

# The Three-Phase Conscious Business Growth and Sustainable Development Goal Achievement Model for the Indian cottage industries (TPCBG & SDGA Model)

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**Abstract-** Sustainable Development Goals introduced by the United Nations have become a need across the globe. Business initiatives, existing business activities, and future business plans ensure to reflect SDGs in each endeavor. The Indian cottage industries though not been much prioritized in terms of growth and market opportunities have huge potential to help the Government of India achieve the SDG. Indian cottage industries which have numerous export prospects offer the rural youngsters a range of employment opportunities. Not only the rural youngsters but the entire rural communities in different ways. The Indian cottage industry which is also regarded as the “Foundation of the Rural Economy” indirectly helps the GOI achieve SDG. However, there is a need to propose a clear and transparent framework that is SMART (Simple, Meaningful, Actionable, Reliable, and Time-bound) to help the GOI achieve the SDGs in a better manner. In this regard, there is a need to develop a conceptual framework that connects the SDG and Indian cottage industries. Hence, in this research, a conceptual framework has been developed which is known as “The Three Phase Conscious Business Growth and Sustainable Development Goal Achievement Model for the Indian cottage industries (TPCBG & SDGA Model). This framework suggests a strategy for resolving the main issues that cottage industries face and developing a way to unleash their potential to create sustainable growth by adopting various sustainable methods and encouraging social cohesion and community development. This model is unique and has been exclusively designed for the Indian landscape.

**Keywords:** Cottage industries, Sustainable Development Goal, Business Growth and Sustainability, Rural Economy, Stakeholder’s contributions, Economic impact, MSME.

## 1. INTRODUCTION

The introduction chapter is classified into two aspects:

- A) Introduction to Sustainable Development Goals
- B) Introduction to cottage industries in the Indian Landscape

Few readers may not be aware of the SDG concept. Thus, to give them an idea about SDG before they read the full article we have brought the most interesting data and facts related to SDG. Later we describe the Indian cottage industry and its valuable contributions to the Indian economy. In the summary, a blend between SDGs and the cottage industry is introduced to leave the readers on a quest to know more. The introduction will help the readers understand the flow of the article and will set the tone to further explore this research article.

### *Introduction to Sustainable Development Goals*

The United Nations member states adopted the Sustainable Development Goals in the year 2015 with a prime motto to provide prosperity for the world's people for a better future. The SDGs identify 17 important factors which are spread across different areas to achieve success holistically. As per the SDG progress report goal No: 7 which is about “Affordable and clean energy” is leading with constant improvement because all the member countries have taken a keen effort to achieve this goal. Followed by Goal 2 which is about “Zero Hunger”. Moreover, over the years people have understood the importance of all the goals as it impacts human life and sustainability in different ways. In addition, at present, if the world nations are not coping with the UN’s SDG’s aim then the next generation will suffer a lot. For example, let us take the Covid-19 pandemic. Since the world nations were under a strict lockdown for almost a year there was no air pollution. The world witnessed a miracle and people experienced something new for the very first time in their life. As a result, people have understood the importance of resources. On the other hand, the government has provided a lot of opportunities for the world people to realize the influence of SDG in the common routine life. The awareness of SDG is slowly thriving these days and every school and college has made it mandatory to host programs on SDG to create awareness. Even business units are contributing towards SDG in different aspects. One of the aspects is waste management and efficient use of the available resources. KPMG in its study found that big firms are already incorporating SDG-related strategies in their operations however what about the small-scale business units? Are the small-business units taking a serious effort to achieve SDG? Yes, MSMEs have taken efforts to work on the SDG. For example, micro-financing provided to a small group of intelligent individuals results in venturing into a small-scale business. This further grows, matures, and creates job opportunities. On the other

hand, due to the awareness of digital tools and equipment has increased over the years those who run the MSMEs know what is happening around the world. Hence the concept of SDG has gained popularity over the years. Every year there is a good progression since the world nations have joined hands to achieve a common vision. Cottage industries are mostly placed under MSME due to the size and nature of business. It is important to explore the various techniques used by the cottage industry to adopt SDG in its business functions.

### ***Introduction to cottage industries in the Indian Landscape***

The cottage industry in India has always been a major source of income, especially for the rural population. As per the report published by (IBEF, 2022) 65% of the income of the rural population is from the cottage industries. These cottage industries are of several types which include Weaving, Silverware, Pottery, Carpentry, Bamboo crafts, Textile designs, Stone carving, Blanket making, Ceramics, Handmade jewelry, etc (Clear Tax, 2023). Cottage industries operate on a small scale with minimum finance involved in the process. Thus, the small-scale run business units fall under the tag “Cottage Industry” (Raasta, 2018). The Indian cottage industry is not much supported by government schemes because of the nature of operations and functionality. These cottage industries use hands and traditional assets to produce products rather than using modern types of equipment and technology-driven machinery. In addition, these industries are subjected to small business ideas and are mostly family-run (Search, 2022). The cottage industry includes several businesses such as Cotton weaving, Silk weaving, Handlooms, Handicrafts, etc (India, 2021). This informal economy has created job opportunities, stimulates new business ideas, makes use of the resources in the best way, and contributes towards GDP and GNP. Today Indian rural development is due to the growth in cottage industries (Designs, 2021). The cottage industry has been a crucial source of income for rural communities, and it involves small-scale business units that use traditional assets and techniques to produce various products. However, the cottage industry must receive much more support from the government due to the nature of its operations. This research work is purely a qualitative approach. In this research, a theoretical framework has been put out to clarify how cottage industries contribute to reaching the Sustainable Development Goal (SDG). The model has been a conscious thought to map the 17 SDGs neatly and carefully with the cottage industry. The mapping has been shown in three different phases and hence, the conceptual model has been named “The Three Phase Conscious Business Growth and Sustainability Model for the cottage industries in the Indian Landscape *TPCBG & SDGA*. The Model aims to address the challenge of outdated techniques used in the cottage industry by creating a platform to utilize the unfair advantages of modern technologies while contributing to sustainable development. The *TPCBG & SDGA Model* also highlights the need to measure human and environmental growth together with economic growth to ensure sustainable development. Overall, the *TPCBG & SDGA Model* provides valuable insights into the role of the cottage industry in promoting sustainable development in India.

## **2. STATEMENT OF THE PROBLEM & STATEMENT OF PURPOSE**

### **2.1 Statement of the problem**

The cottage industry is also regarded as the “Foundation of the Rural Economy”. This informal economy has created job opportunities, stimulates new business ideas, makes use of the resources in the best way, and contributes towards GDP – Gross Domestic Product and GNP – Gross National Product. Cottage industries, due to their decentralized and regional nature, may find it challenging to maintain healthy competition with medium and large-scale enterprises that often operate on a national or global level. The Indian cottage industry is not much supported by government schemes because of the nature of operations and functionality, however, there are a few schemes introduced by the Government of India to support the cottage industries. These cottage industries use hands and traditional assets to produce products rather than using heavy machinery. Cottage industries may struggle to compete with larger corporations in terms of resources and market access. Cottage industries may face challenges in accessing financing and technical assistance, which can hinder their ability to innovate and grow. Cottage industries may be vulnerable to market fluctuations and economic shocks, which can impact their profitability and sustainability. Especially the uncertain events and calamities such as the Covid-19 pandemic has made the cottage industries more vulnerable. First and foremost, the products manufactured and sold by the cottage industries are priced at a very minimum level and enjoy no huge demand in the market. There is not much visibility because of poor advertisement and marketing efforts. In addition, the cottage industries which fall under the tag “SME Sector” is again more unorganized. Thus, with the minimum demand the cottage industries must run the business and sustain. Hence long-term business sustainability remains a mystery in terms of the cottage industry and its slow growth. On the other hand, every business in India is now aligned with SDG’s Sustainable Development Goals because this has become a universal protocol. Not just from the business perspective but from a societal perspective it is important to focus on SDG which will help in fast economic growth and prosperity. Top business units with constant profitability status have leaped forward to incorporate strategies to achieve SDG. However, the small and medium business units like the cottage industries do have not much exposure and knowledge about the SDG. Maybe there is a lack of awareness and not much individual effort to give importance to SDG. Moreover, most of the cottage industries become a source of foundation for a better livelihood for the rural background. It is very much important to do business to enhance the standard of living and support each other in regional growth and development but it is even more important to conduct sustainable business which protects the existing resources and helps in achieving multiple goals. So, small efforts can be taken by the cottage industries to achieve the SDGs, which will bring a new revolution in the golden tomorrow. In this regard, there is a need to take up several measures by the GOI such as:

- A) To spread awareness of SDGs among the cottage industries
- B) To monitor the cottage industries continuously and guide them in terms of SDG target achievement
- C) To link the rural population with cottage industries with the help of new schemes and measures
- D) To help the young and energetic youngsters to use their creative skills to run the cottage industries
- E) To provide special assistance to the transgenders to contribute to the cottage industries' growth and SDG achievements
- F) To connect different stakeholders with the Indian cottage industries for development, sustainability, and prosperity

Hence, there is a need for a base model to showcase and guide the “cottage industry to achieve sustainable development goals” and help in economic development and prosperity. Moreover, the Government of India should implement actionable models and take strict measures to revamp the existing cottage industries by supporting them with financial and non-financial aid. Though there are several other problems faced by the cottage industry a few very important problems are mentioned above. Through this research, we provide a solution to all the cottage industry to grow and flourish and contribute to economic growth, and constantly help the GOI achieve the Sustainable Development Goals.

