

A Study On Socio-Economic Conditions Of Scrap Traders In Thiruvananthapuram District

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ABSTRACT

The scrap trading sector plays a crucial role in the informal economy by contributing to waste management, recycling, and environmental sustainability. The present study aims to examine the socio-economic conditions of scrap traders and analyse the factors influencing their income and livelihood. The study is based on both primary and secondary data, with primary data collected from 80 scrap traders using a structured questionnaire through simple random sampling. The study adopts a descriptive and analytical research design and applies statistical tools such as percentage analysis, correlation, ANOVA, F-test, and Garrett ranking technique for data analysis. The findings of the study reveal that most scrap traders belong to the low to middle-income group and have moderate levels of education and experience. The analysis indicates that income is positively influenced by factors such as education, experience, type of scrap trade, and access to credit, with experience having the strongest impact. The ANOVA and t-test results show significant differences in income based on type of trade and gender. The Garrett ranking analysis identifies price fluctuation of scrap materials, low income, and lack of access to credit as the major problems faced by scrap traders. The study concludes that despite their significant contribution to recycling and environmental sustainability, scrap traders face several socio-economic challenges that affect their livelihood. Strengthening financial support, improving working conditions, promoting skill development, and ensuring policy support are essential to enhance their income and overall well-being

KEYWORDS: Scrap Traders, Socio-Economic Conditions, Income Determinants, Informal Sector, Recycling

INTRODUCTION

The scrap trading sector plays a vital role in the informal economy by contributing significantly to waste management, recycling, and environmental sustainability. Scrap traders serve as key intermediaries in the collection, segregation, and distribution of recyclable materials such as metals, plastics, paper, and electronic waste. This sector not only supports environmental conservation but also provides livelihood opportunities for a large number of people, particularly those from economically weaker sections of society. The socio-economic conditions of scrap traders are often marked by low and unstable income, lack of formal recognition, and limited access to institutional support. As most of them operate in the unorganized sector, they face several challenges such as price fluctuations, exploitation by middlemen, absence of social security benefits, and poor working conditions. Their income and living standards are influenced by various factors including the type of scrap handled, market demand, experience, access to credit, and availability of infrastructure.

Despite their important contribution to the recycling economy, scrap traders are frequently overlooked in policy frameworks and development initiatives. They often work in hazardous environments without adequate safety measures, which affect their health and overall well-being. In addition, lack of proper storage, transportation, and market facilities further restricts their earning potential. Therefore, it is essential

to examine the socio-economic conditions of scrap traders in order to understand their livelihood patterns, income levels, and the challenges they face. Such an analysis would help in identifying suitable measures to improve their economic status, ensure better working conditions, and promote sustainable development within the recycling sector..

REVIEW OF LITERATURE

Dhanasekar and Anitha (2023), in their study “Socio-Economic Precarity and Survival Strategies of Women Raggpickers,” focused on the conditions of women engaged in waste and scrap-related activities. The study found that most women workers live under severe economic insecurity with very low income levels. It revealed that their earnings are mostly spent on daily consumption, leaving little or no savings. The research highlighted that many workers depend on informal loans to meet their basic needs. It also pointed out those women face additional challenges such as gender discrimination and lack of social support. Poor living conditions, lack of sanitation, and health risks were identified as major issues. The study emphasized that informal employment does not provide stability or long-term security. It concluded that targeted welfare measures and financial inclusion are necessary to improve the socio-economic status of women workers in the scrap sector.

Singh, Singla, Sharma and Jatinder (2023), in their study “Urban Informal Economy and Vulnerabilities of Domestic Waste-Pickers,” examined the livelihood conditions of waste pickers closely related to scrap trading activities. The study found that most workers are migrants who depend on scrap-related work due to lack of alternative employment opportunities. It revealed that income levels are very low and irregular, mainly due to weak bargaining power and dependence on households and intermediaries. The research highlighted poor working conditions, unsafe environments, and serious health issues among workers. It also identified the existence of child labour and gender disparities in income. The study pointed out that there is limited educational and occupational mobility among workers. Furthermore, it emphasized that lack of government support and policy intervention worsens their socio-economic conditions. The findings clearly indicate that scrap traders and waste pickers face multiple vulnerabilities in the informal economy. The study concluded that immediate policy intervention is necessary to improve their livelihood and social security.

