

Impact of Social Entrepreneurship among women on Solid Waste Management for a sustainable solution in Puducherry District

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KEYWORDS

Social Entrepreneurship, 3 'R' Strategies, Ecopreneurs.

ABSTRACT

The economic development of women leads to the growth of the community. In that way, Social Entrepreneurship is the solution for Solid Waste Management. Social and Economic development creates a sustainable solution for solid waste and women's empowerment. Awareness, Treating the waste, 3'R' Strategies, and Social Entrepreneurship are the crucial tools to manage solid waste properly. Through this process, People develop their socio-economic status. This paper reveals how women entrepreneurs support the environment through business in the Puducherry union. The study was conducted in Puducherry among the women ecopreneurs. Women ecopreneurs support the environment as well as their families. Women ecopreneurs are not encouraged by the people.

Introduction

Ecofeminism, the term, was coined by French Feminist Francoise d'Eaubonne in 1974. Ecofeminism theory defines the connection between women's and environmental movements (Moore, 2008). Women's empowerment is a vital concept that enables women to take control of their lives, make informed decisions, and access equal opportunities, resources, and rights. It involves challenging and dismantling the social, cultural, and economic barriers that prevent women from reaching their full potential. It's widespread for women to start a business. The government implements many schemes to empower women. Many NGOs support them with their services. Women support their families as well as the community by starting businesses. Ecopreneurs focus on developing and implementing sustainable and environmentally friendly business ideas, products, and services. They combine their passion for the environment with innovative business strategies to create a positive impact on the planet. Eco- Entrepreneurship alleviates poverty, creates employment, and develops socio-economic status and environmental protection. In Solid Waste Management, 3 'R' Strategies are vital in controlling, reducing and managing waste. Reduction of waste and reusing the waste is the sustainable solution for solid waste management. Generally, women who start a business face social, economic, and cultural problems in their families. When it comes to ecopreneurs, there is less motivation involved in society. Women are gaining meagre income and support. Ecopreneurship is purely based on innovation and creativity. For example, through waste, people get resources from food, plastic, textiles, and natural waste, such as bio compost, handicrafts, and so on. It supports women, their family, community, and the environment.

Review of literature

- **Gunawan, Janti et al., 2022** A study on women ecopreneurs in waste recycling found that education drives motivations. Uneducated women seek livelihoods, high school-educated women empower others, and university-educated women address environmental concerns.

Despite facing stigma, harassment, and COVID-19 challenges, these micro-entrepreneurs support their families and contribute to sustainable development. Government assistance is crucial to enhancing ecopreneurship's image and providing essential skills.

- **Seema Potluri et al., 2024** Women's Green Entrepreneurship (WGE) promotes positive policy changes, empowering aspiring women entrepreneurs and integrating women into green entrepreneurship. This conceptual framework enhances women's labour force participation, encourages environmental care, and fosters sustainable practices like the 5Rs (refuse, reduce, reuse, repurpose, recycle). WGE benefits women and men entrepreneurs by driving green enterprise operations and transformations. Ultimately, it disrupts gendered societal perceptions, improves women's economic empowerment, and promotes environmental awareness, reducing pollution and increasing renewable energy adoption.
- **Kirkwood & Walton, 2010** The motivation of entrepreneurs to launch an eco-friendly company is also greatly influenced by their values; in fact, the primary objective of eco-entrepreneurship is frequently to promote ecological values, raise consumer awareness of green spending, and accomplish sustainable business objectives.
- **Liu et al., 2014** The desire of people to become ecopreneurs is linked to their attention to buying and supplying eco-friendly products using eco-technology and other tools to keep the ecosystem from suffering while also minimising or even reducing the depletion of natural resources.
- **Niniksrirahayu, 2024** study highlights that encouraging female entrepreneurs to start ecologically friendly companies is crucial to advancing sustainable development. To gain a more profound knowledge of the factors that motivate women to engage in sustainable business practices, the study aims to impact green entrepreneurial aspirations, such as individual values, social norms, and access to green technologies.

Objectives of the study:

- To examine the involvement and impact of women ecopreneurs in solid waste management in Puducherry.
- To identify the challenges and opportunities women ecopreneurs face in solid waste management.
- To analyse the economic, social and environmental benefits of women-led solid waste management initiatives.

