its transformative impact is evident through higher employment rates, increased incomes, and enhanced community engagement. Addressing these challenges and refining microfinance strategies is crucial for further empowering women, reducing poverty, and fostering sustainable development. Through comprehensive research and data-driven approaches, we aim to illuminate the complexities of microfinance within Kudumbashree, ensuring its continued efficacy and profound impact on the region's socio-economic landscape.

4.3 Suggestions

1. Validate and correct marital status reporting to ensure data accuracy.
2. Develop targeted interventions addressing disparities in poverty, land ownership, education, and income among demographic groups.
3. Enhance financial inclusion for marginalized communities through improved access to microfinance services to boost economic prospects.
4. Implement education and skill development programs, especially for women and children, utilizing microfinance initiatives.

5. Foster inclusive decision-making through community participation in local governance, leveraging microfinance availability and empowerment initiatives.

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ECONOMIC IMPACT OF MARRIAGE ON WOMEN IN AREEKODE PANCHAYAT

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Abstract

This study delves into the fundamental institution of marriage and its significant impact on the economic well-being of women, particularly in the context of Areekode Panchayath. It explores how marriage shapes women's access to resources, labor force participation, earning potential, and overall financial autonomy. Moreover, it examines the additional economic considerations introduced by the presence of children, which can affect women's labor force participation and career advancement. Employing a mixed-method approach, the research utilizes both primary and secondary data collection methods. Primary data is gathered through structured questionnaires distributed among residents of Areekode Panchayath, while secondary data is sourced from various literature sources. The study aims to achieve several research objectives, including examining the impact of marriage on women's economic growth, analyzing the correlation between marriage and women's labor force participation, and exploring the relationship between education and marriage on women's economic well-being. A hypothesis suggesting a positive correlation between women's educational attainment and their economic well-being within marriage is also proposed. Despite some limitations such as time constraints and potential data errors, the study offers valuable insights into the economic dynamics of marriage for women in the local context. The findings contribute to a deeper understanding of the intersection between marriage and women's economic well-being, informing policies and interventions aimed at promoting gender equality and enhancing women's

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economic empowerment within marital relationships and broader societal contexts.

1.Introduction

The economics of marriage encapsulates the intricate analysis of household formation, distribution decisions, and the breakdown of households, intricately intertwined with legal and economic frameworks. Within this realm, the economic impact of marriage on women has garnered substantial attention and debate across disciplines like economics, sociology, and gender studies. The repercussions of marriage on women's economic standing are diverse, influenced by cultural norms, legal structures, and individual contexts. Understanding these implications is pivotal for fostering gender parity and crafting policies to bolster women's financial standing within marriages. A significant facet of this impact lies in the division of labor within households. Historically, marriage has perpetuated gendered roles, with women disproportionately shouldering unpaid domestic chores and caregiving duties. This division restricts women's capacity to pursue paid employment, education, or avenues for financial independence, thereby shaping their economic trajectory within marriages.

Furthermore, marriage can sway women's access to resources and assets. While marriage may afford access to shared resources like property or financial assets, it can also engender dependence on spouses, particularly in environments with limited economic opportunities for women. The stability of marital unions is pivotal for women's economic security, as transitions like divorce or widowhood often precipitate

financial strain, underscoring the necessity of support mechanisms and policies to alleviate such burdens. Marriage's influence extends to women's earning potential, marked by nuanced effects. On one hand, marriage may grant access to a spouse's income, offering financial support. Conversely, certain tax and benefit systems may impose a "marriage penalty," heightening financial burdens for couples. Additionally, marriage can impede career advancement for women, potentially curtailing wages and opportunities due to increased domestic responsibilities. Factors like marital stability and parenthood further shape the economic impact of marriage on women. Divorce or separation can precipitate economic setbacks, whereas balancing caregiving with employment poses challenges for mothers, affecting labor force participation and career progression. Literature has probed issues such as parental leave and childcare affordability to elucidate women's economic outcomes within marital contexts. Moreover, the economic impact of marriage on women is nuanced by intersecting identities like race, ethnicity, and socioeconomic status. Women from marginalized backgrounds often face compounded economic hurdles, navigating intersecting systems of oppression that curtail economic opportunities. In essence, comprehending and addressing the economic dimensions of marriage for women is indispensable for advancing gender equality and empowering women economically. Reducing gender disparities, enhancing economic autonomy, and mitigating vulnerabilities associated with marriage necessitate a holistic understanding of its economic intricacies.

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2. Significance/Statement of the study

The significance of the study lies in its exploration of the multifaceted economic impact of marriage on women within the Areekode Panjayath community. It delves into the prevalent issue of financial abuse within intimate partnerships, where spouses may exert control over finances, leaving women in precarious situations. Societal shifts, including the rise of dual-income households and evolving family structures, have reshaped the economic landscape of marriage, enabling women to contribute substantially to household incomes and participate in financial decision-making. Recognizing these dynamics is crucial for promoting gender equality and women's economic autonomy. The study aims to address various dimensions of the economic implications of marriage on women, including the division of household labor, access to resources, earning potential, and legal frameworks. By understanding and addressing these issues, policymakers, researchers, and advocates can work towards creating environments that support women's financial independence, security, and empowerment within marital relationships and broader societal contexts.

3.Objectives/Methodology and data sources

1. To find how marriage affects women's economic growth.

2. To analyze the correlation between education and women's economic independence.

3. To examine the relationship between education and marriage on women's economic well-being.

The main sources of information for this study are based on data collection. Data were collected through both primary and secondary means.

Primary data were collected from Areekode Panjayath through a random sampling method and structured questionnaires. Questionnaires were tools used for the study on the economic impact of marriage. Secondary data were collected from various books, journals, reports, articles, and the internet, etc. Questionnaires were the main tools used for the study of the economic impact of marriage on women in Areekode Panjayath. Statistical techniques like percentage analysis, tables, pie diagrams, bar diagrams, etc.

4.Review of Literature

The following studies provide insights into various aspects of women's socio-economic dynamics in India, particularly in Kerala, shedding light on marital adjustment, economic empowerment, cultural influences, marriage decisions, interventions to reduce child marriage, and the impact of marriage on labor market prospects and societal well-being.

Abdul Hameed pv and Laveena d'mello's (2021) study in Malappuram district, Kerala, uncovered that both working and non-working women demonstrated an average level of marital adjustment, shedding light on the subtle dynamics within families. This nuanced exploration highlights the need for a comprehensive understanding of marital dynamics across diverse socio-economic contexts.

Sabu Johny's (2020) research in Malappuram district highlighted the positive correlation between women's

economic independence through employment and enhanced decision-making power within households, showcasing the dynamic interplay of autonomy and financial stability. Such findings underscore the intricate relationship between economic empowerment and the redistribution of decision-making roles within familial structures.

Jafar K's (2015) exploration of the status of Muslim women in Kerala emphasized the pivotal role of marriage, family choices, and cultural influences in shaping opportunities, providing insights into the contextual factors influencing women's options. This study contributes valuable insights into the intersectionality of cultural, religious, and familial factors impacting women's choices in a specific regional context.

Gaurav Dhamija and Punarjith Roy Chowdhury's (2018) study on women's age at marriage in India found no significant causal effect on labor market prospects, challenging conventional assumptions about the direct correlation between age at marriage and career outcomes. This contrarian perspective prompts a reevaluation of existing assumptions and highlights the need for nuanced considerations when examining the impact of marriage on women's professional trajectories.

Sidhant Jain,Bhavana Chuphal, and Mallikarjun Shakarad's (2023) research on financial independence and marriage decisions in India unveiled a tendency among women to seek partners at an earlier age, with age influencing the acceptable range of partners. These findings add depth to the understanding of how financial considerations intersect with

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societal expectations in influencing marriage decisions among women.

Rasmussen B, Maharaja N, and Karan A's (2021) focus on interventions to reduce child marriage in India highlighted the economic and social gains of such interventions, particularly emphasizing the context of the COVID-19 pandemic. This study underscores the importance of targeted interventions in addressing societal issues like child marriage and the potential amplification of challenges during times of crisis.

Sivasamkaran's (2014) examination of the impact of work on women in India, using data from textile mill employment, suggested that longer tenure in the formal sector positively affected female empowerment and autonomy without compromising marriage quality. These findings provide nuanced insights into the potential positive synergy between women's work experience and their empowerment within the marital framework.

Farzana Afriti, Tyron Dinkelman, and Kanika Mahajan's (2016) investigation into the decline in married women's workforce participation in India attributed it to changing individual and household attributes, notably the rising education levels among rural married women. This study sheds light on the complex interplay of socio-economic factors influencing women's participation in the workforce within evolving societal contexts.

Risha Singh's (2020) exploration into the economic and health costs of child marriage in India underscored the significant negative impact on girls' educational attainment, labor force

participation, and overall household economic status. The study highlights the urgent need to address the multifaceted consequences of child marriage on individual and societal well-being.

Yana van der meulen Rodgers and Joseph E. Zveglich, Jr's (2012) examination of gender inequality in Asia's labor markets emphasized the structural drivers influencing women's participation, including the disincentive effect of marriage and having young children. This analysis provides a broader regional perspective on the persistent challenges faced by women in the labor market and the role of family structures in shaping these challenges.

The diverse studies underscore the multifaceted dynamics of women's roles, marriage, and economic empowerment in India, particularly in Kerala. They emphasize the nuanced interplay of socio-economic factors, cultural influences, and interventions in shaping women's opportunities, decision-making power, and well-being, highlighting the need for comprehensive, context-specific approaches to address gender disparities.

5. Data Analysis and Interpretation

The data collected from Areekode Panchayat reveals a diverse socio-economic landscape. It showcases varied occupational distributions, educational profiles, financial decision-making dynamics, and challenges faced by respondents. While positive trends in certain areas are evident, targeted interventions are needed to address challenges and promote holistic socio-economic development within the community.

Data Analysis and Interpretation

Figure 5.1 Occupation status
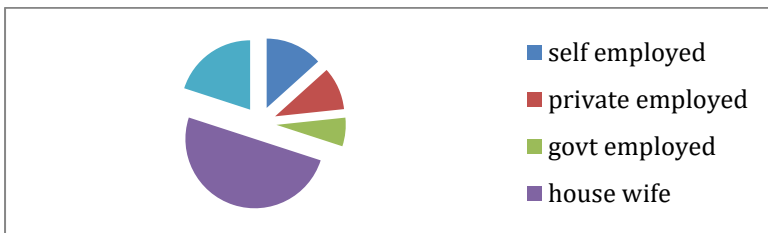
Source: Primary data collected by using a standared questionnaire at Areekode Panchayat

The Figure illustrates the occupational diversity among 30 respondents. Housewives constitute the majority at 50%, indicating a significant presence of individuals engaged in homemaking. Other prominent categories include those categorized as "Other" at 20%, showcasing diverse occupations beyond the specified options. Self-employed individuals represent 13.33%, while private and government employed respondents are at 10% and 6.67%, respectively.

Figure 5.2 Education status of respondent
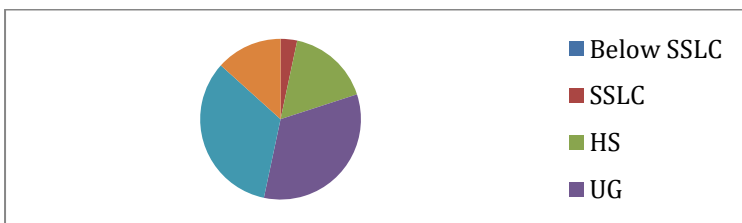
Source: Primary data collected by using a standared questionnaire at Areekode Panchayat

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The Figure indicates an educational distribution among 30 respondents. Notably, no one reported education below SSLC. The majority, 33.33%, completed both undergraduate (UG) and postgraduate (PG) studies, each with 10 respondents. High school (HS) graduates account for 16.67%, while SSLC completion represents 3.33%. The "Other" category comprises 13.33%. This data suggests a notable presence of higher education levels among respondents. Further clarification on the nature of the "Other" category could provide insights into diverse educational backgrounds.

Figure 5.3 Economic independence
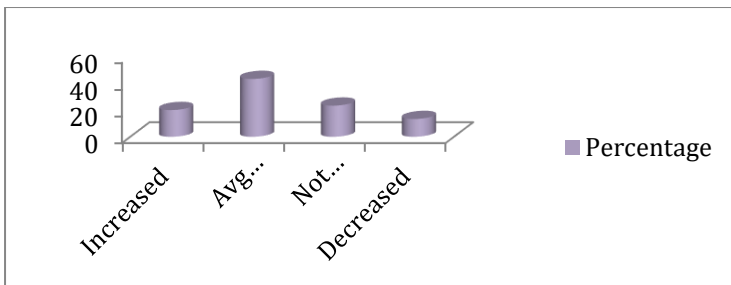
Source: Primary data collected by using a standard questionnaire at Areekode Panchayat

The Figure outlines changes in economic independence among 30 respondents. The majority, 43.33%, reported an average increment, suggesting stability for a significant portion of participants. A noteworthy 20.00% experienced increased economic independence, highlighting positive financial shifts for some. On the other hand, 23.33% stated that their economic status remained unchanged, while 13.33% reported a decrease.

Figure 5.4 Financial decision-making status
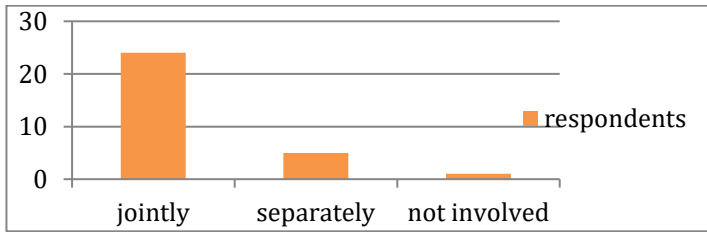
Source: Primary data collected by using a standard questionnaire at Areekode Panchayath

The Figure depicts the financial decision-making dynamics among 30 respondents. A substantial majority, 80.00%, reported making financial decisions jointly, indicating a collaborative approach within households. Conversely, 16.67% stated they make financial decisions separately, highlighting a degree of financial independence. A smaller proportion, 3.33%, mentioned not being involved in financial decisions. This data suggests a varied landscape of financial decision-making structures, reflecting diverse approaches to managing finances within the surveyed group.

Figure 5.5 Personal decision-making ability
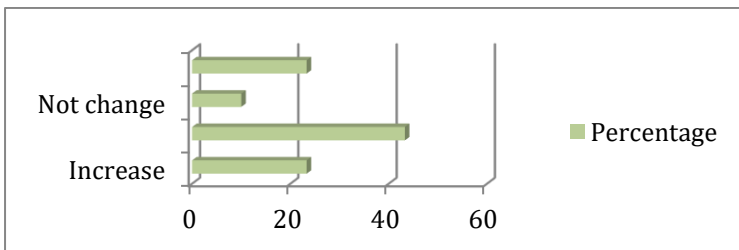
Source: Primary data collected by using a standard questionnaire at Areekode Panchayat

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The Figure illustrates respondents' perceptions of their decision-making ability. Notably, 23.33% reported an increase, suggesting a positive trend. A significant portion, 43.33%, experienced an average increment, indicating ongoing development. However, 23.33% noted a decrease in decision-making ability, signifying challenges for a notable subgroup. The remaining 10% reported no change.

Figure 5.6 Partner support in career and financial goal
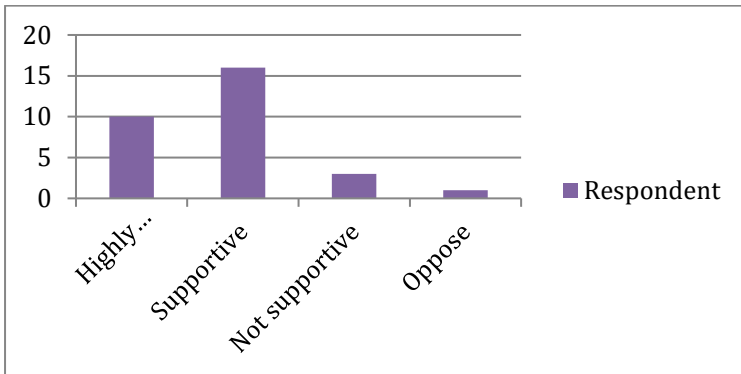
Source: Primary data collected by using a standard questionnaire at Areekode Panchayat

The Figure delineates partner support levels among respondents. A significant 33.33% reported highly supportive partners, indicating strong backing. Additionally, 53.33% noted general support, reflecting overall positive partner relationships. However, 10% reported partners as not supportive, suggesting a notable portion faces challenges. A small 3.33% reported opposition from their partners.

Figure 5.7 Wealth accumulation space
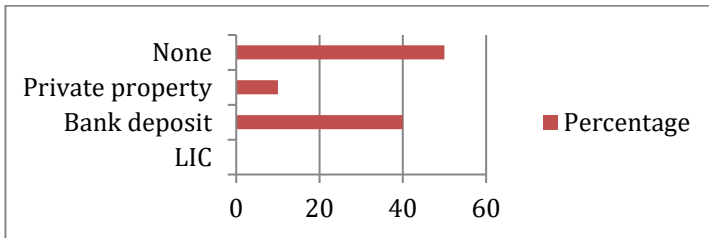
The Figure reveals patterns in wealth accumulation among 30 respondents. A significant portion, 50.00%, indicated no wealth accumulation, suggesting financial constraints or a preference for non-material assets. Bank deposits are a prevalent form of wealth for 40.00% of participants, reflecting a common investment choice for financial growth. Private property ownership is reported by 10.00% of respondents, indicating a smaller but notable group with real estate assets.

Figure 5.8 Women participation in labor market
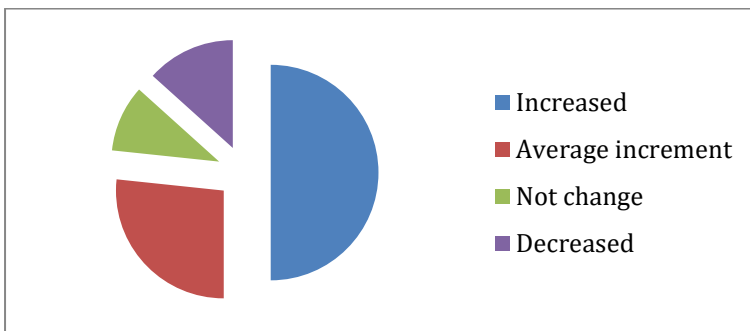
Source: Primary data collected by using a standard questionnaire at Areekode Panchayat

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The Figure reflects women's participation trends, where 50% experienced an increase, indicating a positive shift. An additional 26.67% saw an average increment, suggesting ongoing progress. However, 13.33% reported a decrease, signaling a concerning aspect. The remaining 10% noted no change. This diversity suggests varied experiences in women's participation levels.

