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DEVELOPING AN E-COMMERCE PLATFORM FOR DRY FRUITS

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By

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ABSTRACT

Dried Fruits industry makes a generous contribution towards a country's economy. An enhanced focus on the industry can significantly improve both the level and quality of the contribution made. A research on the dry fruit farming suggested that there exists a significant gap between the farmers and end consumers of the produce. This gives room for exploitation of the farmers as they are not paid for the value of their efforts. The prices for the end consumers are not always set fairly either. The literature review points towards a need to incorporate technology and modern mechanisms in the existing dry fruit selling businesses as it has a vast amount of untapped potential. To address these issues, we introduce maiwayshaiway.com that brings farmers, traders and consumers on one platform (website) and enables a direct contact between them. In synergy with the United Nations' Sustainable Development Goals, of decent work and economic growth and industry, innovation, and infrastructure, the business offers a solution that promises enhanced transparency and fair price setting. A comprehensive market research was carried out as well which involved in-person interviews from the farmers of dry fruits and surveys from the consumers on the other end. The report elaborates extensively on how the website operates and how it solves the problems discussed. A comprehensive business plan builds up on the various aspects of the business. The scope of the study is limited at present and being a progressive business model, it has multiple promising prospects. The developed system is scalable to other agri-food supply chains by incorporating

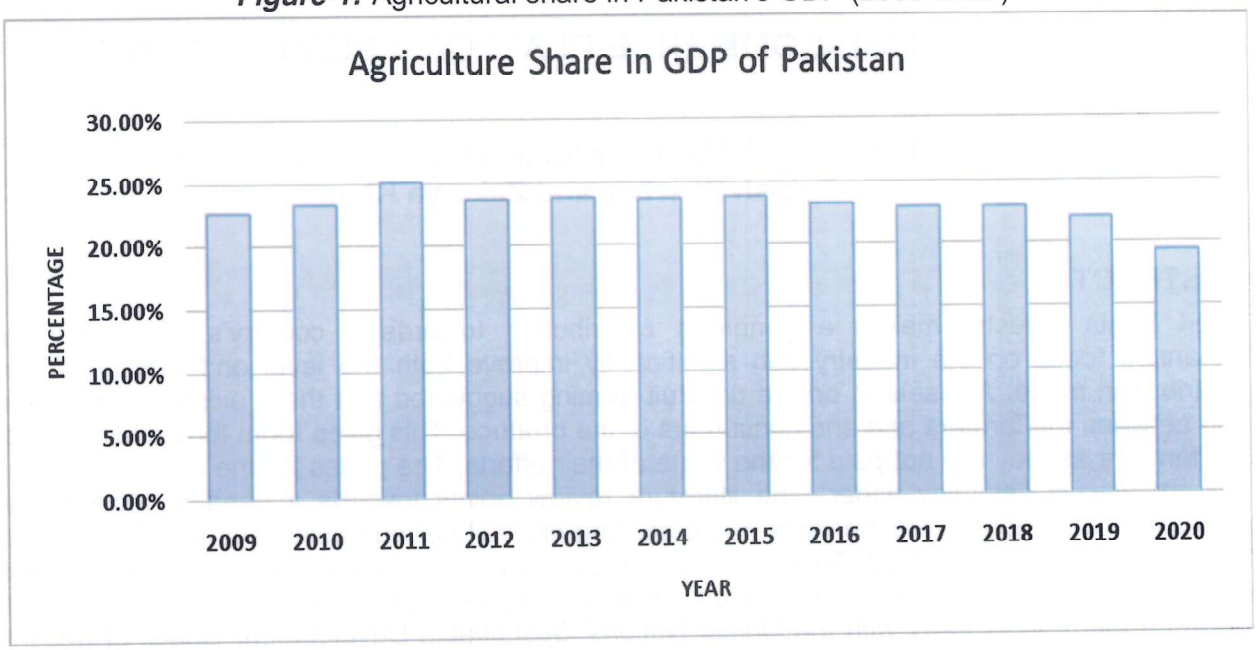
Keywords: Ecommerce, Procurement, Dry Fruits, Bidding, Reverse Auction

Introduction

Agriculture is still the largest sector of the economy of Pakistan in terms of labour participation. Around 45% of the workforce participates directly or indirectly in the agriculture sector which is almost half of the total labour participation in Pakistan. However, its contribution to the GDP of Pakistan has decreased from 38.9% in 1970 to 19.3% in 2020. On the positive side, there is a huge potential for the agriculture sector of Pakistan to increase its share in the GDP through productivity enhancement by using modern agricultural technologies. Therefore, goals like poverty alleviation and uplifting the socio-economic structure of a major segment of the population can only be achieved through enhanced productivity through using modern agricultural technologies.

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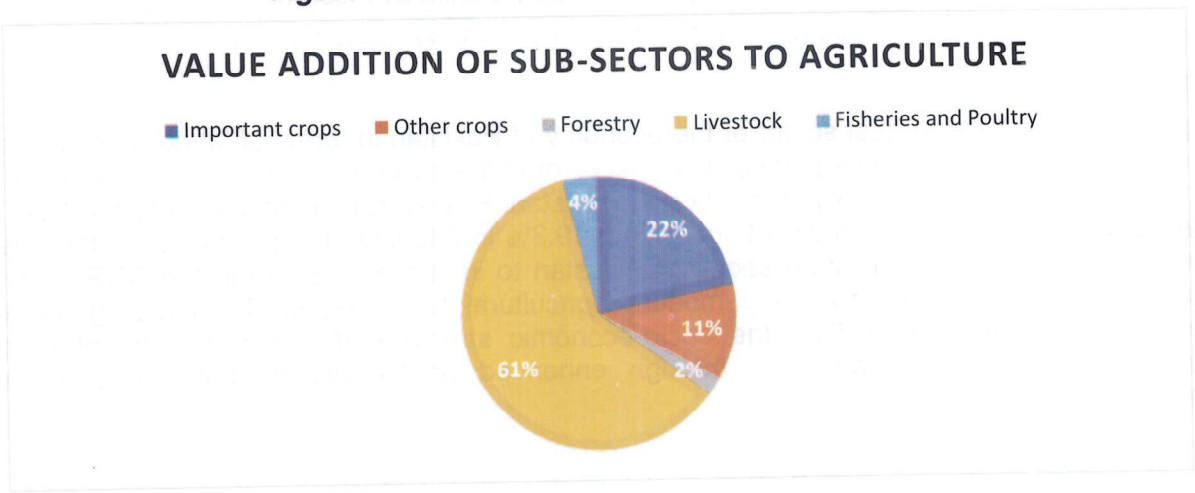
Figure-1: Agricultural share in Pakistan's GDP (2009-2020)



Source: (World Bank, 2021)

Subsectors of the major agriculture sector are **important crops, other crops, forestry, livestock,** and **fisheries and poultry. Value-added** to agriculture from important crops are 22%, 11% from other crops, 61% from livestock (which is the largest value-added subsector of agriculture of Pakistan), 2% from forestry, and 4% from fisheries and poultry combined as shown in the figure:

Figure-2: Sub-sectors of Value-Added Agriculture

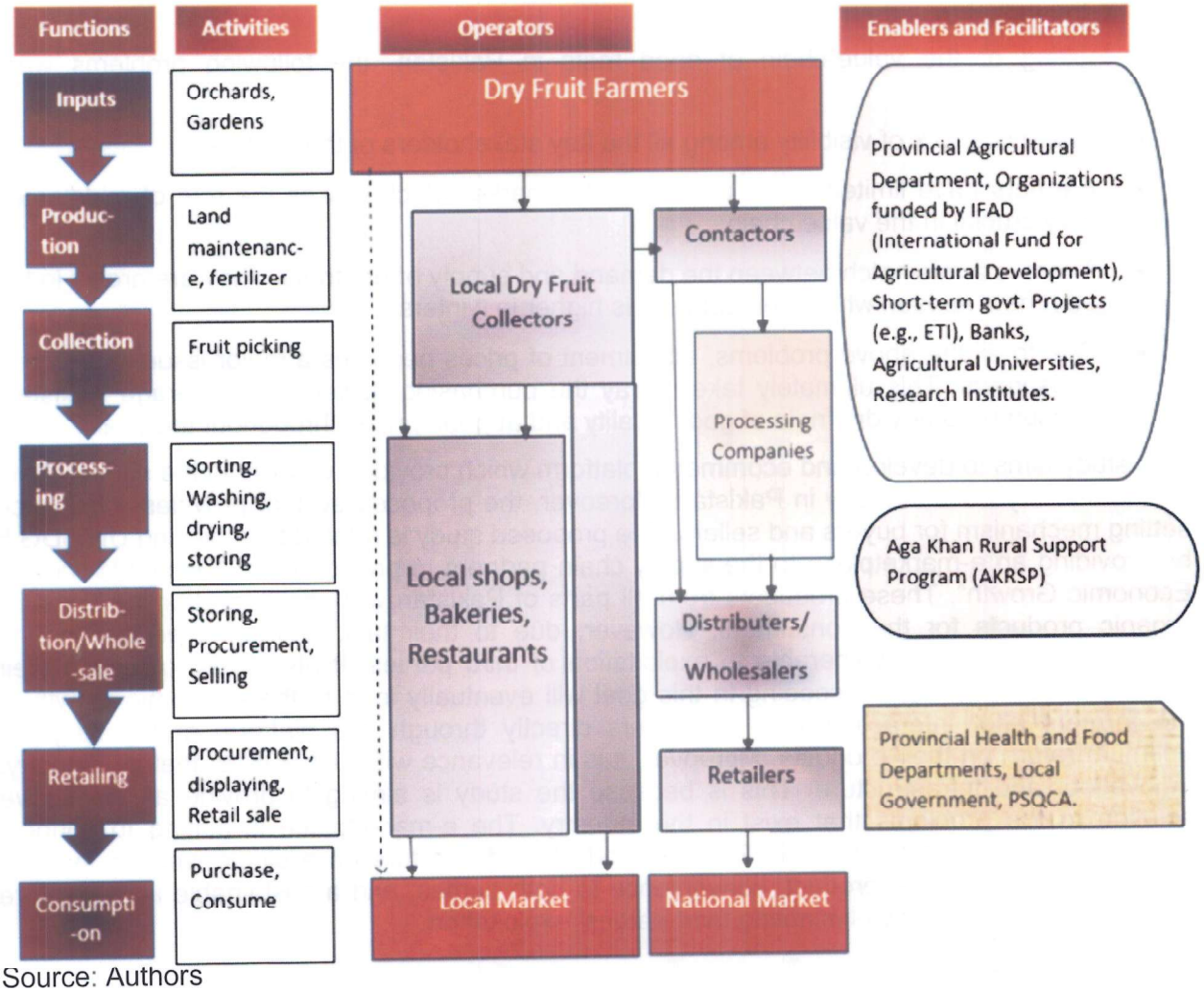


Source: (FBS,2021)

The value chain of dried fruits in Pakistan comprises functions, activities, operators, and Enablers and facilitators. The value chain functions are inputs, production, collection, processing, distribution/wholesale, retailing, and consumption. Activities happen at different functions and can be seen in figure 3. Operators are the art of the value chain of dry fruits in Pakistan. It can be seen in figure 3, the dry fruit farmers produce the product. The produce is shipped through two different channels. The produce either reach the local market or the

national market. For the local market, the product is first collected by the local dry fruits' collectors who then directly or through local bakery shops delivers the dry fruits to the local market. Moreover, the produce is shipped directly from farmers to the local market. For the national market, the supply chain is relatively complex. The produce is taken by the contractors either directly from farmers or through local collectors. The contractors then ship the produce to processing companies as well as distributors/wholesalers. Then, the distributors/wholesalers deliver the produce to the retailers and, ultimately retailers deliver the produce to the national market as shown in figure 3.Enablers and facilitators are shown in figure3 below.

Figure-3: Value-Chain of Dried Fruits in Pakistan



Source: Authors

When the mercury drops, the demand for dried fruits surges and so the hike in prices is evident. Dealers claim that the 'abnormality in supply and demand' of these dried fruits is the actual reason why the prices are skyrocketing. Moreover, the retailers get the dried fruits from the wholesalers in the off-season at high prices and as soon as the temperature drops, the prices surge owing to the high demand. For example, salted pistachios were sold at 1700 rupees per kg to consumers by the retailers and these retailers bought them in Rs.1400 per kg from the wholesalers (Jabri, 2018).

