E-Farmers

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Tweet: "Stressed out selling your product? Tired of middlemen buying your products at low prices? E-Farmers is the answer! Upload your products today and be connected."

Vision:

Our mission is to revolutionize the way farmers carry out farming and conduct agribusiness by introducing modern technology. Through our mobile app, we offer farmers and businesses a central, online marketplace to shop for better prices and better quality. Farmers who need superior equipment at low prices, businesses looking for better deals on products, and even businessmen looking to lease and own land will now have an up-to-date, advanced community in which to shop for the best deals.

We want to be the safest, most efficient and most effective medium in which farmers can sell and advertise their products, get agricultural news, and get advice on where to buy genuine farm equipment. We hope businesses will welcome this direct-to-producer interface in which they can negotiate for and get better agricultural decisions without the need or expense of a middleman.

Elevator Pitch:

Are you a farmer interested in expanding your customer base or a business in need of better quality produce? Do you need a better market to shop for quality goods and services? We're building an app that will help farmers all over the world connect with willing buyers and sellers of produce, farming tools, and supplies. With an entire marketplace available to businesses and farmers, we can expand the global environment for trade and help thousands - if not millions - of farmers get better prices for their produce and help businesses get more bang for their buck.

Description :

Kenya has the largest and the most diversified economy in East Africa. Agriculture is the backbone of the country's economy and the government has put a lot of measures and strategies for agricultural development. The sector accounts for more than 25% of the country's total gross domestic product (GDP). However, the sector faces myriad of challenges, some of which include

poor infrastructure - such as roads - which lead to high transportation costs for agricultural tools, inputs and products. It also leads to spoilage of perishable commodities during transportation causing high losses to farmers. Lack of information on the side of the farmers due to limited spread of technology makes them miss out on the improved methods of farming and selling their products to the right markets at the right prices.

Finding a market for agricultural products is also another major challenge facing most large and small scale farmers in the country. Many farmers only sell on market days, missing out on the bigger customer base. In other cases, middlemen buy their products at low prices taking advantage of the fact that the farmers do not have enough knowledge on the price of their products in other markets. Businesses miss out on the opportunity to buy quality goods at an affordable price because they are unaware or unable to participate.

E-Farmers was created in an attempt to allow both parties - producers and consumers - an opportunity to conduct business at a fair price. We want to create an online, global marketplace, like Amazon and eBay, to allow the fair transaction of goods at an affordable price. Farmers now have a large platform to sell their products without the hassle of economic loss they usually face, as well as access to affordable tools and inputs. In addition to basics, we plan to offer a consulting feature for farmers and businesses. The consultants would be professionals with a training in agriculture and business who can offer support on the ground in necessary. Later implementations of this app would include a GroupBuy or a GroupSell feature, in which businesses and farmers can buy and sell products in bulk with other businesses and farmers. With these features and proper in-country groundwork, we expect E-Farmers can help shape and change the way agribusiness is done in Kenya.

Hypotheses:
Note: descriptions of tests of hypotheses is listed in 'Get out of the building' section

Leap of Faith:	1. Farmers have access to the internet. 2. Farmers know the basic concept of the internet. 3. Farmers would trust an app to help them sell their products. 4. Businesses will trust an app/website to buy products.
Problem hypothesis	1. Farmers have trouble getting access to better marketplaces to sell their products.

	2. Farmers have limited knowledge on what marketplaces to buy good agricultural tools and inputs (i.e fertilizers etc). 3. Buyers (especially from the city) do not want to buy small volumes from different sellers, they would want to buy in bulk quantities.
Solution hypothesis	1. Farmers would prefer to sell their products without middlemen/brokers. 4. Farmers want to know and compare market prices in different markets. 5. Produce quality (fresher) would increase if farmers sold directly to customers. 6. Farmers are open to new ways of farming and selling (i.e using smartphones to sell their products). 7. Customers would want to know the quality of the products before buying them. 8. Farmers are open to their products being inspected for quality assurance. 9. Customers would want to deal with farmers directly instead of middlemen/ brokers. 10. Farmers producing similar products in low volumes would team up and sell their products together as bulk to one customer.
Habit hypothesis	1. Farmers make most of their income from bulk consumption. 2. Farmers want an easy, efficient and safe means of selling their products profitably. 3. Farmers want a consistent market for their farm products; Farmers would want to know that there is an available buyer for their products.

Getting out of the building:

Our group picked up several hypotheses to test. Since target users of our products are farmers in Kenya or China, one way we reached out to them was through the Internet i.e through Skype, Facebook, WhatsApp, WeChat etc. Although our final implementation focused on Kenya, China was found to be an analogous market, so research into China proved to be beneficial for implementation in Kenya.