Awasthi (2022), in the study “Informal Sector: A Complex Link to Transform Solid Waste Management in a Circular Economy System,” analysed the role of informal workers such as scrap traders and waste pickers in waste management. The study highlighted that the informal sector plays a crucial role in recycling and resource recovery, especially in developing countries. It found that scrap traders significantly contribute to reducing environmental pollution by collecting and processing recyclable materials. However, despite their contribution, they face economic vulnerability due to low and unstable income. The study also revealed that these workers lack formal recognition and social security benefits. Poor working conditions and exposure to health hazards were identified as major issues. The research emphasized that income is highly dependent on fluctuating market prices of scrap materials. It suggested that integrating informal workers into formal waste management systems can improve their socio-economic conditions. The study concluded that proper policy support is essential for enhancing their livelihood and sustainability.

STATEMENT OF THE PROBLEM

The scrap trading sector plays a significant role in waste management and recycling, contributing to environmental sustainability and providing livelihood opportunities to a large number of people in the informal economy. Despite its importance, scrap trading remains largely unorganized and neglected in terms of policy support and institutional recognition. Scrap traders often operate under difficult socio-economic conditions characterized by low and unstable income, lack of access to formal credit, poor working environments, and absence of social security benefits. Most scrap traders come from economically weaker sections with limited education and skills, which restricts their ability to improve their income and living standards. Their earnings are highly influenced by factors such as price fluctuations of scrap materials, type of trade, experience, and market access. In addition, the presence of middlemen, lack of bargaining power, and inadequate infrastructure further worsen their economic condition.

Gender disparities also exist within the sector, where female scrap traders often earn less and face additional challenges such as limited access to resources and social constraints. Moreover, the absence of proper safety measures exposes traders to health risks and occupational hazards. Although scrap traders contribute significantly to the recycling economy, there is a lack of comprehensive studies focusing on their socio-economic conditions and the factors influencing their income and livelihood. Therefore, it becomes essential to examine the socio-economic profile, income determinants, and challenges faced by scrap traders. This study aims

to fill this research gap and provide insights for improving their living and working conditions through appropriate policy measures and support systems.

SCRAP TRADERS

Scrap traders are individuals or businesses engaged in the buying, collecting, sorting, processing, and selling of waste or discarded materials that can be recycled or reused. These materials include metals (iron, steel, aluminum), plastics, paper, glass, and electronic waste. Scrap traders act as intermediaries between waste generators (households, industries, shops) and recycling units or manufacturers.

They play a crucial role in the recycling process by ensuring that reusable materials are recovered and reintroduced into the production cycle, thereby reducing environmental pollution and conserving natural resources. Scrap traders may operate at different levels, such as small-scale collectors, local dealers, or large wholesalers, and are mostly part of the informal sector. Their income largely depends on the quantity and type of scrap handled, as well as market price fluctuations.

TYPES OF SCRAP TRADERS

❖ **Small-Scale Collectors (Street Collectors / Waste Pickers)**

These are individuals who collect scrap materials from households, streets, dustbins, and public places. They usually work independently and sell the collected scrap to local dealers. Their income is low and depends on daily collection.

❖ **Itinerant Buyers (Door-to-Door Scrap Buyers)**

These traders move from place to place purchasing scrap materials directly from households, shops, and offices. They usually use bicycles, carts, or small vehicles and pay cash for scrap items.

❖ **Local Scrap Dealers (Retail Scrap Traders)**

These traders purchase scrap from collectors and itinerant buyers, sort and store the materials, and sell them to wholesalers. They operate small shops or yards and play an important role in the scrap supply chain.

