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**Consultant’s Report:**

**Agriculture E-Commerce, International Experience Cases**

**Project TA-9484 PRC: Strengthening the Role of E-Commerce in Poverty Reduction in Southwest Mountainous Areas in Chongqing**

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Executive Summary

1. International experience finds that there are numerous examples of individual farmers and farming cooperatives in rural areas opening new market channels locally, regionally and cross-border by desktop/laptop Internet platforms and mobile phone applications. Agriculture e-commerce is a new and smaller economic sub-sector. The larger e-commerce sector is rapidly advancing in the global marketplace estimated in annual global sales in the double-digit trillions of United States dollars. Nationally, in the Peoples Republic of China, (PRC), e-commerce for agriculture products trade volume increased 46.2 percent from 2015-2016. In Chongqing, e-commerce is growing with total sales of US$ 7.1 billion, an increase of 25.6 percent over 2015, but in rural areas accounted for 11 percent of the total. At present, the nascent rural agriculture e-commerce marketplace lacks readily available cost information to analyze and compare. In general, the new economy of the Internet plus agriculture and mobile applications are eliminating the wholesalers and middlemen profit margins in the traditional agriculture value chains. Therefore, there is potential for more profits to agriculture producers to raise incomes and reduce poverty in Chongqing southwest mountainous area of Qinba, Wuling and Wumeng: Chengkou county, Pengshui county, Shizhu county, Yunyang, Wulong, Fengjie, Wushan, Wuxi.

2. One important finding in the research for international examples is that of mobile phone operators in both developed and developing countries. These are companies or carriers of telecommunication infrastructures and services like China Mobile, China Unicom and China Telecom. The international cases in this report will show how the network carriers form partnerships with local and national institutions in order to build mobile phone applications to benefit poverty stricken rural farmers with real-time market information and other necessary functionality on their mobile phones.

3. A challenge of farmers or any business is controlling costs to earn a profit in a market economy with competitors and ultimately reach higher monthly incomes. A profit is money in hand after subtracting expenses and the cost of the goods and discussed in terms of profit margin percentages. The use of the Internet and mobile phone application is supposed to eliminate or reduce intermediaries or wholesalers. Rural farmers are finding that the costs from third party e-commerce platforms to open a store on Taobao, Tmall, JD.com and Alibaba are cutting into profits with high costs to access-collect security deposits and high marketing fees.

4. The Chengkou county, Dong’an town case makes use of the service stations which can be at the county service center, township stations and village service sites with functions to assist farmers in e-commerce development The three tier service system are pivotal institutions between the farmer doing e-commerce business and government among other stakeholders. In this case, China Unicom is the carrier to open stores on national e-commerce platforms of Taobao, Tencent Micro Mall and Suning Tesco.

* Are these costs associated with the carriers and the agriculture e-commerce platform enterprises reducing the profits to farmers?
* How is the service station assisting farmers in monitoring and evaluating costs?
* Can the Chongqing Digital Commerce Center play a role in gathering data on costs to keep then in check?

These are some of the questions to answer in order to realize the full benefits of agriculture e-commerce. This may involve policies reforming the pivotal institution of the service stations or the three-tier service system.

5. This report will cite international examples from mobile operators which are involved in the success of rural farmers to decrease costs and poverty. There are also examples from individual farms business to consumer (B2C) usage to more advanced examples of farming collectives using business to business (B2B) Internet platforms and business to business to consumer (B2B2C). The countries cited are from Turkey, Poland, Gambia, Mozambique, Thailand, India, Papua New Guinea, Sri Lanka, Vietnam, United States and PRC. In addition, the report contains agriculture e-commerce framework information from the Global System for Mobile Communications (GMSA), United Nations Conference on Trade and Development (UNCTAD)- index for e-commerce, Food and Agriculture Organization (FAO) and ADB. Some policy issues will also be included. These international experiences and framework examples will instruct Southwest mountainous areas of Chongqing to realize the potential higher profits and benefits of agriculture e-commerce to raise farmers’ incomes. This report also takes into consideration the main points highlighted in the March 27th meeting: information systems, commerce (logistics) and branding.