## 2.2 Statement of Purpose

Cottage industries can provide a wide range of opportunities to the rural population which will enhance the standard of living. Moreover, the skill must be utilized in the right manner which will create a remarkable impact on the economy. For example, the youth population in rural areas can be slowly motivated to contribute to the cottage industry. Their potential, ideas, business plan, administrative skills, etc will help the cottage industry. When the business process takes place there will automatically be pressure from the government to follow certain policies and procedures. For example, employment opportunities must be extended to both males and females. Since the cottage industry becomes a registered entity HR policy, Environmental policies, measures, Sustainability checks, etc will slowly crawl in. If all the routine business activities of the cottage industries are streamlined it will become easy to achieve the SDG. Though cottage industries are not capital intensive and do not operate on a large scale reaping huge profits and higher contributions to GDP and GNP at present it is because the cottage industry is not much supported. India still lacks in digitalization, literacy rate, equal opportunities, and the interference of the government to regulate the cottage industries. All business units that fall under the tag “Cottage industry” are not capable to achieve all the SDGs. However, it becomes a responsibility and a conscious need of everyone to achieve the SDG. The road map to achieve the SDGs is missing. Sometimes strict measures and mandatory regulations will reap success. Thus, the purpose of the study is to sketch a pathway for the cottage industry to achieve the Sustainable Development Goals.

## 3. SCOPE OF THE STUDY

The major aim of the study is to construct a conceptual framework exclusively for the cottage industries in India and lay the foundation to achieve the Sustainable Development Goals – SDG. In this regard, there is a need to collate ideas, creative thoughts, and actionable knowledge. Hence, the article is qualitative and has proposed a conceptual framework. The scope of the study is confined to the Indian cottage industries across different cities in India. This model may not apply to other industries. However, any industry which is on par with the cottage industry can implement this model. The article has considered SDG proposed by United Nations because it is the current buzzword and the most important protocol which must be implemented in each activity and existence on this earth. When exploring the SDGs, it is understood that cottage industries in India play a major role in helping the Indian government achieve the SDGs through different strategies and measures. Hence, a link between SDGs and cottage industries in India has been shown in the conceptual framework. In India, there are many existing schemes which are proposed by the Government of India to achieve the SDG. In this regard, there are strong initiatives such as Sashakt Bharat - Sabal Bharat, Swachh Bharat - Swasth Bharat (Clean and Healthy India), Samagra Bharat - Saksham Bharat (Inclusive and Entrepreneurial India), Satat Bharat – Sanatan Bharat (Sustainable India), Sampanna Bharat- Samridhh Bharat (Prosperous and Vibrant India) according to Voluntary National Review 2020. Apart from these schemes which are exclusively on SDGs, there are a few other schemes introduced by the GOI that focus on promoting the Indian cottage industries such as the Khadi and Village Industries Commission (KVIC), Prime Minister’s Employment Generation Programme (PMEGP), Scheme of Fund for Regeneration of Traditional Industries (SFURTI), Coir UdyamiYojana (formerly known as REMOT Scheme), Mahila Coir Yojana(a component of Coir Vikas Yojana-CVY) etc. However, the schemes work separately to promote cottage industries and to achieve SDG. There is a need for a single one-show framework that will clearly explain the link between cottage industries and SDG achievement. Hence the scope of this research considers the connecting thread between SDG and cottage industries in India.

## 4. OBJECTIVES OF THE STUDY

- **PRIMARY OBJECTIVE:** The primary aim of the study is to construct a Sustainable Growth Model for the cottage industries in India. This model aims to help the cottage industries in India enhance their business capabilities and profitability position and attain United Nations’ SDG.
- **SECONDARY OBJECTIVE:** The secondary aim of the article is to map the Sustainable Development Goals to the cottage industries to showcase the benefits which can be attained by the Indian economy placing importance on stakeholder contributions. This model if is implemented by the Government of India there will be a huge change in GDP and GNP because the cottage industries can contribute to economic growth and prosperity.

**Note:** This aim of the research article is confined to the above-listed objectives to ensure research focus and better contribution through research ideas and suggestions.

## 5. LITERATURE REVIEW

Literature reviews are performed on the theme “Cottage Industries” to understand the role of cottage industries in the Indian context. For this purpose, articles have been collected from different databases. From the review of the literature, it is understood that the cottage industry is also regarded as the “Foundation of the Rural Economy”. This way and the economy have created job opportunities, stimulates new business ideas, makes use of the resources in the best way, and contributes towards GDP and GNP. In addition, past studies analyze the crucial role of cottage industries in India's trade relations with foreign countries during a time

when mills and factories were absent while also examining the positive impact of the handloom cottage industry on the social and economic prospects. Overall, our studies stress the importance of preserving and promoting cottage industries in India for maintaining economic equilibrium. Thus, the literature reviews play a very important role in helping the researchers progress in the right direction. The literature reviews are presented below.

### **Cottage industries in the Indian landscape**

The report by (Straits, 2023) says that the Indian cottage industries generally fall under the "Unorganized sector". This is due to the business nature and not being a capital incentive. Research by Jagranjosh, mentions that most of the cottage industries are home-based where rural individuals use small equipment to produce products. Thus, when the nature of business gets confined to home or small factories the Government schemes cannot be availed by the cottage industries to progress to the national level. In this regard, the majority of the cottage industry operates in the local and domestic markets. Their exposure and opportunities to make profits gets confined to regional markets. When business opportunities do not materialize the small-run business owners and artisans are demotivated. Indian cottage industries as per 2019 statistics say procurement of raw materials is one of the major obstacles. However, when it comes to research on cottage industries in India there are not many sources found. There are few research articles which has analyzed the Indian cottage industries and have produced empirical results.

Dr. Dipak Kumar Kundu's (Dec 2017) historical study focuses on the origin and growth of cottage industries in pre-independence India, with data gathered through secondary sources. The study concludes that these industries played a vital role in India's trade relations with foreign countries, given the absence of mills and factories during that period.

Pinki Mandal Sahoo, Sandhani Sarkar, and Koushik Das conducted an analytical approach study on the Role of the Handloom Cottage Industry in The Developmental Spectrum of Bishnupur Municipality of Bankura District, West Bengal (Feb 2016) using primary and secondary data sources, including field visits and surveys, to examine the industry's impact on the municipality's social and economic prospects. Thus, the study portrays the role of the handloom cottage industry on the social and economic prospects of Bishnupur municipality in our study.

Alit Sen Gupta (Dec 2012-23) is a study on the Significance of Cottage and Small-Scale Industries in the Socio-economic Development of Abhayapuri of Bongaigaon District, Assam with data gathered through primary sources via survey. The study used primary data sources, including surveys, to highlight challenges such as inadequate financial assistance from banks and delayed payments from wholesalers and retailers. The study aimed to assess and evaluate the entrepreneurs' contribution to the economic and social development of the backward area.

R Saha, Kanikaram Satyanarayana & Charles A. Gardner the study concentrated on "Building a 'Cottage Industry' for Health (and Wealth): The New Framework for IP Management in India 11" focuses on a new framework for IP management in India. The study proposes building a cottage industry for health and wealth and highlights the need for a new approach to intellectual property management in India. The paper presents a new strategy for IP management in India, with a focus on building a cottage industry.

Shashank B. S. & Sureshramana Mayya study emphasizes A Conceptual Study on the Performance of Small-Scale Industries in India aims to analyse the challenges faced by small-scale industries and identify strategies to improve their performance. The data was collected through a survey of small-scale industries in India. Overall, the study suggests that government support, technological advancements, and effective management can significantly improve the performance of small-scale industries in India.

Kanishk Verma and Dr. Jitendra Kumar Tiwari's (2019) study focuses on the marketing strategies of cottage industries. Marketing is an important aspect of any business because it helps to expand the market. The government takes several initiatives to promote cottage industries, but these initiatives are insufficient. The report continues by advocating branding, e-commerce, product certification, and other marketing strategies for cottage industries to enhance demand.

Dr. Jessy John's (Oct 2010) study focuses on cottage industry workers and their stress. Data collected through focus group discussions (FGD) among employees indicated that they face stress from all walks of life, including work, but that their interpersonal relationships at the workplace help them deal with it. Employees of Jaipur's cottage enterprises were subjected to factor analysis. Cottage industry employees were found to be stressed due to role overload, organizational design and management style, manager's behavior, status incongruence, lack of coherence, and quality of life.

Dr. Merlin Thanga Joy and R. Melba Kani's (March 2013) paper is based on growing Opportunities and Challenges for Cottage Industries in India. Economic independence for women and the involvement of all family members in contributing to the development of the family are some opportunities for cottage businesses that are encouraged by government action such as capital subsidies and self-help groups. Lack of management expertise, competitiveness, and financial assistance are some of the issues that must be addressed to prevent exploitation and further grow these industries.