In addition to that, Parvez Jabri also pointed out how the fancy stores offer dried fruits in 'attractive packaging' which further elevates the prices as compared to the local marketplaces

and unbranded dried fruits. Moreover, this uneven supply and demand can be due to the mismanagement of yield, wastage of nuts or inefficient food supply chain thus, thinning the supplies and inflating the demand. As proved by Jabri (2018), the prices of cashew nuts ascended to Rs.1850 per kg from Rs.1400 per kg within a year. Just like that, the price tag for apricots also doubled and peanuts climbed to 10,000 rupees from 7500 rupees per mound in a year.

Furthermore, due to less interaction among key stakeholders of the dry fruits industry in Pakistan, there is inefficient communication among them. Consequently, this leads to high prices and other business problems like a mismatch between demand and supply of the dry fruits in the industry.

After looking at the value-chain of dried fruits in Pakistan, the following problems were identified:

- There is a lack of visibility among all the key stakeholders of the sectors.
- Farmers have limited direct access to the market which makes the role of middlemen very crucial in the value chain.
- There is a mismatch between the demand and supply of dry fruits. They are grown in the summers season while their demand is higher in winters.
- Due to all the above problems, adjustment of prices becomes a major issue for the end consumers. This ultimately takes away the purchasing power of an average Pakistani consumer to buy dry fruits of good quality and at good prices throughout the year.

This study aims to develop and ecommerce platform which provides visibility to the supply chain partners in dry fruits industry in Pakistan. Moreover, the proposed system provides a fair price setting mechanism for buyers and sellers. The proposed study is related to achieving UN SDG 8 by providing an e-marketplace to the supply chain partners to provide them "Decent Work and Economic Growth". These producers from all parts of Pakistan work hard to offer good quality organic products for the consumers. However, due to their lack of market education and experience make them vulnerable to exploitation of third parties. It also aims to reduce their exploitation. Ultimately, succeeding in this goal will eventually lead to the economic growth of the farmers after interacting with consumers directly through this platform and getting the optimum return on their products. Moreover, it is in relevance with UN SDG 9, that is, Industry, Innovation, and Infrastructure. This is because the study is aiming to provide an innovative solution to the problems that exist in the industry. The e-marketplace is aiming to connect buyers and sellers of dry fruits in Pakistan and abroad in future on a single website that will ensure the safety of the product, convenience to both parties, and a sustainable infrastructure for the industry overall by eliminating third parties' exploitation.

Literature Review

The farmers in developing countries like Pakistan are more marginalized and side-lined as compared to the developed end of the world. There is a dire need for the improvement in market performance and creation of 'entrepreneurial culture' in the industry. This addresses the problem of access to the market for farmers in rural areas. Also, the small-scale, naïve farmers often get 'entrapped in the web of the middlemen'. Lacking a direct contact with the end consumers or the national market, the farmers are forced to sell their produce to the middlemen who buy at a significantly lower price than what they charge from end consumers. Consequently, the farmers are denied their right of getting paid fairly for their labour (Parrey, 2021). Moreover, in further studies it is well-articulated that farmers are coerced to bear the heavy burden of risk associated with their agricultural produce. The avid labour invested in the

process of growing their yield is not honoured with value or justice when it is sold in the market (Syed Zahoor Hassan, 2020).

An extensive analysis of the supply chain specific to Gilgit depicted the unfortunate lack of coordination among the actors present in the chain. The situation is further exacerbated due to the dearth of proper infrastructure for facilitation along the supply chain. The study emphasizes on the need of increased communication among the stakeholders so the sector can benefit accordingly. Moreover, there is an intensive mismanagement of the categories that comprise the value chain of agricultural produce in Gilgit. If this chain is studied thoroughly and faulty actors are identified, worked upon, and rectified, an overall positive impact on both the earnings of this small-scale, self-employed farmers and the consumption patterns of the end- consumers (Wiehle, 2019).

Since dry fruit farming is common to a significant number of households in Pakistan, it has the potential positive impact on decreasing poverty level of the household. Pakistan is declared to be the 7th largest apricot producing country in the world with annual production of 170504 tons from over 2.7 million trees (FAOSTAT, 2021). According to (Naseer, 2019), the sector needs to be catered as it can lead to reduced poverty levels in the area. Furthermore, it can make them self-sufficient as well by enabling access to market.

a) Integration of Technology in Agriculture

The advent of internet has brought forward a prodigious transformation in almost every sector whether is it health, marketing, education, or business. The introduction of internet in the agricultural industry has a considerably high potential of bringing a revolution in the sector and enhancing the quality of life of the associated farmers along with augmented financial profits which will eventually lead to an overall growth in the proportion of profits generated by the dry fruit industry in the country's economy. If e-commerce is incorporated in the buying and selling of the agricultural produce, the consequential business practices are aspired to be 'more profitable, transparent, and competitive' (Tumpa Banerjee, 2019). Integration of technology with agricultural sector has indeed boosted the industry and has unlocked new opportunities for the farmers. This transition is enabled through e-commerce which is one of the leading sectors in the world market (Angela Andal-Ancion, 2003). Infrastructure and institutions have played a noteworthy role in the advent of e-commerce but its effect on lowering transaction costs, information, and search costs, and change in market structures have immensely made it more welcomed by people.

b) Transparency and Fair Price Setting

For the geographically dispersed farmers in relation to the end customers, e-commerce can play a vital role in integration of supply and demand (Laha, 2018). A similar market of agriculture in India has leaped exponentially forward ever since the incorporation of e-commerce in agribusiness. This displays a promising potential for farmers to be paid their valued share through the sale of their agricultural produce. They will have a direct outlet where the end consumers can be reached out. With prevalent systems like this, dynamic price setting will be created, leading to smoother transactions(Laha, 2018).

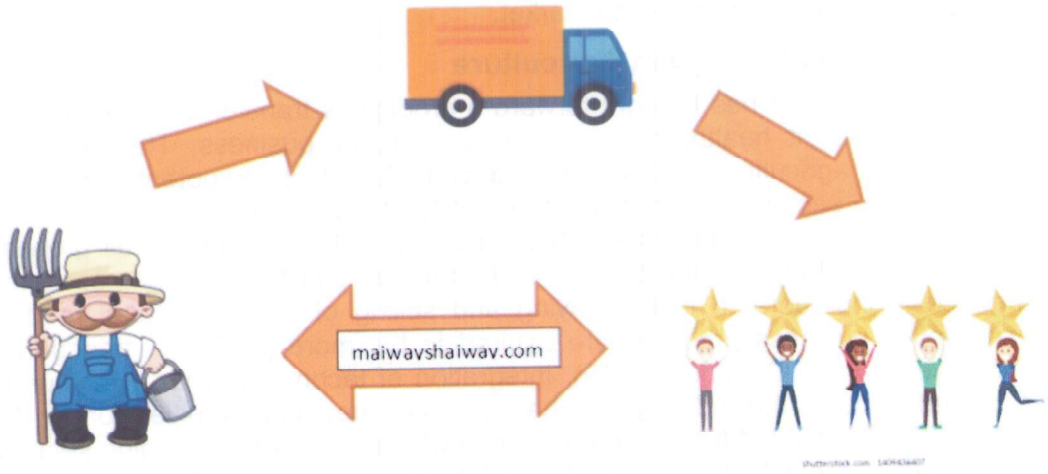
The above developments have enabled their farmers to engage in fair trading. They have also moved towards e-auction platforms which, as proven, increase robustness, transparency, automation, and effectiveness of the business in agriculture. Furthermore, it cuts down transaction costs which also reduces malpractices, overall (Reddy, 2018). From the literature, it is concluded that an amalgamation of technology with the agriculture sector has a myriad of advantages in the economic development of the countries that are extensively dependent on

agriculture. This will lead to smoother and inclusive operations in this sector along with the benefits of conducting fair and transparent transactions. However, this kind of technology in the Pakistani agriculture is still unique and there exists a dire need for extensive research on the topic along with practical applications. The concept is in its preliminary stages at present and only sufficient work and studies on it will lead to progress. The process is time-consuming, but it can exhibit prodigious results for economies that primarily depend on agriculture like Pakistan.

Research Methodology

A basic market research is essential before planning the execution of a start-up idea. This nature of research manifests the phrase, 'knowledge is power' itself by creating awareness about the existing settings and mindset of the market. The research aided us in appropriately defining and gauging the scope, potential and need of the business idea. Market trends and data for the dry fruit sector in Pakistan was also analysed as discussed in the above chapters. A simplified supply chain is aimed to attain through this business idea as evident from the figure 4.

Figure-4: Simplified Supply Chain



Source: Authors

The statistical data for the industry was collected from reputable sources (**as mentioned with the figures**). An assumed **Business Model Canvas (BMC)** was also created to determine multiple aspects of the business beforehand.

The model exhibits the assumed Business Model Canvas which was done in preliminary stages to follow lean methodology. However, owing to constraints discussed later in the report, a traditional methodology was used. The insight of both the suppliers (farmers) and buyers was collected to develop a profound understanding of the market dynamics. For the supplier side, face to face, semi-structured interviews were conducted from farmers residing in one of the villages; Sultanabad of Gilgit city. A sample size of 12 participants, including both the genders was taken who were asked several questions related to their current situation and the proposal of the idea. Similarly, an online survey was run targeting the buyers through social platforms such as Facebook, Instagram, and WhatsApp. 87 responses were recorded through google forms.

Table-1: Business Model Canvas

Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
1. Courier service (TCS/ Leopard)	1. Outsourcing – App/web creation 2. Bidding 3. Smooth transactions 4. Deliveries	1. E-commerce solution 2. Accessibility 3. First-mover advantage 4. Convenience given the lockdown situation due to Covid-19 5. Fresh produce 6. Reasonable prices – cost reduction 7. Protection of farmers and their produce	1. Data confidentiality 2. On-time deliveries 3. Feedback 4. User ratings 5. Quality checks 6. Virtual bargaining through bidding 7. Direct selling and buying excluding intermediaries	1. Elite 2. Upper middle class 3. Farmers
	Key Resources		**Channels**	
	Brand name Patent for business idea Unique distribution channel – app functionality		1. Website 2. App 3. Social Media pages – Facebook & Instagram	
Cost Structures			**Revenue Streams**	
1. App/website development 2. Compensation – In case of fraud and returns.			1. Transactional cost 2. Progressive profit generation	

Source: (Alexander Osterwalder, 2005)

It has been well-developed by the arguments in the preceding chapters that there is an untoward lack of visibility between buyers and sellers. Moreover, absence of fair price setting is obstructing the potential progress of dry fruit sector in Pakistan. Both the concerns are addressed by the methodology adapted by Maiway Shaiway. For the enhancement of price visibility, an e-marketplace in the form of a website initially and then an app is constructed. This e-market will bring both the suppliers and consumers on one platform. This will reduce the dependency of end consumers on middlemen and in future, exploitative middlemen can be eliminated from the supply chain of dry fruits, creating a direct contact between sellers and end consumers. The sellers will be able to display their products through multiple pictures. They will also be upfront with the quantity available to be sold. This will enable the customer to gauge the quality and reliability of the seller. Moreover, as the volume of transactions increases with time, ratings and reviews of the sellers will further boost the visibility from the supply side for consumers.

The second goal is to create a fair price setting mechanism for the dealing of dry fruits. The e-platform will ensure this aim is being met. The seller will create a listing with their product. This

listing will comprise of the amount of product offered by them along with the respective prices for the specific amounts/weights. It will be opened for a specific period, selected by the seller, for e-bidding. Moreover, they will determine a 'reserve met' price below which the transaction will not occur. Hence, if a listing's reserve met price is not matched or exceeded, the listing will be removed, and no transaction will be placed. The seller will have to re-enter the product. This will be the e-auctioning or e-bidding placed forth by the seller.

A concept of reverse auction is installed in this business idea to ensure fair price setting. The buyer will view the listing and have the options to either buy now, add to watchlist without placing a bid or placing a bid. Choosing the option of buy now follows the conventional e-commerce transaction mechanism. Having a listing added to watchlist will shift the listing to the watchlist tab so the buyer can observe ongoing biddings on that listing. If the buyer places a bid, they will put forward a price suitable to them with the specific weight. The bidding will continue until the period of the listing is complete. The seller will choose the bid most suitable to them and it will be awarded to that buyer. This mechanism ensures that price is set fairly with both the input of the buyer and seller. An elaborate framework of the mechanism is attached (Appendix B).

Proposed Solution

The study is aiming to solve the problems identified through a website named Maiway Shaiway. It will provide a safe and convenient space for parties at both ends of the supply chain, that are buyers and sellers. We are trying to provide B2B as well as B2C services. Throughout Pakistan, B2B or B2C sales will be possible.