International Experiences

6. Regardless of the level of income or developing or developed country status, there is a similar pattern confronting farmers which is a price gap of lower prices paid for their produce after harvested and high prices paid by the consumers of their produce in markets. This points to the numerous middlemen and wholesalers that take from the value chain from field to fork at the expense of the profits to the farmer producer. Can the cyber-intermediaries (e-commerce platforms, internet service providers, mobile telecommunications network carriers, logistics companies) minimize costs to realize more profits for the farmers? Take the case of Turkey.

7. **Vodafone Turkey Farmers’ Club** Vodafone Turkey launched the Farmers’ Club at the end of 2009 with an aim to increase the productivity and income of smallholder farmers by offering actionable agriculture information. Furthermore, the Farmers’ Club presented an opportunity for the mobile network operator (MNO) to implement a highly targeted approach for the rural segment. In 2015, the Farmers’ Club consisted of two components – the discounted postpaid and prepaid plans tailored for farmers, and a portfolio of free and paid agricultural value added service (VAS) providing text updates on local weather forecasts, market price information, general information on the agriculture sector, agronomy tips and news. In addition, the Farmers’ Club has a free

virtual marketplace service connecting buyers and sellers of agricultural products through the mobile channel. Short message system (SMS) is the main content delivery channel. In 2013, Vodafone launched the Farmers’ Club Android application Vodafone Farmers’ Guide (Vodafone Çiftçi Kılavuzu).

8. From 2009 to date, the Farmers’ Club has reached approximately 1.3 million farmers. It currently has 903,000 active users, including both customers subscribing to the discounted farmer plans and those taking up the VAS offering. Besides the Farmers’ Club, Vodafone is developing services and products tailored to disabled users and women (discounted plans and VAS). The Farmers’ Club is part of Vodafone Turkey’s rural strategy, comprising B2C as well as enterprise (B2B2C) offerings in smart logistics, traceability, and tracking and mobile management. Enterprise offerings include the Lipton Ecotab Automation service developed with Unilever to collect and analyze data from the field using tablets, and the Milk Registry System to digitize production and dairy farming data for dairy SMEs.

9. The Farmers’ Club business model for Vodafone is primarily based on indirect benefits. Since the Farmers’ Club is made of two different components - the farmer plans and the VAS proposition – there is no revenue and cost model directly attached to it. The main business key performance indicator (KPI) is rural customer loyalty. Vodafone highlights that the Farmers’ Club is instrumental in decreasing churn in the rural subscriber base. The MNO estimates that Farmers’ Club members’ churn is on average 23% lower than the churn rate of the total customer base. The other main business KPI is brand awareness. Vodafone uses Top-of-mind awareness (TOMA) surveys to track awareness and emotional bonding with the brand. In the most recent TOMA survey, brand awareness among Farmers’ Club members was 16% higher than awareness across the whole Vodafone GSM base.

10. *The value proposition and pricing structure benefit the rural farmers*. The approximately three million farmers officially registered with the Ministry of Food, Agriculture and Livestock (Gıda, Tarım ve Hayvancılık Bakanlığı) are eligible for the Farmers’ Club discounted postpaid and prepaid farmer pricing plans. Farmers must physically bring the certificate of registration to the Vodafone point of sale to subscribe to the plans. Around 20% of the total active Farmers’ Club base currently subscribe to a farmer plan. The basic postpaid plan offers 500 off-net minutes and 500 on-net minutes for 21TL (US$7.9) per month. The premium postpaid plan offers 500 minutes off-net, 1,000 minutes on-net, 500 SMS and 500Mb Internet for 29TL (US$10.9) per month. All customers who subscribe to the postpaid farmer plans have access to the handset subsidy scheme allowing the payment of devices in monthly instalments.