Siddhant Bajaj's (2019) study cites data from various sources stating that India exported a variety of goods, particularly to the West; it did not import much because it was self-sufficient. Following the British invasion of India, the Indian cottage industry became less competitive with imported machine-made items. It was on the verge of extinction until the government intervened after independence. Cottage industries are critical for the preservation of the country's cultural legacy, employment possibilities, and



contribution to exports and GDP. Lack of marketing and managerial skills, as well as demonetization, are all dangers to the cottage business. The report concludes by stating that the preservation and promotion of cottage industries in India are critical to maintaining economic equilibrium and that every citizen can help.

B. Mohandhas and Dr. G. Prabakaran's (March 2013) study focuses on Policy Initiatives Toward the Development of Small-Scale Industries in India. The government has placed a high priority on the development of the small-scale sector, as seen by the allotment and expenditure for the small-scale industry in the five-year plans. The Industrial Policy Resolutions also represented the Indian State's ambition to establish industrial self-sufficiency. The study indicates that SSIs play a vital role in the economic life of a growing country like India, for which the government has established several boards, committees, and development surveys.

**6. THEORETICAL BACKGROUND**

The main objective of this study is to propose a workable model known as the “Three Phase Conscious Business Growth and Sustainability Model for the cottage industries in the Indian Landscape *TPCBG & SDGA*. Thus, to establish the model it is important to set the theoretical underpinning. Hence for this research article, two profound theories are considered. The theories used as base theories are Boekr’s theory of economic policy of dual societies and the Finnish Theory of Cultural and Economic Policy on Cottage Industries.

**6.1 Boeke’s Theory of Economic Policy of Dual Societies**

One of the popular Middle Eastern economists, Boeke, identified the cottage industry culture. His economic policy of two societies sheds light on how trade goods are produced on a small scale at the family level.

Part-time production for trade is also respected among Indonesian peasants. The first type focuses entirely on handicrafts made by locals, and the second type is referred to as creating edible items and commodities. Since then, the phrase "cottage industry" has been used to describe domestic and local level production. Boeke’s differentiation between handicraft and cottage industry may be helpful when defining the utmost economic activity, but it can be challenging to derive a clear line between the cottage industry categories. It becomes blatantly evident that Boeke's cottage industry concept offers such a fantastic opportunity. Boeke would seem to offer a solid foundation for creating a model of the Mississippian cottage industry, and their societies have been distinguished by their reliance on agriculture for subsistence, the frequency of major-level specialization, and extensive trading networks. Additionally, it has been noted that minor market sales and purchases are frequently required due to the lack of any significant commodity excess in the local communities. He also made the point that peripheral markets offer a greater variety of goods and commodities for sale. The growth of cottage enterprises is another critical step in ensuring that everyone in society has equitable access to the resources they require. In addition, Boeke noted that cottage businesses can be found in both literate and illiterate societies, as well as in traditional and industrial economies in Eastern, Western, and Third World countries. In the end, the sustainability of cottage industries is deliberately concerned with the cultural aspect of certain communities in society.

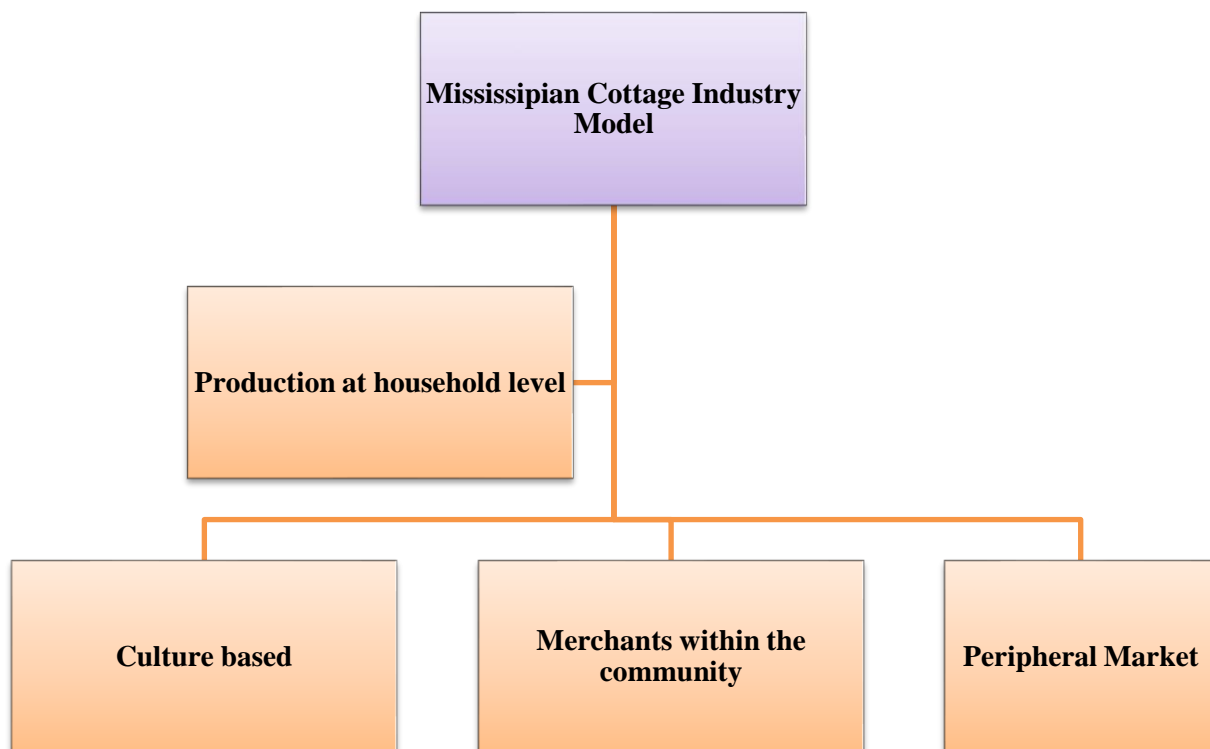


Figure No: 1.1 Explaining Boeke’s Theory of Economic Policy of Dual Societies

## 6.2 Finnish Theory of Cultural and Economic Policy on Cottage Industries

The cottage industries are not only generating income for those who are associated but also help in preserving culture, designs, creativity, etc which have been safeguarded for many generations. For example, the concept of the orange economy is getting popular in recent times where small-scale creative business units are given a platform to reach global heights (Ferreiro-Seoane et al., 2022). Thus, cottage industries have a rich legacy, and it's all about preserving centuries-old culture, real Finnish culture, cultural legacy, and most importantly, artisan culture. Cottage industries were primarily justified in Finland's theory of cultural and economic policy as an economic activity that encouraged an independent and entrepreneurial way of life in rural. The cottage industry can therefore be viewed as a historical movement that institutionalized efforts in both economic and cultural politics. Using highly sophisticated cottage industry processes is not always beneficial because it will always end up in spending more throughout the process. The Finnish method by which the individual cottage industry would make its choice is comparatively simple: preference should be always given to the indigenous production process and yielding the required profit. It is widely known, however, that there is no assurance that a specific Finnish method will not necessarily lead to the best method at a huge level of production in the cottage industry. The advantages of the Finnish cottage industries to be expected throughout the process of production are more a collection of cultural and socioeconomic occurrences.

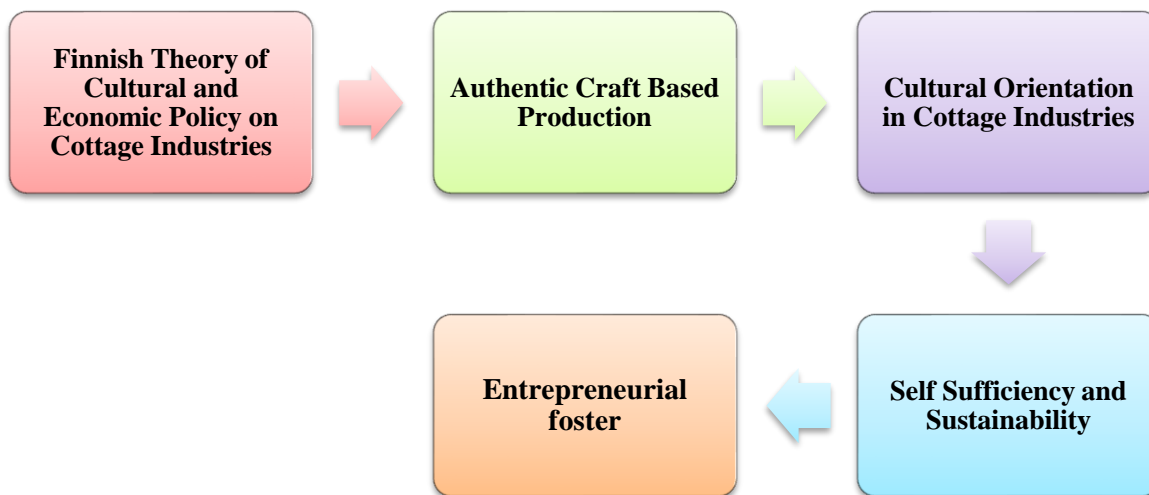


Figure No: 1.2 Explaining the “Finnish Theory of Cultural and Economic Policy on Cottage Industries”

## 6.3 Discussions from the theoretical background

It is quite understood that most of the cottage industries fall under the unorganized sector and are home-based. How will these small-scale business units contribute towards SDG is a question to be answered. On the other hand, Indian cottage industries operate at a very minimal level with minimum resources. The same is mostly seen in the Indian landscape. The GOI has to come forward to pick up the best business units which are worth being provided with more market opportunities. Because there are a variety of products being produced which gets sold only in the domestic level. When this reaches the national market and international markets the business units will automatically expand. Business expansion will force pressure to contribute towards CSR activities and slowly aim for SDG achievement. As a result, cultural aesthetics and heritage can also be popularized to bring more value to the nation. Hence the above-mentioned theories are the base theories that act as a reference and guide for this research work.