This section will provide step-by-step explanation about how the website will work for both buyers and sellers. It will also explain how pricing setting mechanism on Maiway Shaiway will solve the high prices issues that persist throughout the value chain through its innovative pricing mechanism that will incorporate e-bidding. The concept of e-bidding is explained already in the report. Moreover, this section will provide an insight to the features of the website that collectively aim to solve the issues of all the stakeholders in dry fruits industry of Pakistan.

a) Sellers

The seller will place items on the dashboard with a deadline in days. The buyers will have the option to bid on the items within the given deadline. The offer expires whenever the deadline ends. The sellers will have my products tab that will show a particular seller's all products and those that are active for bidding. The sellers will have 'My Sales' along with the products.

b) Buyers

The buyers will add the product to their watchlist. For example, ten people bid on a product, it will mean that the product is added to their watchlist. One product on a dashboard can be bought sold multiple times. Transportation of the product will be decided by both parties, later we will be providing the delivery services through contracting with delivery services. Buyers will have the option to see products in their watchlist. Along with the watchlist, the buyers will have the option to see 'My Purchases' in the history.

c) Pricing

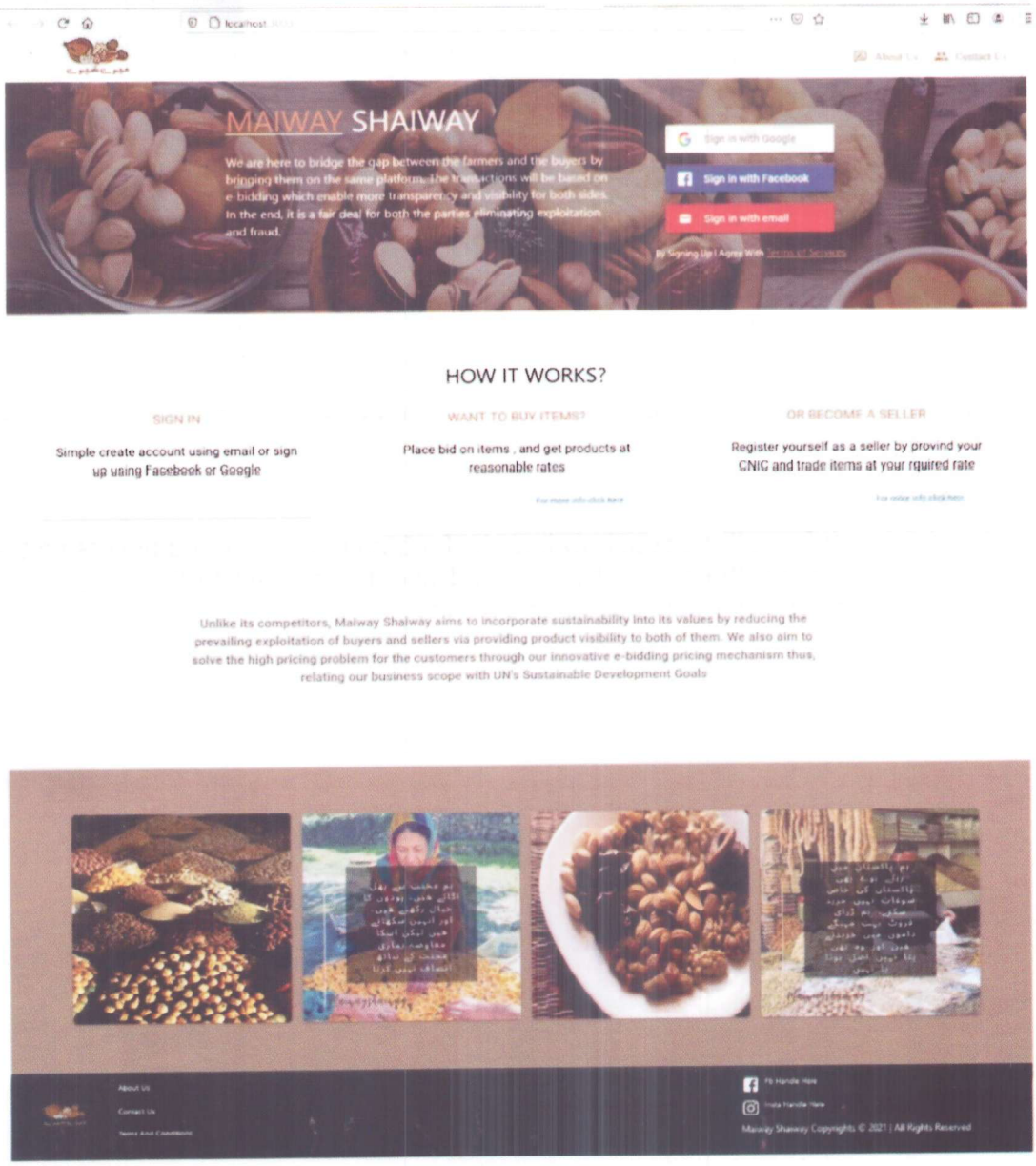
Price's determination will be through bidding. Product created and activated by suppliers. Buyers will have the option to bid on the product. Product will appear in the search. Start bid price, reserve price, and so on. If reserve price does not meet, the bid will restart. Discounted price for bulk. Buy now option as well as bidding option on

products. People will add the product to their watchlist, and the bidding process will start. Reserve price will be set by the seller. However, if the reserve price is not met then the seller will not be charged the transaction fee and they will be able to activate the product bid again. The letting or transaction fee will be deducted from the wallet of the sellers who log in to our platform.

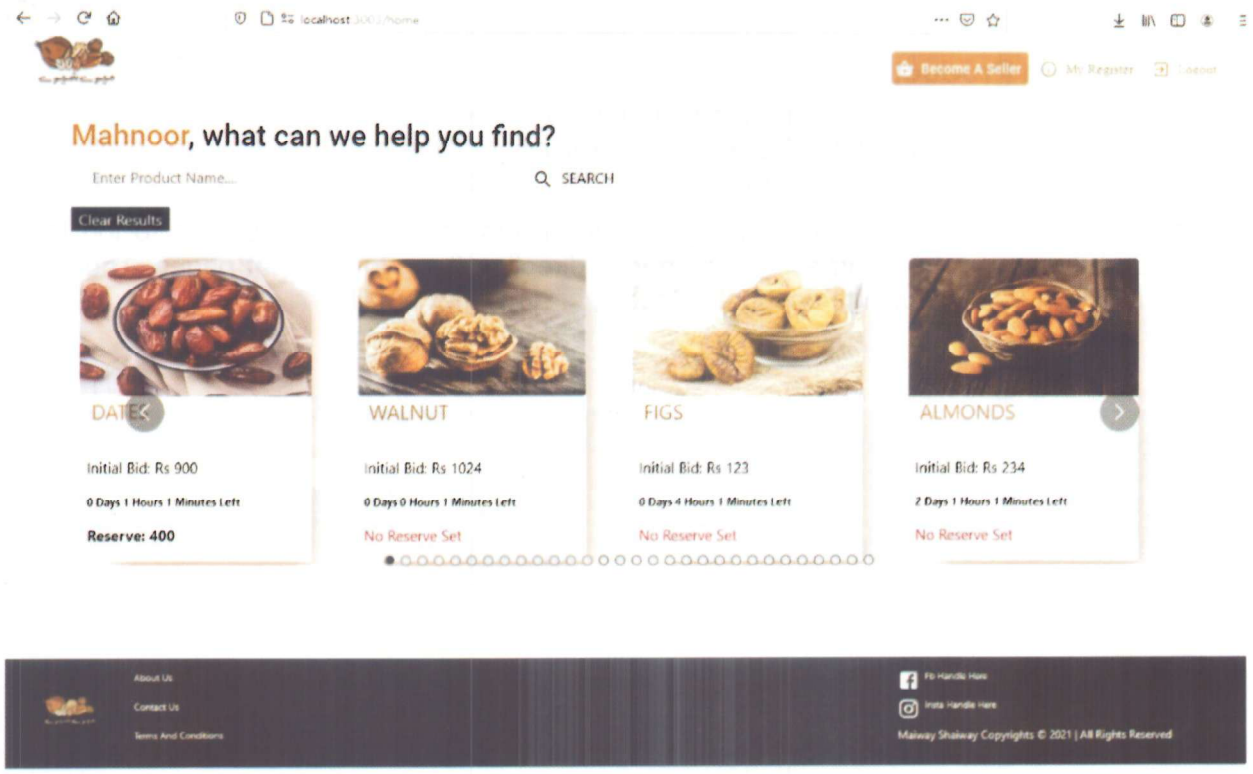
d) Platform Product

Our product is a platform product that aims to solve the issues that persist in dry fruits' supply chain in Pakistan. We will not any liability of the products that are exchanged between the buyers and sellers.

The landing page is different for both buyers and sellers. It enables the buyers to log in as buyers and the sellers to log in as sellers, hence directing them to different pages. The users can log in on the website using Facebook, Google, or any other email.



The sellers will upload their offerings i.e., the product, along with the bidding price, and product pictures, which the buyers could choose from, as seen in the picture below.



How it Works?

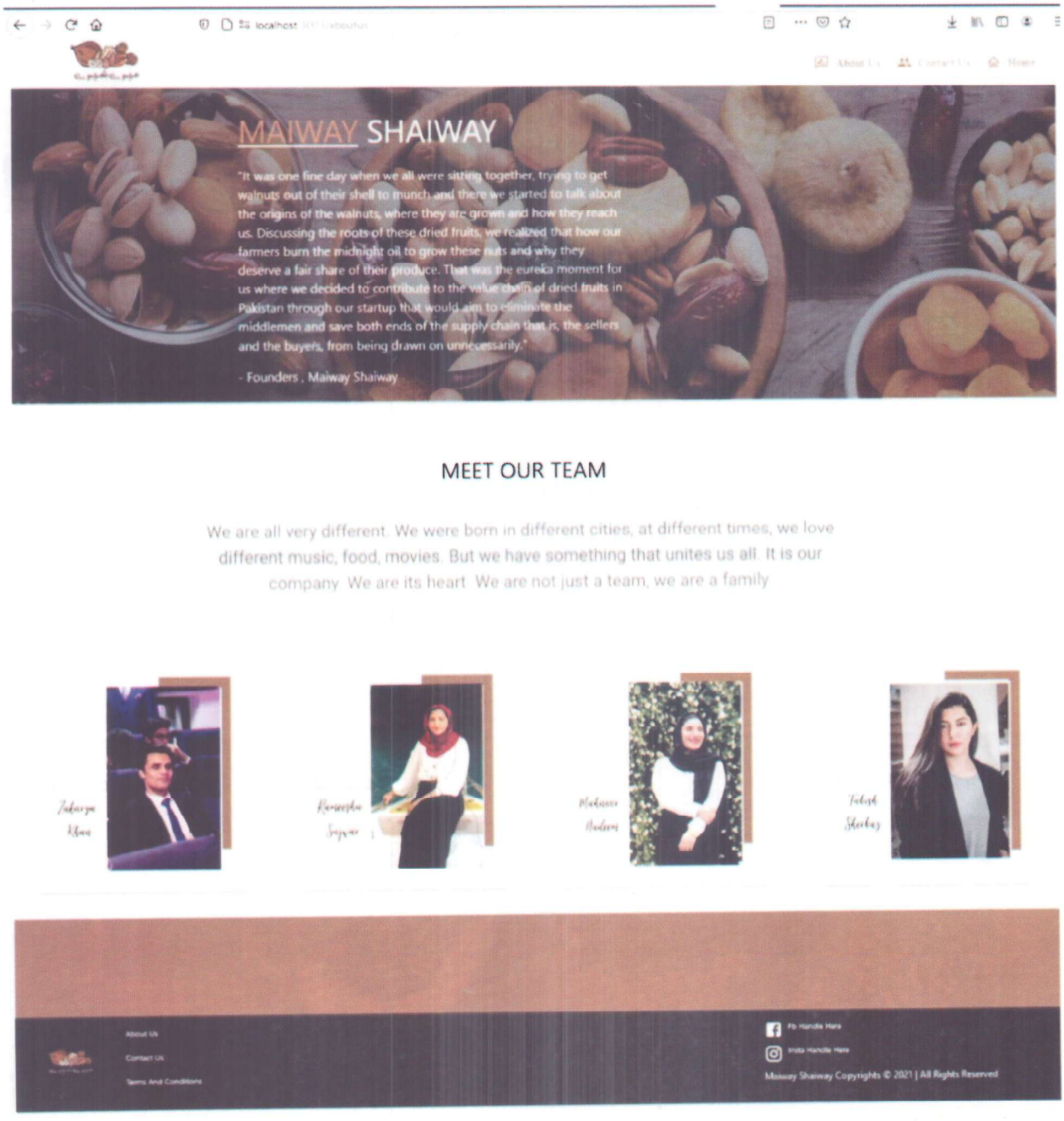
The website also has information about how it works for both the sellers and buyers so that they can navigate easily through the relevant pages and use it according to their requirements. It provides detailed information for both buyers and sellers.