11. In addition, the Club offers an annual prepaid plan including 5,000 minutes to all networks for 200TL (US$75). This plan allows farmers to pay for their mobile service once a year at harvest time, when their income is greatest. To address the same issue,

Vodafone has partnered with Şekerbank to offer an interest-free loan allowing farmers to pay back their postpaid bills once a year, whenever is most convenient. For Şekerbank the payment system is an opportunity to educate customers in rural areas on new products. For Vodafone it is a customer acquisition tool, as it gives an additional benefit to subscribers of other MNOs when they port their numbers. Besides the farmer plans, customers have the option to take up the entry level Farmers’ Club package consisting of free occasional text updates on farming subsidies, local fairs and trade shows and sector news. For 2TL (US$0.75) per month customers can subscribe to the Farmer News Pack (Çiftçi Haber Paketi). The Farmer News Pack offers all the free content, as well as two daily SMSs with weather forecasts, one weekly SMS with market price information for selected crops, and one weekly SMS with fuel price information. To date, subscribers to the Farmer News Pack are approximately 30% of the user base.

Free Farmers’

Club Pack

Farmer News

Pack

Farmer Plans

Postpaid/Prepaid

12. *Partnerships and better pricing benefits to the farmers*. The core part of the Farmers’ Club, the VAS offering, relies on a standard revenue share agreement with content provider and aggregator TABİT. Vodafone is responsible for marketing, strategy and distribution, while TABİT is responsible for content creation and aggregation. TABİT creates its own agriculture content with the support of the Turkish Agriculture Union (Türkiye Ziraat Odaları Birliği - TZOB). It also aggregates daily, district-level weather information from the government’s Meteorological Service (Meteoroloji Genel Müdürlüğü - MGM). Local market prices for 93 products are provided by The Union of Chambers and Commodity Exchanges of Turkey (Türkiye Odalar ve Borsalar Birliği - TOBB). In addition, TABİT relies on the collaboration and support of the Ministry of Food, Agriculture and Livestock for the provision of sector news and updates on government subsidies.

Women farmers are especially important in Turkey in cooperating with Vodafone Farmers Club. In fact, a woman is the founder of TABIT. Vodafone Turkey supports women empowerment. Vodafone Smart Village project supports women farmers.

TZOB

VODAFONE

MGM

TOBB

MINISTRY OF FOOD

TABİT

FARMERS’ CLUB

STRATEGYY

MARKETING

DISTRIBUTION

CONTENT

13. *The service is currently available free of charge*. Club members send via SMS, or via the application, information on product type, quantity, location and price. The content is then published by TABİT on the advertising channels. Buyers are wholesale traders, retailers, as well as businesses such as restaurants and hotels. They tend to come from the same region of the farmers. However, a growing number of buyers are coming from Istanbul, since the capital benefits from the most efficient transportation links. The Marketplace represents for Vodafone a way to build an emotional bond with the brand by providing a platform to access new markets. The MNO therefore offers a solution to the most significant challenges faced by smallholder farmers in Turkey – limited access to markets and the reduced opportunity to capture a fair share of their product value. *The objective is to reduce the gap between prices paid to farmers and prices paid by consumers. For example, TABİT has calculated that the price paid for strawberries by final consumers in the city of Aydin can be up to 6.5 times the price paid to producers in the same region*.

14. *More partnering for training and reforming the Chongqing service stations*. An Educational Truck is a good lesson for Chongqing. The Truck travels across the country all year round and is currently on hold. It is operated by TABİT and has a crew of six members. The Educational Truck is entirely financed by Vodafone. It is the single most costly initiative for the promotion of the Farmers’ Club. This investment is justified as the truck not only *spreads awareness* and helps to register new customers, but also sources local content for the Farmer News Pack. The Educational Truck initiative is made possible by *Vodafone’s close cooperation* with the Agriculture Union (Türkiye Ziraat Odaları Birliği), which has local representatives in every major village. The partnership with the Union provides insights into key priorities for the local farmer community. It also facilitates the logistics arrangements with local authorities for hosting the Educational Truck.

15. The truck is used for talks and discussions with agronomists on specific issues related to local farming, as well as on challenges faced by farmers in the village at the time of the visit. During the village visits, crew members showcase the Farmers’ Club, demonstrating how to use the service, and are often joined by sales staff from local retail points. Nonetheless, customer acquisition is not the main aim of the Educational Truck. Instead, Vodafone describes the *Educational Truck as an opportunity for farmers to experience in an interactive way the benefits of mobile communication*.