## 7. RESEARCH MATERIALS AND METHODS

There is no systematic structure for qualitative research because qualitative research is one of the most flexible research options available for researchers who stem from social science background. In addition, qualitative research allows researchers to find out new distinctions rather than explore the same phenomenon (Aspers & Corte, 2019). In this research, we have developed a conceptual framework to establish a link between cottage industries in India and United Nations’ Sustainable Development Goals. However, there is a strong need to first set some rigorous parameters in qualitative research before establishing the conceptual framework. In this regard, research questions play an important role and help the researcher to stay clear and focused to support the conceptual framework with valid justifications (Johnson et al., 2020). Hence the following research questions have been developed before initiating the conceptual framework.

### 7.1 Research Questions:

1. How can cottage industries integrate different stakeholders to follow the common vision of SDG – Sustainable Development Goals?

2. What role Government of India should play in consciously developing the Indian cottage industries to empower rural communities?
3. Should United Nations come forward with a common universal framework for all the cottage industries across the globe to ensure it achieves the SDG?
4. Why does the Government of India, not much policy regulations for the cottage industries to follow the SDG?
5. Is Indian entrepreneurship flourishing with a motto to help the small-run cottage industries or is Indian entrepreneurship progressing towards global recognition and fame?
6. Can Higher Educational Institutions come forward to help the cottage industries in India in several ways through a service-learning approach?
7. When will Indian cottage industries achieve the SDG? And what problems and challenges Indian cottage industries must face in this process?

The above-specified research questions will help the researchers think from different angles such as: staying focused, defining, and confining to scope and communicate the contributions effectively (Thuan et al., 2019).

### 7.2 Variable selection from the existing secondary sources:

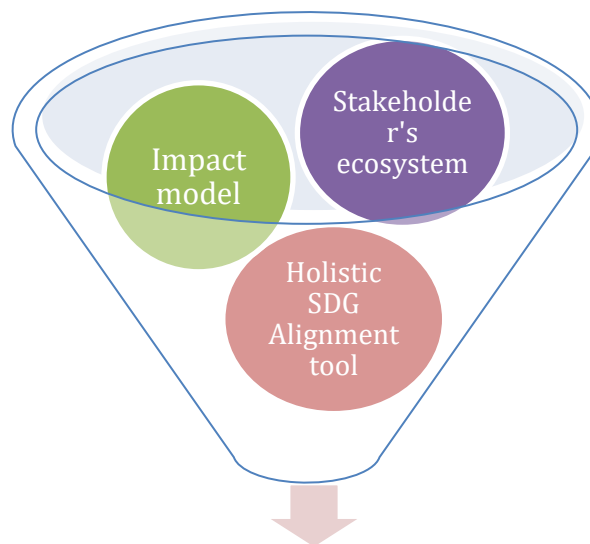
It is always important to analyze the past to prepare for the future says (Webster & Watson, 2002). After running through the review of the literature few important variables have been hand-picked to be used in the conceptual framework. Moreover analyzing the literature reviews will help in setting the basis for developing a theory (Patriotta, 2020). Thus, in this research article, we conducted manual content coding to identify the most promising variables. However, a few variables were repeated in most of the articles which were not considered until and unless it was important. Thus, mixing the existing variables and a few variables newly specified by the researchers was used in the conceptual framework.

### 7.3 Prior theory and research to set the foundation:

There is a need to use grounded theories to establish a new model or to construct a new theory (de la Espriella & Gómez Restrepo, 2020). Moreover, grounded theory places focus on the inductive process to generate new conceptual frameworks (Brunson & D'Souza, 2021). Thus, using the grounded theory few insights were taken from the existing theories which helped us build the conceptual framework. Henceforth we have used two base theories for this research work. The base theories are the Mississippian Cottage Industry Model – which is mentioned in Boeke's Theory of Economic Policy of Dual Societies and the Finnish Theory of Cultural and Economic Policy on Cottage Industries (Sadli, 2015). Both these theories have been explored and the justification for choosing has been clearly mentioned in theoretical underpinning.

## 8. CONCEPTUAL MODEL

The Three Phase Conscious Business Growth and Sustainable Development Goal Achievement Model for the Indian cottage industries is a three-stage sustainability development strategy that proposes a framework for resolving issues faced by cottage industries in India and promoting sustainable growth. It advocates for the adoption of sustainable methods, social cohesion, and community development to unleash the potential of these industries. TPCBG & SDGA model consists of various stakeholders who have a major role to play in this model namely the cottage industry owners. There are various stakeholders involved in this model which includes Cottage Industry Owners, Government, Investors, Incubators, Accelerators, Marginalized Communities, Large-scale enterprises, Farmers, Students for innovation, and End customers. The Impact Model has been explained in three different phases as given below:



## TPCBG & SDGA Model

Figure No: 1.3 showing the TPCBG and SDGA Model's – Interconnectivity

**Phase 1: The Impact Model** - This model explains how a cottage enterprise having an untapped valuable product can be developed through the following three stages using web-based platforms, accessing support from the startup ecosystem, and encouraging student entrepreneurship.

**Phase 2: Stakeholder's Eco-system Model** - The model demonstrates how different stakeholders in an economy can work together to support cottage industry owners, creating a mutually beneficial situation that reduces the negative impact of pollution on the environment.

**Phase 3: Holistic SDG Alignment Tool Model** - This model offers a step-by-step approach that enables the implementation of UN SDG models in an affordable, effective, and efficient manner through the Point of Care (POC) approach.

In this research, the most important variables are hand-picked to construct the conceptual model, the model is called a Conscious Business Growth and Sustainability Model. The Conscious business growth and sustainability models depart from the existing models for the cottage industries especially when it comes to employing sustainable development goals that contribute to enterprise and environmental growth. An exclusive mapping has been shown to link the cottage industries with the UN's SDG. Providing a solution to the problems faced by the cottages industries a CBGSM Model is demonstrated below:

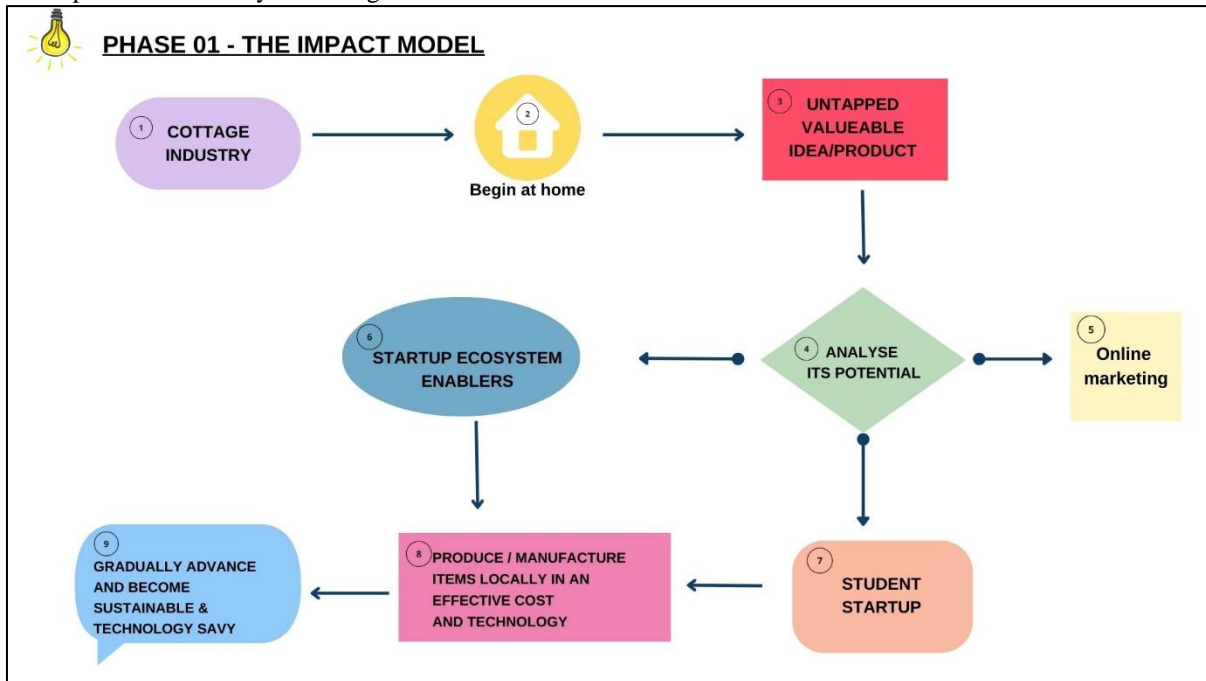


Figure No: 1.4 Showing the Impact Model in Phase 1

A cottage enterprise generally begins at home which will be an untapped valuable product. Once after analyzing the potential of any product in a cottage industry, they can be improvised through three stages.