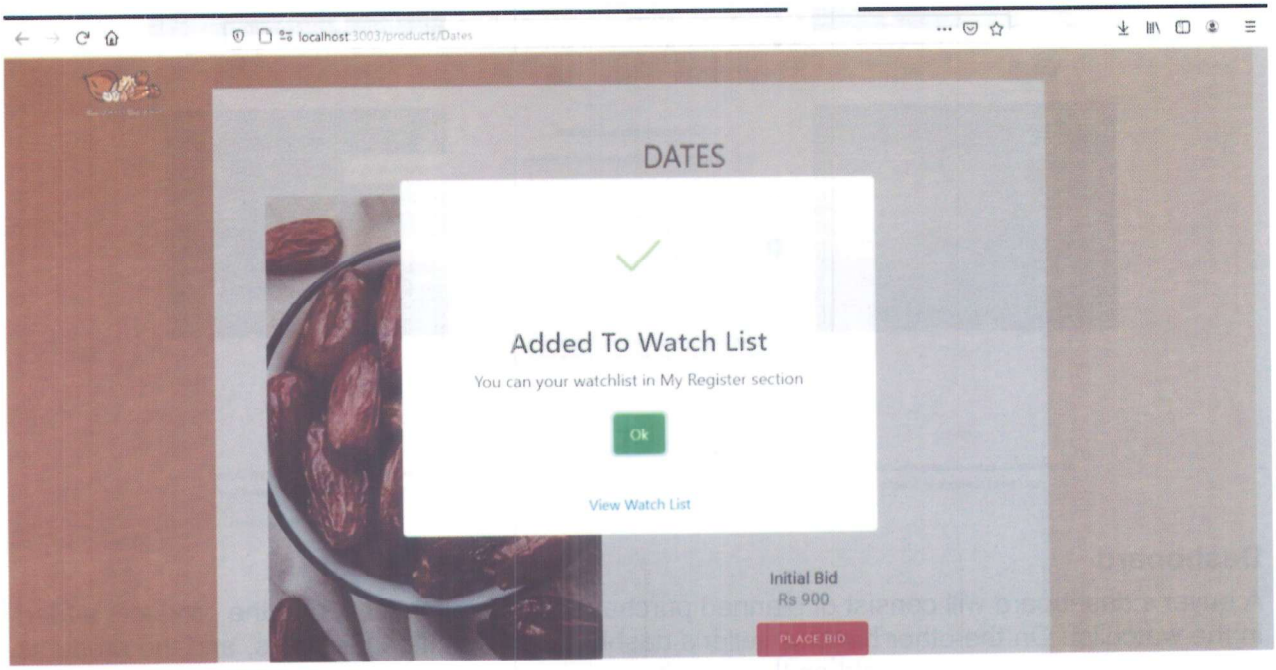
About Us

Although Maiway Shaiway's team is diverse in terms of geographical locations, interests, hobbies etc. but our company is something that unites us, and we work diligently towards the goals that we have set and the vision that we have for Maiway Shaiway. Our team consists of

four members who can be seen on the website too, in the "Meet our team' tab. A brief introduction about the team has been given on the website so that the users can familiarize themselves with the people behind Maiway Shaiway which will help them build a family-like bond with us and promote good customer relationships.

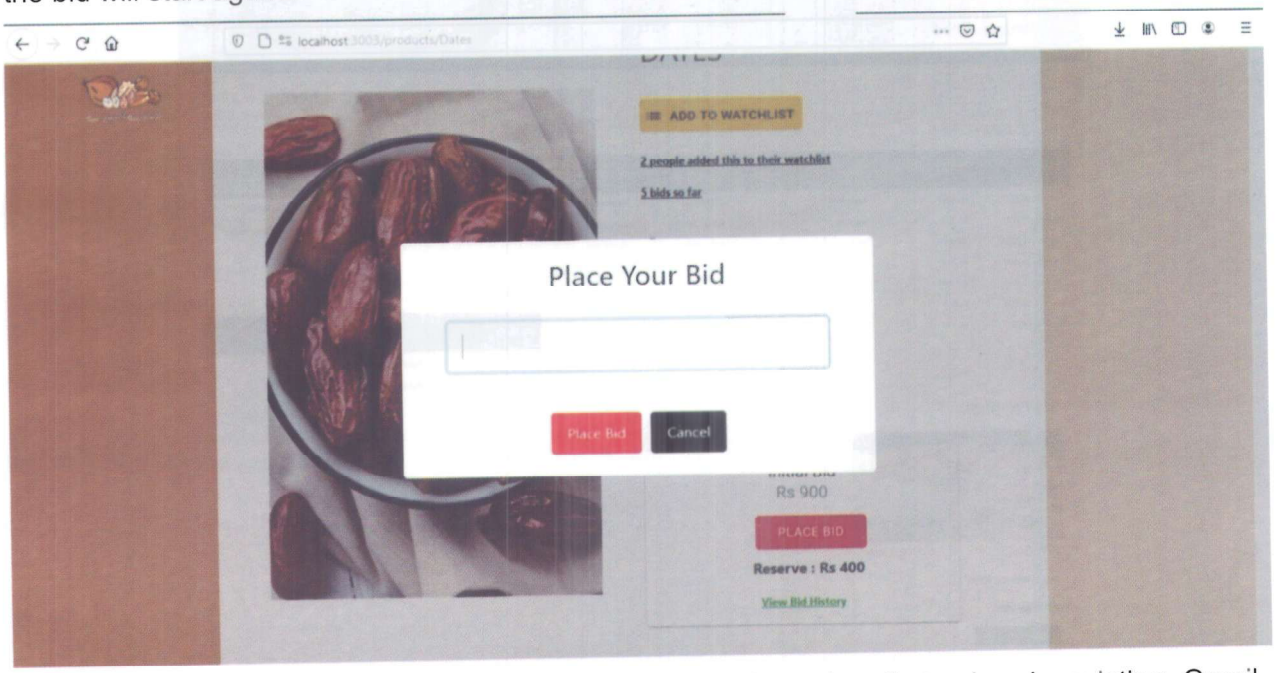


There will be a watchlist for the buyers where they can add the products that they want to buy. This will help them stay updates about the products that want to buy.

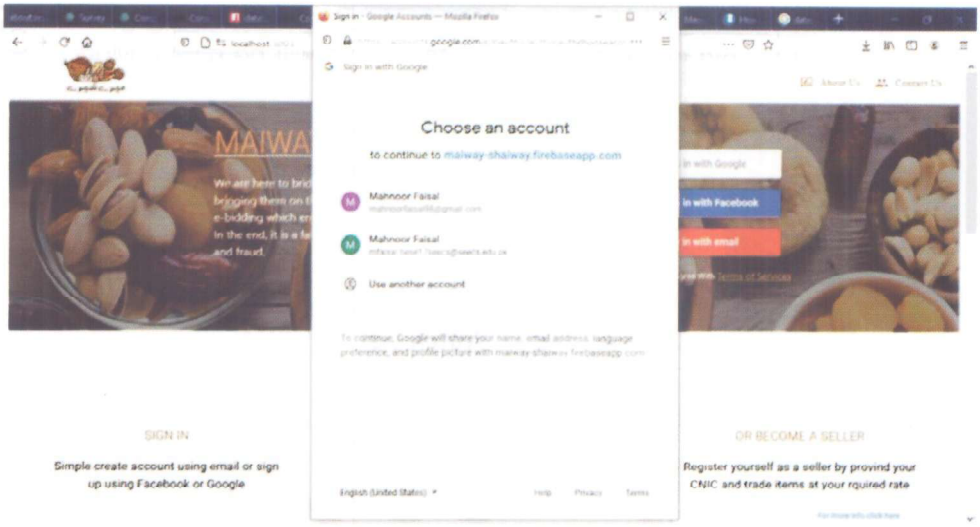


Placing a Bid

The buyers will be able to place a reverse bid and the sellers will be able to place a reserved bid for the buyers. If the price set through the reserved bid is not provided by the interested buyer, the bid will start again.

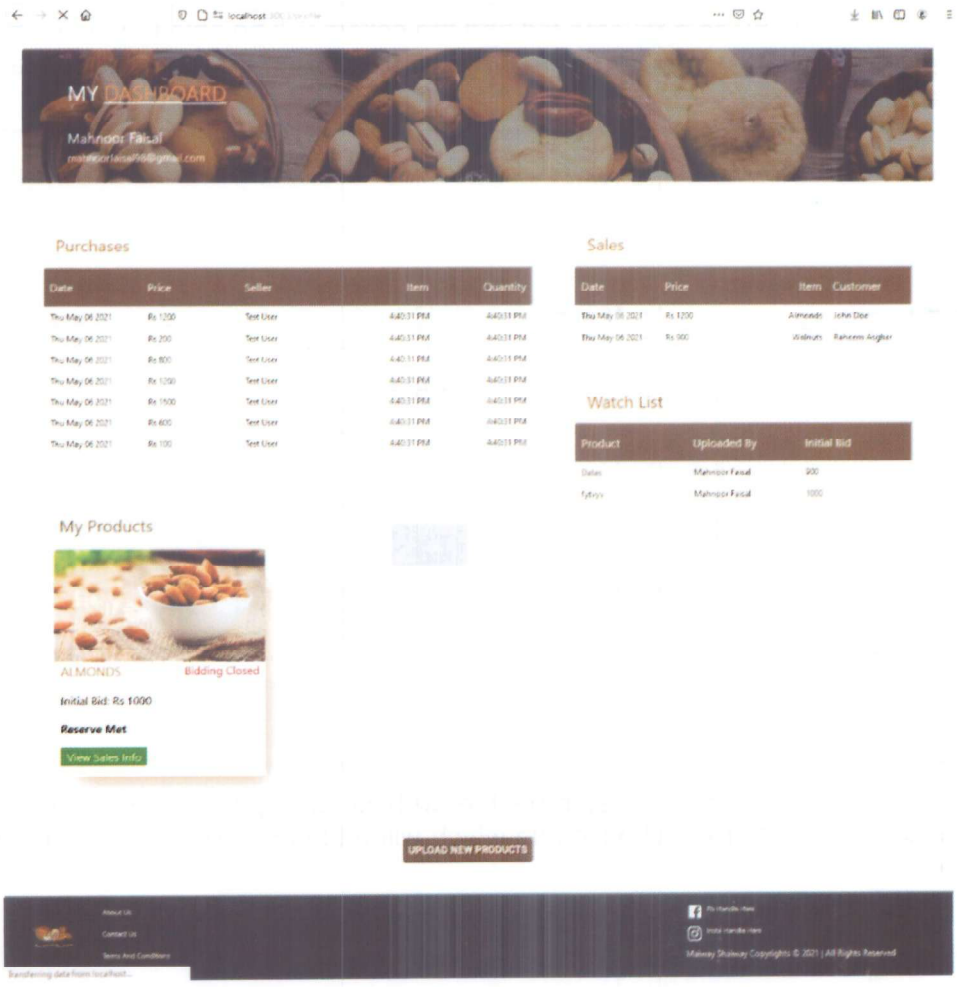


Both the buyers and users can register on the website using their already existing Gmail accounts, Facebook, or other email accounts which will add convenience to the entire process for buyers and sellers.



