

Shoppy Mart

Expanding Markets



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SoftTech-HACK 2020

PROBLEM STATEMENT ID: STH - 102



PROBLEM STATEMENT:

Android Application offering Digital platform for selling
homemade Spices and Snacks/Pickles.

WHY is
The Modern Indian
Kitchen
so
mundane?

WHY are people forced to
buy *preservative
filled pickles and
snacks* to satiate their
desires?

WHY are
traditional dishes
losing their
originality and
regional identity?

The answer is Mainstreaming and Convenience.

The modern family finds it difficult to manage the household with all its complexities, and so resorts to prioritising convenience, which quite often comes at a price- the price of fresh healthy food choices being sacrificed with whatever is available on the grocery store shelf.



Even foods like ginger-garlic paste and pickles, packed with preservatives 1000s of kms away and lying on the store shelves for months are bought without an iota of thought.

With the emergence of Economies of Scale, products are standardised across regions, as giant companies monopolise sales. The result - similar dishes of different regions are losing their characteristic tastes because of the usage of common packed spices, generally sourced from a few select companies.

Even as this happens, regional products are losing their customers due to their “traditional means of sale”, say through “weekly mandis” and low sales are driving their costs even higher, hurting both local employment as well as product quality, as lower profit margins lead to more cost-cutting, hurting the quality standards even more.

SO, IF THERE'S A DEMAND AND A SUPPLY, WHY IS THIS CHAIN BROKEN?

The CHAIN is broken because of lesser profit margins arising from lower scale of business and higher profit making on similar competing products, which attracts big E-Commerce companies.



Shoppy Mart aims to be this missing link in the supply chain, where we connect potential customers to the local supply ecosystem, providing fresh locally made products at reasonable prices through an application that is especially designed keeping in mind the nuances of local small scale E-Commerce business.

Features of Shoppy Mart Android Application:

1. RECOMMENDED: RATINGS SYSTEM
2. SIMPLE UI
3. ML-BASED RECOMMENDATION AND BEST-SELLING PRODUCTS PAGE
4. MULTIPLE INTUITIVELY DESIGNED PRODUCT CATEGORIES
5. INNOVATIVE SEARCH ALGORITHM
6. SELLER-BUYER-ADMIN INTEGRATION ON A COMMON PLATFORM



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- A close-up photograph of fresh produce on a dark, textured surface. A long, bright red chili pepper is positioned diagonally across the frame. Behind it are two onions, one whole and one cut in half to show its layers. To the right, a lime is partially visible, with its characteristic green color and small stem. The lighting is dramatic, highlighting the textures of the vegetables against the dark background.
7. GRAPHICAL SELLER's SALES ANALYSIS and FUTURE DEMAND PREDICTION BASED ON AI MODELS
 8. SPECIAL DELIVERY-BASED FEATURE THAT PROMOTES QUALITY STANDARDS and A SYSTEM THAT ENTHUSES BUYER-SELLER TRUST
 9. UNIQUE CONTACT SELLER OPTION

Integrating AUTHENTICITY : A Challenge We Overcame

A key recommendation made to improve the practicality of our application was integration of authenticity checks using RATINGS.

Authenticity is important because it inspires confidence and confidence and trust are essential to proper conduction of business.

We implemented a system where a buyer can rate the product against seller's description of it, and mark him low if the product did not live up to the expectations or mark him high, if the product was good.

This rating can be given only after the delivery has been made.

Additionally, we envisioned a system where a seller can address a low rating by chatting with the buyer and hence we allowed an option to re-rate the product, in case the buyer wishes to change his opinion of the seller's product.

Such a system will give room to trial-error-repent, in which a seller can make amends before the platform downgrades him for poor services.

SIMPLE UI

Adoption of any system is heavily reliant on clean de-cluttered user interface and our application integrates all sections - buyer and seller- seamlessly in a simple to use fashion aiding buyers in easily navigation.



RECOMMENDATION AND BEST-SELLING PRODUCTS

PAGE

Recommendation page learns from a buyer's preferred choices and makes recommendation for products that could be potential purchases by the buyer.

This can be achieved through a *Random Forest Decision Model*. This model takes input as geographical distance, multiple product category fields and product price to predict the likelihood of any product to be bought by a user and then ranks the products in decreasing order of likelihood of being bought by a buyer, and finally the top results are displayed in the *Recommendation* section of the main page.

