



Opportunities and Challenges of Women Entrepreneurs Engaged in Biodegradable Products Business at Vellore District of Tamil Nadu State

K. Kalaivani¹(✉)  and T. Bharathi²(✉) 

¹ Department of Commerce, Auxilium College (Autonomous), Vellore, India
kalaicommerce88@gmail.com

² PG & Research Department of Commerce, D.K.M College for Women, Vellore, India
bharathi2708@gmail.com

Abstract. Role of women in the society has been seeing a paradigm shift ever since women became self-aware. More and more women today are moving out of their comfort zone and trying their hands at things no one ever measured they were capable of many women are stepping out of their homes into workplaces. “Women Entrepreneurship is the professional application of knowledge, skills and competencies and/or of monetizing a new idea, by an women or a set of Self-help group women’s by launching and enterprise de novo or diversifying from an existing one (distinct from self-employment as in a profession or trade) thus to pursue growth while generating wealth, employment and social good” The problems and challenges which are faced by women have different dimensions and Extents; this is because of various social and cultural reasons. The collective effects of psychological, social, economic are educational factors to women entrepreneurs, entering to mainstream has an angle of gender discrimination as well which has been seen in many societies that affect the women in industry too. In the last few decades, the stricter rules and regulation and global pressure to mitigate and decrease the carbon emissions all over has encouraged the corporate to look into the issue of depleting natural resources and environmental diversity. Many biodegradable products are available in the market to avoid environmental pollution. Some examples are Areca plates, Bamboo Basket, Hibiscus leaves cups etc., The areca plates and cups were used in Birthday parties, family function and other events, areca leaf cups used to provide Panipuri in the street shops to avoid plastic cups. These encourage the women entrepreneur to make or sell the products based on biodegradable. The purpose of this research is to study in detail and to offer possible suggestions to overcome the problems and challenges faced by women entrepreneur those who are engaged in biodegradable products business in Vellore District, Tamilnadu state.

Keywords: Women Entrepreneurship · Biodegradable Products · Role of women entrepreneurs · Ecopreneurs

1 Introduction

Women entrepreneurs are the backbone of their family, and biodegradable products are base for sustainable development of the planet. When these two are correlated with each other, it makes an immense impact in India to develop the nation. So, the Vellore city many women entrepreneurs especially those who are engaged in biodegradable products making or selling businesses are facing the issues in production, selling, marketing and socio-cultural aspects. This study helps them to identify the opportunities and challenges to achieve their goal.

In a Developing Country such as India, women entrepreneurs face many constraints in marketing the biodegradable products. Since the people lifestyles has emerged in a different way. As per the order given by the government, “No businessmen including shopkeeper, vendor, wholesaler, retailer, trader, hawker, or salesman etc., do not use plastic carry bags, plastic plates, plastic cups, plastic spoons, and plastic sheets (for spreading on dining table). This makes the women’s to develop from entrepreneurs to ecopreneurs, and able to develop the platform for the bio degradable products such as areca leaf cups, spoons, plates, hibiscus leaf cups, bamboo baskets, paper bags etc., The main objectives of the study is to find out the challenges faced by women entrepreneurs engaged in bio degradable products business at Vellore city, and to analyze the major opportunities available for bio degradable products to develop the women entrepreneurship to explore the measures needed to improve the state of women entrepreneurship business engaged in bio degradable products business. The purpose of this paper is to examine the constraints and opportunities facing female entrepreneurship in developing countries at small and micro level perspectives and seeks to provide a detailed account of opportunities and constraints bought by entrepreneurship.

1.1 Opportunities and Challenges of Biodegradable Products at Vellore City

The current study is an attempt to study the opportunities and challenges of women entrepreneurship in selected talukas of Vellore district. The Women entrepreneurs dealt with the products that are ‘Compostable’, “Bio degradable” or “Oxo - degradable” or “Bio based products” such as areca plates, papaya leaf straws, Hibiscus leaf cups, Bamboo baskets, Jute bags, Corrugated boxes, paper bags etc., Though the government provides support to women entrepreneurship through number of schemes, but whether those facilities are actually utilized by the women or not in Vellore district. and if not utilized what are the difficulties in getting the advantages and assistance from the government by the women entrepreneurs.