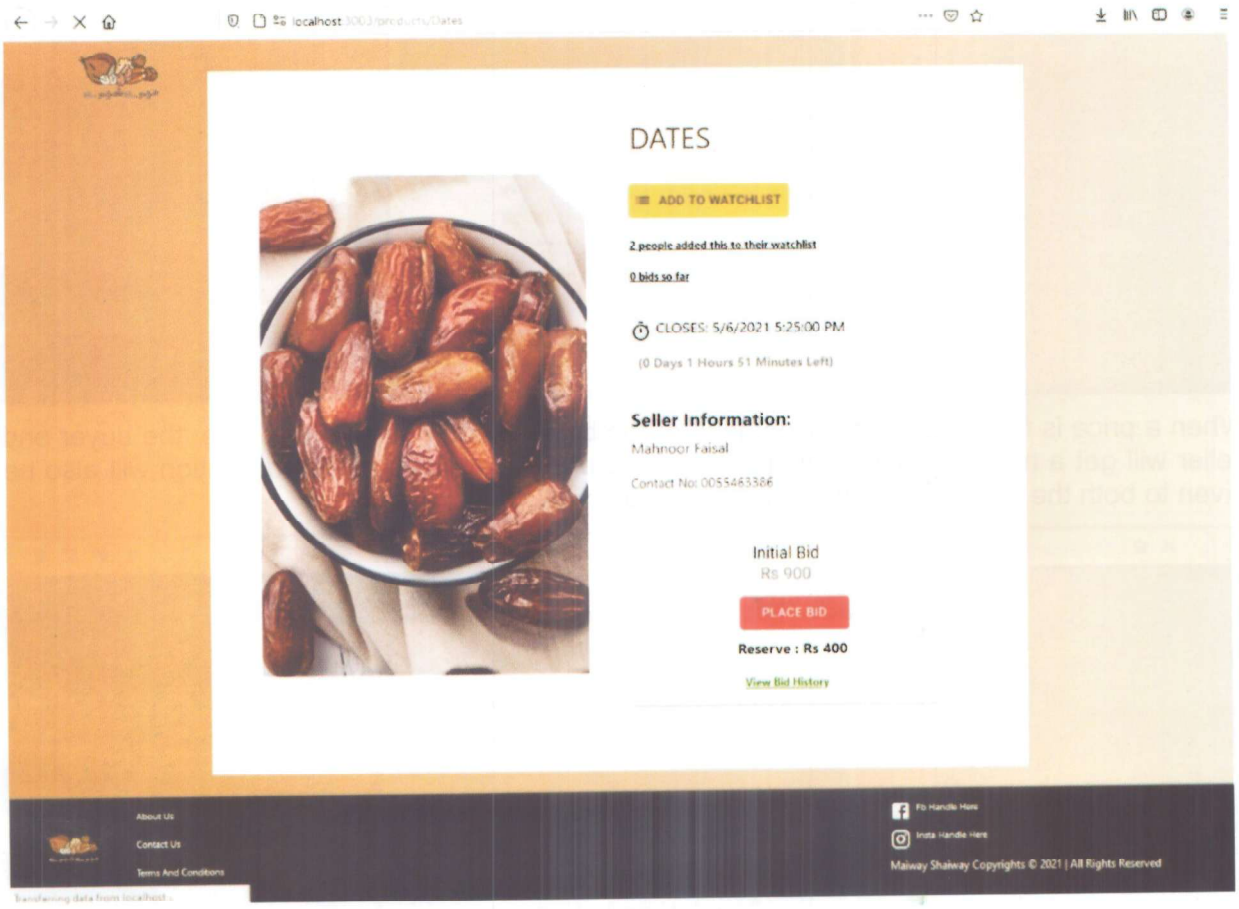
Dashboard

A buyer's dashboard will consist of planned purchases, past purchases, and the products added in the watchlist. On the other hand, a seller's dashboard will contain the sales, and the products that he/she has put up to be sold on the website.

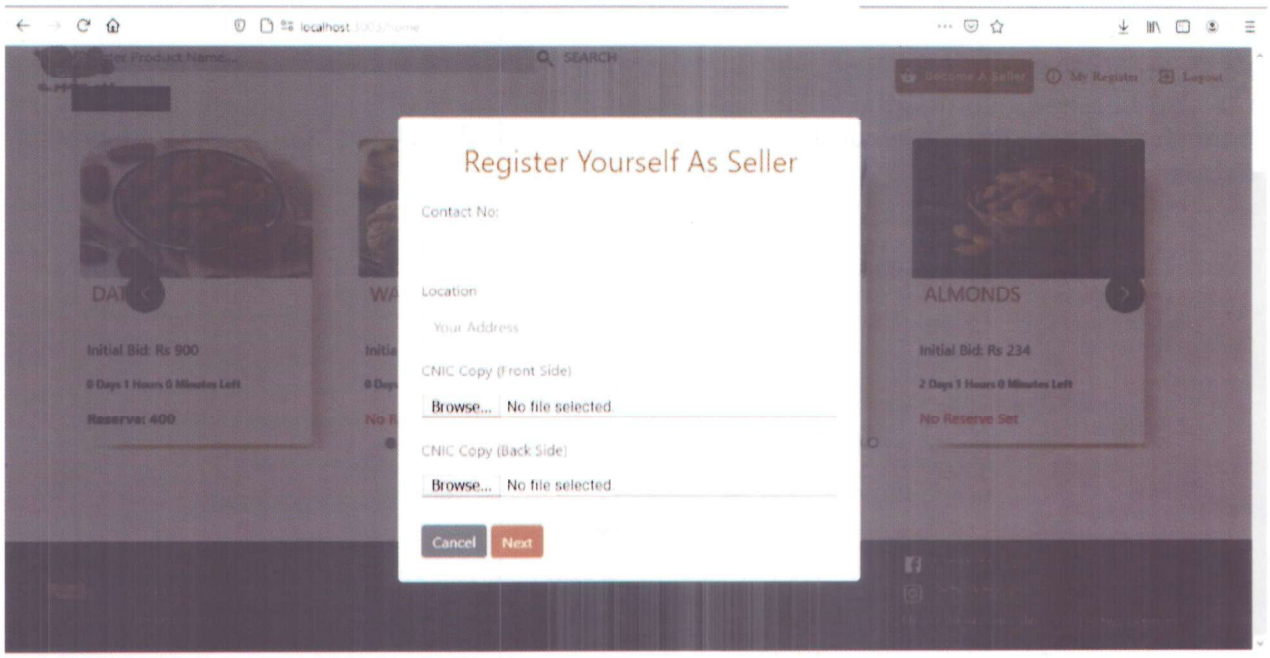


Product Details

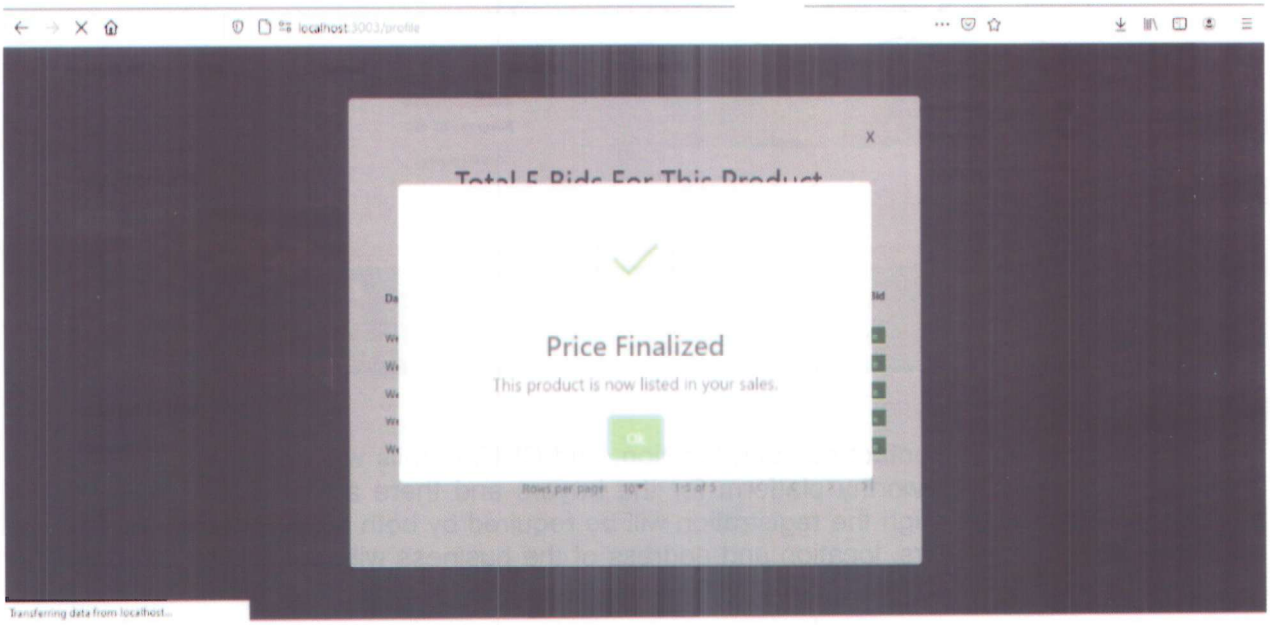
For each product, a picture, bid price, and seller information will be given. Moreover, bid timing will also be shown so that the buyers are aware of the timing when the bid will expire. Apart from that, the ongoing discounts and packages will also be shown along with the product details.



To register as a seller, contact number, location, and CNIC details will be required so that our website becomes a trustworthy platform for the buyers and there are no frauds by both the sellers and buyers. Although the registration will be required by both buyers and sellers but if a business member registers, location and address of the business will be needed. On the other hand, it will not be needed for individual members.

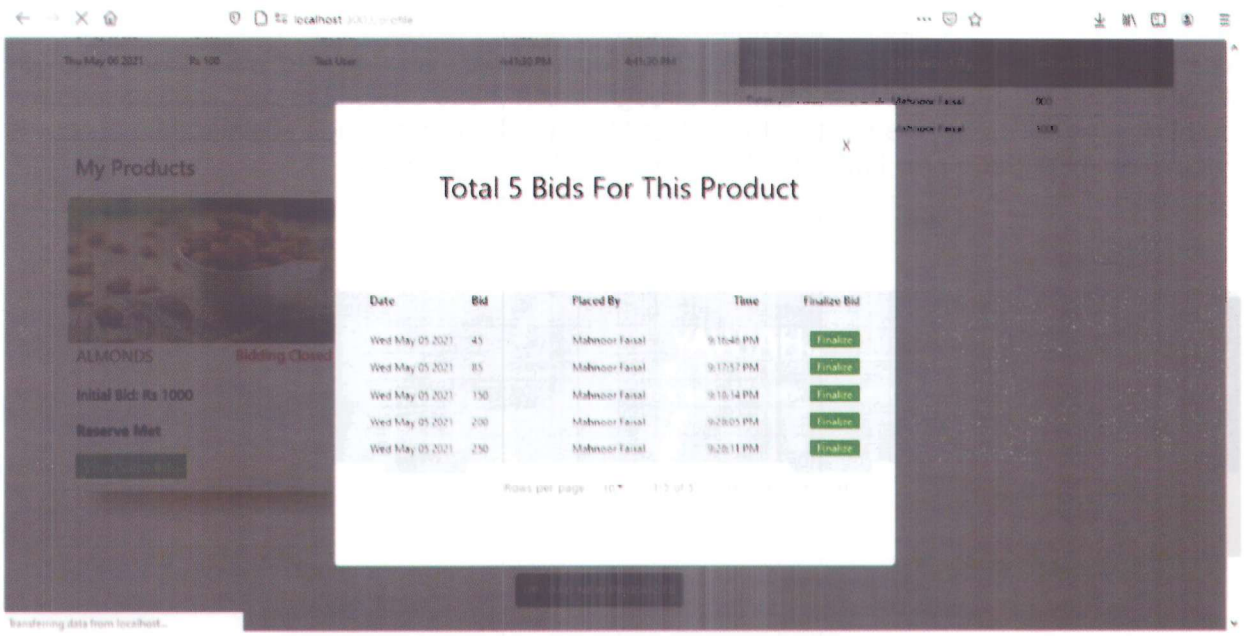


When a price is finalized upon acceptance of the bid price from the buyer's side, the buyer and seller will get a notification informing them of the price finalization. This notification will also be given to both the parties through their registered email.