**Stage 1:** Cottage industry players can benefit from learning how to leverage web-based platforms to promote their products to potential customers. Using such platforms, owners can engage directly with their target audience, building customer loyalty and increasing satisfaction. In addition, the platform's analytics can provide valuable insights into website traffic, customer demographics, and sales data, enabling owners to make data-driven decisions when optimizing their marketing strategies. Moreover, the cost-effectiveness of web-based platforms is a significant advantage over traditional marketing methods.

**Few strategies can be introduced by the government of India in (Stage 1)**

1. Government to establish an e-commerce portal that will benefit the cottage industry
2. Training to be provided to small-run businesses on social-media usage
3. Digital knowledge awareness to be created at a mass level in all the rural areas
4. Yonggsters who qualify in each regional area can be appointed as a zonal head to guide the small business owners
5. Smartphones, tabs, and other equipment can be provided by the government

**Stage 2:** Cottage industry players with valuable, untapped ideas or products can benefit from the support of the startup ecosystem. Incubators offer invaluable resources for developing cottage industries, including mentorship programs, training programs, and access to professional services like legal and accounting. Additionally, incubators can provide mentorship on funding and investment opportunities, such as seed funding, access to venture capitalists, and government grants and loans. They also offer critical support by providing access to shared infrastructure and equipment, including office space, production facilities, and specialized equipment that may be otherwise expensive for cottage industry owners to acquire on their own.

**Few strategies can be introduced by the government of India in (Stage 2)**



1. Provide free training on entrepreneurship and leadership
2. Encourage the Higher Educational Institutions to take up (adopt) the cottage industries to provide training
3. Provide a mentorship program and guide the cottage industry continuously
4. Help the cottage industry by providing working capital requirements
5. Help the cottage industry with transportation and other supply chain requirements

**Stage 3:** A student startup can be initiated by the Government of India because across India there are many Higher Educational Institutions that promote entrepreneurship among students. Students are very talented and have good creative skills. However, they just need a platform to showcase their creative business ideas. If the Government sets up a common platform to pitch in ideas to shape the cottage industry, there can be several knowledge contributions. The shared thoughts and knowledge will help in new IPRs and help in better implementation of new strategies and policies. Students can also be motivated to include advanced technology and technical aspects in the business models which can include: IoT, Artificial Intelligence, Augmented Reality, and Virtual Reality. Thus, these are the three ways of solutions that help to produce or manufacture items locally with effective cost and technology by reaching their target customers and needs of the same. Thus, Phase One will be exclusive to understanding how even an individual who has a small business idea on par with the cottage industry can contribute towards economic growth and progression.

**Few strategies can be introduced by the government of India in (Stage 3)**

1. Stimulate creativity and save creative ideas without becoming endangered
2. Provide support for copyrights, trademarks, patents, and other Intellectual Property Rights (IPR)
3. Honour and award the best cottage industry-based business units with financial and non-financial rewards
4. Arrange for Knowledge Sharing and Knowledge Transfer meetings and discussions
5. Help in providing feedback, expert guidance, and technical education to the small-run business units

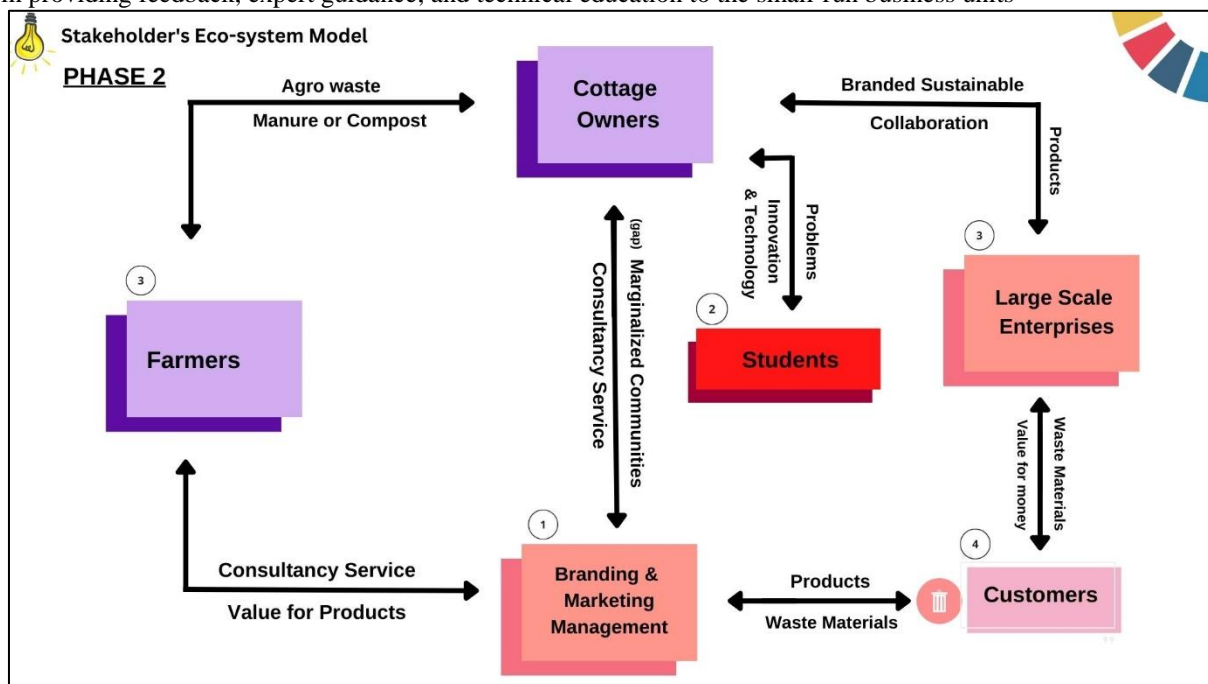


Figure No: 1.5 showing the stakeholder’s Eco-system Model in Phase 2

In Phase 2, the Stakeholder's Eco-system implies how the various stakeholders are involved in the development of a cottage industry. The major problem that the cottage industries face includes improvement in selling their products to customers. A few solutions are mentioned below.

**A). Branding and Marketing Management**

One of the most important solutions for a cottage industry to become popular is through the help of unique marketing and branding. Several strategies can be employed to help in increasing awareness and drive sales. A few potential solutions include developing a strong brand identity while creating a strong and memorable brand identity that communicates the unique value proposition of their products. Employing social media while showcasing your products on sites like Instagram, Facebook, and Twitter and highlighting how technologies like AI, VR, and AR are being used to improve the consumer experience by producing interesting material that shows the product in a distinctive and immersive way. This could include product demos, virtual tours, or interactive experiences that allow customers to explore products in a new way. Offer personalized experiences to use AI to create personalized experiences for the customers. For instance, we may use AI to make product recommendations based on previous purchases or the browsing activity of a consumer. Thus, we can build a strong online presence for cottage industrial products & organic products while creating a user-friendly website that showcases the products and highlights the use of AI, VR, and AR. For potential clients to find the products online with ease, it is ensured that the website is optimized for search engines.

**B). Opportunities for marginalized communities**

Cottage industries can also provide a way for marginalized communities to preserve their traditional crafts and practices while generating income. Additionally, working in cottage industries can promote community development by encouraging the growth of local businesses and creating a sense of pride in the community's products and cultural heritage. By providing economic opportunities and promoting cultural preservation, cottage industries can play a significant role in improving the livelihoods and well-being of marginalized communities. Similarly, way marginalized communities can benefit greatly from working in cottage industries. These industries can provide job opportunities and a source of income to individuals who may not have access to formal education or training programs.

**C). Student's Contribution to the upliftment of the cottage industries**

To address the challenges that cottage industries are facing in terms of integrating technology into their operations. We can encourage collaborative hackathons for the students which will be beneficial for the company to tap into this creative energy and gain access to new and unique ideas at an economical price. Students can bring technical skills and knowledge of emerging technologies like e-commerce platforms, mobile applications, and digital marketing tools to help cottage industries improve their operations and reach new customers.

**D). Integrating farmers with industry for more market opportunities**

The idea behind this statement is that farmers can work together with cottage industry owners to create a more sustainable and mutually beneficial system. Rather than discarding the residual waste from farming, it can be repurposed and used in the creation of sustainable products. For example, a farmer might have leftover corn husks or stalks that are no longer useful for their original purpose. These residuals could be used by a cottage industry owner to create products like eco-friendly packaging, natural fibers for clothing or home textiles, or even biofuels. By repurposing the residual waste, farmers can reduce their environmental impact and contribute to a more circular economy. Furthermore, farmers can benefit from working with cottage industry owners by receiving help with branding and marketing their products. Cottage industry owners often have more experience in the business side of things and can help farmers create a unique brand and market their products to a wider audience. This can lead to increased visibility and revenue for the farmers, which can ultimately help them to sustain their livelihoods. Thus, by working together, farmers and cottage industry owners can create a more sustainable system that benefits both parties. Repurposing residual waste can lead to the creation of new and sustainable products, while collaboration on branding and marketing can help farmers to increase their revenue and visibility.