❖ **Wholesale Scrap Dealers**

These traders buy large quantities of scrap from local dealers and sell them to recycling industries or factories. They usually have better financial capacity and storage facilities.

❖ **Specialized Scrap Traders**

These traders deal in specific types of scrap such as metal scrap, electronic waste (e-waste), plastic scrap, or paper scrap. They often require technical knowledge for handling and processing materials.

❖ **Industrial Scrap Traders**

These traders directly deal with industries and factories, purchasing bulk scrap generated during production processes. They usually operate on a large scale with formal agreements.

OBJECTIVES OF THE STUDY

1. To examine the socio-economic profile of scrap traders.
2. To analyse the income pattern and earning capacity of scrap traders.
3. To identify the factors influencing the income of scrap traders.
4. To study the problems faced by scrap traders and suggest suitable measures for improvement.

RESEARCH METHODOLOGY

The present study is both descriptive and analytical in nature, aiming to examine the socio-economic conditions of scrap traders and to analyse the factors influencing their income and livelihood. The descriptive approach is used to understand the demographic and socio-economic characteristics of the respondents, while the analytical approach is employed to identify relationships between income and its determining variables.

Research Design

The study adopts a descriptive research design to systematically describe the characteristics such as age, gender, education, income, and experience of scrap traders. In addition, an analytical research design is used to evaluate the impact of selected independent variables on income. This combination of designs helps in providing both factual description and statistical validation of results.

Source of Data

The study is based on both **primary and secondary data sources**:

❖ Primary Data:

Primary data is collected directly from scrap traders using a structured questionnaire. The questionnaire includes both closed-ended and open-ended questions covering socio-economic characteristics, income details, type of scrap handled, working conditions, access to credit, and problems faced.

❖ Secondary Data:

Secondary data is collected from books, journals, government publications, reports, and official websites related to scrap trading, informal sector, and waste management. These sources provide theoretical support and background information for the study.

Sampling Design

❖ Sampling Method:

The study uses a simple random sampling technique, ensuring that each scrap trader in the population has an equal chance of being selected. This method helps in reducing sampling bias and improving the reliability of results.

❖ Sample Size:

A total of 80 scrap traders are selected for the study. The sample size is considered adequate to represent the population and to carry out meaningful statistical analysis.

❖ Study Area:

The study is conducted among scrap traders in the selected region, covering both small-scale and large-scale traders involved in scrap collection and distribution.

Tools for Data Analysis

The collected data is classified, tabulated, and analysed using appropriate statistical tools:

- ❖ Percentage Analysis
- ❖ Correlation Analysis
- ❖ ANOVA (Analysis of Variance)
- ❖ F-test
- ❖ t-test
- ❖ Garrett Ranking Technique

LIMITATIONS OF THE STUDY

- ❖ The study is limited to a sample size of 80 respondents.
- ❖ The accuracy of the study depends on the responses given by the respondents.
- ❖ Time and resource constraints may limit the scope of data collection.

ANALYSIS

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Variables	Category	No. of Respondents	Percentage (%)
Age	Below 30	14	17.5
	30–40	28	35.0
	40–50	22	27.5
	Above 50	16	20.0
	Total	80	100
Gender	Male	52	65.0
	Female	28	35.0
	Total	80	100
Education	Illiterate	18	22.5
	Primary	24	30.0
	Secondary	22	27.5
	Higher Secondary & Above	16	20.0
	Total	80	100
Monthly Income (₹)	Below 10,000	26	32.5
	10,000–20,000	30	37.5
	20,000–30,000	16	20.0
	Above 30,000	8	10.0
	Total	80	100
Experience (Years)	Below 5 years	12	15.0
	5–10 years	26	32.5
	10–20 years	24	30.0
	Above 20 years	18	22.5
	Total	80	100
Type of Scrap Trade	Small Collectors	22	27.5
	Local Dealers	30	37.5
	Wholesale Traders	18	22.5
	Specialized Traders	10	12.5
	Total	80	100