PRODUCT CATEGORIES:

The seller will have the option of categorising his product under multiple categories, some of which include basic taste, district of origin, place of origin of the product (like banana chips originate from Southern India), season in which the product is predominantly consumed, whether the product is an everyday use commodity or is a more premium product, etc.

This will help search algorithms be more effective in their search as the number of “tags” associated with each product are higher than normal. This will, in turn, promote sales and help buyers easily choose a product, providing a better time-responsive experience.

Have a look at our “Add a product” page!

INTUITIVELY DESIGNED SEARCH ALGORITHM:

Realising the constraint that distance between the buyer and the seller leads to lesser faith or assurance about the product, we designed the search so that it displays products in increasing order of distance from the seller.

This enables the buyer to avail a special “Self-fetch the order” mechanism, where the buyer can visit the seller, inspect the quality and then take the order himself. This will:

Waive off the delivery charge making the total order cheaper

Instill buyer confidence as he/she can now inspect the product

Promote better relations, allowing friendly transaction

Help the seller gauge the needs of the buyer better, thereby helping him know what he needs to do to better serve the customers and grow his enterprise

SELLER-BUYER INTEGRATION ON A COMMON PLATFORM

Shoppy Mart has a unique system where both buyer and seller need to login to a single app for all their needs through a common account, without the need of a separate "Sellers Only" application.

This reduces complexity and inter-convertibility of buyer-seller roles, enabling both buyers and sellers to both buy and sell, as and how they wish to.



GRAPHICAL SELLER SALES ANALYSIS:

The application has a special seller's sales analysis page where the seller can analyse his sales graphically, and also compare himself against the best selling seller, as a benchmark of how much a seller can leverage through better service.

This graphical tool will help in better understanding of how his business is performing, as well as give a forecast how the demand would pan-out if his business continues on the path as before.

A Machine Learning algorithm trains itself on the dataset it collects from the application itself and this helps it predict the future course of sales.

The prediction would help the seller adjust his inventory to meet higher demands or analyse portfolio in case of diminishing demand.



SELLER SALES ANALYSIS

VINAY KUMAR



TOTAL SALES VALUE:

BEST SELLING PRODUCT:

W-O-W GROWTH:

PROJECTED FUTURE SALES:

SELLER RANK:

TOTAL SALES:

(weekly total sale of Vinay vs best seller)

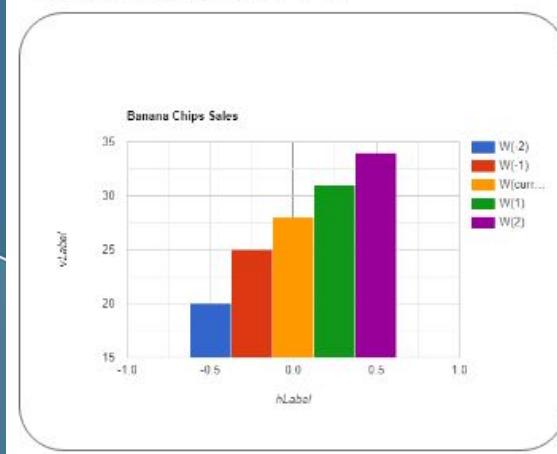


SELLER SALES ANALYSIS

VINAY KUMAR



BANANA CHIPS:
(value of product sold w-o-w)



(Graph read as W-2, W-1, current W, future W1, W2)

SPECIAL DELIVERY-BASED FEATURE THAT PROMOTES QUALITY STANDARDS and A SYSTEM THAT ENTHUSES BUYER-SELLER TRUST

The application features a special delivery option where a buyer can choose to “SELF-FETCH” an order, giving him/her an option to check the quality/cleanliness standards. This will enhance buyer's confidence in the seller and promote feelings of trust, enhancing future business.

SELLER CONTACT FEATURE

The buyer will also have the option to contact the seller to clarify any queries about the product. Though this may sound as an additional hassle, it can, in truth, help promote sales as the sellers can be open about their product content and will also have an opportunity to custom change their product to meet buyer's specific requirements. Local E-Commerce application will have such an absolute advantage over anything big MNCs can provide.

OUR APPROACH

Designing a intuitive and easy to use UI framework in order to bridge the gap of awareness and availability for the consumer, and a platform encouraging small scale industries to join the mainstream market



Rapid expansion of consumer market pushing small scale players out of the arena due to scale disadvantages, despite having quality and variety



Creating a standalone Android app which lets the user buy as well as sell products on the same platform



Making the platform an end to end agent for all its functionalities



Making self correcting prediction models which learn and relearn to enhance both user and buyer experience.

