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# Rural E-Commerce - Giving Life to Rural Products with Technology

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**ABSTRACT:** The growth of any country depends on the how best they are selling locally produced products in local and global market. It means the countries which are producing what they need and also selling the excess production in the global market. India is one such country where ample resources available in each and every corner of the country. Due to lack of knowledge and technology in rural areas in India, the growth of India is not upto the mark. Though the resources are available and customers are ready to buy, some products are not coming into market due to lack of technology. And another major problem is investment, people are ready to produce best products but they need funding for mass production. The Proposed Solution addresses the solution for both technology and investment problems faced by rural people in India. The proposed solution is Rural E-Commerce. The main idea behind this rural e-commerce is providing an e-commerce platform for local talents to produce their products and sell it them on this platform. And also there will be an Investor page where these people can approach investors to invest in their product production and profit will be shared once product is sold. Means here the main idea is Vocal for Local.

**KEYWORDS:** E-Commerce, India, Rural Areas, Technology, Vocal for Local

## I. INTRODUCTION

Rural E-Commerce this idea might have come to so many people but the problem is implementation due to the policies posed by Indian government. But now as per the latest guidelines and schemes proposed by the government like Vocal for Local, Digital India, Make in India (Made in India) etc., implementing this kind of platform is not so difficult.

As per the research done in the state of Andhrapradesh there are more than 100+ products in need everywhere which are produced in this state. Due to lack of knowledge to local people how to sell it and how to get investors they are confined to only particular area in selling these products. The research is made in the areas of East and West Godavari of Andhrapradesh majorly and it is found that there are so many products which are getting exports also from these places but limited in number. And as usual the person who is manufacturing the product is not getting the profit instead the third person who is buying product from this people and selling it is getting the profit. To name few products which came to the notice of research team is Kondapalli Koya Bommallu, Putha Rekulu from Athreya Puram, Kakinada Madatha Kaaja, etc., these products includes toys, show case items, food items etc., when extensive research is done in this areas the main problem they are facing is an exclusive platform to sell their products, and lack of English knowledge to sell in the platforms like flipkart, amazon and Investment to do mass production.

At the same time the research also been done how many potential customers are really looking for these products to buy, surprisingly out of 100 customers on an average 60 – 70 customers are very much happy if they get this products from the place where they are born. And one problem the customers raised is these products are getting sold in different areas but they are not original means they are replica of original made in that locality and sold so the quality is not good. And there are some sellers who are buying from origin place and selling these products but they are very limited in number.

The major problem facing by this manufacturer of these products is shipping the product to the customer place.

So this is the extensive research done and understood various problems faced by local manufacturers in doing mass production of their products though they are needed in the society.

Research has been continued in different states followed by Andhrapradesh, the research continued in Karnataka and Tamilnadu there also found almost similar issues faced by local people.



After extensive research done for more than 8 months, the research team found the solution for all these problems are developing an platform for local talents using the latest technology where they can see the possibility of uploading their product information in their regional language and same should be displayed to customer in which ever language they want, means multi linguistic platform with ease of access for both seller and customer should be developed.

In the same platform there should be feasibility for Investors to register and see which are the products looking for investors, what is the demand of that product and how much money they are expecting to start production? There by profit will be shared once the product is sold.

And another major issue faced by these local sellers is getting money for what they sell and shipping. The research team when approached different courier partners they are not so happy to reach each and every corner to establish their business as they don't have idea whether they will get profit or not. So the research team come up with final solution for this will already existing partner i.e. Indian Postal Services, more or less every place in India post office is available which they can make use of for shipping products and the new initiative by Indian Post is IPBB with which all digital transactions are possible both with current and saving account where sellers no need to worry about payments.

So this platform is going to be rural e-commerce to give life to local sellers and also enable investors to invest and profit there by giving new life to Indian Postal Services.