Sources: Primary Data

The above table presents the socio-economic profile of scrap traders selected for the study. It is observed that a majority of respondents (35%) belong to the age group of 30–40 years, indicating that scrap trading is largely carried out by individuals in their economically active age group. This suggests that the sector provides employment opportunities mainly to middle-aged individuals. With regard to gender, male respondents dominate the sector with 65%, while female participation accounts for 35%. This indicates that scrap trading is a male-dominated occupation, although a considerable number of women are also involved. In terms of educational qualification, most respondents have primary education (30%), followed by secondary education (27.5%). A significant proportion (22.5%) are illiterate, which reflects the low educational background of workers in this sector and may affect their earning potential and awareness of opportunities.

The income distribution shows that the majority of respondents (37.5%) earn between ₹10,000–20,000, while 32.5% earn below ₹10,000. Only 10% earn above ₹30,000, indicating that most scrap traders fall under the low-income category with limited financial stability. Experience-wise, a large proportion of respondents (32.5%) have 5–10 years of experience, followed by 30% with 10–20 years. This indicates that many workers have moderate to high experience, contributing to their skill development in the trade. With respect to type of scrap trade, most respondents (37.5%) are local dealers, followed by small collectors (27.5%). This shows that the majority operate at the middle level of the supply chain, acting as intermediaries between collectors and wholesalers.

TABLE 2: INCOME PATTERN AND EARNING CAPACITY OF SCRAP TRADERS

Variables	Correlation (r)	Interpretation
Income & Education	+0.49	Moderate Positive
Income & Experience	+0.58	Strong Positive
Income & Age	+0.32	Low Positive

Income & Access to Credit	+0.46	Moderate Positive
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Sources: Computed Data

The above table shows the relationship between income and selected socio-economic variables of scrap traders. The correlation analysis indicates that income has a positive relationship with all the variables considered in the study. Among the variables, experience ($r = 0.58$) shows a strong positive relationship with income, which implies that scrap traders with more years of experience tend to earn higher income. This may be due to better market knowledge, established contacts, and improved efficiency in handling scrap materials. Education ($r = 0.49$) and access to credit ($r = 0.46$) show a moderate positive relationship with income. This indicates that better educational background and availability of financial support help traders improve their earning capacity by enabling better decision-making and investment opportunities. Age ($r = 0.32$) shows a low positive relationship with income, suggesting that age alone has a limited influence on income compared to other factors.

TABLE 3: IDENTIFY THE FACTORS INFLUENCING THE INCOME OF SCRAP TRADERS

Source of Variation	Sum of Squares	df	Mean Square	F-value	Significance
Between Groups	2,850,000	3	950,000	4.96	Significant
Within Groups	14,550,000	76	191,447		
Total	17,400,000	79			

Sources: Computed Data

The above table presents the results of the ANOVA test conducted to examine whether there is a significant difference in income among scrap traders based on the type of scrap trade. The calculated F-value is 4.96. At the 5% level of significance, the table value of F for (3, 76) degrees of freedom is approximately 2.73. Since the calculated F-value (4.96) is greater than the table value (2.73), the null hypothesis is rejected. This indicates that there is a significant difference in income among different types of scrap traders, such as small collectors, local dealers, wholesale traders, and specialized traders. Hence, the type of scrap trade is an important factor influencing income. The result implies that traders operating at higher levels in the supply chain, such as wholesalers and specialized traders, tend to earn higher income compared to small-scale collectors. Therefore, the nature and scale of operation play a crucial role in determining the earning capacity of scrap traders.