16. Crew members reach each village two days before the scheduled truck visit and establish contact with the Agriculture Union, as well as with local representatives of cooperatives and with the farmer community. After meeting with local stakeholders, crew members collect all the relevant information on crop types, prices and other sensitive topics such as diseases and pest control. This content feeds back into the content stream of the Farmers’ Club and also serves to develop the content program for the subsequent truck event. On some occasions, the crew takes a more informal approach and organizes gatherings and demonstrations at the village cafes at the end of the working day. To date, the Educational Truck has visited villages in almost four hundred districts. It serves the same function of a service ambassador in disseminating knowledge and understanding of the Farmers’ Club, and in positioning *Vodafone as a trusted partner for farmers.*

IMAGE COURTESY OF VODAFONE TURKEY

While the educational truck is on hold there are some digital projects to spread on-line education so everyone may be reached around Turkey, easily. Also, in digital age, it will be more efficient. Educational stories will be provided by Vodafone Smart Village (“vodafone akıllı köy”). For example, Vodafone Turkey Farmers’ Club offers GSM and non-GSMdiscounts on these areas: insurance, farm trucks, seminars about farm life, hospitals, water-proof smartphones, etc.

16. *How the marketplace works for farmers to sell their harvests over the networks.* Enhanced access to markets is an important part of the value proposition of the Farmers’ Club. To advertise their product, club members send an SMS with the word “ilan” (advertisement) and the information about product type, quantity, price, and product location to the short code 2434. The SMS is received and reviewed by the TABİT team. In case of missing or unclear information, the team contacts the farmer. Once content is edited and standardized,[[1]](#footnote-1) the advertisements are published on a range of sector magazines. In addition, two-minute slots with the advertisements are broadcasted on satellite channel Toprak television. All advertisements are accessible on the Internet on the Tarimsal Pazarlama portal, and remain active for three months. To purchase or inquire about the product, buyers can contact the farmers directly.

FARMER NAME

PRODUCT NAME

ADVERT NUMBER

PRICE

AMOUNT OF PRODUCT

SALES TYPE

LOCATION

INTERNET PORTAL



(see footnote)

17. *Success Stories*.

Access to new markets and to accurate prices to increase profits.

* Aksaray province: Mesut Orkçu sold his first batch of clover in a few hours after trying out the marketplace for the first time. He then became a regular user of the service and focused his business on clover bales, barley and corn silage. The Farmers’ Club has helped Mesut increase his annual turnover from US$515 (3,000Turkish Lira) to US$51,586. (300,000 TL)

Weather information to prevent costly wastage:

* Yeşilova, Burdur province: Döndü Taşkın saved US$10,317 (60,000TL) worth of product when she received a weather warning from the Farmers’ Club forecast service. Before she started using the service, she was not able to prepare for difficult weather conditions. Her neighbors now ask her regularly about the weather forecast.[[2]](#footnote-2)

Lessons for Chongqing

18. Chongqing farmers’ success can be based on forming solid partnerships with service providers that are vital to business. Vodafone Turkey Farmers’ Club international case shows that farmer customer loyalty is important to mobile network operator Vodafone and service discounts are made in order to keep the farmers in their mobile service network for the long term. Vodafone Turkey values their customers and when they check their big data the farmers are more loyal and are high tier tariff users. They care about coverage first, if they are happy with the mobile operator they won’t change and when it is supported by Farmers Club non-GSM loyalties, there are more loyal customers which means more value created for Vodafone. Less churn and more loyalty work here with the Clubin practice.[[3]](#footnote-3)

19. The services offered to farmers such as value added (VAS) are what attracts and retains the farmers to Vodafone. TABİT is the content provider and aggregator. TABİT creates its own agriculture content with the support of the Turkish Agriculture Union (Türkiye Ziraat Odaları Birliği - TZOB). It also aggregates daily, district-level weather information from the government’s Meteorological Service (Meteoroloji Genel Müdürlüğü). In addition, TABİT relies on the collaboration and support of the Ministry of Food, Agriculture and Livestock for the provision of sector news and updates on government subsidies. Most importantly, a free virtual marketplace service is connecting buyers and sellers of agricultural products.