Numerous literatures are available in the field of Women Entrepreneurship: Opportunities and Challenges. However, there are no specific studies pertaining to the women entrepreneurship and bio degradable products business which is identified as the research gap of the proposed study.

2 Review of Literature

Women’s entrepreneurship is an important issue for social development and social welfare. Entrepreneurial activity of women at a high level accelerates the structuring and

development of societies and the existence of a community living in prosperity. Therefore, it is important to make the means available for women to become entrepreneurs in order to establish a wealthy community and to provide wealth [1]. Numerous environmental problems remain unsolved, such as climate change or resource scarcity, and many global social grievances, which hinder current generations in developing countries to meet OPEN their needs, persist, such as compulsory work [2]. Women entrepreneurship in India faces many challenges and requires a radical change in attitudes and mindsets of society. Therefore, programs should be designed to address changes in attitude and mindset of the people [3]. Now women are trying to come out of the load of housework and give way to their imagination, creativity, and entrepreneurship. Social and political evolutions in India have also been accountable for determining the role of women in a changing society [4]. Ecopreneurs are born with the quality to adventure, thinking beyond the boundaries, have willingness to take risks, and are eager to make drastic changes in the production methodology and to make new uses of raw materials. Like entrepreneurs the Ecopreneurs have to face all the problems relating to generation of funds, arrangement of raw material, oppose from family and society, latest technology, taxes, marketing, skilled work force, proper infrastructure and much more. Hence Ecopreneurs also have to overcome all the challenges and treat them as opportunities for their business [5]. It sincerely shows that these days we are residing 21st century, the participation of women in all fields more and more specially within the field of entrepreneurship is growing at a widespread fee.

Indian charter is developing the identical opportunity in all locations, identical rights of participation in political and same rights in schooling and employment. Women are in 48% of Indian populace, but a totally few women are executed in our country, so the authorities need to offer entrepreneurial attention, orientation and skill improvement programmes for women. [6] Sustainability imperatives underpin a shift in focus towards creating economies that balance people, planet and profit, a transition which it is argued that ecopreneurs help foster. This paper offers an extensive survey of current literature in ecopreneurship. The review highlights important links to the field of entrepreneurship, identifies a gap in empirical research and outlines a study in progress that investigates the motivations, opportunities, and innovations of ecopreneurs [7] Women ecopreneurs exhibit all factors of sustainable entrepreneurship economic, environmental, social, and cultural factors. Women ecopreneurs scored high on environmental factors. The study shows that irrespective of investment size, women ecopreneurs can reduce negative impact in respect of the environmental factor This research reveals that businesses that practice sustainable entrepreneurship have not only impacted society and the environment positively but also make a profit [8] (Table 1).

Table 1. List of few Tamilian & Indian Women Ecopreneurs and their Eco businesses.

Name of the Ecopreneurs	Nature of Unit	Description of the business	Reason for starting this business
Ishana. [13]	Small Scale Industry, Coimbatore, Tamilnadu, India	Reusable Cotton Sanitary napkins	<p>“Many women suffer from various health issues related to periods. These napkins are disposable but not biodegradable. The plastic materials used are highly hazardous to personal health as well as the environment.</p> <p>“Chemical gel in ordinary sanitary napkins poses health hazards to women. The result to avoid those issues is reusable napkins.</p>
Radha Lakshmi. [12]	Small Scale Industry, Pollachi, Coimbatore, Tamilnadu, India	Coconut shells to create items like tea cups, wine cups, ice cream cups, soap box, spoons, soup bowl and candle holder.	<p>Radha Lakshmi is turning trash into treasure with innovative products, crafted at a small workshop in Arasampalayam ‘pirivu’, a rather nondescript village near Kinathukadavu has found its market place in Singapore, Malaysia, Japan, Russia, USA and other countries. She said “Making eco-friendly products from coconut shells to provide alternatives to plastic.</p>