**E). Linking huge and established industries with small and medium cottage industries (A win-win game)**

Collaboration between cottage industry production and large-scale enterprise owners can lead to significant benefits for both parties. For cottage industry owners, it provides an opportunity to reach a wider audience and expand their customer base beyond their immediate community. Large-scale enterprise owners, on the other hand, can benefit from the unique products and creativity that cottage industries can offer. One area of collaboration is in the production of sustainable products like bags, jewelry, and other mementos. Cottage industry owners can use their expertise in creating handmade, sustainable products, while large-scale enterprise owners can leverage their marketing and distribution channels to sell these products on a larger scale. By doing so, both parties can benefit financially while promoting sustainable practices and increasing awareness of environmentally conscious products. Moreover, such collaboration can indirectly promote and support the cottage industry owners and their valuable products. When a large-scale enterprise sells products made by cottage industry owners, it helps to promote the brand and increase awareness of its products. This, in turn, can lead to increased demand for the cottage industry owners' products and an increase in their income.

**F). Role of customers in the cottage industry; contributing indirectly to SDGs**

When customers purchase products from cottage industry owners that use recyclable materials, they are contributing to sustainable development and reduce negative environmental impacts in several ways. Firstly, using recyclable products reduces the amount of waste that ends up in landfills or the environment. When customers purchase products made from recyclable materials, they are indirectly helping to reduce waste and prevent pollution. This is especially important as the world faces an ever-increasing waste management problem. Secondly, using recyclable products can lead to a reduction in resource consumption. By using recycled materials, cottage industry owners can reduce the need for virgin materials and help to conserve natural resources. Thirdly, supporting cottage industry owners who use recyclable materials can contribute to the growth of sustainable industries. This means that the customer is not only supporting the environment but also supporting local businesses and the economy. Lastly, many customers feel good about purchasing products that align with their values, such as reducing their environmental impact.

Thus, in Phase 2 - the Stakeholder's Eco-system Model shows how various stakeholders in the economy can benefit from collaborating, supporting, and purchasing products from cottage industry owners that use recyclable materials by contributing to sustainable development, reducing negative environmental impacts, conserving natural resources, supporting local businesses, and aligning with their values.

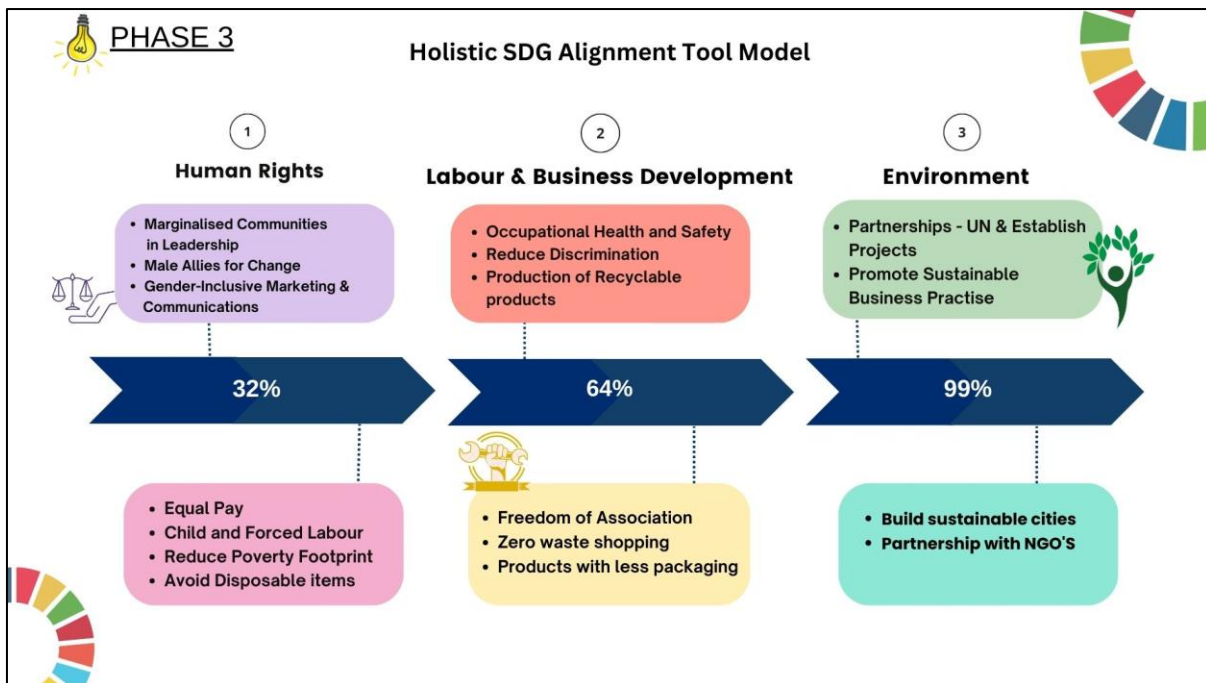


Figure No: 1.6 showing the Holistic SDG alignment tool model in phase 3

Cottage industries play a key role in a country's long-term development. The United Nations has established 17 SDGs, which are implemented globally. In this Holistic SDG Alignment Tool Model, we have proposed a mapping to show the role of cottage industries in achieving the SDG. The cottage industries are already contributing to economic growth in multiple ways. However, it is important to voice out and explain the practicality involved in it. The model clearly explains a few strategies to achieve the SDG using a Percentage of Concentration – POC approach. During the birth stage of the business, 32% (human rights) of Sustainable development Goals can be accomplished.

**Table No: 1.0 showing SDG achievement pathway for the cottage industries in India –birth stage**

Sustainable Development Goals	Mapping justification
Goal 1 - End poverty Goal 2 - Zero Hunger Goal 3 - Good health and well being Goal 4 - Quality Education Goal 5 - Gender Equality Goal 10 - Reduced Inequalities	Six SDGs are identified to fit the birth stage. In this stage, the cottage industries will contribute in different ways to achieve the listed six goals: 1, 2, 3, 4, 5, and 10. The mapping justification is given below. 1. To provide marginalized communities with employment opportunities in cottage industries to reduce poverty. 2. To achieve equitable access for all genders which will include female, male, and transgenders, and provide them with equal opportunities. 3. To make use of the available economic resources and to support the community to enhance a better society. 4. To enhance the standard of living of those associated with the cottage industries which will have an impact on good health, education, and life prosperity.

During the growth stage of the business, 64% (labor & business development) of Sustainable development Goals can be achieved.

**Table No: 1.0 showing SDG achievement pathway for the cottage industries in India – Growth stage**

Sustainable Development Goals	Mapping justification
Goal 6 - Clean water and sanitation Goal 7 - Affordable and clean energy Goal 8 - Decent work and economic growth Goal 9 - Industry, Innovation, and Infrastructure Goal 11 - Sustainable Cities and Communities Goal 12 - Ensure responsible consumption and production	Six SDGs (6, 7, 8, 9, 11, and 12) are identified to fit the growth stage. The mapping justification is given below: 1. To first and foremost provide basic infrastructural facilities to the cottage industries and for those who are enrolled with the cottage industries.

	<p>2. To stimulate creativity, innovation, and research to be more innovative which will help the cottage industries contribute to GDP.</p> <p>3. To provide a decent source of income for cottage business owners to enhance their standards and provide access to sufficient and equitable sanitation and hygiene</p> <p>4. To modernize technology to provide everyone in emerging cottage industries with efficient and sustainable energy services.</p> <p>5. To encourage the formalization and expansion of micro firms, including access to financial services in the cottage industry, through development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation.</p> <p>6. To strengthen regional development planning by creating sustainable cities/villages by developing a cottage industry that produces sustainable goods.</p>
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During the maturity stage of the business, 99% (environmental development) of the Sustainable Development Goals can be achieved.