20. Vodafone Turkey invested in Farmers’ Club almost 10 years ago. They started to offer non-GSM[[4]](#footnote-4) to farmers such as daily weather and economy news feed. Also, they offered budget tariffs which is cheaper than mass customers. Budget farmer tariffs mean cheaper/discounted tariff fee options if they are registered in Farmer Club. Three years ago, they supported a Smart Village in the west of Turkey also known as *Vodafone Smart Village* with cooperation of an agriculture & technology organization known as TABIT.

21. Registration is essential to farmers in Chongqing and this case explains how registration can occur in partnership with mobile phone providers. Farmers Club registration occurs via SMS (short message service) by keyword to a short number. But also, if a farmer registered for budget farmer tariff, then Vodafone automatically assumes they are in the farmer database and flag them on the system. Farmers register by their Vodafone GSM number only. So, Vodafone can do segmentation also by their internet usage, location, 3G/4G, smartphone usage information, etc.

22. The long-term commitment by Vodafone proved useful to the farmers. In summary, Vodafone Farmers Club started in 2009. In 6 years, they reached to 1.2 million subscribers and farmers increased their productivity of up to US$140 million or US$23.22 million per year.

23. **Samkha Village, Thailand, Mobile Good Agriculture Practice (GAP) System**

Agriculture is important to the Thailand economy. Twelve percent of the economy is from agriculture and accounts for 47 percent to total employment. As noted in the Chongqing meetings, branding is one of the key factors to improving rural mountainous farmers’ prospects for access to new markets, increased sales and higher incomes. However, branding is about trust from quality control of the food and based on reputation. Food safety raises consumers’ demand for the brand and brandless products. Quality assurance system is introduced to farmers to ensure safer food production from harvest to end consumers. Good Agriculture Practice (GAP) system is an internationally recognized system to benefit farmers and consumers in the value chain.

24. Samkha is a small village in the north of Lampang province in Northern Thailand. It is in a valley surrounded by a national park and mountain range. The village comprises 159 households and most are farmers. The National Electronics and Computer Technology Center (NECTEC) and Rajamangala University of Technology Lanna (RMUTL) introduced new rice farming techniques as well as packaging and branding for their produce. The initiative decided to ensure the rice quality by the GAP certification along with the Institute of Product Quality and Standardization (IQS). This is an example of an agriculture cluster for Chongqing.

25. The software, application and training for the Mobile GAP Assessment System was by NECTEC, IQS and RMUTL. Training was also for the use of the computer tablets and data inputs. The system is designed to facilitate the GAP Certification by reducing the time-consuming paperwork via digitization of the entire process. This facilitated the process for all stakeholders: officers, farmers, and policy makers. The Mobile GAP System has four modules: 1.) The farmer and farm registration module readable on mobile devices or personal computers (PCs). This is to collect farmers personal data. 2.) Farm management data input module records work procedures: fertilizer, water sources, irrigation, chemicals, machinery, labor, logistics which are all needed for traceability system. 3.) The Certification module is for inspection officers and runs on the Android tablets for handy use in the fields. It can work offline in remote areas without good Internet connections. It is almost real time to give immediate results on certification online to farmers. 4.) A Farmers report to return the certification results to farmers. Farmers can check results from mobile devices or PCs and can check on issues to rectify before the next inspection.

Lessons for Chongqing

26. The farmers from Samkha who received GAP certification developed their own brand, “Sarp Samkha” and registered as a community enterprise to sell their produce with GAP labels on the packages. This was a holistic approach that involves all stakeholders working together to move farmers into new markets based on trust in the quality of the food produced. This case shows Chongqing the importance of first obtaining internationally recognized certification (GAP) over the Internet made possible by collaborating with all stakeholders. As a result, the farmers work in cooperatives to reach a branding of farmers products and achieve quality control for more customer sales for poverty alleviation. Another important lesson for Chongqing is that there is supervision by inspectors of the certification process which is a correction factor for the lack of supervision in Chongqing and faulty certifications.