Experiment 1: Research was conducted on the current rate of mobile usage rate in China to test whether farmers have access to internet.

Results: A Chinese internet network information center published a statistics reports of the Internet users in China of 2014 shows that the rate of farmers in total Chinese internet users is up to 27.5%, (178 million). With the rapid popularization of the Internet in remote area and rural areas, 47.9% farmers said they've already had cell phone dependence, which means they are usually using smartphone to acquire information and contact with each other. However, most of them are using cell phones just for entertainment more than online services.

Farmers commonly cannot afford iPhones, however, and most of them use smartphones with Android-based systems. Therefore, our initial focus would choose an Android platform and also include a web site for Chinese farmers. Chinese farmers also tend to use QQ (a famous instant message tool in China) to chat with others instead of directly by phone. Bridging farmers and customers through smartphones is a working hypothesis.

Regarding user interface, farmers may feel lost when facing intricate gestures, so we will make the interaction as easy, simple and efficient as possible. For example, making the font size bigger, and the functions intuitive. Since the culture level of Chinese farmers are relatively low, it's better to use impressive or eye catching titles such as " Connect now and you will double your profits!!!!!".

Experiment 2: Conduct an interview directly with farmers to test whether they are willing to sell products online.

Results: Since we don't have direct access to many farmers locally in Kenya, China, and India, we posted the following message on our social network: "If you have farmer friends can you refer his contact number to me?" This process also helped us test whether farmers have internet. We chose to avoid contacting them directly through phone calls; instead, we reached out through internet platforms. Our assumption was that if we could contact them through the internet then our leap of faith hypothesis would be validated.

In our process to reach out to Chinese farmers, we also reached out to a teacher, whose parents are growing cherries in Shandong Province now. From our conversation with him, we got to know that she once helped her parents to sell cherries online through a service provided by wechat (instant message tools in China). The business is based on her social network, that is, the buyers are all her friends, which create a more trusted platform for selling products. She also tried to sell her products on Alibaba, but ended up failing since her products lacked brand; her products were outsold by a number of other products.

Experiment 3: We sent 2 questionnaires to our potential users, including both farmers and customers to get quantitative feedback. (For full text of surveys and their translations, see Appendix A.)

Results indicate that farmers are open to the idea of moving their commerce online, and that they would feel that this is a step in the positive direction. Based on these results, we can inference that this app would be well-received, though more region-specific information is needed. (For full results, see Appendix A.)

Competition/Collaborators:

Competition:
As we progressed with implementation, we focused our initial app on Kenya, since it has a marketplace with more readily available research. In the recent years, there have been a rise of apps and websites developed to help both large-scale and small-scale Kenyan farmers increase their agricultural skills and yields. Some of these apps include:

M-Farm	*Description:* M-Farm offers farmers the chances to sell their crops collectively and to buy their seedlings, fertilizers and other inputs together. M-Farm agents aggregates the produce of about 100 farmers and sells it as one lot. The agents also sell seeds, fertilisers and other inputs in bulk at discounted prices.
	Why we care: We believe this app will be our greatest competitor because they are providing services that are almost exactly similar to what we are going to provide.
	Why we're better: The disadvantage of M-Farm, however, is that they only focus on the farmers in the towns and big cities and give little focus to the farmers in the rural areas. Our app will reach out to these rural

	farmers and provide them with this efficient means of selling their products
Mkulima Young	*Description:* Mkulima Young (Swahili: Young Farmer) is an online buying and selling platform that connects young farmers and those aspiring to be farmers in a virtual space. It aims at encouraging youth to engage in agricultural issues. Mkulima Young recognizes that young farmers are plagued with problems affecting their productivity and marketing where middlemen offer meagre prices for their produce, delays with payments and expensive farm inputs. As a result the platform provides a virtual market place called Mkulima Soko (farmer's market) where young farmers can sell their crops online. The company currently serve more than 20,000 farmers in Nairobi and its surroundings.
	Why we care: The success story of this company shows us that there is a potential market to exploit and reach out to for our product.
	How we're better: However, we are targeting farmers in general, both young and old and from different parts of the country but with more focus to rural farmers. The problems that Mkulima Young focus on are the problems that most Kenyan farmers. face. Our application would be an expansion of Mkulima Young with more features and platforms added. By creating both the app and the website and reaching out to larger customer base, we believe that our services will benefit our users more than other existing platforms. We will also include consulting services, where our agents will go to the fields and help farmers buy their farm products through our platform. Group selling and buying will also be included in our services. In a nutshell, we are reaching out to

	more customer base and providing more services than both Mkulima Young and M-Farm.