Table 5.1 Type of challenges balancing work and family responsibilities

S. No	Type of challenges	Respondents	Percentage
1	Health problems	6	20
2	Financial problems	4	13.3
3	Education problems	3	10
4	Sexual difference	1	3.3
5	Depression	2	6.7
6	None	14	46.7

Source: Primary data collected by using a standard questionnaire at Areekode Panchayat

The table outlines challenges faced by respondents, revealing a range of issues. Health problems were reported by 20%, indicating a notable concern. Financial challenges affected 13.33%, while education problems were cited by 10%. A small percentage, 3.33%, identified sexual differences as a challenge. Depression was reported by 6.67% of respondents. Interestingly, a majority, 46.67%, claimed none of these challenges.

Figure 5.9 Ability to save money
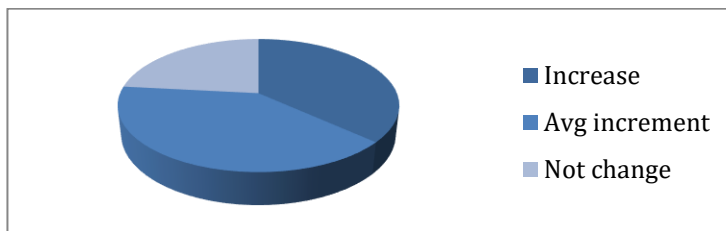
Source: Primary data collected by using a standard questionnaire at Areekode Panchayat

The Figure portrays the distribution of respondents based on their money-saving ability. Notably, 36.67% reported an increase, signifying an improved ability to save. A significant 40% experienced an average increment, while 23.33% noted no change. This implies a varied landscape in financial behaviors within the surveyed group. The majority falling into the "Increase" and "Avg increment" categories suggests a positive trend in money-saving habits. Overall, the analysis underscores the diverse financial dynamics and provides insights into the respondents' evolving saving capacities.

Correlation and Simple Linear Regression

Correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they

move oppositely. A zero correlation (r = 0) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analysing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation to find relationship between Education of respondent and economic independence of respondent after marriage.

Education	Economic Independent
4	3
3	2
4	3
4	4
1	2
2	2
5	2
2	1
3	3
2	1
3	2
4	2
3	2
3	3
4	1
4	1
5	2
3	2
5	1

5	2
4	4
3	3
3	2
4	3
4	1
3	4
2	2
2	2
3	3
4	1

Correlation coefficient is **0.028868**

A correlation value of 0.028868 between education and economic independence after marriage suggests a very weak positive correlation.

In statistical terms, the correlation coefficient ranges from -1 to 1, where:

1 indicates a perfect positive correlation.

-1 indicates a perfect negative correlation.

0 indicates no correlation.

This indicates that there is a slight tendency for individuals with higher levels of education to be slightly more economically independent after marriage, but the relationship is quite minimal. Other factors likely play a more significant role in determining economic independence after marriage. The

negligible correlation underscores the complexity of factors influencing economic independence post-marriage, such as employment opportunities, familial dynamics, and cultural norms. While education may contribute marginally, its impact alone appears insufficient to drive substantial differences in economic independence.

Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta_0+\beta_1\times x+$ where β_0 is the intercept, β_1 is the slope, and ε is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Regression to find the Relationship between Education of respondents and personal decision-making ability changed after marriage of respondents

Education	Personal decision-making ability
3	4
2	3
4	4
4	4
2	1
2	2

2	5
2	2
2	3
2	2
3	3
2	4
1	3
4	3
1	4
1	4
4	5
2	3
2	5
2	5
4	4
4	3
2	3
4	4
1	4
1	3
3	2
1	2
2	3
1	4
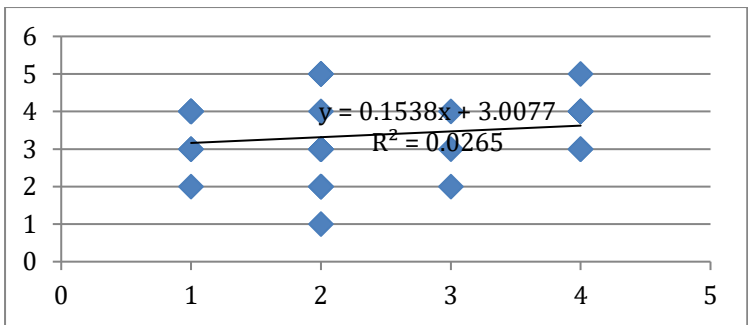
The regression equation y = 0.1538x + 3.0077 suggests a very weak positive relationship between education x and personal decision-making ability change after marriage y.

The coefficient of 0.1538 indicates that for each unit increase in education, there is an expected increase of 0.1538 units in personal decision-making ability change after marriage. However, the low R^2 value of 0.0265 indicates that only about 2.65% of the variance in personal decision-making ability change after marriage can be explained by education. This suggests that education alone is not a strong predictor of changes in personal decision-making ability after marriage, and other factors may have a more significant influence.

6.Findings, Suggestions and Conclusion

6.1 Findings

The data collected at Areekode Panchayat reveals several significant findings regarding the socio-economic landscape of the surveyed population. Housewives constitute a substantial portion, reflecting a prevalent engagement in homemaking roles. Education levels are notably high, with all respondents

reporting education above SSLC, showcasing a focus on higher education. Economic independence varies among respondents, indicating diverse financial experiences within the group. Joint financial decision-making is prevalent, emphasizing collaborative approaches within households. Despite varied perceptions of personal decision-making abilities, partner support levels are generally positive, although some face challenges. Wealth accumulation patterns indicate a preference for non-material assets or bank deposits. Women's increasing participation in the labor market signals positive shifts, albeit with some experiencing decreases. Health problems emerge as a significant challenge, highlighting the need for comprehensive support. Overall, the findings underscore a diverse socio-economic landscape with opportunities for tailored interventions to address challenges and promote holistic well-being among the surveyed individuals.

6.2 Suggestions

Given the diverse financial decision-making structures and varied levels of economic independence among respondents, there is a need for targeted financial literacy programs. These programs can empower individuals with the knowledge and skills to make informed financial decisions, manage resources effectively, and plan for their future financial well-being. While there are positive trends in women's participation in the labor market, efforts should be made to address the concerns highlighted by the 13.33% who reported a decrease. This could involve initiatives such as providing access to vocational training, childcare support, and promoting gender equality in the workplace to ensure sustained progress in women's

participation. With health problems identified as a significant challenge by 20% of respondents, there is a clear need for health and well-being programs. These programs could focus on preventive healthcare measures, mental health support, and access to affordable healthcare services to improve overall well-being and quality of life for the surveyed population Given that 50% of respondents indicated no wealth accumulation, efforts should be made to promote financial planning and investment opportunities. This could involve providing education on different forms of wealth accumulation, encouraging savings habits, and facilitating access to investment options suitable for various income levels and risk preferences. While the majority of respondents reported general or highly supportive partners, the 10% who reported lack of support or opposition require attention. Relationship counseling and support services could be provided to address underlying issues and strengthen partner dynamics, fostering a supportive environment for mutual career and financial goals.

6.3 Conclusion

the findings underscore the diverse socio-economic landscape of Areekode Panchayat, highlighting opportunities for targeted interventions. Suggestions include financial literacy programs, initiatives to support women's labor market participation, health and well-being programs, promotion of financial planning, and relationship support services to enhance overall well-being and economic empowerment.

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SOCIO-ECONOMIC CONDITIONS OF THE TAXI DRIVERS IN MANJERI MUNCIPALITY

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Abstract

The research project, "SOCIO-ECONOMIC CONDITIONS OF THE TAXI DRIVERS," is a meticulous exploration of the myriad challenges faced by taxi drivers, offering a nuanced perspective. In addition to the primary narrative, the project provides supplementary materials tailored to diverse preferences. For those with a penchant for quantitative analysis, detailed tables and charts present demographic data and survey responses, allowing for a thorough understanding of the taxi drivers' circumstances. Conversely, individuals inclined towards qualitative insights will find transcripts of interviews and coding schemes seamlessly integrated, providing a deeper dive into the lived experiences of taxi drivers. Moreover, the inclusion of contextual documents and references enriches the reader's understanding of the broader landscape within which these challenges unfold. This multi-layered approach ensures that the research not only identifies the challenges but also equips readers with the necessary tools to navigate the complex realities faced by taxi drivers. By offering a comprehensive array of materials, the project aims to provide a holistic and enlightening experience for those seeking to engage with this societal issue. Through the deliberate integration of both quantitative and qualitative data, alongside contextual documents, the research fosters a deeper understanding of the socio-economic conditions affecting taxi drivers. This empowers stakeholders to explore potential solutions and advocate for positive change within the taxi industry. Ultimately, the project serves as a catalyst for informed discourse and action, driving towards a more equitable and supportive environment for taxi drivers.

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1. Introduction

The socio-economic landscape of taxi drivers is multifaceted, influenced by a combination of economic dynamics, technological innovations, regulatory frameworks, and societal shifts. Within this complex milieu, taxi drivers navigate a diverse array of challenges and opportunities that significantly impact their livelihoods and overall well-being. At the heart of their socio-economic experience lies the quest for income stability. Taxi drivers often contend with fluctuating demand, seasonal variations, and economic downturns, making it challenging to maintain consistent earnings. Economic conditions, such as fuel prices and inflation rates, further compound these challenges, prompting drivers to adapt their strategies to ensure financial viability.

Technological advancements have reshaped the traditional taxi industry, with the emergence of ride-sharing services presenting both competition and collaboration opportunities. While platforms like Uber and Lyft offer drivers new avenues for earning income, they also introduce heightened competition and disrupt established taxi markets. Taxi drivers must navigate this landscape, leveraging technology to enhance their service offerings while mitigating the risks of market saturation and fare undercutting.

Government regulations play a pivotal role in shaping the socio-economic dynamics of the taxi industry. Licensing requirements, fare regulations, and labor laws directly impact drivers' operating conditions and earning potential. Navigating regulatory frameworks often entails bureaucratic hurdles and

compliance costs, further complicating drivers' socio-economic reality. Moreover, access to essential benefits like healthcare and retirement plans remains a pressing concern for many taxi drivers. Unlike formal employment arrangements that provide access to employer-sponsored benefits, independent drivers often grapple with limited or nonexistent benefits coverage, leaving them vulnerable to financial insecurity and health risks.

Addressing the socio-economic needs of taxi drivers requires a holistic approach that considers the interconnected nature of their challenges. Policy interventions aimed at promoting fair competition, enhancing access to benefits, and fostering collaboration between stakeholders can help create a more equitable and sustainable environment for taxi drivers to thrive. By understanding the intricate socio-economic context in which taxi drivers operate, policymakers, industry stakeholders, and advocacy groups can work collaboratively to enact meaningful reforms that uphold the dignity and well-being of this vital workforce.

2. Statement of the Study

Taxi drivers in the Manjeri Municipality grapple with a host of socio-economic hurdles, primarily revolving around income instability exacerbated by the rise of ride-sharing services. These drivers face daily earnings fluctuations, hindering financial planning and stability. The advent of ride-sharing platforms intensifies competition and drives down fares, squeezing already narrow profit margins. The absence of benefits further compounds their challenges, leaving them vulnerable to unforeseen expenses like medical emergencies or

vehicle repairs. Unlike formal employment sectors, taxi drivers lack access to benefits such as health insurance or retirement plans, adding to their financial strain and insecurity. Moreover, the pervasive nature of ride-sharing services exacerbates feelings of marginalization among traditional taxi drivers, who perceive themselves as victims of technological disruption and regulatory indifference. Overall, the socio-economic landscape for taxi drivers in Manjeri is fraught with income instability, fierce competition, and a lack of essential benefits, posing significant challenges to their economic well-being and social stability. Addressing these issues necessitates coordinated efforts from policymakers, industry stakeholders, and community leaders to safeguard the livelihoods and dignity of taxi drivers amidst evolving economic realities.

3. Objectives and Methodology

1. To examine the socio-economic conditions of taxi drivers in Manjeri Municipality.
2. To analyse the problems faced by taxi drivers in Manjeri Municipality.
   - **Data Collection:** Gather quantitative data on income levels, working hours, and expenses of taxi drivers.
   - **Comparative Analysis:** Compare the income and working conditions of taxi drivers with those in similar professions or industries to understand the unique challenges they face.
   - **Regulatory Examination:** Evaluate local and national regulations affecting taxi services, such as licensing requirements and fare

structures, to assess their impact on drivers' socio-economic status.

o **Case Studies:** Examine specific regions or cities where taxi drivers face unique socio-economic challenges to gain insights into localized factors.

4. Review of Literature

This chapter delves into the socio-economic landscape of taxi drivers, highlighting challenges like irregular income and competition from ride-hailing services. It emphasizes the need for policies promoting fairness and inclusivity. Through the literature review, it aims to provide a comprehensive understanding, laying the groundwork for informed decision-making and action.

Anitha Ramachander (2015): This study on the financial well-being of taxi drivers in Bangalore highlights their financial struggles with low earnings and savings, and shows the relationship between education and various aspects of financial well-being.

Subendrian (2014): This article discusses the informal economies of taxis as not only a social and economic problem but also a serious ecological concern. It examines the socio-economic conditions of taxi drivers, the prospects and problems encountered by stakeholders, and the role of social organizations in transforming lives in Palani.

Emma Shlaes & Akshay Mani (2013): A case study on the taxi sector in Mumbai. Taxis provide door-to-door service and act as feeders to public transit, with nine percent of train commuters using taxis to access stations. While taxis serve an integral role, there are still problems from the perspectives of passengers, drivers, and the government.

Rajesh Ranjan (2015): This study examines the relationship between work-life balance and quality of life among taxi drivers in Mumbai. It assesses components of work-life balance and highlights the deteriorating conditions of taxi drivers, providing insights into their work and life experiences.

Akshay P. Shinde (2012): Focuses on inadequate road-based public transport services and the resulting traffic congestion, pollution, and stress-related travel problems.

Aparna Mani & Pallavi (2011): Examines the political economy influencing the functioning of the taxi system in Mumbai. It looks at various factors involved and interested parties, the current issues faced due to the political economy, and the validity of reasons for imposing regulations.

Tigari, Harish, and H.B. Santhosh (2020): A study on the socio-economic background of taxi drivers finds that driver happiness is average and that they are crucial to the economy. The sector provides job opportunities, though the wages are not high and expenses are significant.

Sayooj Kumar P. (2017): A study on the socio-economic and health status of taxi drivers in the Calicut area reveals a

significant impact on their socio-economic and health perspectives. The study indicates that taxi drivers in Calicut are generally lower middle-class, dissatisfied with government assistance, and unaware of welfare schemes. Most drivers lack *savings habits.*

Melwani V., Priya A., Toppo M., Sethia S., Khan A., and Melwani S. (2018): A study assessing the socio-demographic profile, health status, and working conditions of taxi drivers in Bhopal reveals health issues such as back discomfort and neck pain. The study asserts that taxi drivers make up a significant portion of public transportation and suggests increasing social security through various programs.

Jithu T.V. (2019): A study on empowerment through employment among women taxi drivers shows that, unlike in most labor market sectors where women are paid less, women in the transportation industry are paid on par with men. The payment is based on distance and time, providing equal employment opportunities.

The literature review underscores the health challenges of taxi drivers, including stress-related issues, and highlights the need for government intervention. Despite facing adversity, taxi drivers significantly contribute to transportation services and communities. Technology-based services like Uber reshape the industry, emphasizing the need for policies safeguarding driver welfare amid evolving consumer preferences.

5.Data Analysis and Interpretation.

The analysis presents key findings from a survey conducted among taxi drivers, focusing on demographic, economic, and job-related aspects. It examines age distribution, income levels, factors influencing job satisfaction, common challenges faced, and technology adaptation. These insights shed light on the diverse needs and challenges within the taxi driver community.

Table5.1: Age Wise Distribution of the Respondent

Age Group	Number of Respondents	Percentage
20-29	1	3.33%
30-39	7	23.33%
40-49	9	30.00%
50-59	8	26.67%
60+	5	16.67%
Total	30	100

Source: Calculated from the primary data

The age distribution data indicates that a significant portion of respondents fall within the 30-49 age range, comprising 80% of the total respondents. The majority of respondents are in their productive years, with the 40-49 age group having the highest percentage at 30%. Younger individuals (20-29) make up a smaller percentage, while those aged 60 and above constitute 16.67% of the respondents.

Table 5.2: Monthly Income Distribution

Monthly Income Range	Number of Respondents	Percentage
20000–30000	21	70%
Above 30000	9	30%
Total	30	100

Source: Calculated from the primary data

The table represents the monthly income distribution of taxi drivers surveyed, shedding light on their socio-economic conditions. The data indicates that the majority of respondents (70%) fall within the income range of approximately 30,000 units per month. However, a notable proportion (30%) of respondents earn slightly higher, with their monthly income falling just above the 30,000-unit range.

Table 5.3: Impact of Petrol Price on Job Satisfaction

Impact on Job Satisfaction	Number of Respondents	Percentage
Decreased satisfaction	22	73.33%
No significant impact	8	26.67%
Total	30	100

Source: Calculated from the primary data

The impact of petrol price on job satisfaction data indicates that a significant majority of respondents (73.33%) feel that the increase in petrol prices has led to a decrease in their job satisfaction. In contrast, 26.67% of respondents report no significant impact on their job satisfaction. This information highlights the strong correlation between petrol prices and the overall job satisfaction of taxi drivers. Policymakers or support programs may find this data valuable for understanding the factors influencing job satisfaction within the taxi driver community, potentially informing strategies to mitigate the negative effects of rising petrol prices on job satisfaction.