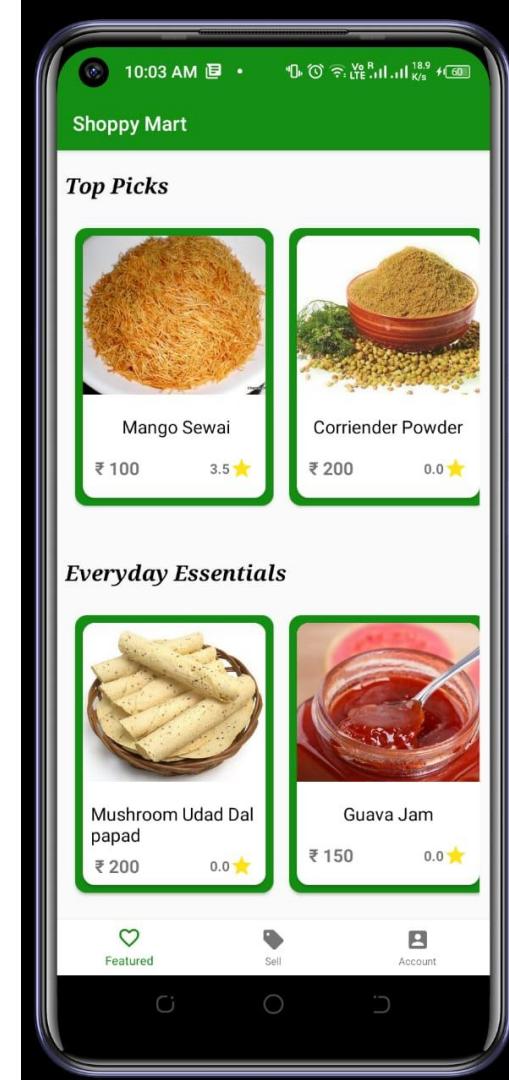
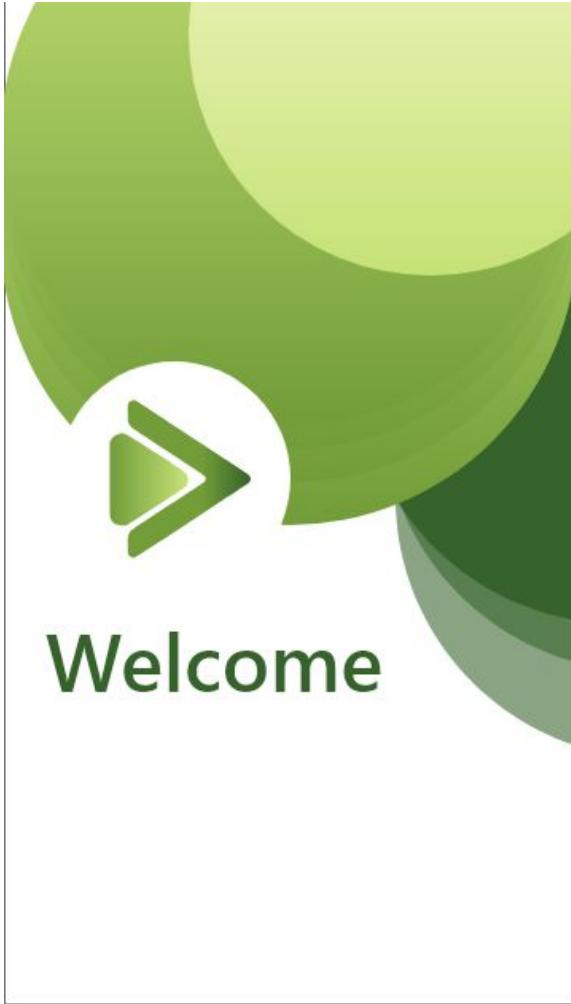