Collaborators:

M-PESA

M-PESA (**M** *for mobile,* ***pesa*** *is Swahili for* ***money***) is a mobile phone-based money transfer and microfinancing service that was launched by Vodafone for Safaricom and Vodacom, the largest mobile network operators in Kenya and Tanzania. About half of Kenya's estimated 43 million people use M-Pesa. With M-Pesa farmers can make and receive payments for seeds and crops. Almost all financial institutions in Kenya now offer M-Pesa services. Therefore, we will be using it as one of the payment services that our users/clients will use to make their payment.

Other services that M-PESA offer include:

- Deposit and withdraw money
- Transfer money to other users and non-users
- Pay for goods and services; also pay for electricity bills etc

All these services are conducted in any mobile device.

Apple/Sony/Microsoft/Other smartphone-selling companies

There is a massive technological breakthrough in Kenya currently. Added to this is the fact that the smartphone penetration rate is increasing rapidly as well. According to a report by Safaricom, the Kenya's leading mobile network operator in April 2014, there was 67% smartphone penetration rate in Kenya and this rate is projected to increase by at least 5% per year as more people take advantage of the technological spread. According to report also, Kenya's smartphone penetration rate is 40% higher than the entire African continent's average figures that ranges between 12%- 18% as of April 2014.

This data is a good news for our product because we are targeting farmers with smartphones although we would also accommodate farmers without smartphones by implementing a texting system to sell their products. Our goal is to revolutionize the way farmers conduct business and help them have access to wider markets. The more the farmers with smartphones, the easier they can access and use our services and the better their farming experience. With this data therefore, there seems to be a light at the end of the tunnel for our product.

Value Proposition:

For buyers and sellers of farm products looking for wider markets, better prices, where to buy genuine agricultural tools and inputs, what crops to grow in a certain month/year, ***E-Farmers*** *provides them with solutions and makes their selling/buying experience more fun, effective and efficient.*

Users of our product can be sellers (farmers) or consumers, so we divided the value proposition to two parts. We based our value proposition on the Value Proposition Canvas as is listed below. We ranked each item by the rank standards below:

Rank standards:
1 - Very important
2 - Important
3 - Fair

Customer (Businesses/Buyers)
Customer Jobs

Buyers

1 - Buy grown products easily
1 - Pay less when buying products
2 - Rent/buyers can rent available/unused land from the farmers to grow crops

Sellers

1 - Sell grown products easily
1 - Pay less when buying products
2 - Need more money and greater access to fair business
3 - Buy/trade equipment
3 - Expand business base by finding business partners

Customer *Pains*

Buyers:

1 - No access to reliable information about buying goods and services
1 - Limited knowledge on market prices and trends
2 - High transportation costs
2 - Method is highly dependent on trust without verification system
3 - Lack of exposure due to limited public education and awareness on agriculture

Sellers:

1 - No access to reliable information about selling goods and services
1 - Current methods rely on middlemen; no direct customer access

1 - Missing potential markets because no online business involved
2 - High transportation costs

Customer *Gains*

Buyers:

1 - Saving time and effort, unnecessary to go to markets
1 - Lower price of products (bargain for a better deal)
1 - Buy products of higher quality
2 - Verification system helps buyers getting more reliable comments on the products

Sellers:

1 - Saving time and effort (no middlemen)
1 - Possible increase in wages, lower cost of production and greater profit (bargain for a better deal)
1 - Lower cost and better access to communication would help this solution succeed
1 - Efficiency, effectiveness and safety
1 - Access to wider market and price comparisons for better bargaining

Product (Farmers/Sellers)

Product and Services

Buyers:

1 - Listings of vendors of products
1 - Listings of products available
1 - Trend showing prices in different markets
1 - Communication/Messaging between buyers and sellers
2 - Rent available/unused land from farmers
2 - Verification system to ensure no scams
3 - Social network interface provided

Sellers:

1 - Trend showing prices in different markets
1 - Transportation options listed
1 - Communication/Messaging between buyers and sellers
2 - Listings of where to buy genuine tools and inputs
2 - Suggestions on what crop to grow in a certain year
3 - Social network interface provided

Pain relievers

Buyers:

1 - Provides customers a greater variety in sellers and buyers / widens the market
1 - Opportunity to get a better deal (more money)

Sellers:
1 - Opportunity to expand customer base (less risk)
1 - Easy way to find markets to buy agricultural tools and inputs
1 - Opportunity to compare prices in different markets / helps farmers when pricing
2 - Direct responsibility instead of through a middleman (less risk)

Gain creators

Buyers:
1 - Saves buyers time looking for products and sellers time looking for buyers
1 - Buyers may feel happy when buying a food online with better price and good quality