Table5.4: Common Issues Faced by Taxi Drivers

Common Issues	NumberofRespondents	Percentage
Traffic congestion	18	60.00%
Road conditions	6	20.00%
Increase infares	6	20.00%
Total	30	100

Source: Calculated from the primary data

The common issues faced by taxi drivers' data highlights several challenges experienced within the profession. The majority of respondents (60%) identified traffic congestion as a significant issue. Additionally, 20% of respondents cited both road conditions and an increase in fares as common challenges. This information underscores the operational challenges that taxi drivers encounter, particularly with factors related to traffic and road conditions. Policymakers or relevant authorities may find this data useful for urban planning, infrastructure improvement, or fare regulation discussions.

Table5.5: Impact of Petrol Price on Job

Impact of Petrol Price	Number of Respondents	Percentage
Yes	29	96.67%
No	1	3.33%
Total	30	100

Source: Calculated from the primary data

The table highlights the impact of petrol prices on taxi drivers, with an overwhelming 96.67% of respondents affirming that petrol prices affect them. This high

percentage underscores the significant economic pressure petrol prices exert on taxi drivers, directly influencing their operational costs and, by extension, their net earnings. The fact that only 3.33% (1 respondent) claims to be unaffected suggests that nearly all drivers are vulnerable to fluctuations in fuel costs. This vulnerability reflects the broader socio-economic conditions of taxi drivers, many of whom operate on thin profit margins.

Figure5.1: Fuel Expenses per Day
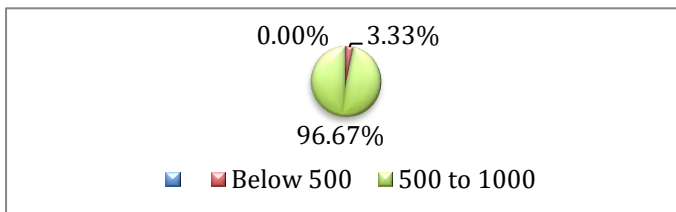
Source: Calculated from the primary data

The fuel expenses per day data indicates that the majority of respondents (96.67%) have daily fuel expenses falling within the range of 500 to 1000. A small percentage (3.33%) reported fuel expenses below 500. This information highlights the significant proportion of taxi drivers with moderate to relatively higher daily fuel expenses. Policymakers or support programs may find this data valuable for understanding the economic burden related to fuel costs within the taxi driver community. It could inform discussions around fuel efficiency, subsidy programs, or initiatives aimed at alleviating the financial impact of fuel expenses on taxi drivers.

Figure 5.2: Technology-related Challenge
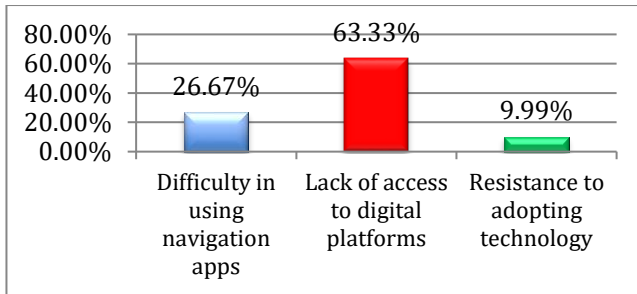
The technology-related challenges data reveals that a significant portion of respondents face difficulties in adapting to digital tools. Specifically, 63.33% of respondents reported a lack of access to digital platforms, indicating challenges in utilizing technology. Additionally, 26.67% reported difficulty in using navigation apps, while a smaller percentage (9.99%) expressed resistance to adopting technology. This information suggests a need for interventions or training programs that address the digital literacy and technological adaptation challenges faced by taxi drivers.

Table5.6: Days Worked per Week Distribution

Days Worked per Week	Number of Respondents	Percentage
1to6days	20	66.67%
Fulldays	10	33.33%
Total	30	100

Source: Calculated from the primary data

The days worked per week distribution data reveals that a significant majority of respondents (66.67%) work between 1 to 6 days a week. On the other hand, 33.33% of respondents

work full days, indicating a substantial portion of taxi drivers are engaged in full-time work. This information is valuable for understanding the work patterns among taxi drivers.

Table5.7: LandHoldingPatternDistribution

Landholding Pattern	NumberofRespondents	Percentage
Lessthan10cent	14	46.67%
10to50cent	15	50.00%
Noland	1	3.33%
Total	30	100

Source: Calculated from the primary data

The land holding pattern distribution data indicates that among the surveyed taxi drivers, 46.67% have less than 10 cents of land, while 50% have land holdings between 10 and 50 cents. Only a small percentage (3.33%) reported having no land. This information provides insights into the property ownership patterns within the taxi driver community. It may be relevant for urban planning, housing policies, or initiatives aimed at supporting individuals with varying degrees of land ownership.

Table4.5: Years of Experience

Years of Experience	NumberofRespondents	Percentage
1to10years	18	60.00%
11to20years	10	33.33%
Morethan20years	2	6.66%
Total	30	100

Source: Calculated from the primary data

The years of experience distribution data illustrates the tenure within the taxi driver profession among the respondents: **60%** have 1 to 10 years of experience, indicating a relatively newer segment in the field. **33.33%**

have been driving taxis for 11 to 20 years, reflecting a more experienced group **6.66%** reported having more than 20 years of experience. This information provides a snapshot of the distribution of experience levels among taxi drivers.

Conclusion

The survey data underscores the importance of addressing age-specific needs, economic vulnerabilities, and technological adaptation challenges within the taxi driver population. Policymakers can utilize these insights to develop targeted interventions, support programs, and policy frameworks aimed at improving job satisfaction, economic stability, and overall well-being among taxi drivers.

Correlation

Correlation in statistics quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1:

- A **positive correlation** ($r > 0$) indicates that both variables move in the same direction.
- A **negative correlation** ($r < 0$) suggests that the variables move in opposite directions.

- A **zero correlation** (r = 0) implies no systematic relationship between the variables.

Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analysing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

To find the relationship between common issues faced by taxi drivers and the impact of petrol prices on job satisfaction, you would calculate the correlation coefficient between these two variables. This analysis can reveal how strongly changes in petrol prices might affect job satisfaction and whether other factors also contribute to the changes in job satisfaction.

common issue faced by taxi drivers	impact of petrolprices on job satisfaction	common issue faced by taxi drivers	impact of petrol prices on job satisfaction
2	1	1	1
1	1	3	1
1	1	3	1
1	1	2	1
2	1	1	1
1	1	1	1
1	1	2	1
1	1	1	1
2	1	3	1

1	1	1	1
1	1	3	1
1	1	1	1
2	1	2	1
3	1	1	1
1	1	1	2

Correlationcoefficientis-0.138302828

The correlation coefficient of approximately -0.1383 indicates a very weak negative correlation between the common issues faced by taxi drivers (presumably rated on a scale) and the impact of petrol prices on job satisfaction (also rated on a scale). This suggests that there is little to no meaningful relationship between these two variables based on the provided data. A negative correlation, even if weak, implies that as one variable increases, the other tends to decrease slightly, but the effect is minimal in this case.

Further Analysis:

While the correlation coefficient provides insight into the relationship between the two variables, it's important to remember that correlation does not imply causation. Other factors not considered in this analysis might influence both variables. Further research or analysis could be needed to explore the specific factors driving job satisfaction among taxi drivers and how petrol prices interact with these factors.

Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable xxx and the outcome (dependent) variable yyy. The model is represented by the equation:

y=β0+β1·x+ϵy = \beta_0 + \beta_1 \cdot x + \epsilony=β0+β1·x+ϵ

where:

- β0\beta_0β0 is the intercept,
- β1\beta_1β1 is the slope,
- ϵ\epsilonϵ is the error term.

The goal of simple linear regression is to find the best-fitting line that minimizes the difference between the observed and predicted values of yyy. This technique is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Regression to find the relationship between monthly income and money spend for fuel.

SL NO	Monthly income	Money spend forfuel	SL NO	Poverty status	Land holding pattern
1	30000	500	16	30000	1000
2	20000	1000	17	20000	1000

3	30000	1000	18	30000	1000
4	20000	1000	19	20000	1000
5	20000	1000	20	20000	1000
6	20000	1000	21	20000	1000
7	30000	1000	22	20000	1000
8	20000	1000	23	20000	1000
9	30000	1000	24	30000	1000
10	20000	1000	25	20000	1000
11	30000	1000	26	20000	1000
12	20000	1000	27	20000	1000
13	20000	1000	28	20000	1000
14	20000	1000	29	30000	1000
15	20000	1000	30	20000	1000
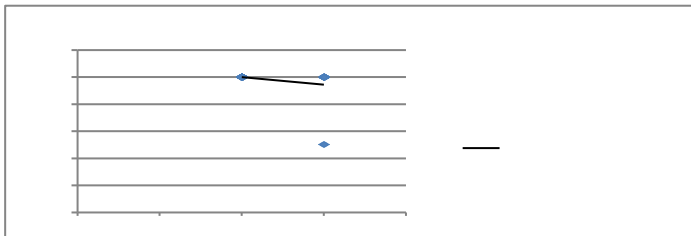
The regression equation provided is in the form of:

$y = -0.0056x + 1111.1$ $y = -0.0056x + 1111.1$ $y = -0.0056x + 1111.1$

where:

- y represents the money spent on fuel,

- x represents the monthly income.

The coefficient of determination R2R^2R2 is 0.0805. Here's an analysis of the regression values:

- **Intercept (1111.1)**: This represents the estimated amount spent on fuel when the monthly income (xxx) is zero. In practical terms, it suggests that even without any income, there's a baseline expenditure on fuel.

- **Slope (-0.0056)**: This indicates the change in the money spent on fuel for every one-unit change in monthly income. In this case, as income increases, the expenditure on fuel decreases.

Findings, Suggestions, and Conclusion

Findings

- **Age Distribution**: The majority of taxi drivers are in their productive years, specifically within the 30-49 age range.

- **Monthly Income**: 70% of the respondents earn around 20,000, highlighting economic challenges.

- **Land Holding**: 96.67% of respondents own some land, indicating a degree of financial stability outside their income from driving.

- **Experience Level**: 60% have 1 to 10 years of experience, showing a trend of relatively new entrants in the profession.

- **Impact of Petrol Price**: Nearly all drivers are affected by petrol prices, indicating sensitivity to fuel costs.

- **Fuel Expenses**: The majority have high daily fuel expenses, affecting earnings.

- **Job Satisfaction**: Increased petrol prices have led to decreased job satisfaction for many.

- **Eco-Friendly Practices**: There is a willingness to adapt eco-friendly practices, but support is needed.

Suggestions

Implement targeted support programs for younger and less experienced drivers to ensure their retention and success in the industry.

Develop initiatives that address the specific needs and preferences of the Muslim driver community.

Introduce subsidies or support mechanisms to mitigate the impact of fuel costs on drivers' earnings.

Encourage and facilitate access to technology and digital platforms for all drivers, potentially through training programs.

Work with local governments to improve road conditions and traffic management to address common operational challenges.

Explore policies that ensure fair competition in the taxi industry, possibly through regulation and oversight.

Promote and support eco-friendly practices within the taxi industry, including incentives for using environmentally friendly vehicles.

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THE STUDY ON THE PROBLEMS OF PETROLEUM RETAIL SHOP: A STUDY WITH SPECIAL REFERENCE TO AREEKODE BLOCK PANCHAYAT

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Effective adaptation to changing landscapes is the cornerstone of sustainability in the petroleum retail sector."
- Dr. Emily Wong, Energy Industry Expert

Abstract

The petroleum retail sector has a rich historical background intertwined with the evolution of transportation infrastructure and societal changes. Over time, it has adapted to technological advancements, consumer preferences, and regulatory shifts. In the contemporary landscape, petroleum retail shop owners face various challenges, including maintaining customer satisfaction, keeping up with technological advancements, ensuring safety measures, navigating supply chain logistics, and staying informed about market trends and policy changes. This study aims to examine these challenges in depth, considering their historical context and implications for the future sustainability of petroleum retail businesses. The significance of the study lies in its potential to inform policy decisions, fortify energy security, and contribute to a more sustainable energy future. The objectives include examining fuel price changes over time, understanding government regulations, and analyzing the changing demand for petroleum products. The study employs a mix of primary and secondary data collection methods, including interviews and data analysis techniques such as correlation and regression. However, there are limitations, including potential sample bias, participant reticence, scope limitations, and sample size constraints. The chapter scheme outlines the structure of the study, which includes an introduction, literature review, study area profile, detailed discussion of objectives and methodology, and a summary with findings and conclusions.

Key words:Petroleum Retail, Challenges, Sustainability

1. Introduction

The petroleum retail sector, deeply embedded in the tapestry of global commerce, traces its roots back to the early 20th century. A pivotal era marked by the burgeoning automotive industry and the dawn of mass automobile adoption; it witnessed the establishment of the first gas stations. These rudimentary fuelling points, often comprising little more than a pump and a modest structure attended by service personnel, were instrumental in meeting the rising demand for gasoline, as the automobile swiftly became the primary mode of transportation. The historical trajectory of petroleum retail shops reflects not only the evolution of transportation infrastructure but also the societal shift towards a more mobile lifestyle. These early gas stations, characterized by their simplicity, gradually transformed into modern, multifaceted establishments, mirroring the dynamism of the automotive and energy landscapes. The metamorphosis saw the integration of additional services beyond fuel distribution, turning these establishments into comprehensive hubs catering to diverse consumer needs.

Over the decades, the petroleum retail sector has weathered transformative shifts, adapting to technological advancements, consumer preferences, and regulatory changes. From manual pump operations to automated fuel dispensers, and from basic service points to convenience stores offering an array of products, the sector has undergone a remarkable evolution. The story of petroleum retail is intertwined with the broader narrative of industrial progress, economic shifts, and the intricate dance between supply and demand in the energy sector.

As we delve into the challenges faced by petroleum retail shop owners in the contemporary landscape, it becomes imperative to appreciate the historical context that has shaped these establishments. The roots of these challenges often extend into the historical evolution of the industry, impacting the present-day operations and future sustainability of petroleum retail businesses. A nuanced understanding of this background provides a solid foundation for comprehending the intricacies of the issues faced by entrepreneurs in this vital sector.

2. Statement/significant of the study.

The contemporary landscape of petroleum retail businesses is marked by multifaceted challenges necessitating careful examination and strategic responses. Owners grapple with diverse issues ranging from meeting evolving consumer expectations to navigating complex supply chains and staying abreast of market trends. Adapting to technological advancements and ensuring safety protocols further compound operational demands. Nevertheless, the resilience and adaptability of these businesses remain crucial for economic stability, as disruptions in the retail supply chain can have far-reaching impacts on fuel prices and household budgets.As the world transitions towards cleaner energy sources, petroleum retailers face added pressure to innovate and integrate renewable alternatives. This includes exploring biofuels, hydrogen, and electric vehicle charging infrastructure. Collaboration among industry stakeholders, policymakers, and environmental advocates is imperative to facilitate this transition smoothly. By addressing these challenges comprehensively, stakeholders can not only fortify energy security but also contribute to a sustainable and stable energy future.In essence, understanding and mitigating the challenges

confronting petroleum retail establishments are pivotal for informing policy decisions and fostering a cohesive approach towards sustainable energy practices. Through concerted efforts, stakeholders can pave the way for a cleaner, more resilient energy landscape while ensuring the continued provision of essential services to communities.

3. Objectives/Methodology and Dara sources.

- Examining how fuel prices change over time in the market.
- Understanding the complex government regulations for starting and operating petroleum retail businesses.
- Analyzing the changing demand for petroleum products, particularly due to the increasing popularity of electric vehicles.

The study uses both primary and secondary data, gathered from 11 petroleum retail shops in Areekode Block Panchayath and various reports and online sources. A detailed questionnaire was used for the interviews, and rigorous data processing techniques like coding, tabulation, and visualization were applied to present clear findings.

Primary data:

The primary data was collected through a interview section conducted among 11 petroleum retail shops in the Areekode Block Panchayath.

Secondary data: secondary data have sourced from various reports and online media.

Data analysis techniques: Graphical method, line diagram, bar diagram

Statistical tools: Statistical tools such as correlation and regression

4. Review of Literature

This literature review explores the complexities of the petroleum retailing industry, addressing challenges such as fluctuating fuel prices and regulatory compliance. By synthesizing diverse studies, it provides insights for strategic decision-making, aiming to equip stakeholders with the knowledge needed to navigate this dynamic sector effectively

Sourabh Kumar, Mukesh Kumar Barur (2013) The study identifies government policies, adverse weather conditions, and environmental regulations as prominent challenges from the companies' perspective. Additionally, it highlights resource availability as a minor concern. From the consumers' standpoint, product quality and price are prioritized over social welfare considerations.

Santanu Purohit, Arvint Kumar Jain (2016) Customer buying behavior in petroleum retailing is evolving, emphasizing the importance of understanding customer expectations and preferences to enhance the fueling experience. This underscores the need for fuel stations to adapt their services to meet evolving consumer demands.

T. Srinivasan (2015) Government policies, such as liberalizing petroleum pricing, aim to address challenges arising from increased fuel consumption due to automobile sales incentives. This indicates the dynamic interplay between government interventions and market forces in shaping the petroleum industry landscape.

Dr.Boison David King, Dr. Esther Asiedu (2008) Location emerges as a critical factor influencing sales volumes, with other variables including promotion, brand, pump price, and service quality also playing significant roles. Understanding the interplay between these variables is crucial for fuel station owners to optimize their operations and maximize profitability.

Omer Siddique &Hanzla Jalil (2014) Analysis underscores the profitability of petrol pumps, emphasizing the importance of both locational and non-locational factors in driving sales, particularly in urban and high-traffic areas. This highlights the significance of strategic site selection and effective marketing strategies in enhancing business performance.

Si-Yuan Chen, Qi Zhang (2017) China's petroleum market faces emerging challenges, necessitating reforms such as diversifying oil supply sources and improving enterprises' ability to manage price risks. These reforms are essential for ensuring the resilience and competitiveness of the Chinese petroleum industry in a rapidly evolving global market.

Kailash Boopalam (2019) Petrol pump businesses operate on low profit margins, influenced by factors like operational expenses and credit management. This underscores the importance of efficient cost management and revenue optimization strategies to sustain profitability in the highly competitive fuel retail sector.

K. Sartorius and Hart (2009)(University of Witwatersrand, Johannesburg, South Africa) The fuel retail sector operates in a competitive environment with low profit margins and high stock turnover, employing a significant workforce. This

highlights the economic significance of the fuel retail sector as a major employer and contributor to national GDP.

