Problem Identification:

1.Justification of Problem:

It is a very well known fact that Supply Chain Management is an integral part of most businesses today, and is an essential factor for the success of large business giants. Supply Chain Management also proves to improve customer satisfaction in most companies lately. Supply Chain Management and Optimization is not a simple undertaking. Supply Chain Management is very essential for various reasons including reducing overhead costs and providing improved quality control of products shipped from villages to the cities. Intruders like secondary suppliers,retailers and so on, compromise on these two factors. A data-driven supply chain management enables better visibility and monitoring of goods sent from the farmers to the customers. As a result, both the consumers and farmers are benefited as there are zero intruders in-between helping farmers to sell at a nominal rate and also helping customers to buy at the same rate by cutting down on the profits incurred by intruders in the existing supply chain.

2. Village/ Study Area/ Location:

Vembakkottai Union, Virudhunagar district comprising of around 1 Lakh people.

3. Description of Problem

Villages are the backbone of the Indian economy. About 75% of India lives in rural areas, which means that out of the 121 crore Indians,83.3 crores are from the villages of India. As per the latest reports, there are about 5,97,464 villages across India which is a huge number.”Culture” and “Agriculture” are the two main factors that differentiate India from the rest of the world. More than half of India draws its income from Agriculture and Agriculture, in turn, contributes to about 17-18% of the country’s GDP. This project is our little initiative towards promoting the income of our villages and thereby contributing to the nation’s progress.

Goods and services produced in India’s villages go through a long process which involves storage of finished goods, transportation from rural to the urban areas and distribution of the goods to the customers. This is often referred to as the “Supply Chain”. Basically, a supply chain includes several participants like the Product/Service Producers, Distributors, Retailers and Customers. In addition it may also include several other participants like stakeholders, manufacturers, supervisors etc., Efficient management of this supply chain is very important in order to keep the business on the go. Supply chains make or break a business. Our strategy to increase the income of the village, here is to integrate several participants of the supply chain together. We hold participants of the chain like wholesalers and retailers as intruders. Our view of these intruders is that they take away a portion of the farmers income. What if we could sell directly from farms to the customers? This will indeed, cut out on profits of the retailer, wholesaler and so on, thereby increase the farmer’s profit and also cut down on the heavy rates imposed on the customer, simultaneously allowing organic products in the hands of consumers.

4.Brief Description of Innovative Solution:

Supply Chain Management of Organic Products using Blockchain Technology is an innovative mobile-based application that enables farmers to sell their products directly to their customers. The application is based on e-commerce and functions like most e-commerce websites today. The application revolutionizes the existing supply chain management technique.

It uses the blockchain technology to enable a data-driven approach to supply chain management.This, in turn, provides better collaboration, improved quality control, reduced overhead costs and ensures lower risks in delivering products from the villages to the urban areas.

This makes the benefits of the farmers more than the usual method of which includes all the intruders like a marketing agency, retailer, wholesaler, etc. The cost of the product will be fixed by the farmers and the high quality,fresh organic products will be on sale. The transportation cost will be passed on to the customer as per the transportation statistics of the period of time. This innovative solution for increasing the profit of farmers will automatically increase the income of the village. There are multiple factors related to consumer purchase behavior for rural and low-income market segments, including consumer attitudes; peer influence; location and cultural sensitivity of the venue; product characteristics and price.

So, taking these things into consideration our ideation will persist out of these pulldowns.

5. Description of the technology/management practices involved in innovative solution to achieve the given objective

Blockchain is an emerging technology that promises increased efficiencies of agricultural supply chains. It provides enhanced and secure data management,lower transaction costs, improved logistics and best traceability of products. The Storage of details of lands of farmers is a revenue detail that is generally stored by the revenue department and needs secure storage. Thus, Blockchain is an essential technology for storing such details because it allows only updating of records and not modification. There is a widespread of a variety of diseases nowadays. One of the reasons would be inorganic food intake. In a busy lifestyle, people want everything to be available readily in their hands. So, they consume food which is not healthy and easily available in their doorsteps. This project would revolutionize the economy of villages simultaneously providing healthier food for consumers at their doorsteps. It would also promote a better lifestyle for farmers by increasing their income.

6.a. Target beneficiary group/ Anticipated size of market for solution/innovation

The size of the market comprises of around 178 villages which have a market size of about 1 Lakh people. This union comprises 20 councils and each council consists of 3 Panchayats. Each Panchayat has 4 villages,each having around 1200 people and many children. It is an area rich in agriculture and other industries like matchworks and fireworks.Concerns are required in this area for the delivery of proper organic food products. Also, it is essential to promote a better supply chain in order to enhance the life of the farmers living here.

6.b. Expected outcomes/outputs (Short term/ medium term/ Long term)

The outcomes from this project are expected to be on a medium term basis. Initiating this project and creating awareness about such an innovation is the first and foremost step. Generally, people do not use an application as soon as it is launched. But when the benefits are revealed, people tend to use the application in a larger scale. So, it is not possible to obtain the outcomes in a short period of time. This would take a few months to reach all the urban people near this region. Advertising in the form of posters,banners,digital advertisements and so on must be done in order to promote the product. Once people find that there is an easy way to buy healthy,fresh,organic products,directly from the nearby village, it is obvious that people will prefer this application instead of their traditional way of buying products where customers are unsure of the products quality.

7. Brief description of the implementation of the delivery/ business model:

The complete product is constructed as a mobile-based application and it works on blockchain technology. Here, the delivery of goods is done by employing local community people who are engaged in moving from one place to another. Transporting individuals who pick up the goods are also benefited in a small margin.The main source of revenue generation is through ads that are periodically displayed in the application. Initially, a group of graduates are selected from the village and a team of technical members are engaged in the process of training this group. This group, in turn, teaches the farmers to use the application. It is a quite simple process as the user interface will be designed in such a way that it is easy and friendly for daily use by a farmer who has been trained to use a touchscreen. Once the locality is ready for this system,it is implemented. The system increases employability as transporting individuals are chosen from the village itself. The application is accessible by each and every farmer of that village and as the user base increases the revenue of the particulars also increases and this also, in turn, increases the economy and employability of the village.

8. Description of support/ecosystem provided by available at institute to facilitate the startup:

Coimbatore Institute of Technology (CIT) is one of the well known and prestigious institutions in Coimbatore.It is an institution established in 1956 and affiliated to Anna University.Lately,CIT has been favouring young entrepreneurs launch their start-ups.One such remarkable start-up is "Slipper Shots" ,a start-up that revolutionizes education.CIT also has a very active Entrepreneurship Development Cell that constantly helps students develop the entrepreneurship mindset.Further details can be found at our official website, [www.cit.edu.in](http://www.cit.edu.in) .