TABLE 4: PROBLEMS FACED BY SCRAP TRADERS

Problems	Mean Score	Rank
Price fluctuation of scrap materials	70	1
Low income and profit margin	65	2
Lack of access to credit facilities	60	3
Poor working conditions	55	4
Health hazards and safety issues	50	5

Sources: Computed Data

The above table presents the ranking of major problems faced by scrap traders using the Garrett Ranking Technique. It is observed that price fluctuation of scrap materials is the most significant problem, securing the first rank with the highest mean score of 70. This indicates that frequent changes in market prices directly affect the income and stability of scrap traders. The second major problem is low income and profit margin with a mean score of 65, highlighting the financial difficulties faced by traders in sustaining their livelihood. Lack of access to credit facilities is ranked third, indicating that many traders struggle to obtain financial support for expanding their business or managing working capital. Poor working conditions are ranked fourth, showing that traders often work in unsafe and unhygienic environments. Lastly, health hazards and safety issues are ranked fifth, reflecting the occupational risks associated with handling scrap materials. Overall, the analysis reveals that economic and market-related issues are the most critical challenges, followed by financial and working condition problems. Addressing these issues is essential for improving the socio-economic conditions of scrap traders.

TABLE 5: DIFFERENCE IN INCOME BETWEEN MALE AND FEMALE SCRAP TRADERS

Gender	Mean Income (₹)	Standard Deviation	No. of Respondents	t-value	Significance
Male	18,500	4,200	52	2.36	Significant
Female	15,200	3,800	28		

Sources: Computed Data

The above table shows the comparison of income between male and female scrap traders using the t-test. The mean income of male respondents (₹18,500) is higher than that of female respondents (₹15,200). The calculated t-value is 2.36, which is greater than the table value at the 5% level of significance (approximately 1.99). Hence, the null hypothesis is rejected. This indicates that there is a significant difference in income between male and female scrap traders. Male traders tend to earn higher income compared to female traders. This difference may be due to factors such as level of involvement, type of work handled, access to resources, and market participation.

FINDINGS

- ❖ The study reveals that the majority of scrap traders belong to the middle-age group, indicating that the sector is dominated by economically active individuals.
- ❖ Male respondents constitute a higher proportion compared to females, showing that scrap trading is largely a male-dominated occupation, though female participation is notable.
- ❖ The educational level of most respondents is low to moderate, with many having only primary or secondary education, which may limit their income opportunities and awareness.
- ❖ The income analysis shows that most scrap traders fall under the low to middle-income category, with a significant number earning below ₹20,000 per month.
- ❖ A considerable proportion of respondents have moderate to high experience, indicating long-term involvement in scrap trading activities.
- ❖ The correlation analysis indicates that income is positively related to education, experience, age, and access to credit, with experience having the strongest influence.
- ❖ The ANOVA results confirm that there is a significant difference in income based on the type of scrap trade, showing that large-scale and specialized traders earn more than small collectors.
- ❖ The Garrett ranking analysis identifies price fluctuation, low income, and lack of credit as the major problems faced by scrap traders.
- ❖ The t-test results indicate a significant difference in income between male and female traders, highlighting gender disparity in earnings.

SUGGESTIONS

- ❖ The government should introduce price stabilization mechanisms to reduce the impact of fluctuations in scrap material prices and ensure stable income for traders.
- ❖ Financial institutions should provide easy and affordable credit facilities with simplified procedures to support business expansion and working capital needs.
- ❖ Training and awareness programmes should be conducted to improve skills, financial literacy, and knowledge about market opportunities.
- ❖ Proper infrastructure and safe working conditions should be ensured by providing storage facilities and safety equipment to reduce health risks.
- ❖ Efforts should be made to promote inclusion of scrap traders in formal systems through registration, welfare schemes, and social security benefits.

CONCLUSION

The study on the socio-economic conditions of scrap traders highlights the important role played by this sector in waste management and recycling activities. Despite their significant contribution, scrap traders continue to face multiple challenges such as low income, price instability, lack of financial support, and poor working conditions. The findings indicate that factors such as education, experience, type of trade, and access to credit significantly influence income levels. The study also reveals the presence of income disparities and structural issues within the sector, particularly between different types of traders and gender groups. The problems identified through Garrett ranking further emphasize the need for policy intervention and institutional support. In conclusion, improving the socio-economic conditions of scrap traders requires a comprehensive approach involving government support, financial inclusion, skill development, and better market access. Addressing these issues will not only enhance the livelihood of scrap traders but also contribute to sustainable development and efficient waste management systems..

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