Jyothi Parikh, Pallavi Maitra (2009) India's energy demand projections highlight the need for strategic planning in the oil and gas sector to support economic growth targets. This underscores the importance of aligning energy policies with broader economic development objectives to ensure energy security and sustainability.

Raghavendra D. Rao, Jyoti K. Parikh (2015) Optimizing refinery processes requires a thorough analysis of demand patterns and investment options, considering both domestic refining and import alternatives. This necessitates a holistic approach to refinery planning that takes into account market dynamics and future demand projections.

Loise Ederingrone, Chitru Fernando (2010) Literature review explores the relationship between crude oil prices and petroleum product prices, examining causality and response patterns. Understanding these dynamics is crucial for policymakers and industry stakeholders to formulate effective pricing strategies and mitigate market volatility.

The diverse literature underscores the multifaceted challenges and opportunities facing the petroleum retailing industry, from consumer behavior shifts to macroeconomic impacts of oil price fluctuations. Strategic planning, technological innovation, and policy alignment are crucial for navigating this dynamic landscape and ensuring sustainability in a rapidly evolving global energy market.

5. Data analysis and Interpretation.

The fuel retail industry operates within a complex and ever-evolving landscape, where various factors, ranging from consumer demographics to environmental concerns, shape its trajectory. In this comprehensive report, we embark on a thorough analysis of critical aspects influencing the fuel retail sector. Through an exploration of demographic profiles such as age distribution and education qualifications, coupled with insights into business characteristics encompassing company information and operational details, we aim to offer stakeholders a nuanced understanding of the industry's dynamics. Moreover, we delve into emerging trends, including the impact of electric vehicles, government procedures, tax and revenue details, and environmental considerations, all of which hold significant implications for the future of fuel retail businesses.

Table 5.1 Age Status

Sl No	Age Group	Percentage	Number of Responses
1	<30	18.20%	2
2	30-40	45.50%	5
3	40-50	27.30%	3
4	>50	9%	1
6	**Total**	100%	11

Source: Primary data collected by using a standard questionnaire

The data from Table 5.1 indicates that the majority of respondents fall within the 30-40 age group, comprising 45.5% of the total responses. This suggests that this age range is the most represented among the participants. Following closely behind is the 40-50 age group, accounting for 27.3% of responses. While not as numerous as the 30-40 age group, it

still represents a significant portion of the sample. The <30 age group and the >50 age group have smaller percentages of 18.2% and 9%, respectively, indicating a lower representation of younger and older individuals in the respondents.

Table 5.2 Educational Status.

Sl no	Education Level	Percentage	Number of Responses	
1	Higher Secondary	27.30%	3	
2	Bachelors	55.50%	6	
3	Others	18.20%	2	
4	**Total**	100%	11	

The data shows that the majority of respondents have a bachelor's degree, accounting for 55.5% of the total responses. This suggests that a significant portion of participants have completed undergraduate studies. Following behind are those with a higher secondary education level, representing 27.3% of responses. This indicates a substantial but smaller group of participants who have completed secondary education.

Figure 5.1: Company And Product Information
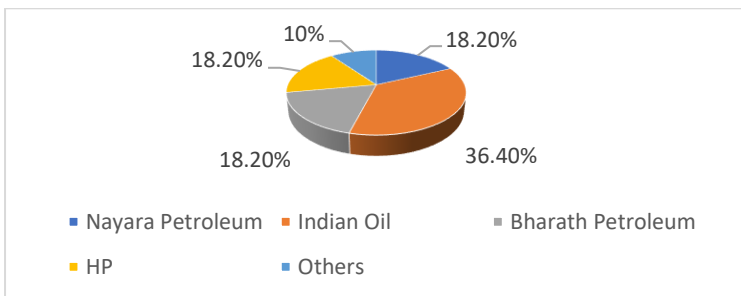
Source: Primary data collected by using a standard questionnaire

The data from Table 5.1 shows that Indian Oil is the most represented company among respondents, accounting for 36.4% of responses. Nayara Petroleum, Bharath Petroleum, and HP each have an equal percentage of 18.2%, indicating similar levels of representation. Additionally, there is a category labelled "Others" which represents 10% of responses, suggesting a smaller but still significant presence of other companies. Overall, the data suggests a varied representation of companies among the respondents, with Indian Oil being the most prominent.

Table 5.3: Running Experience on Petroleum Stations

Sl No	Experience (Years)	Percentage	Number of Responses
1	<1years	27.3	3
2	1-5years	18.2	2
3	10-20 years	36.3	4
4	>20 years	18.2	2
5	**Total**	100%	11

Source: Primary data collected by using a standard questionnaire

The data from Table 5.3 indicates that the most common running experience on petroleum stations falls within the 10-20 years range, representing 36.3% of responses. This suggests that a significant portion of respondents have between 10 to 20 years of experience in this field. Following this, those with less than 1 year of experience make up 27.3% of responses, indicating a substantial but slightly smaller group of newer entrants. The 1-5 years and >20 years' experience categories both have a percentage of 18.2%, suggesting similar levels of representation for individuals with 1-5 years and over 20 years of experience.

Figure5.2 : Capital Investment
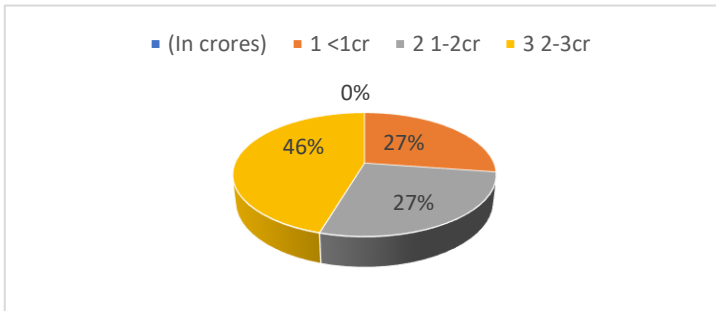
Source: Primary data collected by using a standard questionnaire

The data from 5.2 reveals that the most common range of capital investment falls within the 2-3 crores category, representing 45.4% of responses. This suggests that a significant portion of respondents have invested between 2 to 3 crores. Similarly, the <1 crore and 1-2 crore categories each have a percentage of 27.3%, indicating a similar level of representation for these investment ranges. Overall, the data shows a varied distribution of capital investment among respondents, with a notable concentration in the 2-3 crores range.

Figure 5.3 Number of Workers in Petroleum Stations
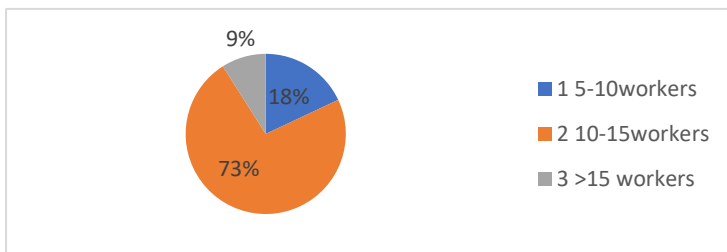
Source: Primary data collected by using a standard questionnaire

The data from Table 7 shows that the most common range of workers in petroleum stations is between 10-15, representing

73% of responses. This suggests that a significant majority of respondents have between 10 to 15 workers in their stations. Additionally, the 5-10 workers category represents 18% of responses, indicating a smaller but still notable group of stations with fewer workers. The >15 workers category represents 9% of responses, suggesting a smaller presence of stations with more than 15 workers. Overall, the data suggests a varied distribution of the number of workers in petroleum stations among respondents, with a predominant concentration in the 10-15 range.

Table 5.4 Monthly Profit.

Sl No	Monthly profit	Percentage	Number of Responses
1	1-2 lakh	18.20%	2
2	2-3 lakh	63.60%	7
3	3-4 lakh	18.20%	2
4	**Total**	100%	11

Source: Primary data collected by using a standard questionnaire

The data from Table 8 shows that the most common range of monthly profit falls within the 2-3 lakhs category, representing 63.6% of responses. This indicates that a significant majority of respondents reported monthly profits between 2 to 3 lakhs. Additionally, the 1-2 lakhs and 3-4 lakhs categories each have a percentage of 18.2%, suggesting similar levels of representation for these profit ranges.

Figure 5.4: Preference Status in Choosing Petroleum Stations

Table 4.10: preference status in choosing petroleum stations
Percentage

■ 1 Near Highway ■ 2 Town Area ■ 3 Highway Side ■ 4 Large Passage

27%   28%

27%   18%
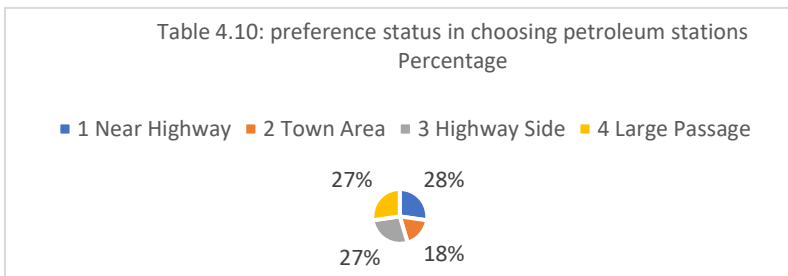
Source: Primary data collected by using a standard questionnaire

The data from Table 10 shows that respondents have varied preferences in choosing petroleum stations. Near Highway, Highway Side, and Large Passage each have a percentage of 27.3%, indicating an equal preference for these locations among respondents. This suggests that a significant portion of respondents prefer petroleum stations located near highways or with a large passage. Town Area has a slightly lower percentage of 18.1%, indicating a lesser but still notable preference for this location.

Table 5.5: Free Services for Customers at Petroleum Stations

Sl No	Free Services	Percentage	Number of Responses
1	Free air, Washroom facilities	18.20%	2
2	Free air, Free oil change, Drinking Water, Washroom facilities	45.60%	5
3	Free air, Free oil change, Drinking Water, Washroom facilities, Free Nitrogen	18.10%	2
4	Free air, Drinking Water, Washroom facilities	18.10%	2
5	**Total**	100%	11

Source: Primary data collected by using a standard questionnaire

The data from Table 13 shows that respondents offer various free services for customers at petroleum stations. The most common package, selected by 45.6% of respondents, includes free air, free oil change, drinking water, and washroom facilities. Additionally, 18.2% of respondents offer free air and washroom facilities, while another 18.1% provide free air, drinking water, washroom facilities, and free nitrogen. A similar percentage of respondents, 18.1%, offer free air, drinking water, and washroom facilities. Overall, the data indicates a variety of free services provided by petroleum stations, with the majority offering a combination of air, oil change, water, and washroom amenities.

Simple Correlation and Regression

Simple correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they move oppositely. A zero correlation ($r = 0$) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analysing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation to find relationship between monthly profit and capital investment of the petroleum retail station.

Correlation Coefficient is **0.112665**

Sl No	Capital investment	Monthly Profit
1	15000000	250000
2	25000000	250000
3	1000000	150000
4	15000000	250000
5	1000000	250000
6	15000000	250000
7	15000000	150000
8	15000000	250000
9	25000000	150000
10	15000000	150000
11	25000000	250000

A correlation value of 0.112665014 indicates a weak positive correlation between profit and investment. Here's what this analysis implies:

1.Weak correlation: The correlation coefficient being close to zero suggests that there's a very weak relationship between profit and investment. In other words, changes in investment are not strongly associated with changes in profit.

2.Positive correlation: Although the correlation is weak, the positive sign indicates that as investment increases, profit tends to increase slightly. However, this relationship is not strong enough to make reliable predictions about profit based solely on investment or vice versa.

3.Consider other factors: Since the correlation is weak, it's important to consider other factors that might influence profit independently of investment. Variables like market demand,

operational efficiency, competition, and external economic factors could play significant roles.

4.Potential implications: While a positive correlation is generally desirable, the weak nature of this correlation suggests that simply increasing investment may not guarantee significant profit growth. Businesses should focus on optimizing their investment strategies, aligning them with broader business objectives, and addressing other factors that contribute to profitability.

5.Further analysis: It might be beneficial to conduct further analysis, such as regression analysis, to understand the specific nature of the relationship between profit and investment and to identify any potential nonlinear or interactive effects.

In summary, while there is a slight tendency for profit to increase with investment, the weak correlation suggests that other factors also play a significant role in determining profitability.

Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta0+\beta1\times x+\epsilon$, where $0\beta0$ is the intercept, $1\beta1$ is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of y. Simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Regression to find the relationship between the monthly profit and capital investment of petroleum retail station.

Sl No	Capital investment	Monthly Profit
1	15000000	250000
2	25000000	250000
3	1000000	150000
4	15000000	250000
5	1000000	250000
6	15000000	250000
7	15000000	150000
8	15000000	250000
9	25000000	150000
10	15000000	150000
11	25000000	250000

Monthly Profit

$y = 0.0007x + 203260$

$R^2 = 0.0127$

◆ Monthly Profit

—— Linear (Monthly Profit)
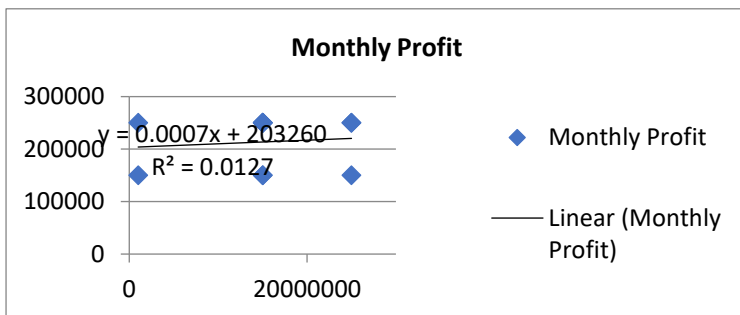
Given the regression equation $y = 0.0007x + 203260$ and the coefficient of determination (R^2) of 0.0127, let's analyse the regression results:

1.Regression equation: The equation represents a linear regression model, where y is the dependent variable (profit, perhaps) and x is the independent variable (investment, possibly). The equation indicates that for every unit increase in x (investment), y (profit) is expected to increase by 0.0007 units.

2.Intercept: The intercept term of 203260 suggests that when the investment (x) is zero, the expected profit (y) would be 203260 units. This intercept is the value of y when $x = 0$, which might not always be meaningful in practical terms but is an inherent part of the regression model.

3.Coefficient of determination (R^2): The R^2 value of 0.0127 indicates that approximately 1.27% of the variability in the dependent variable (profit) can be explained by the independent variable (investment) using the linear regression model. In simpler terms, the model explains only a small fraction of the total variation in profit.

4.Strength of the relationship: With an R^2 of 0.0127, the model has a very weak explanatory power. This means that the linear relationship between investment and profit, as described by the regression equation, is not very strong. Most of the variability in profit is likely explained by factors other than investment.

5.Significance of the model: While the regression equation may provide some insights, the low R^2 value suggests that the model might not be statistically significant in explaining profit based on investment alone. Other variables or factors not included in the model might have a more substantial influence on profit.

In conclusion, the data analysis and interpretation provide valuable insights into various aspects of the fuel retail industry,

shedding light on demographic profiles, business characteristics, operational details, and emerging trends. The analysis revealed that the majority of respondents fell within the 30-40 age group and held bachelor's degrees, with Indian Oil being the most represented company among participants. Additionally, there was a balanced distribution between businesses with partnerships and those without, indicating a diverse business landscape. Most petroleum stations operated for less than 24 hours a day, and none offered charging point facilities for electric vehicles, highlighting areas for potential adaptation and innovation.

6. Findings, Suggestions and Conclusion.

6.1 Findings.

The petroleum retail sector's workforce primarily comprises individuals aged 30-50, with many holding bachelor's degrees, indicating maturity and education. The market is competitive, with various companies represented equally, and an even split between partnership and non-partnership structures. Experience levels vary, with a significant portion having over a decade of experience. Businesses typically invest moderately (1-3 crores) and employ around 10-15 workers, generating monthly revenues of 2-3 lakhs. Stable pricing strategies mitigate the impact of market fluctuations. While most stations offer free services, none provide EV charging, reflecting a lag in adaptation despite recognizing EV's influence. Businesses focus on quality, service, and innovation to compete in the evolving market landscape.

6.2 Suggestions

Businesses in the petroleum retail sector can adapt to the rise of electric vehicles through strategic measures. This includes investing in renewable energy infrastructure, developing tailored loyalty programs for EV owners, and strategically locating charging stations. Collaborations with energy providers and integration with ride-sharing platforms offer additional avenues for growth. Value-added services like vehicle diagnostics and dynamic pricing strategies can enhance customer experience and revenue. Fast-charging technology and community engagement initiatives further solidify market presence. Continuous research and development ensure businesses stay ahead in this evolving landscape, fostering innovation and sustainability for long-term success.

6.3 Conclusion

The petroleum retail sector's resilience and adaptability are evident amidst regulatory challenges and emerging trends like electric vehicles. Strategic suggestions, including embracing technology and diversifying services, pave the way for competitiveness and consumer satisfaction. Commitment to sustainability and customer-centricity through renewable energy integration and extended services reflects industry awareness and dedication. Moving forward, collaboration with stakeholders will drive sustained success. Innovation, continuous improvement, and corporate responsibility will navigate market complexities, delivering value and contributing positively to the socio-economic landscape. This forward-thinking approach positions the sector for continued growth and relevance amid dynamic market conditions.

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A STUDY ON SOCIO –ECONOMIC CONDITIONS OF CATERING WORKERS IN ANAKKAYAM PANCHAYAT

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1 Abstract

This paper offers a comprehensive examination of the multifaceted role of catering workers within the foodservice sector, shedding light on their diverse responsibilities, skills, challenges, and economic importance. Catering workers are portrayed as central figures, not merely executing culinary tasks, but also orchestrating events and gatherings with precision and finesse. Their role encompasses a wide array of skills, including culinary expertise, organizational finesse, and interpersonal acumen, highlighting the complexity of their profession. Moreover, the paper delves into the significant economic impact of the catering industry, stressing its role as a substantial contributor to both employment and revenue generation. However, it also confronts the challenges encountered by catering workers, advocating for a reevaluation of industry standards to safeguard their well-being. Through this comprehensive exploration, the paper aims to foster a nuanced understanding and appreciation for the indispensable role played by catering workers in delivering exceptional culinary experiences. It also calls for greater acknowledgment and support for catering workers to ensure a sustainable and equitable future for the industry. By recognizing the pivotal role of catering workers and addressing their challenges, the industry can strive towards continuous improvement and resilience.