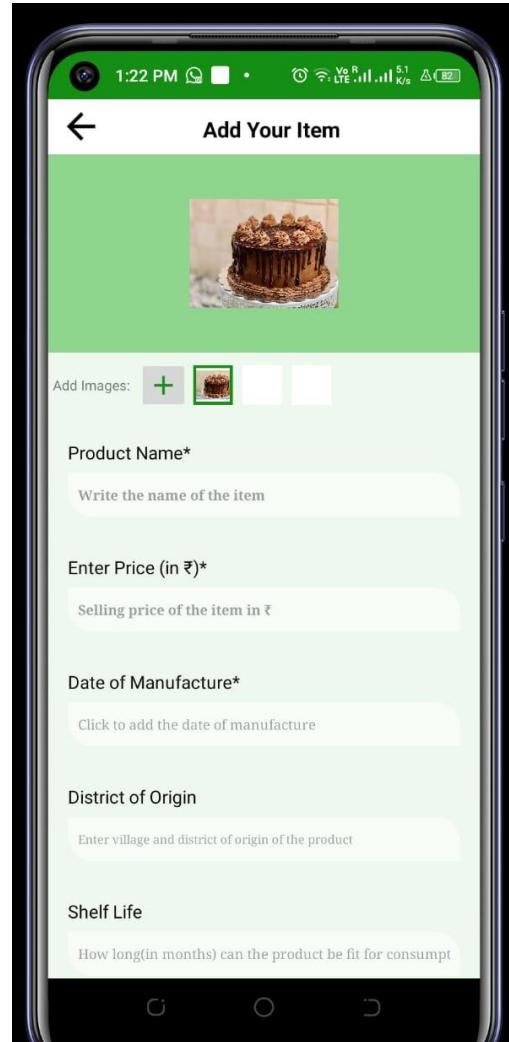
Making the application ready to use

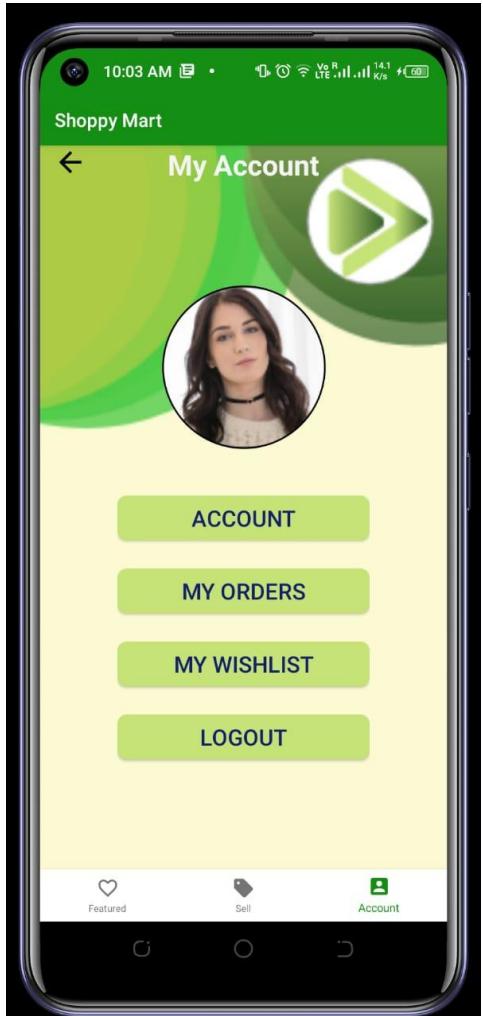


What IMPACT does Shoppy Mart have and how does it solve the problem statement?

1. The application integrates buyers and sellers, bringing them to a common point of sale and addresses the demand and supply together.
2. It encourages self-employment and boosts entrepreneurial capabilities of the people.
3. It gives small scale traditional goods access to a bigger market, promoting business and preserving local subcultures.
4. It strengthens bond of trust by not only promoting sellers in close vicinity of buyers, but also providing a method of contacting the seller for any queries or special demands.
5. It helps sellers in their business by providing ML-backed analytics that predicts future sales, helping sellers be prepared for any unseen contingencies.
6. By being an end-to-end complete solution (and not just an idea or vision), it scores high on practicality and real world implementation.







10:03 AM

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Shoppy Mart

+ ADD ITEM

My Products

 **Mango Sewai**
Rich mango flavoured Sewai to being a new twist to your dishes ,pack of 300gm

Premium Buys Snack
₹ 100 3.5 ★ 

 **Corriender Powder**
Rich flavour of corriender made accessible at affordable price

Everyday Essentials
₹ 200 0.0 ★ 

 **Mushroom Udad Dal papad**
Exotic flavour extracted from premium mushrooms and Udad dal

Premium Buys Snack
₹ 200 0.0 ★ 

Featured 

Sell 

Account 