Methodology

The study used a more focused quantitative methodology, utilising a semi-structured interview schedule to get the respondents' primary data. This research used ranking in its data presentation. It gathered primary data from a total of 25 Women ecopreneurs in Puducherry. The Samples for this study were collected from 48 respondents. The Reliability analysis shows that Cronbach's Alpha for the scaled item is 0.869

HYPOTHESES OF THE STUDY

- H_0 : There is no significant association between age and experience in social entrepreneurship.
- H_0 : There is no significant relationship between age and the type of support social entrepreneurs receive.
- H_0 : There is no significant association between Gender and the experience of social entrepreneurship.
- H_0 : There is no significant association between gender and the type of support received for social entrepreneurship.
- H_0 : There is no significant association between Gender and the impact of social entrepreneurship on solid waste management.

RESULTS AND DISCUSSIONS

Frequency distribution table

Table 1

	Age	
Age	Frequency	Per cent
Below 25	8	16.7
25-30	16	33.3
36-45	11	22.9
46-55	6	12.5
Above 55	7	14.6
Total	48	100.0
	Gender	
Male	30	62.5
Female	18	37.5
Total	48	100.0
	Marital Status	
Unmarried	6	12.5
Married	32	66.7
Divorced	10	20.8
Total	48	100.0
	Educational Qualification	
Secondary	15	31.3
Higher Secondary	25	52.1
Graduation	8	16.7
Total	48	100.0
	Monthly Income	
Below 10000	13	27.1
10000-20000	15	31.3
21000-30000	9	18.8
Above 30000	11	22.9
Total	48	100.0
	Experience in social entrepreneurship	
Below one year	12	25.0
1-3	18	37.5
4-6	10	20.8
Above 6 years	8	16.7
Total	48	100.0
	Motivation to start entrepreneurship	
Family	10	20.8
Friends	15	31.3
Neighbours	9	18.8
Government	14	29.2

Total	48	100.0
	Supported by	
Government	15	31.3
NGOs	24	50.0
Self-Employment	9	18.8
Total	48	100.0

The socio-demographic profile of the respondents shows a diverse age range, with the majority (33.3%) between 25-30 years, indicating a young, active demographic engaged in social entrepreneurship. Males (62.5%) outnumber females (37.5%), highlighting a gender gap in participation. Most respondents are married (66.7%), suggesting stability as a factor in entrepreneurship. Educationally, over half (52.1%) possess higher secondary qualifications, showing moderate academic backgrounds. Income levels vary: 31.3% earn ₹10,000-₹20,000 per month, thus indicating modest financial returns. Experience in social entrepreneurship is mainly between 1-3 years (37.5%), hence fast-growing engagement. Friends act as a motivator for 31.3%, and for 29.2%, government actions do. NGOs remain crucial in 50.0% of cases, hence vital in fostering entrepreneurial ventures.

TESTING OF HYPOTHESIS

Chi-square test between Age and Experience in social entrepreneurship

H₀: There is no significant association between age and experience in social entrepreneurship.

Table 2

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.813 ^a	12	.545
Likelihood Ratio	12.774	12	.386
Linear-by-Linear Association	.861	1	.353
N of Valid Cases	48		

a. 19 cells (95.0%) have an expected count of less than 5. The minimum expected count is 1.00.

Chi-square tested the relationship between age and experience in social entrepreneurship of the 48 respondents. The Pearson Chi-Square has a value of 10.813 with a df of 12 and an asymptotic significance of 0.545, meaning there is no statistically significant relationship between the two variables. Also, the likelihood ratio and linear-by-linear association yielded no significant results. Therefore, there is no significant difference by age in this sample regarding the level of experience in social entrepreneurship.

Table 3

Chi-square test between Age and the type of support social entrepreneurs receive.

H₀: There is no significant relationship between age and the type of support social entrepreneurs receive.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.074 ^a	8	.850
Likelihood Ratio	4.035	8	.854
Linear-by-Linear Association	.518	1	.472
N of Valid Cases	48		
a. 12 cells (80.0%) have an expected count of less than 5. The minimum expected count is 1.13.			

Chi-square tests the association between age and the kind of support the respondents obtained in social entrepreneurship. Pearson's Chi-Square value is 4.074 with df = 8 and an asymptotic Significance of 0.850, showing no statistically significant association between the variables. The likelihood ratio and linear-by-linear association are also not significant. Therefore, it seems that age is not a determining factor regarding the type of support the respondents get within this sample.

Table 4

Chi-square test between Gender and experience in social entrepreneurship

H₀: There is no significant association between Gender and the experience of social entrepreneurship.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.588 ^a	3	.662
Likelihood Ratio	1.603	3	.659
Linear-by-Linear Association	1.512	1	.219
N of Valid Cases	48		
a. 3 cells (37.5%) have an expected count of less than 5. The minimum expected count is 3.00.			