27. **Progressive Rural Integrated Digital Enterprise (PRIDE) and mKRISHI**

This system is devised in India by Tata Consultancy Services to improve the rural collective farmers to access markets and interact with all the stakeholders involved in farming. Agriculture is the livelihood to almost two-thirds of the Indian population, but only contributes 14 percent of the Indian gross domestic product (GDP). New government policies are to reorganize the production system in the form of corporate and contract farming. The results are to form cooperatives (B2B), but still lack the technology to facilitate the market-oriented production (supply matching demand) and to access market demand data. An integrated system of PRIDE on the mKRISH platform is a one stop knowledge base for distributing personalized cultivation practices to all farmers and better supply chain practices for traceability of produce and transparency in transactions.

28. The digital feature of PRIDE on the mobile device delivers to farmers: personalized farming practices, strategic collaboration among different stakeholders, demand-driven production with traceability, value add with crop insurance, produce storage facilities and processing units. The mKRISHI platform is the instant digitization of the available field data through the general packet radio service (GPRS) or another equivalent network. However, only a few field farmers owned mKRISHI compatible phones. This was overcome by an interactive voice response (IVR) version of the mKRISHI platform so that any farmer owning a mobile phone could avail the service.

29. *This System was implemented by the cooperative*, Channai Horticulture Produce Company. In the first year, the cost per farmer was US$35. Once the cooperative made revenues from produce and farmer membership costs, the net cost dropped. The self-sufficiency of the cooperative will take three years. Benefits flowed to the farmers from the system by increased production, productivity, reduced costs, access to cheaper credit, better and timely access to markets and agri-inputs, demand led diversification leading to year-round employment. The power of PRIDE collective bargaining leads to farmer members better prices at the farm gate and lower cost of inputs which leads to better standards of living for members. PRIDE enables members farmers to better health care from collective bargaining.

Lessons for Chongqing

30. This case shows how policy implementation requires involvement from an information system provider with skills in mobile technology and forming cooperatives for collective bargaining. This case also proves that collaborating among stakeholders will bring demand driven traceability and ultimately deeper trust among customers for more sales while lowering farmer costs. Chongqing has cooperatives and enterprises formed from rural farmers, but needs stronger cooperatives in partnerships and collaboration with information systems providers, especially using mobile phone technologies.

31. **Papua New Guinea Mobile Market Information Service (MMIS)** This initiative was by Digicel, a Caribbean mobile phone company to connect rural farmers with urban markets. Fresh Produce Development Agency (FPDA) decided to provide updated market information of fresh produce to smallholder farmers and others in the value chain. Users send a short message service (SMS) using a specified call code to Digicel with an appropriate product code and variable required: Avacado and code unit of AVO with variable price, supply, quality. Users will receive a return message containing the desired information at any urban market instantly. The FPDA have surveyors at the eight urban markets to collect and analyze the information on a weekly basis and make it available to Digicel for distribution through its network.

Lessons for Chongqing

32. In Papua New Guinea the mobile network operator strengthens the rural-urban demand bond from real time market information. Chongqing could use this example to supplement their agriculture e-commerce platforms with mobile device market information in cooperation with mobile network operators.

33. **GoviMithuru, Sri Lanka Farmers Mobile Phones** This is another example of the use of mobile phones (no need for a smartphone) without the need for high speed networks (2G/3G) and based on simple yet robust Interactive Voice Response (IVR) platform. In this method, knowledge and information are improved for farmers to increase productivity, market linkages and adoption of available technologies and management practices. *Lack of coordination along the agriculture value chain from farm inputs to food processing increases the cost of production and lowers revenue for farmers.*

34. Agriculture employs the second largest part of Sri Lanka’s workforce, but accounts for only 11 percent of the GDP. Smallholder farmers in Sri Lanka are in the lower-income category and employ women about 31.8 percent and more than 70 percent or rural women are involved in subsistence production. Smallholder farmers spend most of their income on food and malnutrition is a major health and social problem among rural farming populations. This signals the need to improve nutrition literacy among farming families.