**Table No: 1.0 showing SDG achievement pathway for the cottage industries in India – Maturity stage**

Sustainable Development Goals	Mapping justification
<p>Goal 13 - Climate Action            Goal 14 - Life Below Water            Goal 15 - Life on Earth            Goal 16 - Peace, justice, and strong institutions            Goal 17 - Partnerships for the goals.</p>	<p>Five SDGs (13, 14, 15, 16, and 17) are identified to fit the maturity stage. The mapping justification is given below:</p> <p>1. To propose sustainable practices in the cottage industry which will enhance business and contribute towards the environment in multiple ways.</p> <p>2. To implement a zero wastage policy and follow strict measures to protect the environment and all the other resources on mother earth. This will lead to a sustainable industry initiative.</p> <p>3. To increase the utilization of marine resources to create sustainable products in the cottage industry and prevent marine pollution and ocean acidification through sustainable methods.</p> <p>4. To increase afforestation and reforestation significantly by putting sustainable management into practice and providing training on sustainable development.</p> <p>5. To eliminate child abuse, exploitation, trafficking, all forms of violence, and torture by improving the standard of living for the children, their family, and the community through the suggested approaches.</p> <p>6. initiate collaborations with NGOs, adopt and put into effect investment promotion regimes for cottage industries in the least developed countries.</p>



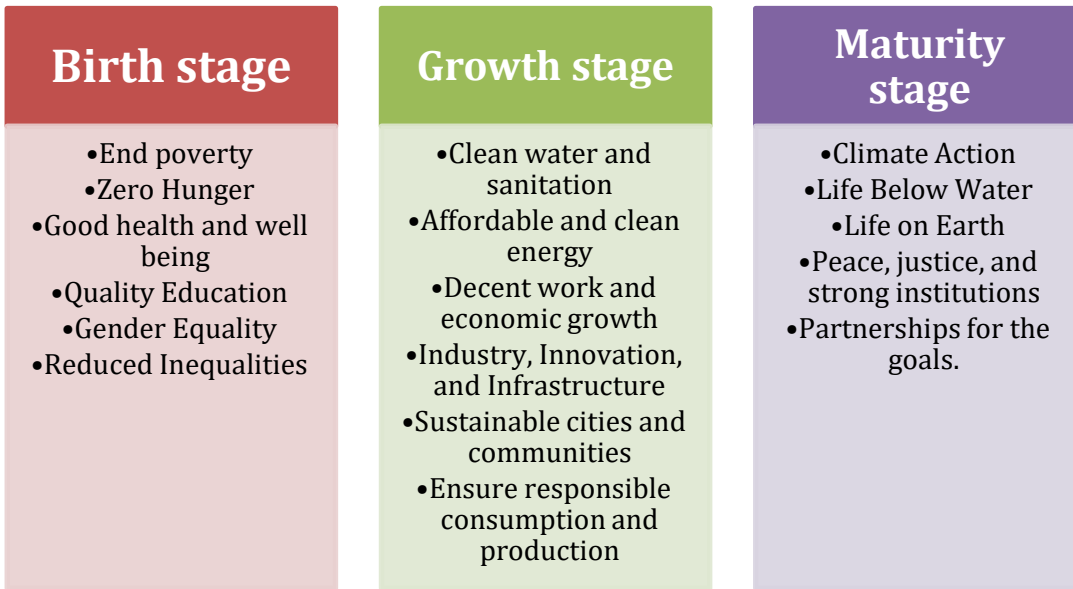


Figure No: 1.7 Showing the three-stage model and its SDG – Mapping

**TPCBG & SDGA Model Holistic Model**  
Figure No 4

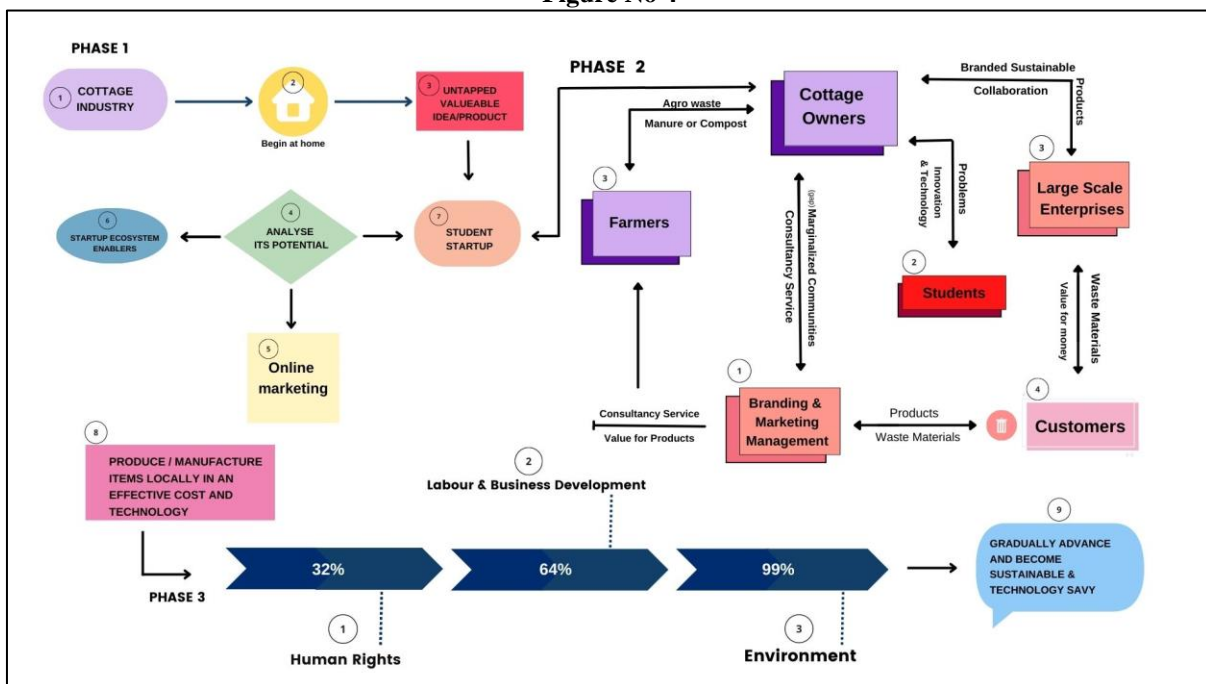


Figure No: 1.8 Showing the TPCBG & SDGA Model Holistic Model – Final Model

This Above Holistic Model combines three phases altogether showing how the cottage industries can improve their sustainability. NOTE: The holistic model is an outcome of Ms. Amirtha B.S efforts. Ms. Amirtha has created the models with her creative thoughts and ideas. This holistic model can be used by other researchers only with the permission of the corresponding author (Ms. Amirtha B.S).

**9. JUSTIFICATION**

The Indian economy can greatly benefit from the cottage industry. Cottage enterprises can generate income and job possibilities in a developing country. Though they are preserving local customs and traditions they are not finding a source to popularize their products which is unique in selling local products. A successful marketing plan will aid in the growth of the cottage industry and enhance the demand for cottage industry products. Cottage businesses frequently exhibit ingenuity and invention, which has enormous potential and can support environmental sustainability by utilizing local resources and cutting down on transportation expenses. They can also promote sustainable agriculture and responsible resource use, such as using organic materials and minimizing waste. Thus, cottage industries have a positive social impact by providing opportunities for women and marginalized groups who may face barriers to employment in other sectors. If the holistic model is considered by the Government of India cottage industry will be supported by various stakeholders.

## 10. LIMITATIONS OF THE MODEL

- The *TPCBG & SDGA* model may face challenges in implementation, particularly in terms of funding and resource availability. This could limit the ability of stakeholders to fully support the cottage industries.
- The model may not fully address issues related to power dynamics and inequalities among stakeholders. Marginalized communities, for example, may still face barriers to accessing resources and opportunities within the model.
- The model's effectiveness may depend on the willingness and commitment of stakeholders to participate and collaborate. Without strong buy-in from all stakeholders, the model may not achieve its intended impact.
- The success of this model depends on the active participation and collaboration of multiple stakeholders, which may be challenging to coordinate and manage effectively.
- The model may not be suitable for all types of cottage industries, and some industries may require more tailored approaches to promote sustainable growth.
- The model's effectiveness may also depend on external factors such as government policies, economic conditions, and the availability of resources and infrastructure.
- Customers may not be willing to pay a premium for sustainable products, leading to limited demand and sales for cottage industry owners who use recyclable materials.

## 11. CONCLUSION

Cottage industries provide a range of benefits to individuals, communities, and societies playing a major role in economic development. Cottage industries also enhances cultural preservation, environmental sustainability, innovation and creativity, and creates a social impact through different means. This research connected SDG's with cottage industry using a qualitative approach. The Three Phase Conscious Business Growth and Sustainable Development Goal Achievement Model for the Indian cottage industries (*TPCBG & SDGA Model*) recommends a solution for solving the major problems faced by the Indian cottage industries in marketing and branding, which is the prime important tool for business success. The model also clearly explains different strategies to improve the revenue and financial position of the cottage industries by integrating different stakeholders for mutual benefit. In addition, the model lays a pathway to show the cottage industries a few strategies to attain Sustainable Development Goals. SDG which remains untouched by a few underdeveloped and developing industries is a red alert. Every nation across the globe should take a serious effort to ensure that all industries are consciously working with a focus to achieve the SDG proposed by the United Nations. The cottage industry is a golden duck that lays golden eggs and there is no doubt about it. However, in greed for the golden egg, the golden duck should not be killed. The duck becomes a legend and has to be worshipped. Hence it is also important to think from the shoes of a common man who is associated with the Indian cottage industry. Credit for the creativity, helping in gaining knowledge, supporting with finance, providing training and leadership advice are very important for the small business owners. India, lacks awareness on the importance of cottage industries and its contribution to GDP and GNP. The cottage industry is in the hands of rural communities who have a lot of potential and capacity. However they are not given a platform to shine with fame. Government of India should take up the responsibility to address the concerns of each and every individual who falls under the tag "Cottage industry".