(continued)

Table 1. (continued)

Name of the Ecopreneurs	Nature of Unit	Description of the business	Reason for starting this business
Mrs.Vysetty Sunitha Rani. [11]	Jute Bag Manufacturer, Hyderabad	Jute and cotton bags	“JUST GREEN LEAF” is a proprietary concern started with a main aim to promote natural, biodegradable and eco-friendly products made of Jute, cotton etc. and should be affordable and available for common people in alternate to plastic.
Mahalakshmi Saravanan. [10]	Women Entrepreneurs India, Chennai, Tamilnadu, India	SEO specialist and digital marketing strategist focusing on Eco friendly products	Sellwei Super-speciality Supermarket in Chennai, an exclusive curated store and first of its kind in India which sources products only from women entrepreneurs in India.
Smt. Sunita Kumari. [9]	Village - Tehta, Post-Makhdumpur, Block-Makhdumpur, District- Jehanabad, State- Bihar	Decorative household pieces, scenery etc. are prepared by using paddy straw	The cost of making the wall hangings and other decorative items is also lower therefore it can be taken as the popular rural craft by farm women and youth. This is an eco-friendly innovation and helps in maintaining cleanliness in the environment by proper use of Agricultural residue

3 Research Methodology

Please The Study was conducted by collecting primary data from the women entrepreneurs through convenient sampling method of structured questionnaire. The Sources of secondary data were collected from different online sources such as reports, surveys, and websites of research institutes, published books, online journals and papers. The technique of sampling opted by the researchers is convenience in nature through which the samples from the whole of 87 women entrepreneurs is chosen. With the help of above mentioned sample design primary data was collected from 80 samples by distributing self-administered qualitative questionnaire. The data so collected with the help of questionnaire was converted into quantifiable number using percentage analysis and to fulfill the enlisted objectives chi square test was used by the researchers.

4 Analysis and Interpretation

4.1 Respondents Profile

It can be elucidated from the below table no. 2 that 27.5% of the response came from 20–30 years age group, 41.25% response are received from 30–40 years of age group and 20% of the respondents from 40–50 years of age, 11.25% of the response are received from above 50 years of age group. Out of 80 samples 22.5% are illiterate, 27.5% of respondents are from school level education, and 28.75% of the respondents were qualified Under graduate degree, 10% of the respondents were completed Post Graduate degree, 8.75% of the respondents are completed their professional degree, and the other 2% are studied other diploma courses. Out of 80 samples 61.25% of respondents were earned monthly income of below ₹10,000, 20% of the respondents are earned monthly income of ₹10,000–₹20,000, 15% of the respondents are earned monthly income of ₹20,000–₹30,000, 2.5% of the respondents are earned monthly income of ₹30,000–₹40,000, 1.25% of the respondents are earned monthly income of above ₹40,000 (Table 2).

4.2 Data Analysis

The below table no. 3 taking into account the data collected from 80 samples the qualitative data is broken down further with the help of percentage analysis and it is evident that major part of the respondents neither agree nor disagree to the fact that tough competition against male counterparts. The major portions of the respondents are also facing the limited funding issues as their challenges in the biodegradable products business at Vellore. From the response collected 80 samples it is depicted that maximum of them are clearly charted that lack of education is also takes major part of their challenges facing in present business scenario (Table 3).