1. Introduction

Catering workers stand as indispensable architects of success in the dynamic landscape of the foodservice industry. As conductors of culinary symphonies, they not only engage in the meticulous preparation and seamless serving of diverse dishes but also assume the roles of planners and coordinators in

orchestrating events and gatherings. This discussion endeavors to unravel the layers of their responsibilities, delve into the intricacies of their skill set, examine the challenges they encounter, and underscore the profound significance they bear in delivering unparalleled culinary experiences. Through this exploration, we aim to shed light on their instrumental contribution to the broader dining landscape, examining its ramifications on customer satisfaction and the establishment of enduring relationships that drive repeat business. In dissecting the multifaceted responsibilities of catering workers, it becomes evident that their role transcends the mere execution of gastronomic tasks. Beyond the culinary craftsmanship, they are tasked with conceptualizing and organizing catering services, ensuring the seamless flow of events. This includes meticulous planning, coordination, and an acute understanding of client preferences to tailor experiences that resonate with diverse audiences. The skill set demanded of catering workers is a rich tapestry that blends culinary expertise, organizational finesse, and interpersonal acumen. Proficiency in menu creation, culinary techniques, and presentation are just the tip of the iceberg. The ability to navigate logistical challenges, communicate effectively with clients, and adapt swiftly to the evolving dynamics of events is equally paramount. This discussion aims to unpack these skills, recognizing the versatility required to excel in a profession that demands not only culinary artistry but also strategic planning and client-centric service. The catering industry, as a substantial contributor to the economy, serves as both a source of employment and a generator of revenue. The ripple effects of its operations extend far beyond the confines of individual events, creating economic opportunities and fostering growth. However, the economic contribution of the catering industry

does not absolve it of its social responsibilities. The challenges faced by catering workers, ranging from demanding work schedules to financial instability, call for a reassessment of industry norms. A conscientious examination of wage structures, benefits, and job security is imperative to ensure that those behind the scenes receive the recognition and support they deserve. This project is a rallying cry for industry stakeholders to engage in a meaningful dialogue, fostering an environment where the economic prosperity of the catering sector aligns with the well-being of its workforce. the introduction provides a panoramic view of the catering workers' realm—its responsibilities, skills, challenges, and economic significance. By peeling back the layers of this intricate profession, we aim to inspire a nuanced understanding and appreciation for the individuals who shape the culinary experiences we cherish. The subsequent sections of this project will delve deeper into each facet, offering a comprehensive exploration that transcends the surface and captures the essence of catering workers' contributions to the vibrant tapestry of the foodservice industry.

2. Significance of the study

Catering workers are essential contributors to the economy, providing crucial food and beverage services for a myriad of events and institutions. In the United States alone, the industry employs over 2 million individuals, whose wages play a significant role in bolstering local economies. Moreover, the economic impact extends beyond direct employment, as catering businesses support other sectors by purchasing from suppliers and utilizing services like event planning and transportation, thereby fostering economic growth indirectly. Beyond their economic contributions, catering workers also

play pivotal roles in society and culture. They facilitate events that mark life's milestones, from weddings to corporate functions, contributing to the fabric of social interaction and community engagement. Additionally, catering workers promote cultural diversity by serving a wide array of cuisines, thereby enriching the culinary landscape and celebrating multiculturalism. In essence, catering workers serve as linchpins in both economic and cultural spheres, driving employment, supporting businesses, and fostering social cohesion through their essential services and contributions to events and institutions.

3. Statement of the problem

The research within the catering industry seeks to provide a comprehensive understanding of its economic landscape by scrutinizing the challenges and opportunities faced by catering professionals. It entails a meticulous analysis of employment conditions, focusing on aspects such as job stability, benefits, and career growth prospects. By shedding light on these factors, the research aims to identify areas for improvement and potential strategies to enhance the overall well-being of catering workers. Furthermore, the investigation extends its scope to examine income disparities within the catering sector. By exploring the variances among workers with diverse roles and responsibilities, the research aims to uncover any inequities and understand their underlying causes. This analysis can inform efforts to promote fairness and equality within the industry. Moreover, the research contemplates the overarching theme of sector sustainability. It seeks to understand the long-term viability of catering as a profession and its potential for adaptation in a rapidly evolving economic landscape. By identifying challenges and opportunities for sustainability, the

research aims to contribute to the development of strategies that ensure the continued success and relevance of the catering industry.

4. Objectives and Methodology

1. Understanding the Catering Industry: Provide an overview of its size, scope, and types of businesses involved.

2. Assessment of Working Conditions: Examine hours, wages, benefits, and job security of catering workers.

3. Job Satisfaction: Investigate the levels of job satisfaction among catering workers.

The study employs both primary and secondary data. Primary data collection involves a survey using a structured questionnaire, while secondary data is gathered from journals, articles, books, newspapers, etc. Statistical tools such as tables, diagrams, column charts, and bar diagrams are used for analysis.

5. Review of literature

It delves into existing research, synthesizing diverse studies from global tourism to China's post-epidemic challenges. It illuminates the scholarly landscape, emphasizing past wisdom's role in shaping current understanding. This synthesis lays the groundwork for original contributions in subsequent chapters, highlighting insights and identifying research gaps.

Sandilyan Ramanujam Pagaldiviti: The global tourism industry has experienced significant growth, and India is no exception. This has led to the development of various service

providers, especially in metropolitan areas. This study explores the catering scenario in Bangalore, addressing the needs of multinational organizations with a focus on cost, quality, and hygiene.

AlexandruTrifu (2012)**:** Emphasizing the significance of food and leisure, this study discusses the inadequacies in Romania's services sector, specifically in catering and food services. It proposes improvements to align with the qualitative order required for catering to the needs of employees.

Chenhao Wu: Highlighting a significant problem in China's catering economy, this paper addresses the challenges faced by small and medium-sized enterprises in the post-epidemic era. It emphasizes the industry's importance to China's economy, identifies problems, and proposes detailed solutions for the small and medium-sized catering industry.

Anthony Stokes, Edgar Wilson: Addressing concerns about teaching economics subjects in universities and colleges, this paper proposes a computer-based learning program designed to accommodate the diverse backgrounds and learning styles of economics students at the University of Wollongong, Australia.

Geneva (2010): An issues paper prepared by the International Labour Organization for discussion at a Global Dialogue Forum on the hospitality and tourism sector. It aims to highlight developments and challenges in this sector, providing information on copyright and reproduction rights for ILO publications.

Yung-ho Chiu: While accommodation and catering industry efficiencies have been evaluated from various perspectives, this study dynamically assesses the overall industry efficiencies under the influence of the internet. It utilizes data from 31 Chinese provinces between 2012 and 2016.

Babasaheb Ambedkar: Flight catering has become an integral part of the aviation industry, satisfying not only the appetite of flying passengers but also adding a luxury quotient. This section discusses the attributes of the flight catering industry and the roles of different stakeholders in improving industry standards, including the pricing of meals in various classes of air travel, across different routes and countries.

Sabina Saccomanno: The observational prospective study analyzes the eating habits in association with the medicooral health of catering workers, a category at higher risk of developing dental problems. It aims to evaluate oral and medical health through a questionnaire in a total sample of 603 participants and provide information regarding the medico-oral implications of an unbalanced diet linked to this profession.

Natasa Stepanov: By providing continuous and complete quality of service, this study emphasizes setting the preconditions for achieving customer satisfaction. Total Quality Management is applied in the tourism industry, with the long-term source of revenue being satisfied customers who positively influence potential guests and encourage repeated visits.

*Jacob Yego***:** This study examines the factors influencing the outcome of outside catering, considering human, physical, and

natural factors. The objective is to establish indicators that can be used to measure the outcome of outside catering, which is crucial for caterers as both a marketing tool and in enhancing customer satisfaction.

It concludes as a rich tapestry of insights, encompassing diverse perspectives on global tourism and catering industries. It highlights interconnectedness among studies and underscores knowledge's guiding role. This literature review sets a solid foundation for subsequent chapters, promising deeper exploration and original contributions.

6. Data analysis and interpretation

This comprehensive report analyzes demographic and socio-economic factors such as age distribution, gender composition, religious affiliation, education, occupation, income, family dynamics, and more. It provides valuable insights for policymakers and community leaders to devise targeted interventions and foster inclusive growth within the surveyed population.

Figure 6.1Occupation Distribution
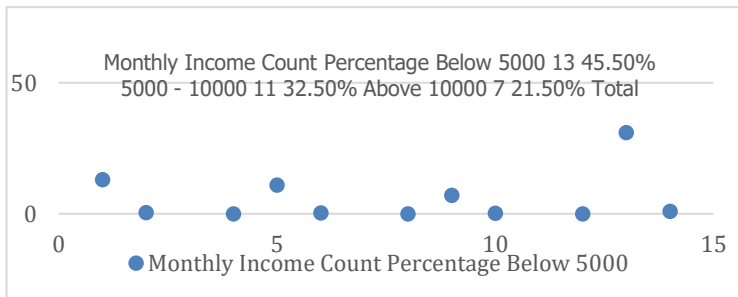
Source: Primary data collected by using a standard questionnaire.

The table presents occupation data, with the highest count in "Event Planning" at 20%, followed by "Service Staff Management," "Logistics and Setup," and "Study" each at 15%. "Food Preparation" and "Other" both represent 12.5% of the sample. The distribution suggests a diverse range of occupations, with event planning being the most common, indicating a potentially event-focused or service-oriented population with a significant proportion engaged in study-relate

Figure 6.2 Monthly Income Distribution

Occupation Count Percentage Service Staff Management 6 15% Event Planning 8 20% Food Preparation 5 12.50% Logistics and Setup 6 15% Study 6 15% Other

0 □ Occupation Count…
2

■ Occupation Count Percentage Service Staff Management 6…
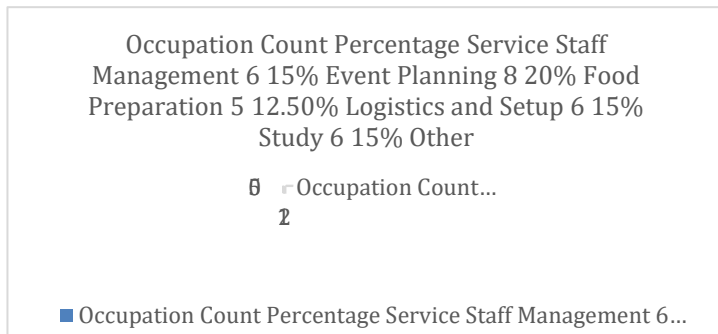
Source: Primary data collected by using a standard questionnaire.

The table illustrates monthly income distribution, with 45.5% earning below 5000, 32.5% between 5000-10000, and 21.5% above 10000. The majority fall within the lowest income bracket, indicating a significant portion with limited financial resources. However, a considerable proportion also earns between 5000-10000, suggesting a middle-income segment. The smallest percentage earns above 10000, indicating a minority with higher income levels within the surveyed population.

Figure 6.3 Daily Routine Distribution

Daily Routine Count Percentage
Daily 21 62.50% Mixture 7 27.50%
Monthly 3 10% Total

■ Daily Routine Count Percentage Daily 21 62.50% Mixture 7
27.50% Monthly 3 10% Total
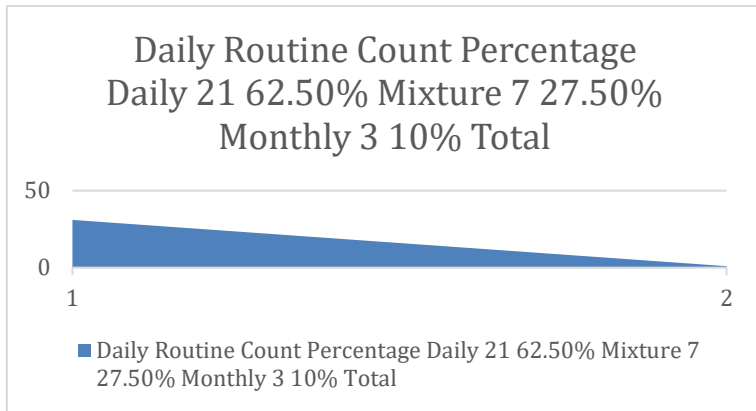
Source: Primary data collected by using a standard questionnaire.

The table outlines respondents' daily routine patterns, with 62.5% adhering to a daily routine, 27.5% following a mixture of routines, and 10% having monthly routines. The majority maintaining a daily routine suggests a preference for structure and consistency among the surveyed population. However, the presence of individuals with mixed or monthly routines indicates variability in scheduling habits, highlighting the diversity in lifestyle approaches within the sample.

Figure 6.4 Overall Satisfaction Distribution

■ 1 ■ 2 ■ 3 ■ 4 ■ 5 ■ 6 ■ 7 ■ 8
■ 9 ■ 10 ■ 11 ■ 12 ■ 13 ■ 14 ■ 15 ■ 16

Source: Primary data collected by using a standard questionnaire.

The table presents satisfaction levels within the sample, with 73.5% reporting a positive satisfaction and 26.5% expressing negative sentiments. The majority reporting positive satisfaction indicates overall contentment among the surveyed population. However, the presence of individuals with negative satisfaction highlights areas of concern or dissatisfaction that warrant further investigation. Understanding the factors contributing to both positive and negative satisfaction levels can provide valuable insights for improving well-being and addressing potential issues.

Figure 6.5 Family Support Distribution

Support Preferences Count Percentage Family support 25 66% No family support 6 34% Total

100%
0%

1
2

■ Support Preferences Count Percentage Family support 25…

Support Preferences Count…
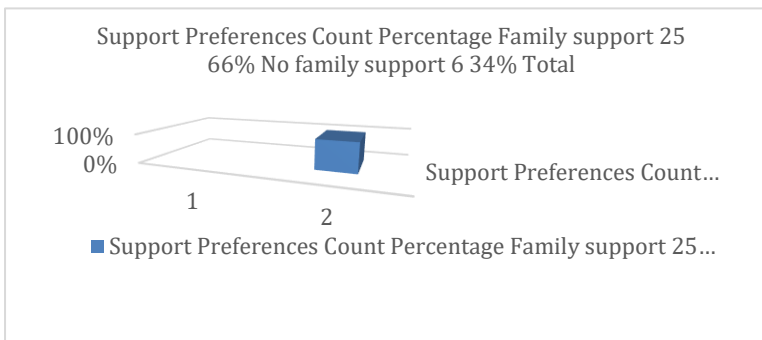
Source: Primary data collected by using a standard questionnaire.

The table displays the distribution of family support within the sample, with 70% indicating they receive support and 30% reporting no support. The majority receiving support suggests a significant reliance on familial assistance within the population. Understanding the nature and extent of this support could provide insights into socio-economic dynamics, intergenerational relationships, and the overall well-being of individuals within the surveyed groups.

Figure 6.6 Duration of Employment Distribution
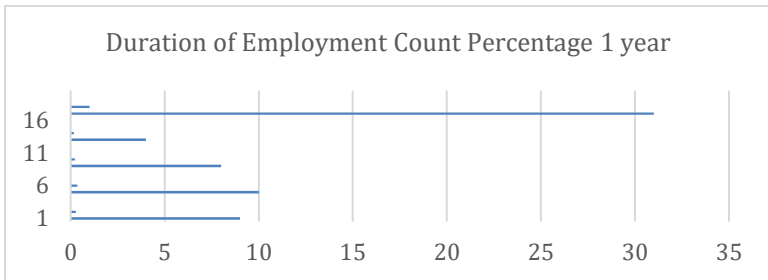
Source: Primary data collected by using a standard questionnaire

The table displays the duration of employment within the sample, with varying lengths represented. The most common durations are 1 year at 26.5% and 2 years at 35%. This suggests a relatively high turnover rate or variability in job tenure within the surveyed population. Understanding factors contributing to employment stability or turnover, such as job satisfaction, industry trends, or economic conditions, could provide insights into workforce dynamics and employment patterns

Figure 6.7 Religion-based Education Level
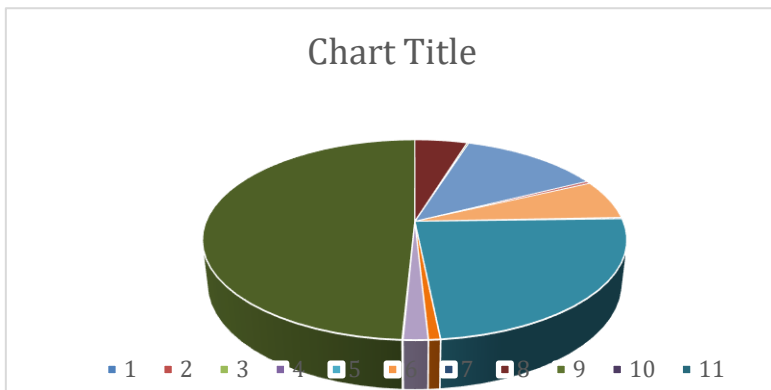
Source: Primary data collected by using a standard questionnaire.

The table cross-references religion with education level within the sample. Among Hindus, 9.6% have completed SSLC, while 25.8% have attained a degree. For Muslims, 12.9% completed SSLC, and 48.1% have a degree. There is also one individual from the "Yas" category with a degree. This distribution suggests varying educational attainment levels across religious groups, with a notable proportion achieving higher education, particularly among Muslims.