Products Information State wise as per Research

#### **Andhrapradesh:**

- Bobbili Veena
- Shadow Puppets Handi Craft
- MachilipatnamKalmkari
- KondapalliBommalu
- Kakinada MadathaKaja
- BandharuLaddu
- Athreya Puram Pootharekulu
- And many more

#### **Karnataka:**

- Channapatna Toys
- Sandlewood Items
- Mysore Silk
- Mysore Peta
- MaddurVada
- Dharwad Peda
- And many more

#### **Tamilnadu:**

- Tanjore Paintings
- Handmade Chocolates
- Stone Carving
- Musical Instruments
- SrivilliputhurPalakova
- And many more

#### **Kerala:**

- Coir Handicrafts
- Shell Showpieces
- Kathakali Masks
- KasavuMundu
- Nettipattam
- Cashews.
- Banana Chips



And many more.

**West Bengal**

- The Terracotta Souvenirs.
  - The Sholapith Handicrafts.
  - The Conch Shell Bangles.
  - Kantha, Baluchari&Tant Sarees.
  - The Mystical Dokra Craft.
  - The Immortal Paintings of Kalighat
- And many more.

**Gujarathi.**

- The Terracotta Souvenirs. ...
- The Sholapith Handicrafts. ...
- The Conch Shell Bangles. ...
- Kantha, Baluchari&Tant Sarees. ...
- The Mystical Dokra Craft. ...
- The Immortal Paintings of Kalighat

And Many More.

The products are not limited, the best part is that the research team found that, people from India from these places residing in western countries looking for these products and also people residing in different parts of India also looking for these products. [5]

**II. IMPLEMENTATION STEPS**

In order to implement this platform the major technology needs to be concentrated is, developing an interface which can be easily accessed by the both sellers and customers, here the concepts of natural language processing to be used to implement multi language support.

Some sellers are computer illiterates for them this platform should provide voice enabled services which they can make use of.

Data Analytics to analyze the demand of the products in the market which will really benefit investors to understand the market need and investing in the same product.

Finally it should be integrated with the logistics and payment gate way of Indian Postal Department.

**Implementation**

**Step 1:**

First and foremost step in implementing rural e-commerce is uploading the product data. To do this the catalogue has to be designed where the seller is going to upload the data using either English or any other local languages.[1]

The catalogue majorly consists of the following information

Product ID	Automatically Generated
Product Category	Category of the Product like Food/Toy/Show Piece/ Health Care Product etc.
Product Name	Name of the Product
Image (s)	Clear Image of the Product
Price Per Unit	Price in Indian Rupees
Price per Bulk Order	Based on Quantity
Detailed Description of the product	Includes if there is any expiry data, instructions of use etc.,

This is the first step needs to be taken care in the platform to create products list to display for the customers.

**Step 2:**

Survey forms will be generated and information will be collected from different users both in local and global market how likely they are interested to purchase any of this products. The survey for majorly consists of [1]



Select the Product	Customers select the product from Drop Down List
How Frequently you want to buy particular product	Weekly / Monthly / Very Rare
Do you suggest this product to your friends/relatives	Yes/No
Comments about product if already purchased and used	Comments from Customer

Like this short survey will be taken from both new customers and existing customers, to analyze the need of the product in the market.

This analytics will really help the investors to invest in the right product at right time.

**Step 3:**

Investors will be having feasibility to register in this interface and analyze different products and to invest in the product in which they like most to invest there by to get profits.[3]

Investors are verified in back end in order to avoid unwanted people who will be doing just for fun.

The investors might range from Small to Mid and High Level Investors.

Investor Name
Investor Contact
Interested amount to Invest

**Step 4:**

This is another major step to integrate shipping and payment gate way partner i.e. Indian Postal Department. It is one of the oldest department in India. The existence of this department is more than 75 years, initially this department is doing well when private companies are not there for providing postal services later they entered into shipping products as well. And they are the first people in India to providing saving schemes for rural areas. But the main problem they are facing is traditional way of business means if the customer needs to do any transactions they should go to post office and do it. But in 2018-19 Indian Postal Department has come up with new initiative called IPBB where they started their own banks as per the needs of today with facilities almost similar to banks.