This Chi-square test examines the relationship between respondents' gender and experience concerning social entrepreneurship. From 48 respondents, the Pearson Chi-Square value is 1.588 with 3 degrees of freedom and a p-value of 0.662, so there is no statistically significant gender association with experience. Similarly, the likelihood ratio and linear-by-linear association are insignificant. Also, the expected count in 37.5% of cells is less than 5; this may reduce the reliability of the test. Generally speaking, these findings again show that gender is not an influential factor affecting experience in social entrepreneurship for this sample.

Table 5

Chi-square test between Gender and the type of support received for social entrepreneurship.

H₀: There is no significant association between gender and the type of support received for social entrepreneurship.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.356 ^a	2	.837
Likelihood Ratio	.356	2	.837
Linear-by-Linear Association	.011	1	.916
N of Valid Cases	48		

a. 1 cells (16.7%) have an expected count of less than 5. The minimum expected count is 3.38.

The chi-square test draws the relationship of gender on the kind of support that 48 respondents received in social entrepreneurship. The Pearson Chi-Square is 0.356 with df = 2 and p-value = 0.837. Hence, there is no statistically significant association between the variables. Also, the likelihood ratio and linear-by-linear association confirm no significant relationship. This would indicate that the type of support in social entrepreneurship is not differentiated between genders in this sample.

Table 6

ANOVA

H₀: There is no significant association between Gender and the impact of social entrepreneurship on solid waste management.

Gender * Impact of Social Entrepreneurship among women on Solid Waste Management for a sustainable solution				
		df	F	Sig.
aware are you about the importance of solid waste management	Between Groups	1	.805	.374
	Within Groups	46		
	Total	47		
Do you think solid waste management is for environmental sustainability	Between Groups	1	1.211	.277
	Within Groups	46		
	Total	47		
.Are you in your ability to manage solid waste effectively	Between Groups	1	2.797	.101
	Within Groups	46		
	Total	47		
Are you to address solid waste management problems in your community through social entrepreneurship	Between Groups	1	.000	1.000
	Within Groups	46		
	Total	47		
Are you in your ability to develop innovative solutions for solid waste management through social entrepreneurship	Between Groups	1	1.494	.228
	Within Groups	46		
	Total	47		
Are you with the current level of support and resources available for women social entrepreneurs in solid waste management	Between Groups	1	.162	.689
	Within Groups	46		
	Total	47		
	Between Groups	1	2.797	.101

Do you think it is important to have access to mentorship and training programs for women social entrepreneurs in solid waste management	Within Groups	46		
	Total	47		
Are you to seek funding and investment opportunities for your social entrepreneurship venture in solid waste management	Between Groups	1	1.211	.277
	Within Groups	46		
	Total	47		
Are you contributing to sustainable solid waste management practices in your community through social entrepreneurship	Between Groups	1	.879	.353
	Within Groups	46		
	Total	47		
Are you to recommend social entrepreneurship as a strategy for addressing solid waste management problems to others	Between Groups	1	1.211	.277
	Within Groups	46		
	Total	47		

The data analyses the effects of social entrepreneurship on the management of solid waste among women to find sustainable solutions in various dimensions. In all the variables measured, which are awareness about the importance of solid waste management, beliefs concerning its role in environmental sustainability, ability to manage it appropriately, and satisfaction with the support and resources provided, the results of ANOVA reveal no statistical significance of gender. All the comparisons had point estimates that were above the 0.05 level of Significance, ranging from 0.101 to 1.000. This shows that gender does not significantly impact perceptions, capability, or satisfaction levels concerning social entrepreneurship in solid waste management.

Findings of the Study

The investigation shows that most respondents are 25–30, are male, married, and have higher secondary education. Their largest income category falls within ₹10,000–₹20,000. Most respondents had experience between 1–3 years in social entrepreneurship, which friends, the government, and NGOs most influenced. From a statistical perspective, there were no significant associations between age/sex, experience type, support type, and impact created through social entrepreneurship. Also, gender does not affect perceptions or capabilities on solid waste management issues, such as awareness, environmental sustainability, ability to manage waste, innovation, or satisfaction with resources and support. The findings suggest that social entrepreneurship is inclusive, with consistent attitudes and contributions of demographic groups; therefore, external support systems are essential in sustaining the practice.

Conclusion

The study, therefore, reinforces the inclusiveness of social entrepreneurship, in which age and gender are not significant factors in defining the experience of the entrepreneurs, their support type, or the kind of contribution to solid waste management. Since more respondents were motivated by community and organisation support, social entrepreneurship becomes a promising strategy for tackling solid waste management challenges and furthering environmental sustainability. The findings highlight uniformity across demographic groups in attitudes and capabilities, underlining the ability of continued support, mentorship, and resources to empower social entrepreneurs-women in particular, drivers of innovative, sustainable solutions for community challenges.

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