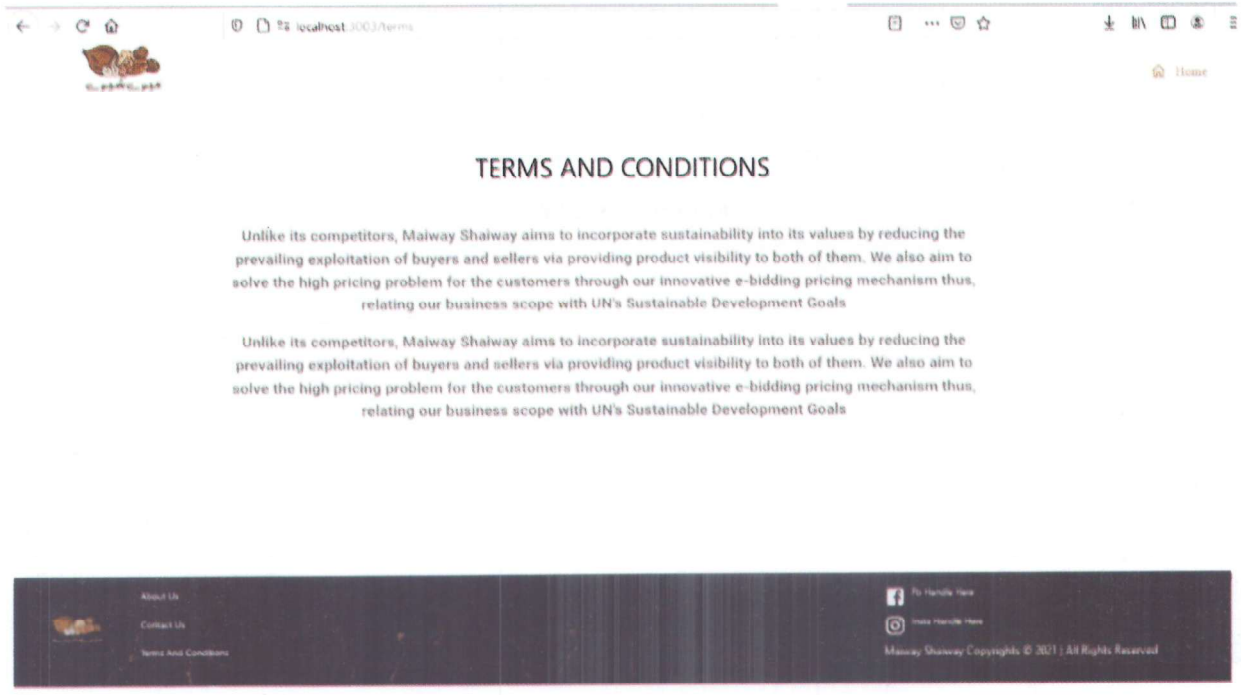
Final Sale According to the Bids

The number of bids placed for each product by different buyers will be visible to both the buyers and sellers which will help the seller in choosing the buyer that he/she is willing to sell the product to. Similarly, this information about bids placed by different buyers will help the buyers in deciding upon their bidding price given the price offered by other buyers who are interested in buying the same product.



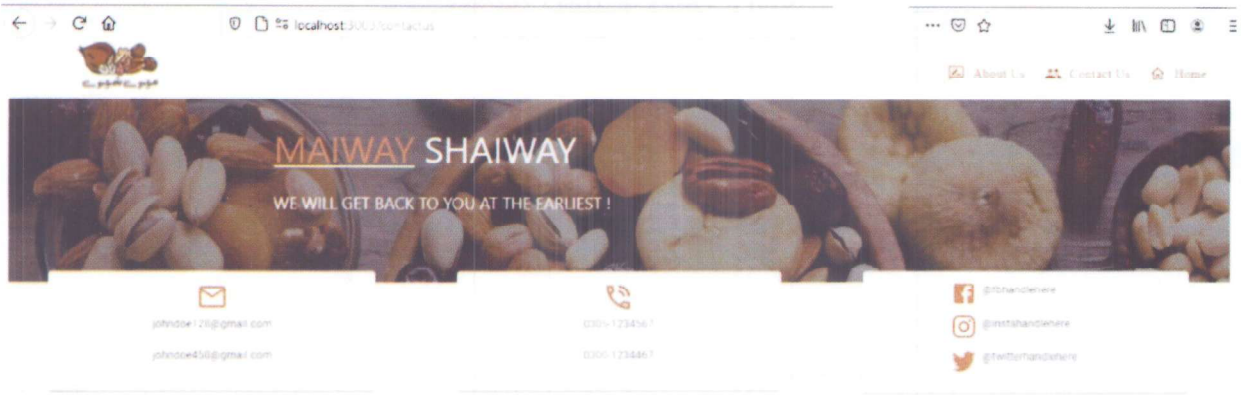
Terms and Conditions

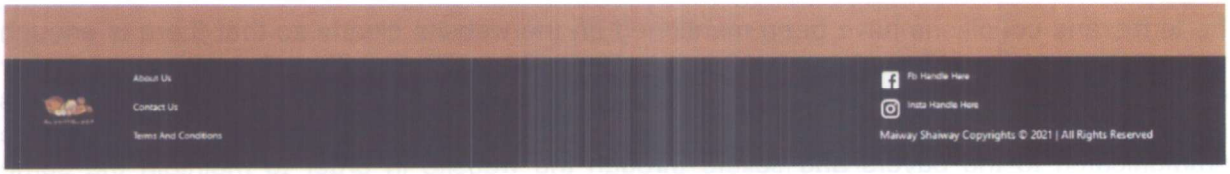
The terms and conditions have been mentioned on the website clearly so that there is enough transparency for the users. However, these terms and conditions will evolve over time as our goals will expand. Maiway Shaiway aims to expand its business in future which is why the terms and conditions could also change. We will make sure that these terms and conditions are communicated to the buyers and sellers through the website in order to maintain the same transparency that we have been keeping from the beginning.



Contact Us

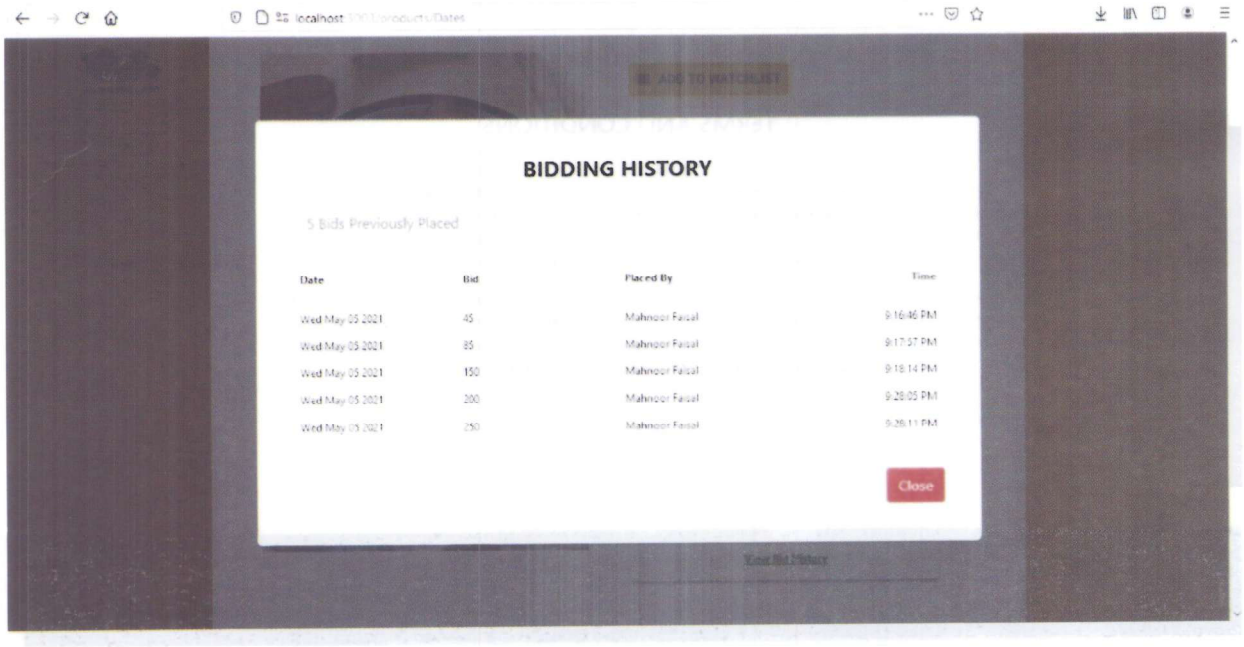
In order to maintain good relationships with the customers and interact with them, Maiway Shaiway has provided the contact details through which these customers can connect with the company. The users have an option to contact Maiway Shaiway through social media accounts (Facebook, Instagram, and Twitter), official email, and phone number.





Bidding History

A bidding history will be available to both the buyers and sellers to keep track of the previous transactions.



To commercialize the solution offered and to gain traction, attract and engage maximum number of customers for Maiway Shaiway, it was necessary to market it exceptionally and creatively through several platforms and different methods within the platforms. For that purpose, the first hit has been the most commonly used, well-known social media websites; Facebook and Instagram (links attached in Appendix A). Several tactics and marketing hacks were used to maximize reach.

The primary step of the marketing plan was to design and outsource the company logo. Gathering ideas about and deciding upon the visuals, colour combinations, and fonts initially elongated the planning and designing phase due to the clashes in preferences. Soon after, a professional graphic designer was contacted through a personal reference who came up with combinations best suited to the business and for marketing purpose, which were approved by the team. Once the company logo was finalized, the marketing team started working on the social media pages, creating hype for the logo reveal. The team created content from scratch making sure the posts' aesthetics were appealing to the audience, with the theme, colours, and fonts consistent with that of the brand sign.

After gaining traction, the team then worked towards spreading awareness about the aim of Maiway Shaiway using visuals, quotes gathered from farmers and buyers through interviews, and factual data. Evidence against how farmers and buyers both are exploited by middlemen was put ahead with details of how Maiway Shaiway is working towards improving visibility of the supply chain and offer better value for money with an innovative idea of bidding.

Moving a step ahead, focus was then put on making Maiway Shaiway's customers mindful of the health benefits different dry fruits have. In order to save the information, it wasn't only posted on the pages, but for viewer's ease and convenience, a separate Instagram highlight named under 'Know the benefits' was created where content related to different dry fruits is regularly uploaded. A special emphasis was put into engaging Maiway Shaiway's followers through questions in captions, stories, and Instagram hashtags, and entertaining their queries by being available most of the time. Frequently used hashtags like eat healthy, dry fruits, e-commerce solutions made the posts available to the wider community and easier to find while hashtag Maiway Shaiway helped the platform market its own brand identity. Throughout the marketing process, a consistent brand picture has been displayed on the two applications. To further boost the reach, an effort to engage individuals has been made by sending links and content in several WhatsApp and Facebook groups. Our product: maiwayshaiway.com's beta version is ready and will soon be available to go live on our social media channels once the testing is done. Although the website is in its initial stages with a minimal feature set, all the tools essential for its smooth functioning have been incorporated. Furthermore, to educate and help the customers, the team is currently working on an animated tutorial video about the registration process and working of the website.

Although limited finances in hand and the current lockdown situation has restricted Maiway Shaiway to only social media applications for active marketing, we do realize that it will be difficult to break off from the shackles of the virtual world even after the pandemic. Today, where virtual technology is deeply rooted in our daily lives, Maiway Shaiway plans on benefitting from it to increase its reach and scope by push promotions and target advertising in future. Tools like Google trends, and Facebook Insights are believed to give an upper hand in articulating promotions.

The team also plans to visit farmers in the Northern parts of the country including Gilgit, Hunza, and Swat valley once Covid-19 is under control and lives move back to normal. The physical interaction and targeting would mainly focus on spreading awareness about how the business model works, and to get farmers registered given the benefits provided to them. In order to stir a

sense of trust among our customers, we plan to carry out a beta test for our website. For that purpose, a small group of individuals will be given access to the site to carry out the feasibility test and check ease of use. They will also be encouraged to make small purchases through the platform and contact farmers directly. Once done, their reviews and feedback will be posted online and saved as highlights. Where many show resistances to online purchasing of dry fruits, the positive reviews given by our initial customers will reassure the new ones, developing enough confidence for them to place their orders through the platform. Lastly, collaborations with logistic companies like TCS, and Leopard courier will not only ensure smooth deliveries, but also provide both brands access to each other's' customer base, capitalizing the competencies of both the parties.

Operational plan is a preeminent and a central part of the business plan where the company's vision, mission, goals, risks and financial study ions are aligned so the operations can be carried out smoothly and effectively. Such planning keeps all the members of the team running the company on the same page and highlights the changes on every step that can be made to improve the efficiency of the business. The mission, the vision, and the values of Maiway Shaiway highlights the strategic importance of this e-marketplace for dried fruits. The mission itself dictates about the concept of direct and fair trade, along with the right of the sellers to be provided with the fair share of their hardwork without being exploited. For that, the company incorporated active bidding into its business model that leads to a business innovation and gives us the first mover advantage. The vision of the company narrates the overarching, long term goal that Maiway Shaiway aims to achieve through improving the supply chain of dried fruits in Pakistan for the greater good of both ends of the supply chain along with shaping the economy of Pakistan.

Future Expectations

Maiway Shaiway aims to design a functional application for the business model as soon as the company would achieve substantial income levels so that it can afford to hire IT experts who would manage the app activities and protect the website and app from bugs and glitches. The app and the web would embed intelligent software for marketing analytics and data mining that would help us in forecasting, interpreting consumer behaviour patterns and consequently, assist in decision-making processes required for the accurate and precise execution after decoding the insights. In addition to that, a B2B level procurement would be incorporated into the website design as an upgradation, where request for proposal and reverse auction would be introduced to serve bulk orders. As soon as the company attains grip on the transaction-based revenue model, it aims to generate revenues from ads posted on its website. On average, 1000 clicks per day on an ad posted on the website would give $450 monthly. This equals to $5400 every year through ads clicked on maiwayshaiway.com which means a revenue of 823,271 rupees would be generated every year. These revenues generated through advertising can cover upto 55% of company's expenses every year, thus, increasing the net earnings by 35%.