Figure 6.8 Marital Status Monthly Income

Marital Status Monthly Income Count Percentage Single Below 5000 8 25.80% Single 5000 - 10000 13 41.90% Single Above 10000 7 22.50% Married Above 10000 3 9.60% Total
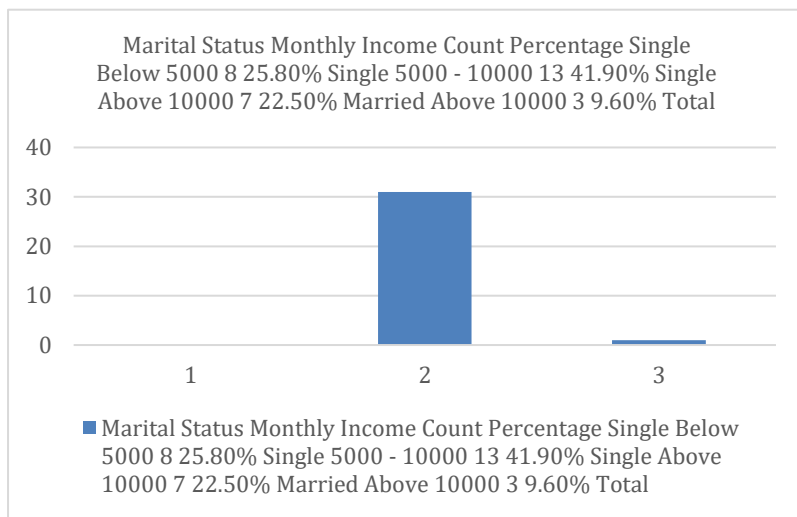
Source: Primary data collected by using a standard questionnaire

The table correlates marital status with monthly income levels within the sample. Among singles, the majority earn between 5000-10000, constituting 41.9%, followed by those earning below 5000 at 25.8%, and above 10000 at 22.5%. Conversely, among the married population, 9.6% earn above 10000. This distribution suggests that a significant portion of singles fall

within the middle-income bracket, while fewer married individuals report higher incomes.

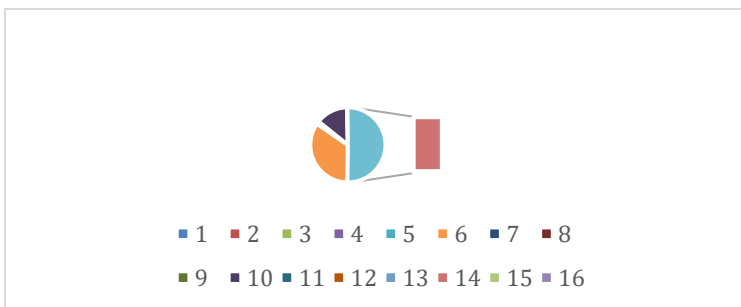**Figure 6.9 Study Involvement Distribution**
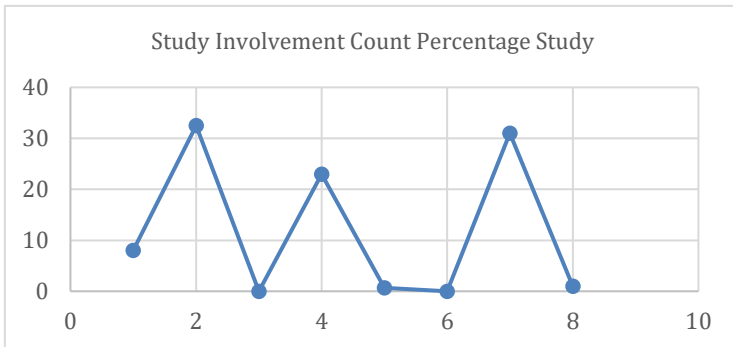
Source: Primary data collected by using a standard questionnaire.

The table outlines study involvement within the sample, with 32.5% currently engaged in studies and 67.5% not involved. The majority not participating in studies suggests a significant portion of the surveyed population is not pursuing formal education or academic endeavors. Understanding the reasons behind the lack of study involvement, such as employment, personal choice, or access to educational opportunities, can provide insights into the educational landscape and priorities within the community.

Correlation:

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they

move oppositely. A zero correlation (r = 0) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analysing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Do you have regular work	Monthly income
1	5000
1	7500
1	5000
1	5000
2	5000
1	7500
2	5000
2	5000
2	7500
1	7500
1	5000
2	7500
1	7500
1	5000
1	5000
1	5000
2	7500
2	5000
1	5000
1	5000
1	7500
1	5000

1	5000
1	5000
2	5000
2	7500
1	5000
2	5000
1	5000
2	5000

A correlation value of 0.10566113 indicates a weak positive correlation between regular work and monthly income. This means that as the amount of regular work increases, there is a slight tendency for monthly income to increase, but the relationship is not strong. In practical terms, this suggests that there may be some association between the two variables, but other factors likely play a more significant role in determining monthly income. It's important to conduct further analysis to understand the specific factors influencing this correlation and to avoid assuming causation based solely on correlation.

Simple Linear Regression:

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta0+\beta1\times x+\epsilon$, where $0\beta0$ is the intercept, $1\beta1$ is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of y. Simple linear regression is useful for predicting outcomes based on a single

predictor variable and assessing the strength of the relationship between variables.

Do you have regular work	Monthly income
1	5000
1	7500
1	5000
1	5000
2	5000
1	7500
2	5000
2	5000
2	7500
1	7500
1	5000
2	7500
1	7500
1	5000
1	5000
1	5000
2	7500
2	5000
1	5000
1	5000
1	7500
1	5000
1	5000
1	5000
2	5000
2	7500

1	5000
2	5000
1	5000
2	5000

The regression equation provided is $y = 251.2x + 5406.7$, where y represents monthly income and x represents regular work. The coefficient of determination (R^2) is 0.0112.

1. *Regression Equation Interpretation: * This equation suggests that for every unit increase in regular work (x), monthly income (y) is expected to increase by 251.2 units, with a constant term of 5406.7. However, this interpretation should be made cautiously given the low R^2 value.

2. *Coefficient of Determination (R^2):* The R^2 value of 0.0112 indicates that only approximately 1.12% of the variation in monthly income can be explained by variation in regular work. In other words, the model with regular work as the independent variable explains very little of the variability observed in

monthly income. This suggests that factors other than regular work likely have a more significant influence on monthly income.

Overall, while the regression equation provides a mathematical relationship between regular work and monthly income, the low R² value suggests that this relationship is weak and may not be reliable for predictive purposes. Other factors beyond regular work likely play a more substantial role in determining monthly income. Further analysis and consideration of additional variables may be necessary to better understand the determinants of monthly income. A comprehensive survey reveals intricate socio-economic dynamics within the community, highlighting correlations between marital status and income. Insights into lifestyle choices, family dynamics, and disparities in religion-based economic status underscore the need for tailored interventions. Despite limitations in statistical analysis, the report offers a vital foundation for evidence-based policymaking and community development.

7.Conclusion

In this discourse, we explore the pivotal role of catering workers, blending culinary expertise with logistical prowess. Despite economic significance, challenges like long hours and low wages persist. Our project aims to analyze employment conditions, income gaps, and propose solutions for a more supportive environment**.**

7.1 Findings

Findings reveal a predominantly young (20-25 years) and male catering workforce, with notable representation from Muslim and Hindu workers. While many possess degrees, indicating

higher education, financial challenges persist with a significant number earning below 5000 rupees monthly. Family support is crucial, yet marriage-related issues and structured daily routines hint at work-life balance struggles. Service staff management and event planning are common occupations. These insights underscore potential gender disparities, the importance of familial support, and highlight areas for improving work-life balance and financial stability within the catering profession.

7.2 Suggestions

To address challenges within the catering industry, initiatives must prioritize job stability and career advancement opportunities. This involves implementing measures for skill development and promoting career growth pathways. Enhancing wages and benefits is essential to ensure the financial security of catering workers, alongside offering support services, such as counseling and financial aid, for those facing marriage-related issues. Additionally, providing transportation assistance can alleviate commuting challenges, particularly for those reliant on scooters. Facilitating access to educational and skill development programs further empowers catering professionals, enhancing their capabilities and fostering a more resilient and thriving workforce. These measures collectively aim to improve overall well-being and professional satisfaction within the industry.

7.3 Conclusion

In conclusion, this study illuminates' challenges within the catering industry, including low wages and limited career advancement. Suggestions include improving job stability,

enhancing wages, and providing support services. Regulatory measures and educational initiatives are vital for fostering a sustainable and inclusive workforce, ensuring a vibrant industry future.

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A STUDY ON VARIOUS AGRICULTURE CROPS CULTIVATES UNDER AREEKODE PANCHAYATH

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Abstract

Areekode Panchayath, nestled in the heart of Malappuram, Kerala, boasts a vibrant agricultural legacy that forms the backbone of its economy and sustains its populace. However, this idyllic setting is not without its challenges. Fluctuating crop yields, unpredictable climate patterns, and market instabilities necessitate a nuanced understanding of the agricultural landscape. This study endeavors to delve into the intricacies of Areekode Panchayath's agriculture. Through a multifaceted approach encompassing data collection from local farmers, rigorous economic analysis, environmental assessments, and qualitative research, we aim to unravel the dynamics of agricultural practices in the region. The significance of this endeavor lies in its potential to inform decision-making processes, foster sustainable farming techniques, bolster food security, and catalyze economic growth. By scrutinizing the types of crops cultivated, analyzing their economic impact, evaluating environmental implications, and identifying challenges faced by farmers, this research aims to paint a comprehensive picture of agriculture in Areekode Panchayath. Moreover, it seeks to provide actionable recommendations for sustainable agricultural development. This study is not just about Areekode Panchayath; it's a microcosm that contributes to the broader discourse on agricultural sustainability and rural development. Through our findings and recommendations, we aspire to empower stakeholders, policymakers, and local communities to make informed decisions that pave the way for the advancement of agriculture not only in Areekode Panchayath but also in neighboring regions. Ultimately, our goal is to catalyze positive change, promote resilience, and ensure the prosperity of Areekode Panchayath's agricultural sector and beyond.

Keywords: Areekode, agriculture, farmers, income, cultivation, crops

1.Introduction

Agriculture stands as the lifeblood of many communities, providing sustenance, economic stability, and a profound connection to the land. In the lush and culturally rich region of Areekode Panchayath, nestled in the heart of Kerala, agriculture has long been a cornerstone of livelihoods and a source of identity spanning generations. Here, the cultivation of crops transcends mere sustenance; it embodies a deep interplay between nature, tradition, and modernity.

This project embarks on a comprehensive exploration of the agricultural sector in Areekode Panchayath, aiming to uncover the nuances, challenges, and opportunities inherent in this vibrant agricultural landscape. Through meticulous data collection, rigorous analysis, and engagement with local farmers and stakeholders, we delve deep into the heart of Areekode's agricultural practices to unravel the complex tapestry of crops that thrive under its nurturing skies.

Areekode Panchayath, with its diverse topography, rich soil, and a climate that oscillates between the tropical and subtropical, offers a unique backdrop for agricultural activities. Over the years, it has become home to a diverse array of crops, each with its own story to tell. From the lush paddy fields that sway gracefully in the monsoon rains to the meticulously tended plantations of cash crops, Areekode is a microcosm of the agricultural diversity that characterizes our nation.

This study endeavors to cast a spotlight on the types of crops cultivated within the boundaries of Areekode Panchayath. It

seeks to document the seasonal patterns, cultivation techniques, and economic significance of these crops. Furthermore, it aims to unravel the symbiotic relationship between the land and the people, examining how the traditions of farming have evolved over the years, coalescing with modern agricultural practices and innovations.

In addition to understanding the nuances of crop cultivation, this project aspires to shed light on the broader impact of agriculture in Areekode Panchayath. It delves into the livelihoods of local farmers, the socio-economic dynamics at play, and the challenges that confront them in an ever-changing world. From the unpredictability of the monsoon to market fluctuations, the farmers of Areekode persevere, adapting and innovating to secure their future and that of their community.

As we embark on this journey of exploration, we hope to not only unearth valuable insights into the agricultural sector of Areekode Panchayath but also contribute to the body of knowledge that informs sustainable agricultural practices and policy decisions. By understanding the unique challenges and opportunities that this region presents, we can work towards strengthening the foundations of agriculture, ensuring its resilience, and preserving the cultural heritage that is deeply entwined with the fields and farms of Areekode.

In the pages that follow, we will delve into the methodology, data analysis, findings, and recommendations that have emerged from this study. Through a combination of empirical evidence and the voices of the local community, we aim to paint a comprehensive picture of agriculture in AreekodePanchayath, paying homage to its past, celebrating its present, and envisioning a sustainable future.

1.1 Significance of the problem

The significance of the problem at the heart of this project, the cultivation of agriculture crops under Areekode Panchayath, cannot be overstated. It represents a crucial nexus of issues encompassing food security, livelihoods, climate resilience, environmental sustainability, economic prosperity, and knowledge development. The well-being and economic stability of a substantial portion of the local population hinge on the success of agriculture, making it vital to ensure sustainable crop production. Additionally, as climate change continues to disrupt traditional farming practices, understanding the challenges and adaptive strategies employed by farmers in Areekode becomes imperative. This research fills a critical knowledge gap, enabling informed policy decisions, promoting environmental stewardship, and ultimately bolstering the resilience and prosperity of both the community and the broader agricultural sector.

1.2 Statement problem

The agriculture sector in Areekode Panchayath faces a complex web of challenges and opportunities that are central to the livelihoods of its residents and the region's overall development. With changing climatic patterns, evolving agricultural practices, and economic fluctuations, there is a pressing need to comprehensively assess the types of crops cultivated, their seasonal variations, the techniques employed, and the socio-economic implications of agriculture in this region. Furthermore, the absence of a detailed and up-to- date study on Areekode's agriculture leaves a critical knowledge gap, hindering informed 4 policy-making and the sustainable development of this vital sector. This project aims to address

these concerns by investigating the agricultural landscape of Areekode Panchayath, providing essential insights into crop cultivation, and offering a foundation for evidence- based decision-making and community empowerment.

1.3 Objectives

• To identify and categorize the main crops grown in Areekode Panchayath.

• To analyze the trends and changes in crop cultivation over the past few years.

• To assess the economic impact of crop cultivation on the local community.

• To study the agricultural practices and techniques employed by farmers in the region.

1.4 Methodology

The present study was conducted in Areekode panchayath, Malappuram district, Kerala. The main sources of information for this study are based on data collected through both primary and secondary means. For the study, the investigator has used field survey for collect data.

Primary data: Primary data was collected from beneficiaries of the agricultural survey scheme within the selected wards of Areekode Panchayath through structured questionnaires and direct interviews

Secondary data: Secondary data have been collected from various books, journals, reports, articles, and the internet.

Data analysis technique: Graphical method, Scatter diagram Line diagram, Bar diagram.

Statistical tools: Statistical tools such as correlation and regression.

2. Review of Literature

This literature review consolidates findings from diverse research projects on agricultural practices in Kerala. It strives to present a thorough understanding of crop cultivation in the state, emphasizing shared patterns and obstacles encountered by farmers, utilizing insights from collective research endeavors.

Thomas A.Fox (2017): Despite the availability of a wide range of tools, measuring and explaining changes in land cover and land use in tropical regions can be extremely challenging. Kerala, India, is a biodiversity hotspot with a high population density and a long history of complex agricultural land-use patterns. Some reports suggest that agriculture in Kerala, which historically is rice paddy- wetland and agroforestry-based, is on the decline. However, the evidence is often anecdotal, especially with regards to smallholding home garden agriculture. In this study we employ mixed methods, including remote sensing, quantitative household surveys, and semi-structured interviews, to unravel the complex land-cover and land-use changes occurring in Kerala.

KP Kannan (2011): Changes in Kerala's economy have led to a structural transformation, giving it a non-agrarian character, both in terms of income and employment. This poses new difficulties for agricultural development at a time when there is a scarcity of labour as well as profits. The present stagnation in

the state's agricultural sector has come at a time when its non-agricultural sector has been growing at more than 9% per annum. In this sense, the current challenge of rejuvenating Kerala's agriculture is of a qualitatively different kind in its developmental history. This paper probes the issue and puts forth a set of measures that are needed to meet the problem head-on.

Bhalla and Singh (2012): Diversity of plant wealth and a rich marine ecosystem distinguish Kerala from other States of India. The crops grown here include various seasonal crops such as rice and vegetables, annual crops such as tapioca and banana, and perennial crops such as pepper and rubber. The cultivation of high-value plantation crops makes Kerala the State with the highest per hectare crop income in the country. In 2013–14, the value of agricultural output per hectare in Kerala was Rs 1,19,556.1 From 1962–65 to 2005–8, almost all districts of the State consistently stood first among all districts in India in terms of crop output per hectare.

Radhakrishnan (1981): The State of Kerala has seen significant transformation of its agriculture over the last 61 years. The process of land reforms that was initiated by the first Government of Kerala in 1957 and completed by the end of the 1970s led to the conferring of ownership rights over agricultural land to 1.2 million tenant cultivators

Zachariah and Rajan (2004): From the 1970s, the time of the oil boom in the Gulf countries, increased migration and remittances from abroad have resulted in a significant transformation of Kerala's economy. Specifically, high land prices have altered the land-use pattern in the State.

Bakshi and Ramachandran (2008): illustrate the differences in the collection of land-use statistics between a State with land records, namely Tamil Nadu, and a non-land records State, West Bengal. In the case of West Bengal, data on crop area, irrigation, and land use are collected by different agencies including the Department of Land and Land Reforms and the Bureau of Applied Economics and Statistics. In Tamil Nadu, data on crop area, irrigation, and land use are maintained in the village records, where the cadastral number of the plot is recorded.

George Thomas C (2022): A study to document the diverse range of crops cultivated in Kerala. This comprehensive investigation identified 452 crops from 82 different plant families. These crops were categorized by their primary use, revealing 256 edible crops, including cereals, millets, pulses, fruits, and vegetables, among others. Additionally, the list encompassed various other crops such as spices, medicinal plants, and those with miscellaneous uses. Notably, this list continues to evolve as new crop introductions, particularly fruits, are actively pursued.

Annie Thomas, Aimy Regi, Divina Maria Alex (2023): Given the importance of agriculture in Kerala's economy, it is important to have a comprehensive understanding of its past and present performance. The area used for paddy cultivation has been steadily declining at a concerning rate, particularly since 1975-1976, even though Kerala produces far less paddy than it needs and remains a deficit state. Given that rice is the staple food for the people of Kerala, it is crucial to examine the difficulties faced during paddy production

Dr. P. Indira Devi (2019): The Kerala Agriculture is in a fast pace of recovery after the floods of 2018. The growth tragectory in this sector would have been notable, if the period have been a normal one. The rebuilding process in agriculture gained momentum with the technological support from KAU and combined efforts of all concerned. The field presence of KAU, post flood, to support the farmers and understand the changes in agro-ecology lead to policy formulation and action plan to revive the sector. KAU, also have focused on research projects that address the problems that were identified to develop scientific prescription to mitigate and adopt the climate change impacts. The constant and systematic interfaces with the stakeholders of agri sector form the basis of our research policy.