Table 2. Respondents Profile

Parameter	Classification	Frequency	Percentage
Age	20–30 years	22	27.50
	30–40 years	33	41.25
	40–50 years	16	20.00
	Total	80	100
Educational Qualification	Illiterate	18	22.5
	School Level	22	27.5
	UG	23	28.75
	PG	8	10.00
	Professional	7	8.75
	Total	80	100
Monthly Income (₹)	Below ₹10,000	49	61.25
	₹10,000–₹20,000	16	20.00
	₹20,000–₹30,000	12	15.00
	₹30,000–₹40,000	2	02.50
	Above ₹40,000	1	01.25
	Total	80	100

Table 3. Challenges Faced by Women Entrepreneurs Engaged in Biodegradable Products Business

Particulars	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Tough Competition against male counterparts	26	5	65	4	0
Limited Funding	36	51	13	0	0
Work life balance	25	56	16	0	0
Minimal Support	51	33	16	0	0
Lack of Education	55	23	20	2	0
Limited Mobility	31	5	61	3	0

From Table 4 it can be inferred that 57% of the respondents are neither agree nor disagree the statement of now a day's consumers are aware about the biodegradable products. The major respondents are strongly agreed that there is less competition in marketing the biodegradable products. 46% of the respondents are agreeing that the products of biodegradable are not harming the environment.

Table 4. Opportunities for Biodegradable Products business At Vellore District

Particulars	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Nowadays Consumers are aware about the bio degradable products	8	12	57	3	0
Less Competition	24	19	22	10	5
No harmful to the environment	29	46	5	-	-
Easy Marketing	21	33	16	6	5

Table 5. Significant Relationship between Educational qualification and Tough Competition against Male Counterparts

O	E	O-E	(O-E) ²	(O-E) ² /E
3	1.75	1.25	1.56	0.89
1	2.25	-1.25	1.56	0.69
19	9.19	9.81	96.24	10.47
2	11.81	-9.81	96.24	8.15
12	22.75	-10.75	115.56	5.08
40	29.25	10.75	115.56	3.95
1	1.31	-0.31	0.10	0.07
2	1.69	0.31	0.10	0.06
			Total	29.37

The Table 5 listed were applied Chi Square Test, Level of Significance: 5%, Tabulated Value @ 5% = 7.82, Calculated Value 29.37 as it is evident that the calculated value (i.e.) 29.37 is more than the table value (i.e.) 7.82 thus researcher reject the null hypothesis. In view of that it is concluded that there is a relationship between educational qualification and tough competition against male counterparts.

5 Discussion and Findings

The Ecopreneurs can achieve the Educational Sustainable Development Goals 2030 AGENDA by protecting the environmental concerns such as pollutions, global warming, climate change, scarcity of natural resources and other havoc caused by disturbance in the ecosystem.

1. Male can be supported to the females and to help them for doing biodegradable business.
2. The government needs to give an awareness programme for women entrepreneur's especially for this kind of biodegradable products-oriented businesses.
3. The non-government organizations can help to women entrepreneurs on the basis of new technology and strategy of new business opportunities.
4. The government can undertake the women entrepreneur's biodegradable goods and services and sell it through Public Distribution system.
5. Women entrepreneurs should organize welfare organizations for themselves.

6 Research Implications

The findings and discussion of the study would be beneficial for the academicians, research scholars, practitioners, managers and policy makers. The study would be benefited for the academicians and research scholars, as this study gives further insights in this field and there are less numbers of works are available especially in Indian context. Women ecopreneurs can understand the opportunities which are emerging in the field of bio degradable products business and there is need of much more focus on it. As it will be profitable and can be significant for sustainable development. Finally the Women entrepreneurs much more concern on this issue by creating a suitable environment for the sustainable development of the nation.

7 Conclusion and Recommendation

Today women's are showing interest to involve in Entrepreneurship. Through this paper, it is analyzed that the development of women ecopreneurship is a challenging outlook in India. It is also found that Indian women are unaware and incapable of utilizing the opportunities availed by the government and other agencies for the development of women entrepreneurship. Despite these challenges, the Government is helping women with various schemes and policies. But still, there is need of improvement in initiatives and contributions which could be taken into deliberation for evolution and development of women as an entrepreneur by providing them with special training facilities for developing their knowledge, talents and skill. On another hand the Government of India wants to achieve the Education for Sustainable Development Goal (ESDG) 2030 AGENDA, the scope of biodegradable products and women ecopreneurship contributes more towards the planet, profit, prosperity of the nation.