Emotions are psychological processes that influence humans' behavior, thoughts, and learning processes. Many factors would affect the mental well-being of these cottage industry workers. Thus, this 3-phase model would fulfill the basic needs of the small, marginalized communities by serving as an intrinsic motivation to work harder, ideate more, and serves as a source of income increasing their livelihood. How can this community be helped and supported? Why not connecting the cottage industry with Indian Higher Educational Institution's. Every HEI's have students and faculty members who have rich knowledge. They can adopt a small region in every district to guide the small business men. Thus, using a service learning approach the students get an opportunity to visit the community to understand the real time problems which are faced by them. Government can make it mandatory that every HEI's in India has to contribute to the development of the cottage industry. Encouraging collaborative hackathons to provide beneficial and unique ideas for the company expands the learning opportunities by giving vast learning opportunities, fueling creative thinking and problem-solving abilities. Engaging students in this model also avoids distraction, improving the multitasking abilities and communication skills of the students. Likewise, different stakeholders have to be linked with the Indian cottage industry.

SDG's cannot be achieved in a short span of time, it needs a lot of process, patience and focus. However India is progressing to achieve SDG's, but still awareness has to be spread across the nation. First and foremost farmers have to given top priority because agriculture helps in achieving the SDG and also becomes a major part of the cottage industry in India. Thus, farmers who work in the field do not get a proper source of income for most of the products they produce, repurposing the waste in farms would be an additional source of income and adds value to the products they produce, this helps the farmers have hope and invest more on agriculture. On the other hand growing industries in small, medium and large level is a good indication for a progressive economy but the impact on environment has to be addressed. Environmental consciousness is one of the key aspects of people's changing mindset toward sustainability as people are recognizing the urgency of environmental issues such as deforestation, pollution, and climate change. Adapting sustainable practices to daily lives has significantly increased over the years which involves reducing waste, water management, recycling, and using eco-friendly products. In recent days ethical consumerism has become a trend as people actively search for environmentally friendly and ethically manufactured products, prioritize local and fair-trade options, and consider the complete life cycle of a product, including its proper disposal. Cottage industries are pure and have no greed in making huge wealth. Cottage industries has to be well promoted right from the initial stage of inception. With the growing interest and

increasing trends on sustainability, the Three Phase Conscious Business Growth and Sustainable Development Goal Achievement Model for the Indian cottage industries (*TPCBG & SDGA Model*) would be widely accepted and welcomed by people.

## 12. SCOPE FOR FUTURE RESEARCH

Many stakeholders, including the government and the economy as a whole, are responsible for implementing policies and regulating the cottage sector to ensure its growth. A future study could examine the impact of the present laws and regulations on the sustainability and expansion of the cottage sector. It can assist determine whether the model is actionable or if it needs modifications. A study can be done to determine the extent to which the government can improve the environment for cottage industry sustainability. It can involve how the government can provide subsidies, tax breaks, grants, and other incentives to boost cottage enterprises. The impact of government programs to promote social cohesion and community development among cottage industry owners can be analyzed to determine the success of government programs to improve collaboration between cottage industry owners and other stakeholders. It is also possible to find the government's scope to collaborate with the stakeholders. *The TPCBG & SDGA model* gives business owners a clear framework for enhancing their operations and fostering sustainability. To fully comprehend the use and effects of the approach, however, more research is needed in the future. Future research can concentrate on developing more practical guidelines for cottage business owners to follow when applying the model into practice. Analysis of the model's effectiveness in various contexts and areas could be done through research. Because cottage industries cover so many different types of work, their performance with the model might differ greatly. The benefits and shortcomings of this paradigm that need to be addressed can be understood by looking at its performance. *The TPCBG & SDGA model* places a lot of emphasis on meeting the needs of marginalized communities. The model places a strong emphasis on these communities' contribution to the cottage industry supply chain. Future studies could be done to determine how to improve these communities' success and involvement in the model while also expanding job opportunities to improve their standard of living. The model has enormous scope for students interested in entrepreneurship, sustainable company strategies, and social impact. Students can perform case studies to understand the model's practical application and make suggestions for overcoming problems encountered throughout it. To further evaluate the model's efficacy, an assessment of its impact on various stakeholders can be done. Students can create innovative business models to integrate with the *TPCBG & SDGA model* or make necessary revisions to the *TPCBG & SDGA model*.

Farmers face issues such as: poor crop prices, a lack of market access, and limited resources, which *the TPCBG & SDGA model* can address. Future research possibilities exist to investigate the potential of sustainable agriculture practices in the framework of the model. Future studies could concentrate on developing training and capacity-building programs to help farmers bridge the skill gap required to implement sustainable agriculture practices. The potential for a sustainable value chain can also be investigated. In the *TPCBG & SDGA model*, there are numerous opportunities for large-scale industries to contribute to the growth and sustainability of the cottage industry sector. As a stakeholder in this model, large-scale industries can help cottage industries by providing funds, market, and technical access, and so on. Future research can focus on ways to improve their support and how they can incorporate sustainable practices inside their operations to encourage sustainable resource usage and reduce negative environmental impacts. It can involve practices like the usage of renewable energy sources and waste reduction techniques. Customers have a role as well in the *TPCBG & SDGA model*. Future research could concentrate on customer awareness of the environmental consequences of their consumption choices, their attitude towards sustainable choices provided by cottage industries, customer satisfaction and loyalty to the cottage industry, customer participation in the model through crowdfunding, and social media engagement. All of these could provide useful insights into the growth and sustainability of cottage industries in India. One of the most significant issues that cottage industries confront is a lack of branding and marketing assistance to popularize their distinctive products. As a result, future studies should concentrate on developing branding and marketing strategies for cottage industries, such as the use of social media, influencer marketing, and collaboration with large brands. Future studies can identify different marketing avenues for the products. It could include a farmer's market, an online business, and so on. Future research may also aid in determining the impact of branding and marketing tactics on the long-term development of cottage enterprises. The possibilities for future research on branding and marketing in the context of the *TPCBG & SDGA model* are immense, and it offers exciting opportunities for research and innovation that might assist cottage industries in uncovering their full potential. Future studies in the context of the *TPCBG & SDGA model* could focus on identifying investment opportunities in cottage industries and their potential for expansion. Investigation on how new goods may be developed, how sustainable practices can be embraced, and how investments can be used to create job chances can be carried out. Future studies can be conducted to determine how incubators can affect startups, as well as the rate of success of companies and the elements that contribute to this success. A study on how incubators might promote equity and inclusion through outreach endeavors, mentorship, and other services to marginalized communities can be conducted. The role of incubators in promoting sustainable practices and encouraging collaboration with the innovation ecosystem can be examined to make required adjustments to the model and develop cottage industries.

The effectiveness of current accelerator programs, the impact of accelerator programs on marginalized communities and other sections of society, the exploration of innovative approaches such as virtual or hybrid models to increase accessibility and inclusivity, and so on are all possible future research areas that could aid in the growth of cottage industries. Cottage industry employees and owners must be trained and educated on how to use technology efficiently in their businesses. They can be taught about digital literacy, social media, e-payment systems, and other areas. Future studies could concentrate on the significance of doing so and the development of various programs to support it. Research needs in this *TPCBG & SDGA model* include the development and integration of new technologies in cottage industries, addressing hurdles to adopting new technology, and the examination of technology's influence on production, efficiency, and so on. Cultural factors influencing both the development and longevity of small-scale businesses such as cottage industries in various locations could be an important future research area. The influence of cultural values on the generation of innovative ideas and consuming behaviors can also be investigated. The impact of small business entities and startups on the general economy can be investigated to determine how they influence economic elements

such as employment, economic growth and development, entrepreneurship, and living standards. The impact of globalization and global trade on small-scale entities and startups can also be investigated to identify the restrictions and strengths of small-scale businesses such as cottage industries in the international market. It could assist in addressing the difficulties and promoting the growth of cottage industries.

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	<p><b>Yazhini. S.P.</b> is a B.Sc Psychology student in the School of Economics, Kumaraguru College of Liberal Arts and Science, Coimbatore, Tamil Nadu. She is highly passionate and dedicated to doing what she desires. She specializes in psychology and likes to conduct research in the same domain. Her lifestyle of simple living, love for nature, and sustainable lifestyle.</p>
	<p><b>Ms. Simra J</b> is a BA - Economics student in the School of Economics, Kumaraguru College of Liberal Arts and Science, Coimbatore, Tamil Nadu. She is a highly inquisitive and imaginative individual who strives to be independent. She is passionate about traveling and drawing landscapes. Her interest in Environmental Economics, as well as her desire to assist the underprivileged community.</p>
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**Mr. M. Athmaramani**, completed his bachelor's degree in Economics from AVC College Mayiladuthurai which is affiliated with Bharathidasan University where he is a university gold medallist, later he pursued his Master's degree in Economics from Bharathiar University Coimbatore While doing his Masters he cleared SET which was conducted by Mother Teresa University Kodaikanal, his work experience includes Assistant professor in the Arunachal University of Studies Arunachal Pradesh for one year eight months where he handled papers such as Indian Economy, Development Economics Ethics and Economics, and He also worked as a Project Fellow in Bharathidasan University Tiruchirapalli for seven months where he carried out research project titled on WASH- Social Enterprise Development on WASH – Cost effective technology and Resource recovery strategies. Currently working as Assistant Professor in the Department of Economics Kumaraguru College of Liberal Arts & Science Coimbatore

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