Capt.Dr.K.R.Ajeendranath, Suresh.K (2020): The focus of this study is the evolution and progress of Agrarian culture and its current situation in 13 Kerala. The study tries to explore agriculture's contribution in the growth and development of socio - economic cultural and political character of Kerala. Indeed, the study tries to find out the contribution of agriculture in the growth of art and literature. The method used for this study is descriptive. Data for this study is collected from reference books.

Kerala's agricultural sector has undergone a nuanced evolution, transitioning from traditional to cash crops. Challenges include declining paddy cultivation, aging farmers, and policy distortions. Despite successes in organic farming and post-flood recovery efforts, a comprehensive strategy is needed to ensure resilience and prosperity amid socio-economic changes.

3 Data Analytics and Interpretation

The analysis unveils socioeconomic dynamics in rural agricultural communities, highlighting gender disparities, religious diversity, and limited resources. It emphasizes the need for gender equity, educational opportunities, and adaptive strategies to address challenges like climate change impacts and poverty, informing inclusive policymaking for sustainable rural development.

Table4.1: Gender Distribution

Gender	No.of Farmers	Percentage
Male	25	83.33%
Female	5	16.67%
Total	30	100.00%

Source: Field survey

Table 4.1 reveals that the majority of respondents are male, constituting 83.33% of the sample, while females make up 16.67%. This gender distribution indicates a predominance of male participants in the survey. The higher percentage of male respondents might suggest that men are more actively engaged or accessible in the agricultural context of Areekode Panchayath.. The 83.33% male participation underscores the significance of tailoring agricultural policies to meet the needs and challenges faced by male farmers in the region.

Table4.2: Religious Distribution

Religion	No. of Farmers	Percentage
Hindu	12	40.00%
Muslim	15	50.00%
Others	3	10.00%
Total	30	100.00%

Source: Field survey

The distribution of respondents in the survey conducted in Areekode Panchayath indicates a diverse representation, with 40.00% identifying as Hindu, 50.00% as Muslim, and 10.00% as belonging to other religions. This religious diversity within the community is crucial for understanding the varied perspectives, practices, and needs of farmers in the region. Policymakers and agricultural authorities should recognize and respect this diversity to implement inclusive strategies that cater to the specific requirements of different religious groups. The 50.00% Muslim representation highlights the significance of considering religious factors when formulating agricultural policies to ensure cultural sensitivity and effectiveness.

Table4.3: Distribution of the Land Holding Pattern of the Respondents

Landholding Pattern	No. of Farmers	Percentage
Lessthan10cent	19	63.33%
10-20cent	8	26.67%
Above20cent	3	10.00%
Total	30	100.00%

Source: Filed Survey

Table 4.3 reveals the landholding patterns among respondents in Areekode Panchayath. The majority, constituting 63.33%, own less than 10 cents of land, highlighting a prevalence of smaller landholdings. Additionally, 26.67% own land within the range of 10-20 cents, while 10.00% own land exceeding 20 cents. This distribution provides valuable insights into the

agrarian landscape and can inform policies aimed at supporting small-scale and larger-scale farmers differently. Understanding land distribution is crucial for tailoring agricultural initiatives, addressing land-use challenges, and promoting sustainable farming practices in the region.

Table 4.5: Changes in Cultivation Pattern Among the Respondents

Changes Noticed	No. of Farmers	Percentage
Yes	13	43.33%
No	17	56.67%
Total	30	100.00%

Source: Field survey

Table 4.5 indicates that 43.33% of respondents in Areekode Panchayath have noticed changes in crop cultivation practices, while 56.67% have not. Recognizing these changes is essential for understanding the evolving dynamics of agriculture in the region. The observed changes could be influenced by various factors such as climate shifts, technological advancements, or government initiatives. The insights from this data can guide policymakers and stakeholders in tailoring interventions that address the specific needs of the farming community in Areekode Panchayath.

Table4.6: Major Challenges Faced by Farmers

Challenges	No.of Farmers	Percentage
Challenges faced	24	80.00%
Not faced	6	20.00%
Total	30	100.00%

Source: Field survey

Table 4.6 reveals that 80% of respondents in Areekode Panchayath acknowledge facing challenges in their agricultural activities. Identifying and understanding these challenges is crucial for developing targeted interventions and support systems. The nature of these challenges could encompass various aspects, such as market access, resource availability, climate-related issues, or technological limitations. Addressing these challenges is vital for enhancing the resilience and sustainability of the local agricultural sector. Policymakers, agricultural extension services, and community organizations can leverage this information to formulate effective strategies and programs that directly tackle the identified challenges, fostering a more supportive environment for farmers in Areekode Panchayath.

Table4.7: Modern Farming Techniques Usage Distribution

Modern Techniques Used	No. of Farmers	Percentage
Used	22	73.33%
Not used	8	26.67%
Total	30	100.00%

Source: Field survey

Table 4.7 highlights that 73.33% of farmers in Areekode Panchayath are actively adopting modern agricultural techniques. This inclination toward modern practices suggests a positive trend in the adoption of advanced technologies, which can contribute to increased productivity and efficiency in farming. It is crucial to recognize and support this transition, as modern techniques often lead to improved yields, resource optimization, and sustainability. Policymakers, agricultural extension services, and relevant

institutions can use this insight to tailor educational programs, provide necessary resources, and encourage the broader adoption of modern farming practices among the farming community in Areekode Panchayath.

Table 4.8: Participation in Skill Development Program

Skill Development Programs	No. of Farmers	Percentage
Yes	17	56.67%
No	13	43.33%
Total	30	100.00%

Source: Field survey

Table 4.8 reveals that 56.67% of farmers in Areekode Panchayath have participated in skill development programs. This indicates a positive engagement of the farming community in initiatives aimed at enhancing their skills and knowledge. Skill development is crucial for improving agricultural practices, adopting new technologies, and adapting to changing market dynamics. The data suggests that there is an existing interest among farmers to enhance their skills, and policymakers can capitalize on this by further promoting and expanding skill development programs tailored to the specific needs of the agricultural community in Areekode Panchayath.

Table 4.9 The Income Status of Respondents

Income Level	No. of Farmers	Percentage
5000-10000	24	80.00%
10000-20000	6	20.00%
>20000	0	00.00%
Total	30	100.00%

Source: Field survey

Table 4.9 presents the monthly income distribution of surveyed farmers. A significant majority (80.00%) fall within

the income range of 5000-10000, while 20.00% have monthly earnings between 10000-20000. Strikingly, none of the respondents report an income exceeding 20000. This data underscores the prevalence of a substantial segment of the population with moderate income levels, emphasizing the need for targeted interventions to uplift financial well-being. Policymakers and support programs should consider income-specific strategies to enhance the economic stability of individuals falling within these income brackets. The absence of respondents with income beyond 20000 suggests potential economic challenges that demand attention for a more inclusive development approach.

Table4.10: Monthly Expenditure Status of the Respondents

Monthly Expenditure	No. of Farmers	Percentage
2000-5000	28	93.33%
5k-10k	2	6.67%
Total	30	100.00%

Source: Field survey

Table 4.10 provides insights into the monthly expenditure patterns of respondents in Areekode Panchayath. The majority, constituting 93.33%, fall within the expenditure range of 2000-5000. A smaller proportion, 6.67%, falls into the 5000-10000 range. This data is crucial for understanding the economic dynamics of the community, as it sheds light on prevalent income levels and spending habits. Policymakers and local authorities can leverage this information to formulate targeted financial assistance programs or initiatives aimed at enhancing financial well-being and promoting economic growth within the community.

The data analysis of Areekode Panchayath's agricultural community reveals a predominantly male demographic

engaged in farming, with diverse religious and educational backgrounds. While facing challenges, there's a positive trend towards modern techniques adoption and participation in skill development programs. However, income levels remain moderate, necessitating targeted interventions. Policymakers should prioritize inclusivity, tailor initiatives to address diverse needs, and promote sustainable agricultural practices to foster community resilience and economic growth.

Correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they move oppositely. A zero correlation ($r = 0$) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analyzing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Correlation to find relationship between average income of the farmers and their monthly expenditure

SL.NO	Average	Average2
1	3500	5000
2	3500	7500
3	3500	5000
4	3500	5000
5	3500	7500

6	3500	5000
7	3500	5000
8	3500	7500
9	3500	7500
10	7500	7500
11	3500	7500
12	3500	7500
13	3500	5000
14	7500	7500
15	3500	7500
16	3500	7500
17	3500	7500
18	7500	7500
19	3500	7500
20	3500	7500
21	3500	7500
22	3500	7500
23	3500	5000
24	7500	7500
25	3500	7500
26	3500	7500
27	7500	7500
28	3500	7500
29	7500	7500
30	3500	7500

Correlationcoefficientis0.288104066

The correlation value of 0.288104066 between the monthly income and monthly expenditure of farmers in Areekode Panchayath indicates a positive correlation, but it's relatively weak.

In summary, while the correlation value suggests a positive relationship between monthly income and monthly expenditure among farmers in Areekode Panchayath, it is relatively weak, indicating that other factors likely play significant roles in determining spending patterns within the community.

Simple Linear Regression:

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable xxx and the outcome (dependent) variable yyy. The model is represented by the equation $y=\beta_0+\beta_1 x+\epsilon$ = \beta_0 + \beta_1 x + \epsilon$y=\beta_0+\beta_1 x+\epsilon$, where β_0\beta_0β_0 is the intercept, β_1\beta_1β_1 is the slope, and ϵ\epsilon$\epsilon$ is the error term. The goal is to find the best-fitting line that minimizes the difference between observed and predicted values of yyy. Simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

SL.NO	Average	Average2
1	3500	5000
2	3500	7500
3	3500	5000
4	3500	5000
5	3500	7500
6	3500	5000

7	3500	5000
8	3500	7500
9	3500	7500
10	7500	7500
11	3500	7500
12	3500	7500
13	3500	5000
14	7500	7500
15	3500	7500
16	3500	7500
17	3500	7500
18	7500	7500
19	3500	7500
20	3500	7500
21	3500	7500
22	3500	7500
23	3500	5000
24	7500	7500
25	3500	7500
26	3500	7500
27	7500	7500
28	3500	7500
29	7500	7500
30	3500	7500

The regression equation relating monthly income (xxx) to monthly expenditure (yyy) of farmers in Areekode Panchayath is: $y=0.1823x+6132.8$ The coefficient of determination (R^2) is 0.0761, indicating that only about 7.61% of the variability in monthly expenditure can be explained by variations in monthly income. This means that the relationship between income and expenditure is relatively weak, and the model has limited predictive power.

The correlation coefficient (0.288) shows a weak positive link between monthly income and expenditure among Areekode Panchayath farmers. However, with an R^2 value of 0.0761, only 7.61% of expenditure variation can be explained by income, suggesting income's limited explanatory power. Other factors, such as household size and agricultural costs, likely heavily influence spending behaviors. Thus, while income impacts expenditure, it is not the sole determinant in this community.

5. Findings, Suggestions, and Conclusion

5.1 Findings

- Wide demographic diversity among respondents in terms of age, gender, religion, caste, and educational qualifications.
- The majority of respondents are married, reflecting family-centric farming practices.
- The economic status of respondents is primarily indicated by possession of blue or rose cards, suggesting modest income levels.

- Coconut trees and rubber plants are identified as the primary crops cultivated in the region.
- Perception of soil quality varies from good to average, influencing farming decisions and practices.
- Farmers report challenges such as fluctuating yields, low productivity, and climate change impacts.
- Discrepancies are observed in access to government subsidies among respondents.
- A need is expressed for improved availability and affordability of farm machinery.
- There is a desire for programs promoting marketing and branding of agricultural produce to increase profitability.
- Changes in crop cultivation practices are noticed by respondents over time.
- Changes in crop yields over time suggest potential influences from climate change and evolving farming practices.
- Moderate productivity levels are reported by several respondents, indicating strengths and areas for improvement.
- There is a desire expressed for initiatives to enhance farmers' skill development, reflecting a need for capacity-building programs in the agricultural sector.

5.2 Suggestions

- Implement programs to provide consistent government support and subsidies to farmers.
- Strengthen initiatives aimed at promoting modern farming techniques and technologies.

- Enhance skill development programs for farmers to improve productivity and resilience.
- Establish marketing and branding initiatives to increase the visibility and value of Areekode's agricultural produce.

5.3 Conclusion

The agriculture sector in Areekode Panchayath confronts several obstacles, including erratic yields, subpar productivity, and the mounting influence of climate change. Nevertheless, within these challenges lie prospects for enhancement, particularly through the integration of contemporary technologies and the implementation of skill development programs. It is imperative for government bodies, agricultural specialists, and local communities to collaborate closely to tackle these issues effectively. By fostering partnerships and sharing knowledge, stakeholders can devise strategies to mitigate the adverse effects of climate change, enhance agricultural productivity, and bolster the resilience of the farming community. Through concerted efforts and proactive measures, Areekode Panchayath can transform its agricultural landscape, ensuring sustainable growth and prosperity for all stakeholders involved.

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AN ANALYTICAL STUDY ON SERVICES PROVIDED BY INTEGRATED CHILD DEVELOPMENT SERVICE SCHEME (ICDS) IN CHEEKODE PUNCHAYAT

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Abstract

The Integrated Child Development Services (ICDS) scheme is a vital initiative aimed at improving the health, nutrition, and overall development of children aged 0-6 years, pregnant women, and lactating mothers in India. This study titled "An analytical study on services provided by Integrated Child Development Service (ICDS) scheme in Cheekode Panchayat" delves into the utilization and perception of ICDS services in Cheekode Panchayat, Kerala. Both primary data and secondary data will use in this study. Primary data mainly collected from 50 ICDS beneficiaries in cheekode panjayat through structured questionnaires and direct interviews. Secondary data have been collected from various books, journals, reports, articles, and the internet. Findings reveal that while a significant portion of respondents are unaware of the ICDS scheme, those who utilize its services express satisfaction with aspects such as supplementary nutrition, health check-ups, and pre-school education. Challenges including lack of awareness and inconsistencies in service quality were identified, suggesting areas for improvement. The study underscores the importance of strengthening outreach and awareness campaigns, enhancing service availability and accessibility, and providing regular training programs for Anganwadi workers. Policy implications include tailored communication strategies, investment in infrastructure and human resources, and community engagement for more inclusive outcomes. Overall, the study contributes to the understanding of ICDS scheme effectiveness and highlights the need for continuous improvement to ensure the holistic development and well-being of children and mothers in Cheekode Panchayat and similar communities.

1: Introduction

Children are the future of the country, and therefore, their growth and development must be attended to by all sections of the community. However, it is noticed that many children face the problem of under-nutrition or malnutrition. The Government of India has launched various health programs for the targeted community, but these services did not adequately reach the target community. This led to the formulation of the Integrated Child Development Services (ICDS) scheme, one of the most important and prestigious national human resource development programs in India, gradually expanding over the last 25 years. The ICDS scheme was launched in India on October 2, 1975. The Integrated Child Development Service (ICDS) scheme is one of the unique and largest programs globally, focusing on the needs of children in the age groups of 0-6 years. It is a major national program introduced for early childhood development. This scheme is mainly introduced to provide various services to a targeted community. It includes a package of six services: supplementary nutrition, immunization, preschool non-formal education, nutrition and health education, referral services, and health check-ups. ICDS services are extended to children up to the age of 0-6 years, pregnant women, and lactating or feeding mothers, making them the main beneficiaries of this ICDS scheme. These services are provided through focal point Anganwadi (AWCs). Anganwadi is managed by an honorary female worker called Anganwadi worker (AWW), serving as a central point for complementary nutrition, immunization, and preschool education for children aged 3-6 years. Most Anganwadi workers are well-educated, but their skills are limited. The main objective of the program is to improve the nutritional and

health status of children aged 0-6 years, acting as a foundation for proper psychological, physical, social, and economic development. This scheme also enhances the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition, health, and education. The organization of ICDS occurs at five different levels: central, state or union territory level, district level, block level, and village level. At the central level, the Department of Women and Child Development within the Human Resource Development Ministry is the nodal department responsible for budgetary control and program implementation. At the state level, the secretary of the Department of Women and Child Development, or any other nodal department designated by the state government, is responsible for program implementation. ICDS cells at the state level monitor the program. The administration of ICDS is decentralized at the district, block, land village levels.

2: Significance of the study

The mental and physical health of children is a vital part of the progress of the nation. Good nutrition is the fundamental basic requirement for maintaining positive health. Proper nutrition is essential from the very early stages of life for growth, development, and an active life. The early years of one to three years are crucial periods for brain development, which may be adversely affected by malnutrition. The Integrated Child Development Service (ICDS) scheme provides more services to society to reduce malnutrition, especially for those targeted by the scheme – children aged 0-6 years, pregnant women, and lactating mothers etc. The ICDS scheme aims to improve the health, nutrition, and education of the targeted community. The present study aims to understand the current status of the

beneficiaries of the ICDS in Cheekode Panchayat. The study aims to assess the performance of the ICDS scheme, focusing on services offered through its subcenter AWCs. The study concentrates on creating awareness about the ICDS scheme among the beneficiaries in the weaker sections of society. The study was conducted on the topic "An analytical study on services provided by ICDS (Integrated Child Development Service) Scheme in Cheekode Panchayat." It examines whether ICDS services are useful to society. This study is crucial as the ICDS plays a vital role in enhancing the nutritional and health status of the community.

3: Objective of the Study and Methodology

- To study the working of the ICDS scheme through Anganwadi's in Cheekode Panchayat, Malappuram.
- To examine whether beneficiaries of the ICDS scheme are satisfied with the services they receive.
- To list out various services provided through Anganwadi centers.

The present study was conducted in Cheekode Panchayat, Malappuram district, Kerala. For the study, investigator has used field survey to collect the data. The main sources of information for this study are primary and secondary data. For it analyze purposes we used SPSS software.

Primary data: Primary data was collected from beneficiaries of the ICDS scheme within the selected wards in Cheekode Panchayat through structured questionnaires and direct interviews.

Secondary data: Secondary data have been collected from various books, journals, reports, articles, and the internet.

Tools Used for Data Analysis: Graphical methods, pie diagrams, bar diagrams.

Statistical tools used: Statistical tools such as correlation and regression.

4. Review of Literature

In this chapter, an attempt has been made to review some important studies relevant to the present study. A literature review is a piece of academic writing demonstrating knowledge and understanding of the academic literature on a specific topic placed in context. This chapter deals with several studies conducted on the topic "An Analytical Study on Services Provided by ICDS in Cheekode Panchayat."