35. Development of an information-based decision-making agriculture system will enable farmers to access information economically on demand in a localized format is essential. The system needs to offer a communication network to facilitate information flow between farmers and other actors to the value chain such as agribusiness, public sector service providers, policy makers and researchers. The actors in this information communication technology solution: Centre for Agriculture and Biosciences International (CABI) local content provider, Department of Agriculture (DoA), subject matter expert, Dialog Axiata, implementation agency and Dialog Telecom.

36. GoviMithuru is an IVR-based agriculture information service, where farmers can register with relevant information and then get periodical push information (alerts) or can dial the IVR to listen to current advisories on agriculture, nutrition and preventive health care, tailor made to their profiles. CABI’s Direct2Farm agriculture knowledge management system backstops the IVR system with content developed by a team of subject matter experts form the Department of Agriculture Sri Lanka and CABI in the form of mobile ready messages and factsheets.

37. The IT/telecommunications infrastructure of the GoviMithuru service comprises of the IVR system, which is available by dialing a short code (616) from the Dialog Sri Lanka network. In the backend, there is a telephony system that transfers the calls to either a computer server (for the automated voice messages) or to a customer care center, where customers can register and/or make contact for any service-related issues. The customer care facility is also managed by Dialog. The task of the content development is to create content that should capture the attention of the listener in the first 15 seconds, result in attentive listening, ensure that the intended information/knowledge is passed on to the listener and motivates the listener to seek more information, concluding in a subscription. Constraints can be overcome by partnering with the DoA to train smallholder perceptions that mobile phones can be a tool to inform for better farming and not just personal calls as well as increase trust among farmers.

38. The results are that farmers can better network with the local farming community and with the extension officer who is connected through the platform to the upper levels of the government agriculture/service structure. The service platform also enables farmers to subscribe to agribusinesses through their mobile phones and be constantly updated regarding demand and buying prices for agriculture produce. Farmers can similarly communicate their supply information (variety, quantity, selling prices) which reduces the information gap in the value chain allowing farmers to make optimal selling decisions.[[5]](#footnote-5)

Lessons for Chongqing

39. This case illustrates the importance of updated market information through mobile technology that is voice interactive. Chongqing service stations, governement and farmer leaders could benefit from this example by improving their communications with farmers on one platform. Using this example could also improve Chongqing’s policy implementations. This case also shows a method for improving registration of farmers and lowering their costs.

40. **TraceVerified, Vietnam**  *Southwest mountainous areas of Chongqing cases demonstrate the need to brand farmers’ produce and the potential to make e-commerce sales to cross border markets in the PRC and to other countries.* Quality, trust and reputation of the brand are important to the consuming public and related agribusinesses. Hence, traceability is an important function to earn confidence in the brand.

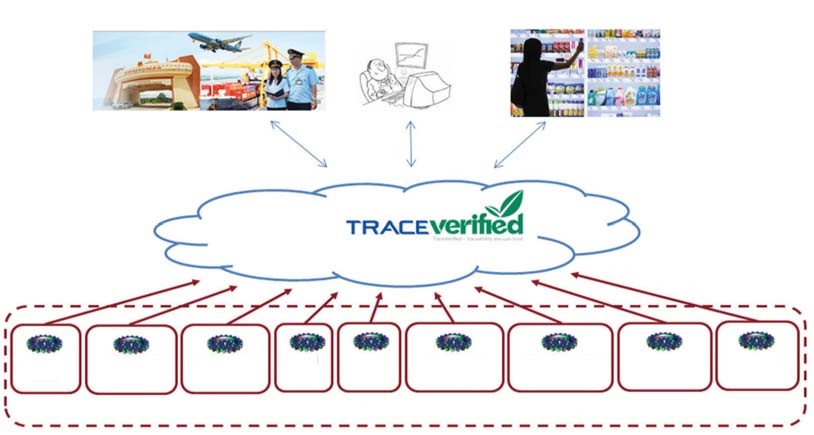
41. Agriculture and food production provides livelihoods for more than 10 million Vietnamese farming households. In 2015, agriculture exports from Vietnam were US$30.14 billion and the domestic food market was US$29.5 billion for a population of 90 million. There are many regulations as well as quality standards that require traceability of food products. For example, the European Commission’s regulation 178/2002/EC requires the establishment of a trace verification system at each production stage. Product information must be recorded and goods have to be labelled correctly to provide data on point of origin tracing.

