



Opportunity and Income Viability of Scrap Dealers – A Case Study in Puducherry

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ABSTRACT:

Increasing modernization, urbanization and living habituate of the human's will cause the higher waste generation. In this case scrap dealers are playing an major role in the solid waste management. The scrap dealers are buying waste from the households, rag pickers, shops and directly selling into the Whole sellers or the recycling industries. The advancement of technologies waste has been utilized for raw materials in many industries and also recycled or produced into different product. The stakeholder helps to control of the waste minimization and more support to the recycling process. In this business will help to improvise the livelihood of scrap dealer's as well as improvised their business. The study was carried from the Puducherry urban centres and this paper seeks to assess the business and profit earnings of the scarp dealers from the different types of waste.

Key Words: Scrap Dealers, Income, Profit, Solid Waste

INTRODUCTION

In India according to Central pollution and control board 2019-2020 the total quantum of waste generation is 150761 TPD, the overall efficiency of collection of waste works out 145957 (96.8%) TPD, 70881 TPD (47.015) of waste was treated and 4095227 (16%) TPD is landfilled. The overall population rate of Puducherry union territory is 12,47,953 and 400 to 450 tons per

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day waste was generated and in the Puducherry district there was 300 to 370 TPD tons of waste was generated with the population rate of 9,50,289. Through the increasing urbanization and lacking awareness in households for proper disposing of waste in India has a main reason to cause blockages in the sewage channels and many developed cities in India with higher population rate and increasing standard of living of the people also one of the reason for increasing waste generation and it also clearly indicates that suffer with lacking of infrastructural facilities like sewage, sanitation, proper drinking water facility and inadequate place to disposing the waste. The union minister Jyotiraditya scindia said that in the year 2047 primary steel production should grow up from 15% to 50% by the scrap or recycled steel and it help to achieve the government to move on circular economy and also 22% of the steel has been produced from the recycling scrap and it help to produce more steel from the scrap. The vision of the year 2047 by the usage of 15% of scrap for produce steel in next five years it will leads to scrap production should goes up to 50% and only 50% depends on the iron ore, It has been help to control of the CO₂ emissions and the scrap are not utilized for to save energy, control of emissions and but it also reduce the consumption of tones of iron ore, cooling coal and limestone. In the year 2023 the Indian urban population expected to increase 600 million and 165 million tonnes of solid waste has been generated. In that solid waste 5% to 6% is plastic. The higher waste generation, lacking of inadequate place of disposing waste and improper maintaince of waste cause many damage and also increase the health impact so the 6 R method Reduce, Recycle, Reuse, Recover, Redesign and Remanufacturing should be adapted to control of the waste generation and minimisation of the emissions. In the process of "RECYCLE" the scrap dealers plays an part of major role in the solid waste recycling business. The waste has been collected from the households, commercial spots, scrap collector, rag pickers, garbage collector and the collected waste are metal items, pet bottles, cotton boxes, plastic items, e-waste, glass bottles and received by the scrap dealers. The scrap dealers are selling the waste to recycling industry agent and earn income from this business. In this scrap business help to the scrap dealers to attain improvement in the standard of living and also the part of waste minimization.

STATEMENT OF THE PROBLEM

The study has been highlighted that the scrap dealers are earning higher income as well as their investment and expenditure are also higher. The higher income earnings are mostly whole sale scrap dealers. The whole sell scrap dealers are collecting waste from the retail scrap shops as well as directly collecting waste from the households, shops. The retail scrap shops are earning minimum income and both scrap dealers income depends on the market price of the types of scrap like metal items, pet bottles, cotton boxes, plastic items, e-waste, glass bottles, aluminium items etc.



OBJECTIVES

- ❖ To analyse the income and quantity of waste collection by scrap dealers in Puducherry.
- ❖ To examine the types of waste collection and income of the scrap dealers.