Maiway Shaway intends to incorporate the payment options that are widely available in Pakistan such as UPaisa, JazzCash, EasyPaisa for now. These financial services are convenient and accessible across the country which would ease the process of payments and transactions smoothly. In future, with stronger infrastructure and financial and human resources, the company would also introduce debit/credit cards services too. The Escrow listing would ensure collection of the transaction fees without any security concerns hence, making the website and app stand out among the competitors.

After winning the dried fruits buyers and bridging the supply and demand gap in the dried fruits supply chain, Maiway Shaiway would be introducing more product categories such as various types of organic honey, natural oils, organic jams etc., to the list and secure these products'

supply chain in Pakistan too. This can also attract the international markets which demand the organic products in their regions, thus contributing to the exports of Pakistan and hence, the economy.

Conclusion

Pakistan being a producer of various dried fruits faces issues of irregular demand and supply of these dried fruits, which inflates the prices of these commodities. The price increase is witnessed due to the farmers relying on the middleman to sell their stock as they lack knowledge and experience. The farmers are exploited by being underpaid as well as the consumers facing skyrocketing prices of these dried foods. Therefore, over ecommerce platforms maiwayshaiway.com proposes the objectives of providing visibility to buyers and suppliers and develop a price setting mechanism for them. As illustrated from the past literature too, Pakistan's dried fruit supply chain requires integration of technology and innovation with agricultural sector via ecommerce to provide the fair share of farmers and consumers. The methodology adopted to achieve enhanced price visibility and fair price setting mechanism is to create a web page that could reduce the dependency of end consumer on the middleman and incorporating e-bidding to set the prices so, both the sellers and buyers are satisfied, respectively.

The web design of Maiway Shaiway is a solution to the objectives derived from the gap witnessed in dried fruit supply chain. The website is developed in a way where it provides a virtual space to both buyers and sellers to perform transactions in a transparent and fair way by following the terms and conditions of the website given. The business plan dictates the marketing, operational and financial plans that need to be executed to achieve the objectives while adhering to the UN's SDGs. The unique selling points of our company include pricing mechanism, first mover advantage and hybrid model in nature which positions our product (the website), pricing (hybrid model), placement (Northern areas production) and promotional activities (social media and WOM). The marketing plan focuses on the branding via logo design and team selection, spreading awareness about product benefits through the social media platforms. The operating plan includes the KPIs that are established to gauge the price and product visibility, customer acquisition and retention, and satisfied buyer and seller base on our website.

The plight of farmers is the risk they bear and the web of middlemen in which they are entrapped. In addition to that, the research also illustrated a lack of coordination, communication, and mismanagement in the dry fruits supply chain of Pakistan. Team Maiway Shaiway not only researched on the source of these problems that are rooted in the value chain but also proposed the solution in terms of an effective web design that would not only disentangle the quandaries but also add value for the stakeholders in the dry fruits supply chain; building a transparent and fair system across Pakistan in providing dried fruits by empowering the producers and benefitting the consumers, along with eliminating barriers via e-bidding system and fair price setting mechanisms integrated within maiwayshaiway.com. There were two main limitations of this research which the team faced. Firstly, time constraints that were experienced due to our study being initiated and researched upon in between the pandemic. Secondly, limited financial budget which acted as a constraint in developing the website. Moreover, limited customer reach, scope and promotions were also a result of curbed marketing plans owing to the financial constrictions the team encountered.

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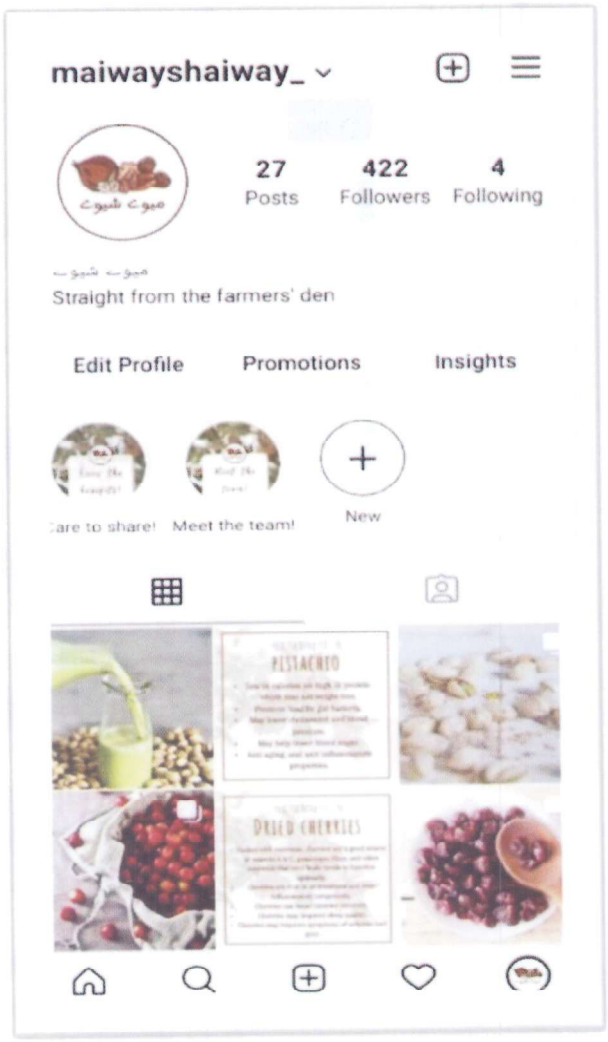
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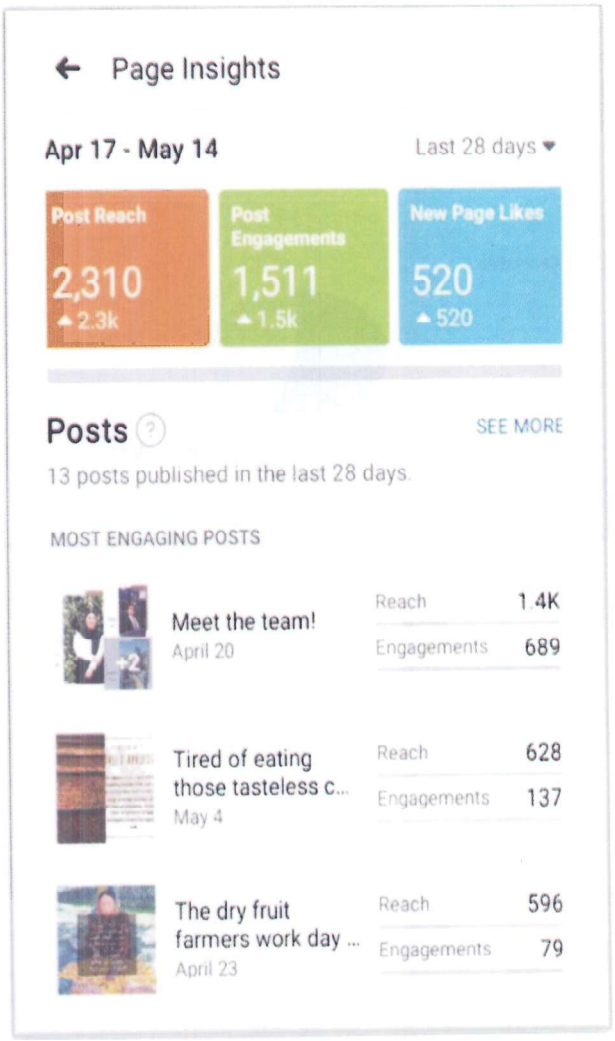
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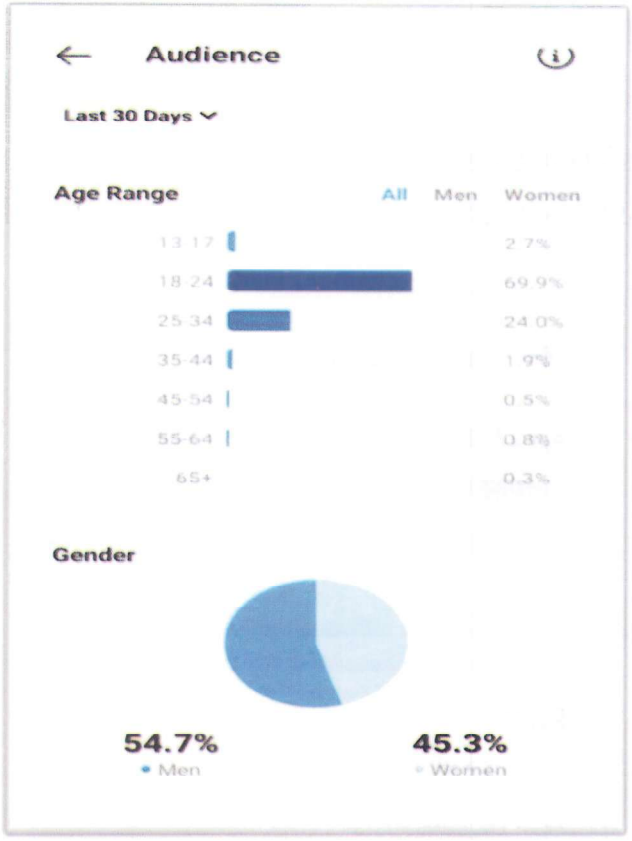
APPENDICES

Appendix A: Social Media Links and Insights

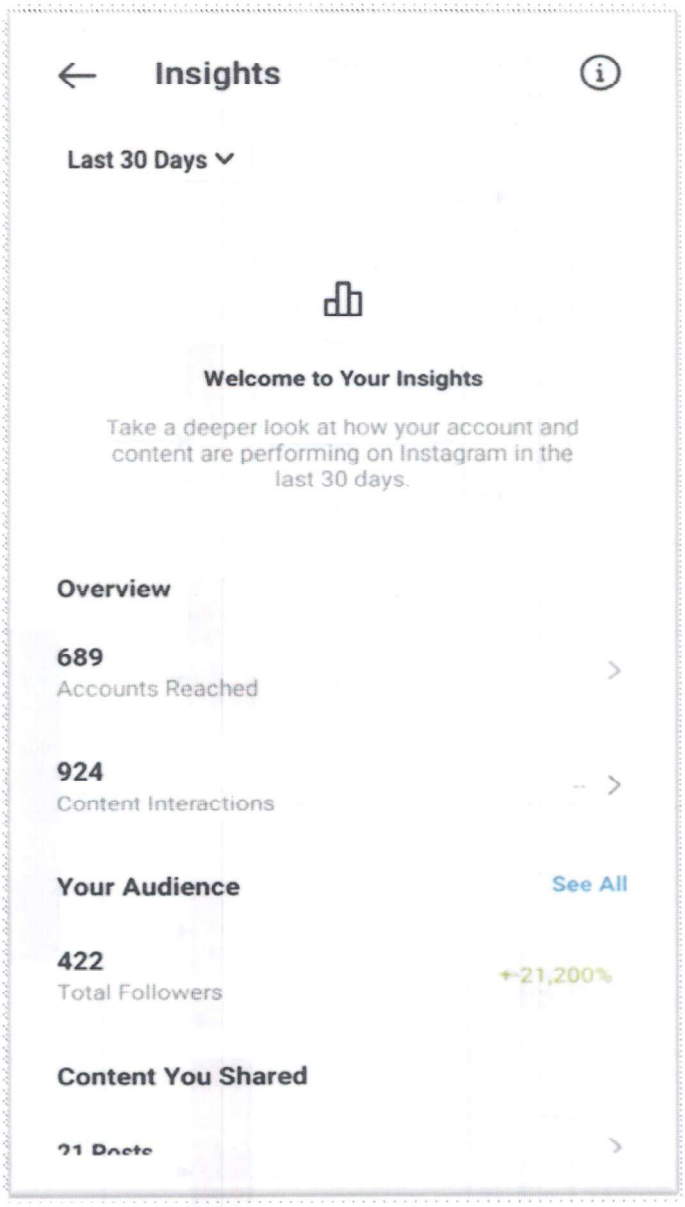
- Facebook Page Link: https://web.facebook.com/maiwayshaiway
- Instagram Page Link: https://instagram.com/maiwayshaiway_?igshid=ui3dt3ppxy1r