Sellers:
1 - Create savings for sellers(don't have to pay middleman, transportation costs, etc)
1 - Lowers costs and increases profits from production
2 - Provides a marketing platform/interface for the users
2 - Increases the quality of products being sold
2 - Increases the motivation of producers to produce more

Mockup/Prototype:
*(Note: due to space constraints, the full visual mockup/prototype is in Appendix B. Additionally, the **Product Flow** is located in Appendix B.)*

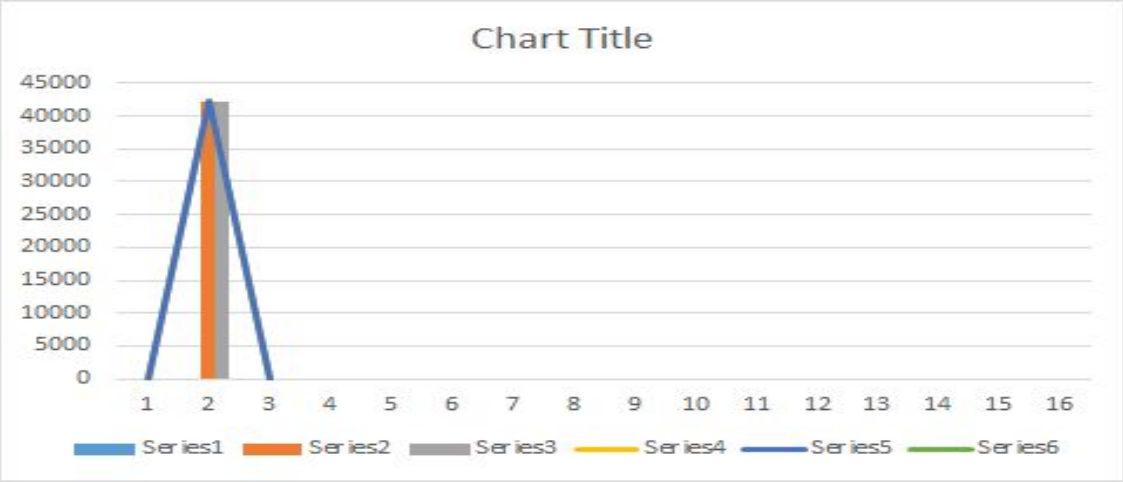
MVPs:

We created and sent out to the customers/users simple landing pages. Here are the links for two of the landing pages we created:

http://efarmers.strikingly.com/

http://e-farmers.instapage.com/

The following graph illustrates the number of visitors and the conversions we made:



This graph shows the number of visitors to the page:

Product Flow:

Our product flow is as follows: initially, there is a home screen with several options: “My Product”, “My Rental”, “My Order”, “Support”, and “My Profile”. If you go to “My Product”, you are presented with options to view existing products as well as add new products. In “My Rental”, you have the option to view your existing land or tool rentals. In “My Order”, you have the option to order new products as well as view existing orders. (See Appendix B for visual demonstration.)

Features:

Consulting:

We provide service of consulting to help farmers to market their products. For example, we send trained consultants to farmers in person, helping them to write a short description for their products and agriculture story. This pitch proves their consistent production ability. Since farmers usually don't have strong background of marketing and they usually don't know how to take a nice pictures, some of them are even illiterate, which is super important factors in business. Airbnb hires professional photographers and provide free service of taking nice picture or host's house. It proves that nice picture boosts the transaction number. This feature provides us an alternative price model as well: we could charge consultants fees for this service. If we could test that a professional copywriters, a nice picture and a convincing user story would improve sales, farmers would love to pay for this service.

Group sell and Group buy:

According to our research, small scale farmers are producing in low volume and many buyers don't want hassle of getting the volume they need from multiple different farmers. These farmers are too small to market to a big buyer. Group selling tools helps solving this problem. Group Buy tools allow buyers to negotiate a better price and even sign a long-term contract with farmers. We talked to several farmer and most of them are willing to double the number of selling by giving an 10% discount.

Conclusion and Strategy:

Next steps involve building and implementing a lesser MVP to test this product, marketed toward local farmers and local businesses. We want to test the viability of this product in an area where corrections can be made quickly and where internet is readily available before moving this to a foreign market. We also want to gauge interest and need for this by directly communicating with farmers on the ground in Kenya; we want detailed surveys and Q-and-As so that we can better assess the needs and wants of the Kenyan farmer.

Some obvious pitfalls going forward are the possible lack of internet capability for Kenyan farmers and whether farmers trust this technology to sell their products. The former requires further research into how internet is provided specifically, while the latter can be addressed by direct interaction with users and recruiting locals to help pitch the product.