RESEARCH METHODOLOGY

In this study carry out from Puducherry and Oulgaret urban limit of the scrap shops. The primary data collected from the scrap dealers as well as the interview schedule are also conducted with the scrap dealers in the study area. In this study adopted random sampling method and the sample size is 63. Paired sample t test and correlation has utilized for analysis purpose in SPSS.

ANALYSIS

Table 1 Correlations of Income and Quantity of Waste Collection

		Income of the respondent	Quantity of waste collection
Income of the respondent	Pearson Correlation	1	.554**
	Sig. (2-tailed)		.000
	N	63	63
Quantity of waste collection	Pearson Correlation	.554**	1
	Sig. (2-tailed)	.000	
	N	63	63

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

The above table 1 represents the Pearson correlation coefficient between the income of the respondent and the quantity of waste collection. The person correlation coefficient indicates that positive correlation between the income and quantity of waste collection. The correlation coefficient is 0.554 and its statistically significant. This table has indicate that when the income of the scrap dealers increases and its statistically significant tendency for the quantity of waste collection also increases. The positive sign of the correlation coefficient (0.554) indicates that higher incomes are associated with larger quantities of waste collection.

Table 2: Correlations of Quantity of Waste Collection and Types of Waste Collection

		Quantity of waste collection	Type of Waste Collected
Quantity of waste collection	Pearson Correlation	1	-.361**
	Sig. (2-tailed)		0.004



	N	63	63
Types of Waste Collected	Pearson Correlation	-.361**	1
	Sig. (2-tailed)	0.004	
	N	63	63

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

The above table 2 represents the Pearson correlation coefficients between the quantity of waste collection and the types of waste collection. The Pearson correlation coefficient indicates that negative correlation between the quantity of waste collection and types of waste collection. The correlation coefficient is -0.361 and its statically significant for quantity of waste collection and types of waste collection. This table has indicated that the quantity of waste collection has increase when the high value provided by the recycling industry to the particular types of waste. However the quantity of waste increase when the types of waste collection increased.

Table 3: Paired samples Test of Working alternative work & Weekly income, waste increased & Income of the scrap dealers in vacation time

Sl. No.	Particulars	Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
1.	Working any alternative work - Weekly income of the alternative work	-3.00000	1.78705	.22515	-3.45006	-2.54994	-13.325	62	.000
2.	Waste increased in vacation time - Income of scrap dealers in vacation time	-2.58730	.99409	.12524	-2.83766	-2.33694	-20.658	62	.000



The above table 3 represents the Working alternative work & Weekly income, waste increased & Income of the scrap dealers in vacation time. This table has been shows that Pair 1-paired difference of the working alternative work and weekly income of the alternative work , the mean value is -3.00000, standard deviation value is 1.78705, standard error mean is 0.22515, the 95% confidence interval shows that lower bound is -3.45006 & Upper bound is -2.54994, the t-test statistics shows that t- value is -13.325, degrees of freedom is 62 and the significance of p –value has shows that 0.000. the pair 1 has indicates that the scrap dealers are engaged in other alternative works of scrap’s and also working other alternative works. This has been indicates that income of the scrap dealers has increased due to work participation in other scrap’s work as well as other work. The Pair 2 – Waste increased in vacation time and income of the scrap dealers in vacation time. The paired differences has been shows that the mean value is -2.58730, standard deviation is 0.99409, the standard error mean is 0.12524. the confidence interval of the difference has shows that lower bound is -2.83766 and upper bound is -2.33694. The t – Test statistics has indicates that t- value of pair 2 is -20.658, degrees of freedom is 62 and the significance of p-value is 0.000. In vacation time the quantity of waste increased and waste are pet bottles, note & books, beer bottles this has been help to increase the income of the scrap dealers mainly in the vacation time.