The research was focused on women entrepreneurship and biodegradable products business in Vellore only. Women Entrepreneurship plays a vital role in Indian economy, but the study of opportunities and challenges were observed due to limitation of time and resources available. Furthermore, the women entrepreneurship can be studied and correlated with the Educational Sustainable Development Goals 2030 Agenda. Further study might look into the impacts of biodegradable products business and women entrepreneurship to achieve the environment sustainability.

Conflict of Interest. The authors declare no conflict of interest.

References

1. Güven Bulent, Women Entrepreneurship in Terms of Environmental and Gender Factors: An Empirical Research, *European Journal of Managerial Research*, Vol 3, Iss 4, pp 87-98 (2019).
2. Jacob Hörisch, The Role of Sustainable Entrepreneurship in Sustainability Transitions: A Conceptual Synthesis against the Background of the Multi-Level Perspective. *Administrative Sciences*, (5), 287-300, (2015).
3. Renu Jakhar and Chhavi Krishna, Women Entrepreneurship: Opportunities and Challenges (A Literature Review), *International Journal of Management and Information Technology*, 5 (2), 38-42, (2020).
4. Vaishnavi Sharma and Mamta Gaur. Women Entrepreneurs in India: A Study of Opportunities and Challenges, *Journal of Xi'an University of Architecture & Technology*, Vol 12, Iss 7, 1307-1317 (2020).
5. Vidani, Jignesh. Overview of Opportunities and Challenges in Marketing Strategies of Ecopreneurs for Their Ecoprenurial Products in the Markets of Saurashtra Region." *JN Vidani* (2018), Overview of Opportunities and Challenges in Marketing Strategies of Ecopreneurs for Their Eco-Prenurial Products in the Markets of Saurashtra Region, Transformation through Strategic and Technological Interventions 1 (2018).
6. Yoganandan G. and Gopalselvam G. A Study on Challenges Of Women Entrepreneurs In India, *International Journal of Innovative Research & Studies*, Vol 8 Iss 3, 491-500 (2018).
7. Fong, Nicholas, Rachel Wolfgramm, and Deborah Shepherd. "Ecopreneurs as change agents: opportunities, innovations and motivations." *QJ Econ*, 84, 488-500. 84 (2014)
8. Sami, Sania, and Soma Roychowdhury. "A Study on Impact of Sustainable Entrepreneurship on Subjective Success of Ecopreneurs". 8th Pan IIM World Management Conference, IIM Kozhikode, India (2021).
9. Sengar, S.: Meet Ishana, An 18-Yr-Old Tamil Nadu Girl Who Makes Eco-Friendly, Reusable Cotton Sanitary Pads, <https://www.indiatimes.com/news/india/meet-ishana-an-18-year-old-tamil-nadu-girl-who-makes-eco-friendly-reusable-cotton-sanitary-pads-500308.html>, last accessed 2023/03/04.
10. Kumar, A.: Few 'Indian' takers for Pollachi woman's eco-friendly coconut shell products, <https://www.dnnext.in/tamilnadu/2019/12/09/few-indian-takers-for-pollachi-womans-ecofriendly-coconut-shell-products>, last accessed 2023/03/04.
11. Saravanan: Women Entrepreneurs India Successful Women Entrepreneurs in India Business Network For Women Entrepreneurs, <https://www.womenentrepreneursindia.com/>, last accessed 2023/03/04.
12. Sunitha Rani, V.: Just Green Leaf Jute Bags, <https://womenentrepreneursindia.com/sunitha.php>, last accessed 2023/03/04.
13. NGRCA: Success Stories of Progressive Women Farmers and Agripreneurs. Ministry of Agriculture & Farmers Welfare.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