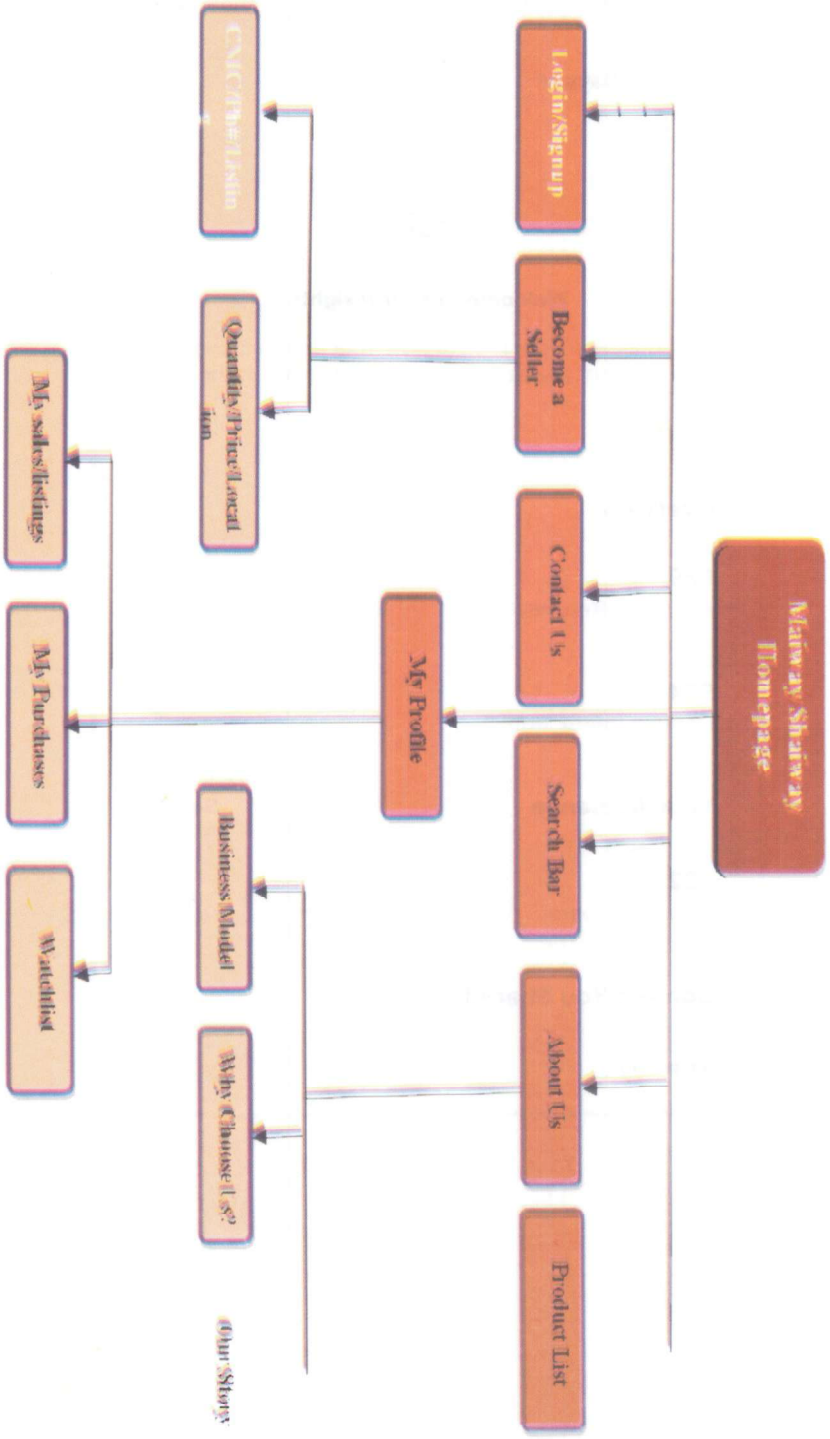


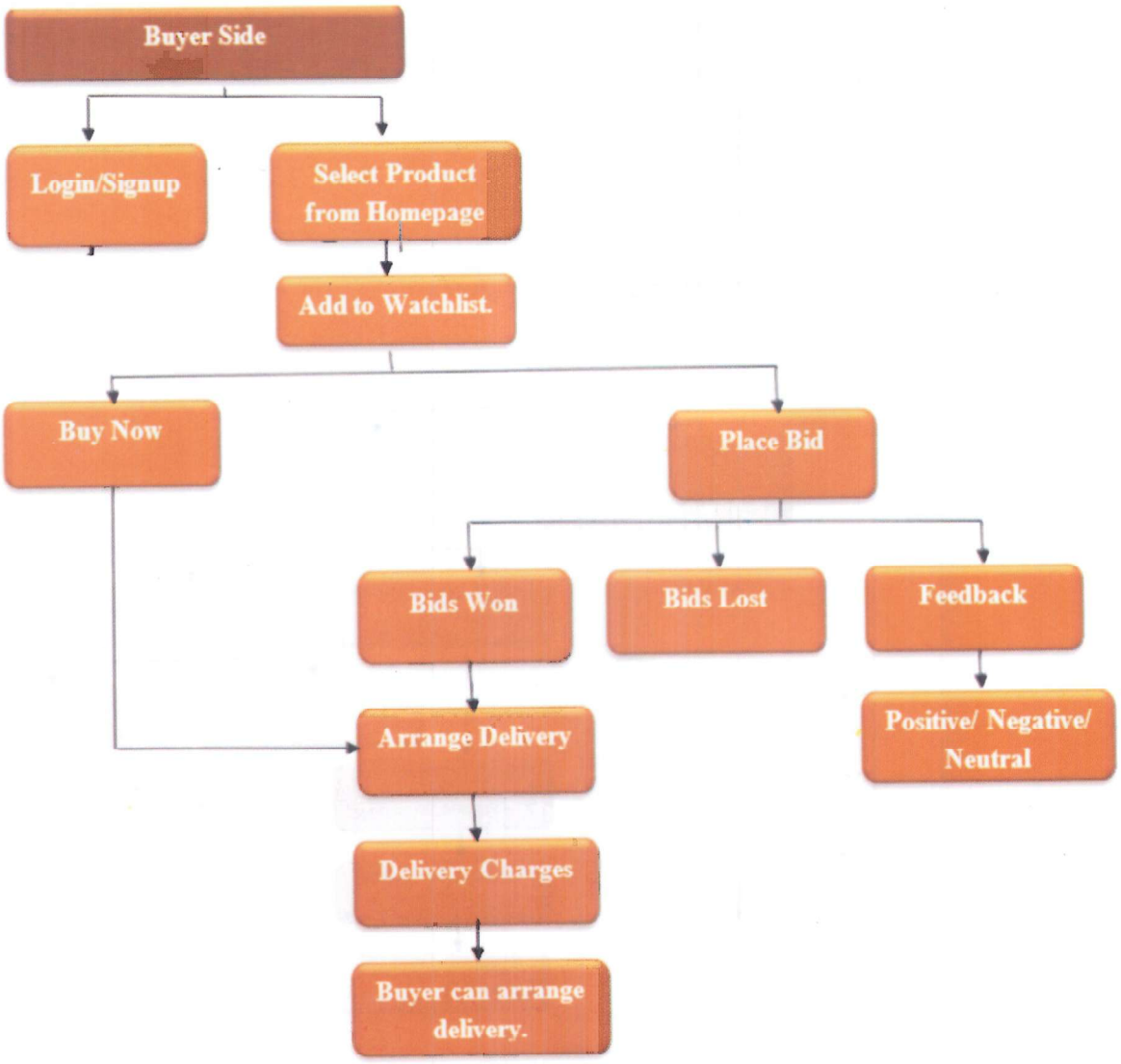

Audience
Last 30 Days
Age Range
All
Men
Women
13-17
18-24
25-34
35-44
45-54
55-64
65+
2.7%
69.9%
24.0%
1.9%
0.5%
0.8%
0.3%
Gender
54.7%
Men
45.3%
Women

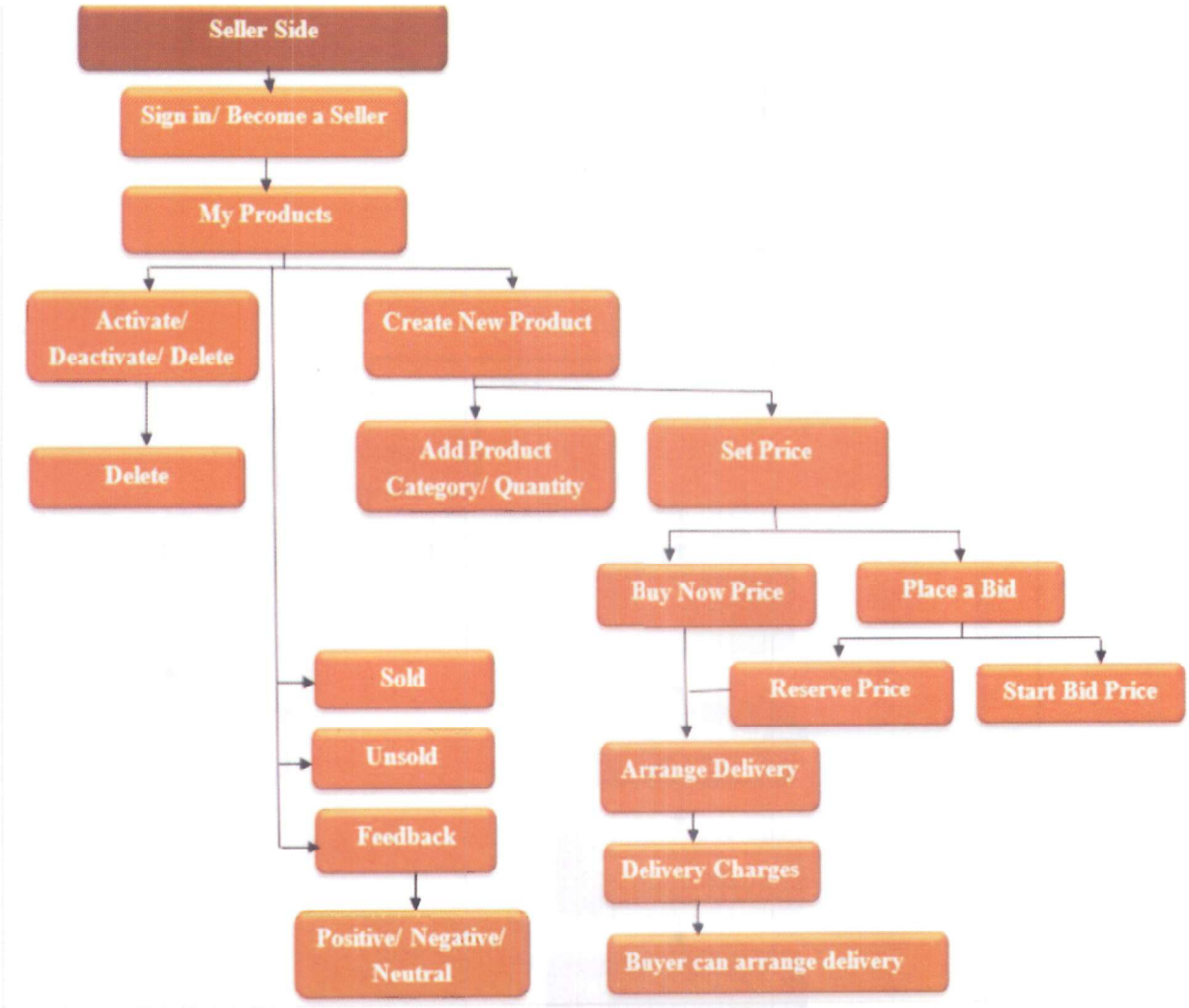

Audience
Last 30 Days
Top Locations
Cities
Countries
Islamabad
36.5%
Bahawalpur
6.9%
Rawalpindi
5.6%
Peshawar
5.6%
Lahore
5.3%


Insights
Last 30 Days
Welcome to Your Insights
Take a deeper look at how your account and content are performing on Instagram in the last 30 days.
Overview
689
Accounts Reached
924
Content Interactions
Your Audience
See All
422
Total Followers
+21,200%
Content You Shared
21 Posts

Appendix B: Homepage Layout + Website Layout




Buyer Side
Login/Signup
Select Product from Homepage
Add to Watchlist.
Buy Now
Place Bid
Bids Won
Bids Lost
Feedback
Positive/ Negative/ Neutral
Arrange Delivery
Delivery Charges
Buyer can arrange delivery.


Seller Side
Sign in/ Become a Seller
My Products
Activate/ Deactivate/ Delete
Delete
Create New Product
Add Product Category/ Quantity
Set Price
Buy Now Price
Place a Bid
Reserve Price
Start Bid Price
Arrange Delivery
Delivery Charges
Buyer can arrange delivery
Sold
Unsold
Feedback
Positive/ Negative/ Neutral