Table 4: Paired Samples Test of Gender & Profit of the Scrap Dealers

Particular	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Gender of the Respondent - Profit earning per month	-1.55556	2.45461	.30925	-2.17374	-.93737	-5.030	62	.000

The above table 4 represents the paired samples test examining the relationship between Gender of the Respondent and Profit earning per month for Scrap Dealers. The paired differences shows that the mean is -1.55556, standard deviation is 2.45461 and the standard error mean is 0.30925. The 95% Confidence Interval suggest that the difference shows that the Lower bound -2.17374 and the Upper bound -0.93737. The t-Test Statistics of the t – value shows that -5.030, degrees of freedom is 62 and the significance value is 0.000. The t-test indicates a highly significant difference (p = 0.000), suggesting that there is a significant



relationship between the gender of the respondent and the profit earned per month. The negative mean difference indicates that, on average, The higher profit income earners are males compared to the females.

FINDINGS

- ❖ In this study has highlighted both males and females are engaged in the scrap work. Comparatively females, the males are highly engaged in this scrap work.
- ❖ In this scrap work most of the peoples are in the age group of 25 to above 60.
- ❖ In this study has highlighted there are 57 scrap dealers are educated up to primary and secondary level of education and 5 scrap dealers are belongs to the engineering background & Diploma, the respondents are mainly engage in this shop because of higher income in the scrap work.
- ❖ The scrap dealers income has purely depends on the quantity of waste and types of waste collection. The recycling industry has fixed different values to the different waste. the high value waste are cotton boxes, pet bottles & plastic items, metal items, aluminium items etc.
- ❖ The wholesale scrap shops were presented. They were collecting waste from the other scrap shops & collect waste from the vehicles in the household areas. The scrap dealers sell into the recycling agent and earn income.
- ❖ The wholesale scrap shop were generating per day 1 ton of each waste but the retail shop scrap dealers generating below 50 kg to above 60 kg of waste from the scrap like cotton boxes & pet bottles, plastic & aluminium materials, metal items, only cotton boxes.
- ❖ The wholesale scrap dealers are earning above 60,000 to 1,00,000 and the retail scrap dealers are earning minimum 10,000 to maximum 50,000.
- ❖ In few shops some of the scrap dealers has hired and utilised the rag pickers for waste collection. The rag pickers were collect waste from public bins as well as they were collect waste from the households to the direction of scrap dealers. The rag pickers are also get some benefits from few of the scrap dealers and the benefits are food, extra income, cloth and provide place to stay. Even the garbage collector are also collect waste like pet bottles & aluminium bottles sell into the scrap dealers and earn minimum 50 rupees to maximum 200 rupees. However the earnings of the rag pickers and the garbage collectors are purely depends on the quantity of waste collection.
- ❖ The retail scrap shops business were affected in Tuesday, Friday & Festival times in south side.
- ❖ In this study has highlighted there are 28 family members of the scrap dealers are engaged in the scrap work and 16 children's of the scrap dealers are mainly engaged in this scrap work.



- ❖ There are 36 scrap dealers are affected by the various health issues like respiratory issues, joint pain, asthma issues, muscles pain, chest irritation and vomiting. The working conditions of the scrap dealers leads to addict smoking and alcoholic habit.
- ❖ The scrap dealers has segregated the waste, they were repaired some of the waste materials can change into selling materials like batteries and even books also. In every week of Sunday selling some of that materials in Sunday market shops and earning minimum to maximum cost depends on the materials.
- ❖ There are 52 scrap dealers are earning per month profit below 10,000 rupees to maximum above 50,000 and 5 of the scrap dealers are suffered with deficit and 6 of the scrap dealers are not gained any profit.
- ❖ The more profit earners are male scrap dealers compare to the females, however both were earnings profit but slightly lower than the male scrap dealers.
- ❖ The scrap dealers are earning higher income in the vacation times. There are 29 scrap dealers are earning above 30,000 and 12 of the scrap sealers are earning minimum 10,000 rupees to maximum 25,000 and get more profit from the types of waste like pet bottles, note & book, aluminium beer bottle's, cotton boxes.

CONCLUSION

The scrap dealers are also part of collecting the waste and help to the recycling industry for the recycling purpose. This scrap work has boost up the income of the scrap dealers and improve their standard of livings.

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