So the collaboration of the postal services with banking service will really help local people to do business at global level.[2]

So the integration of Postal Services has to be done for this platform to sell the products easily.

So rural e commerce website will be surely help the local people to sell their products very easily.

The Architectural Diagram of Rural E-Commerce will be as follows.

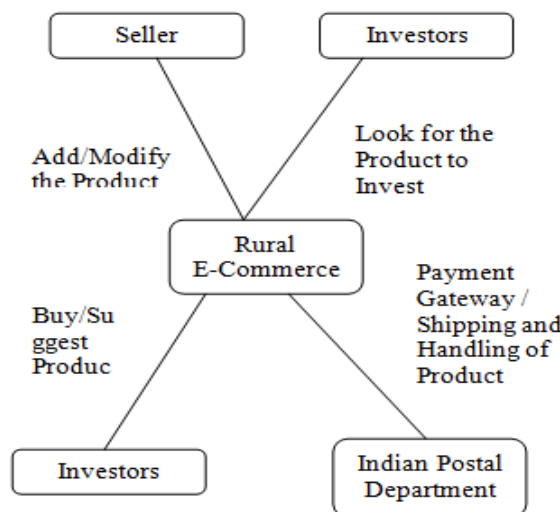


Fig.1. Architectural Diagram – Rural E-Commerce

Figure 1: Architectural Diagram –Rural E-Commerce





So the Rural E Commerce will be implemented effectively by integrating all the above services together. After developing rural e-commerce, the biggest challenge is how to identify local talents and how to protect their ideas while producing and selling them in the market. Based on this bitter experience most of the ideas especially concentrates majorly on heritage of India. In order to protect their innovative ideas which is heritage of India, it is suggest to go for Geographical Identification wherever it is necessary and also patenting.

### III. PROFIT AND POTENTIAL CUSTOMERS

This rural e commerce will be an effective platform not only to sell the local products and also create ample opportunities for the people to grow.[3]

The profit will be taken after sale of the product from the manufacturer and investor as well. To give an example,

- Any product sold from this platform Rs.1 will be credit the platform builder for maintain their information.
- And from the investor side as this platform is helping them to get profit Rs.1 will be charged for every product sold.
- At the same time Rs.1 will be charged from Indian Postal Department for providing them the business.

It is not going to be a burden for any of these people to pay Rs.1 for maintain this platform and apart from this there will be advertisements from which profit will be earned. Overall if this platform gets into market surely it is a profitable business to all [4]

Potential customers for this platform are people residing in throughout world. So the market is very big only the biggest challenge here is how effectively this platform will handle all the product and also marketing of this platform in each and every country.

So this platform is going to take back the people into olden days and also provides employability for most of the youth who is residing in these localities. Apart from this as a part of Vocal for Local, most of products will get sold in either local market or abroad.

### IV. ADVANTAGES OF THE PROPOSED SOLUTION

The main advantage of the proposed solution is to provide Employability in Rural areas by encouraging local talents. Intern it will help to improve the countries growth.

### V. CONCLUSION

By considering all the above points it is very clear that the interface is not just a product selling space it really creates value for the country. And also it helps local people in rural areas and town not to migrate to cities to do jobs. Instead they them self start doing business how much they want to earn they can earn. And also the tradition and culture of India will be publicized in global market by which the country will grow obviously people also grow.

### VI. FUTURE ENHANCEMENT

In future this platform can be divided in to multiple wings like for sweets one Interface, One for Toys etc..., all these interfaces will be again connected back to a single platform for better use. This interface can be further extended for the farmers to sell their produce.

### VII. CAMPARSION

Currently selling of special products like this is manual inoder to sell and reach out to pan india we make use of this system to bulid make in india for products.



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