BN Tandon (1989) conducted a study on nutritional interventions through primary healthcare, specifically assessing the impact of ICDS projects in India. The study investigated the nutritional status of the target population after 3-5 years and after 8 years of ICDS interventions, comparing it with non-ICDS groups. Results showed that ICDS nutrition intervention programs achieved better coverage of the target population, leading to a significant decline in malnutrition among preschool children in the ICDS population compared to the non-ICDS group.

*C. Athira, P. Maneesh (2016.)*A study on Adolescence girls' development and ICDS: A case study of Anganwadi centers in Kannur District, Kerala. ICDS provides nutritional food, nutritional classes, health camps, personality development classes, and career guidance to adolescent girls. ICDS is the major network formed to conduct different programs for the development of adolescent girls. The major objectives of the

study are to examine the accessibility of ICDS schemes and services by adolescent girls in Kannur district, and to analyze the utilization of ICDS services by adolescent girls in Kannur district. The study is based on both primary and secondary data.

Preethy Jawahar, Sudha A Raddi (2021). A study on "Assess the knowledge, utilization, level of satisfaction of utilization, and barriers of non-utilization regarding Integrated Child Development Services (ICDS) among women of Ernakulam District, Kerala, India." The objectives of the present study were to assess the knowledge, utilization, level of satisfaction of utilization, and barriers of non-utilization regarding Integrated Child Development Services (ICDS) among women. This study adopted a quantitative approach using a descriptive survey design. Convenience sampling technique was used to collect data from 553 women between the age group of 18–45 years residing in Ernakulam district, Kerala, India. Five tools were used for data collection.

Agarwal, D.K. Agarwal, A Agarwal, S Rai, R Prasad (2000) conducted a study on the impact of ICDS on maternal nutrition and birth weight in rural Varanasi. They selected 28 ICDS and 21 non-ICDS villages in two adjoining blocks of Varanasi. The objective of the study was to evaluate the impact of ICDS on maternal nutrition and birth weight.

Rinku Maity, Soma Naskar Chakraborty, Jashoda Biswas (2022) conducted non-experimental descriptive research assessing knowledge and utilization of ICDS services among mothers of under-six children in selected ICDS centers in South 24 Parganas, West Bengal. They employed a non-probability purposive sampling technique. The tool included 8 items in socio-demographic profile, a 14-item structured interview

schedule for assessing knowledge of ICDS services, and a 12-item structured interview schedule for assessing utilization of ICDS services. The findings revealed that a maximum of 43% of mothers have an average knowledge score regarding ICDS services.

Umesh Kapil (2002) conducted a study on the Integrated Child Development Services (ICDS) scheme, emphasizing its role in the holistic development of children in India. The ICDS scheme is recognized as the largest program globally for promoting maternal and child health and nutrition. It is a multi-sectoral program involving various government departments, benefiting children below 6 years, pregnant, and lactating women. The program offers an integrated approach, converging basic services for improved childcare, early stimulation and learning, health and nutrition, and water and environmental sanitation.

Jarnail Singh Thakur, Shankar Prinja, Satpal Singh Bhatia (2011) Persisting Malnutrition in Chandigarh – Decadal Underweight Trends and Impact of ICDS Program. The study ascertained decadal trends in childhood nutritional status between 1997 and 2007 in Chandigarh, India, and assessed the impact of ICDS on childhood undernutrition. A total of 803 under-five children were studied. Findings revealed an insignificant difference in the prevalence of underweight among children registered under the ICDS program (52.1%) and those not registered (48.4%) in 2007. Health services utilization was poorest in urban slums.

*Mrs. Shaheeja, Mrs. Lija R Nath (2016)*A study on parental satisfaction and utilization of services provided by Anganwadis for children under five years – A descriptive study. The purpose

of the study was to determine parental satisfaction and the utilization of services provided by Anganwadis for children under five. The design selected for the study was a descriptive study design. Three hundred subjects were selected from the selected wards of Kallara Panchayat, Thiruvananthapuram district, using cluster sampling technique. The tools used for data collection were a structured questionnaire to assess socio-personal data and utilization of Anganwadi services.

Anju Kapoor and Kamna Singh (2019) conducted a study on the assessment of facilities and services at Anganwadi centers under the Integrated Child Development Service scheme in the urban area of Kathua district, Jammu and Kashmir. This cross-sectional descriptive study was conducted in 37 AWCs in the urban area of Kathua district from March to May 2019. A checklist was used to assess the physical infrastructure of AWCs and available logistics

Aftab Alam (2018) conducted a study on "An Analytical Study of Integrated Child Development Services (ICDS) in Bihar with Reference to East Champaran District." The purpose of this study was to examine the activities carried out by ICDS, assess their quality, and study the awareness among stakeholders about ICDS services. The study revealed that the ICDS program is not effectively operating on the ground, failing to achieve satisfactory results for beneficiaries.

5. Data Analysis and Interpretations

The study is conducted to know the services provided by Integrated Child Development Service (ICDS) scheme in Cheekode panchayat. The data is collected from 50 ICDS beneficiaries in Cheekode Panjayat through structured

questionnaires & direct interview method. Here I also used a simple linear correlation method and Simple linear regression method to make the analysis more effective. All analysis results are presented in tables and figures.

Table 4.1: Awareness Status About ICDS Among Respondents

SL.NO	Awareness Status	Number of Respondents	Percentage
1	Awared	14	28
2	Somewhat Awared	13	26
3	Not Awared	23	46
4	Total	50	100

Source: Field Survey

The above table outline the awareness status regarding Integrated Child Development Services (ICDS) among 50 respondents. Nearly half of the respondents (46%) claim to be not aware of ICDS, while 26% indicate partial awareness. However, a significant portion, representing 28%, admits to being aware of ICDS. This data indicates a mixed level of familiarity with the program. Thus, it appears that the ICDS scheme is not well-known among its intended beneficiaries.

Table 4.2: Beneficiary Status of ICDS Programs among the Respondents

SL.NO	Beneficiary Status	Number of Respondents	Percentage
1	Children in the age group of 0-6	25	50
2	Pregnant women	15	30
3	Adolescent girls	10	20
4	Total	50	100

Source: Field Survey

The above table represents information on various beneficiary groups within a sample of 50 individuals. Half of the respondents, accounting for 50%, belong to the category of Children in the age group of 0-6, followed by 30% for pregnant women, and 20% for Adolescent girls. The majority of beneficiaries receiving ICDS benefits are children in the age group of 0-6 years.

Table 4.3: Various services provided by ICDS center

SL.NO	Services	Number of Respondents	Percentage
1	Supplementary nutrition	32	64
2	Health-check up	6	12
3	Immunization	4	8
4	Pre-school education	8	16
5	Total	50	100

Source: Field Survey

The above table reveals the distribution of beneficiary statuses among 50 respondents across different services. The data indicates that the majority of respondents, comprising 64%, are beneficiaries of supplementary nutrition, highlighting its prevalent utilization. Health check-ups and pre-school education follow, with 12% and 16% of respondents, respectively. Immunization accounts for 8% of beneficiaries. Supplementary sustenance stands out as the predominant service, utilized by 64% of participants, underscoring its pivotal role among the majority.

Table 4.4: Status of Pregnancy Fund among Respondents

SL.NO	Status of Pregnancy Fund	Number of Respondents	Percentage
1	Received	23	46
2	Not received	27	54
3	Total	50	100

Source: Field Survey

The above table outline the status of the pregnancy fund among the respondents. Nearly half of the participants, comprising 46%, report having received the pregnancy fund, while 54% state that they have not received it. Particularly considering the majority of respondents, 54%, have not received the pregnancy fund, the findings underline the importance of ensuring equitable distribution and accessibility of such funds to support the diverse needs of pregnant individuals within the community.

Table 4.5: Awareness Status about Growth Monitoring and Immunization

SL.NO	Growth Monitoring and Immunization	No Of Respondents	Percentage
1	Awared	37	74
2	Not awared	13	26
3	**Total**	**50**	**100**

Source: Field Survey

The above table reflects the awareness status of respondents regarding growth monitoring and immunization provided by ICDS (Integrated Child Development Services). A significant majority, comprising 74% of the 50 respondents, are aware of these services. On the contrary, 26% of respondents indicate a lack of awareness. This suggests that a considerable portion of

the surveyed population is informed about the growth monitoring and immunization initiatives, but there is still a notable proportion that requires targeted efforts to enhance awareness.

Table 4.6: Effectiveness on Pre-school Education Under ICDS

SL.NO	Pre-School Education	Number Of Respondents	Percentage
1	Effective	30	60
2	Ineffective	4	8
3	Neutral	16	32
4	Total	50	100

Source: Field Survey

The table represents the respondents' perceptions of pre-school education. A significant majority, accounting for 60%, find pre-school education effective, indicating a positive reception. Conversely, a small proportion, 8%, deems it ineffective, suggesting room for improvement. Additionally, 32% express a neutral stance.

Table 4.7: Level of Satisfaction on Variety of Foods Available Under ICDS

Sl.No	Satisfaction Level	Number Of Respondents	Percentage
1	Satisfied	29	58
2	Not satisfied	3	6
3	Neutral	18	36
4	Total	50	100

Source: Field Survey

The above table illustrates the level of satisfaction among 50 respondents regarding the variety of foods available under the Integrated Child Development Services (ICDS). The majority,

constituting 58% (29 individuals), expressed satisfaction with the food offerings. A smaller percentage, 6% (3 individuals), reported dissatisfaction, while 36% (18 individuals) remained neutral. This suggests that a considerable portion of the respondents is content with the variety of foods provided by ICDS.

Table 4.8: Challenges Faced by the Beneficiaries

SL.NO	Challenges	Number of respondents	Percentage
1	Delayed Service Delivery	4	8
2	Lack of Awareness	38	76
3	Inconsistencies in Service Quality	8	16
4	Total	50	100

Source: Field Survey

The table shows the various difficulties faced by the beneficiaries. The main issue, pointed out by 76% of respondents, is the "Lack of Awareness." This indicates a crucial need for efforts to improve understanding of available services among the target population. Moreover, "Delayed Service Delivery" was highlighted by 8% of respondents, pointing to a noteworthy but less common problem. "Inconsistencies in Service Quality" were brought up by 16% of respondents, underscoring the importance of dealing with and maintaining consistent service standards.

Table 4.9: Attitude of Anganwadi Workers towards the Beneficiaries

SL.NO	Attitude of Anganwadi Workers	No of Respondent	Percentage
1	Satisfied	44	88
2	Not satisfied	6	12
3	Total	50	100

Source: Field Survey

The provided table and diagram indicate that 88% of ICDS Beneficiaries express satisfaction with the behaviour of Anganwadi workers, while 12% report dissatisfaction This underscoring the positive impact of their interactions.

Table 4.10: Suggestions for Improvement in ICDS Scheme

Sl.No	Suggestions	No Of Respondent	Percentage
1	More health facilities	22	44
2	More education facilities	12	24
3	More awareness classes	16	32
4	Total	50	100

Source: Field Survey.

The above table and diagram present valuable insights for improvement, as indicated by the surveyed individuals. 44% emphasize the significance of having more health facilities, indicating a strong emphasis on enhancing healthcare. Additionally, 24% express the need for increased education facilities, signaling a robust desire for improved learning

opportunities. Another 32% stress the importance of generating more awareness, emphasizing the need to disseminate information widely.

Correlation

Correlation, in statistics, quantifies the relationship between two variables. It measures how changes in one variable correspond to changes in another. The correlation coefficient, typically denoted as "r," ranges from -1 to 1. A positive correlation ($r > 0$) indicates both variables move in the same direction, while a negative correlation ($r < 0$) suggests they move oppositely. A zero correlation ($r = 0$) implies no systematic relationship. Correlation doesn't imply causation; it merely identifies associations. Understanding correlation helps in analysing data relationships, predicting outcomes, and making informed decisions in various fields like finance, economics, and social sciences.

Here I choose two variables, poverty status and health and health and well-being of the children.

Correlation to find relationship between poverty status and health and well-being of the children.

SL.NO	Poverty Status	Health And Well-Being of The Children
1	1	1
2	2	1
3	2	1
4	1	1
5	1	1
6	3	1
7	2	1

8	3	1
9	3	1
10	2	1
11	2	1
12	2	1
13	2	1
14	2	1
15	2	1
16	2	1
17	2	1
18	3	1
19	2	1
20	2	1
21	1	1
22	2	1
23	3	1
24	3	1
25	1	1
26	2	1
27	2	1
28	3	1
29	2	1
30	1	1
31	3	1
32	3	1
33	1	1
34	3	1
35	2	2
36	3	1
37	2	1
38	2	1
39	2	2
40	3	1

41	2	2
42	1	1
43	2	1
44	3	1
45	3	1
46	2	1
47	3	1
48	1	1
49	2	1
50	2	1

The poverty status of the respondents is categorized based on color of ration card, where 1 represents pink, and 2 and 3 represent blue and white respectively. Similarly, in the health and well-being of the children, 1 indicates a significant impact, while 2 indicates a moderate impact.

Correlation value of 0.078989 suggests a very weak positive correlation between poverty status and the health and well-being of children. This means that there is a slight tendency for higher poverty status to be associated with slightly poorer health and well-being outcomes for children, but the relationship is not very strong.

Simple Linear Regression

Simple linear regression is a statistical technique used to model the relationship between two quantitative variables. It assumes a linear relationship between the predictor (independent) variable x and the outcome (dependent) variable y. The model is represented by the equation $y=\beta_0+\beta_1\times x+\epsilon$, where β_0 is the intercept, β_1 is the slope, and ϵ is the error term. The goal is to find the best-fitting line that minimizes the difference

between observed and predicted values of y. Simple linear regression is useful for predicting outcomes based on a single predictor variable and assessing the strength of the relationship between variables.

Here I choose two variables, pregnancy fund and maternal health and well-being.

Regression to find relationship between poverty status and health and well-being of the children.

SL.NO	PREGNANCY FUND	MATERNAL HEALTH AND WELL-BEING
1	1	1
2	2	1
3	1	2
4	1	2
5	2	1
6	1	1
7	2	2
8	1	2
9	1	2
10	1	1
11	1	1
12	2	2
13	1	2
14	2	2
15	1	1
16	1	1
17	1	2
18	1	1
19	1	1
20	2	2
21	1	1

22	1	2
23	2	2
24	1	2
25	2	2
26	1	2
27	1	1
28	2	1
29	2	1
30	1	1
31	2	1
32	1	1
33	1	2
34	1	1
35	2	2
36	2	1
37	2	2
38	2	2
39	2	1
40	1	1
41	1	2
42	1	1
43	1	2
44	1	2
45	1	2
46	1	2
47	1	1
48	2	3
49	2	3
50	2	3
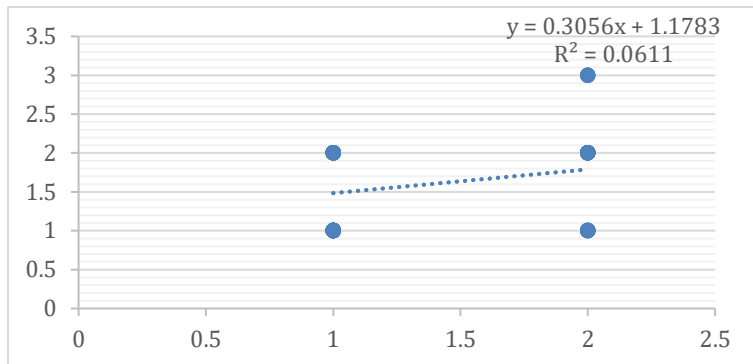
Here, 1 indicates receiving pregnancy funds, and 2 indicates not receiving them. Similarly, in maternal health and well-being, 1 refers to well-being, while 2 indicates not wellbeing.

The regression equation provided suggests that there is a positive relationship between pregnancy fund and maternal health and well-being, with a coefficient of 0.3056 indicating that for every unit increase in pregnancy fund, maternal health and well-being increases by approximately 0.3056 units. However, the low R^2 value of 0.0611 suggests that only around 6.11% of the variability in maternal health and well-being can be explained by the variability in pregnancy fund.

The study examined the effectiveness of the Integrated Child Development Service (ICDS) program in Cheekode Panchayat by analyzing a sample of 50 respondents, all of whom were female. It was found that the services provided by ICDS were well-received, particularly in terms of promoting the health of mothers and children. However, some challenges were identified, such as a lack of awareness about ICDS among the community.

5.Conclusion

The present study is conducted to know if the ICDS services are useful or not to the beneficiaries of it. For the Collection of data, 50 samples are selected 5 wards in Cheekode Gram Panchayat. The important variables used for data collection were age status, religion, education Status, category of family, etc. I reached into some findings, from the collected data.

5.1 Findings

- Most of the respondents (46) are unaware of the ICDS scheme.
- Supplementary nutrition is the most utilized service (64%), followed by pre-school education (16%).
- Majority of participants report a significant impact on health and well- being of the children in the community and maternal well- being.
- Majority (46%) of the respondent's report having received the pregnancy fund.
- Most of respondents (70%) are satisfied with the information they receive on maternal and child health.
- Most of the respondents (74%) are aware of the growth monitoring and immunization.
- The majority of respondents (58%) expressed satisfaction with the variety of foods available under the Integrated Child Development Services (ICDS).
- The main challenge, pointed out by 76% of respondents, is the 'lack of awareness'.
- The majority (82%) express satisfaction with sanitation and hygiene at Anganwadi centers.

- The majority of the respondents are satisfied with the attitude of Anganawadi workers.
- Most of the respondents want more health facilities in Anganwadi

5.2 Suggestions

- Strengthen outreach and awareness campaigns to educate the community about the ICDS scheme and its benefits.
- Enhance the availability and accessibility of health facilities and education resources within the locality.
- Implement measures to address challenges such as lack of awareness and inconsistencies in service quality.
- Conduct regular training programs for Anganwadi workers to ensure positive behavior and effective service delivery.

5.3 Conclusion

The study investigates the effectiveness and awareness of ICDS services in Cheekode Punchayat. It emphasizes the importance of child health and nutrition. Through questionnaire and interviews with 50 beneficiaries, it reveals a need for improvement, particularly in health facilities at Anganwadis, despite overall satisfaction with the ICDS Scheme.

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