42. TraceVerified is the very first transparent information and electronic traceability service in Vietnam. Using barcodes and QR codes to store historical information makes access to commodities extremely easy via any smart device. Food producers input all information relevant to the history of the products into the database of TraceVerified. After the information has been confirmed as accurate, the products are labelled with traceability stamps (barcodes and QR codes). Consumers can scan the code or read the stamps to obtain transparent information on the products. TraceVerified helps farmers and food producers to build credibility and competitiveness in the market. TraceVerified delivers services in all provinces in Vietnam. It serves vegetable farms, dragon fruit supply chain with cooperatives in Binh Thuan province in the southern region as well as for rice, tea, sweet potato, frozen vegetable, fruit syrup, honey, cashew-nut products with the cooperation of individual farmers and food producers.

43*. The benefits of this system are eliminating or reduces paperwork and errors and saves time.* The TraceVerified complies with international regulations with traceability stamp designed with three kinds of code with GS1 used as the basis for the code of businesses, the T code is used for farmers and traders and code traceability is in line with international standards and is unique worldwide. Information is accessible in real time. Cooperatives of smallholder producers also experience material change by establishing stable market links with steady production and sales of their produce which leads to improved incomes and alleviation of poverty.

44. The information is digitized and stored on the server of the TraceVerfied system. The data fields are customized to user demand. The principles of traceability involve one previous step and one following step. This information is then encoded into a barcode and QR code to stick on the products. The system is accessible through any kind of smartphone. No additional software is necessary. The report is shown on the screen with one click. It can be used by customs officers to gain insight about the contents of a container, pallet or carton. [www.traceverified.com](http://www.traceverified.com)[[6]](#footnote-6)

All with traceability to the TraceVerified server:

 Customs Importer Customer

Cattle Breeding Medicine Farm Agent Transport Processing Additives Package Feed Animals

[](https://www.google.com/imgres?imgurl=x-raw-image%3A%2F%2F%2F80f43155aa1d6ba8147d2586390729809cf619f083103b4c72b54c71e6d38469&imgrefurl=http%3A%2F%2Fwww.xamva.com%2Faqua%2Fdown%2FTraceVerified-Busan_Workshop_2015May.pdf&docid=Ymu3zCVfgfhwAM&tbnid=qGsdqlUx9IAVcM%3A&vet=10ahUKEwjxqsfCnpzkAhXJMd8KHToaAuMQMwhtKB8wHw..i&w=239&h=241&itg=1&bih=620&biw=1301&q=traceverified%20vietnam%20e-agriculture%20in%20action%2C%20fao&ved=0ahUKEwjxqsfCnpzkAhXJMd8KHToaAuMQMwhtKB8wHw&iact=mrc&uact=8)

Lessons for Chongqing

45. A global trend in consumer food is concern for the environment toward organic, specialty, niche produce that is sold in smaller batches and with lower transportation costs nearer point of sale. This trend, also known as “farm to fork”, could benefit the Chongqing rural farmers through the power of the Internet plus agriculture or e-commerce. The problems are that Chongqing cases show that local e-commerce platforms are not very successful in local conditions for agriculture products that are seasonal, perishable, small in quantity, but wide in variety and scattered in production locations. It is also very difficult for farmers to sell into the market even though their harvested produce is cheap, but costs of logistics, transportation and information are expensive. Even with agriculture e-commerce, ninety percent are buying from the wholesale markets and only 5-10 percent from farmers directly.

46. A Chongqing rural farmers traceability system could rectify these shortcomings and work towards improving scale economies. Traceability is mentioned in the Pengshui country, Muhui Farm case, but is not effectively put into practice throughout the rural areas. This lack of traceability platform that shows certification with labels, QR, and barcodes hinders agriculture e-commerce sales to local, regional and, especially for cross-border customers where buyer trust is based on an international recognized standard.

47. Rural e-commerce promotes establishing of farmers’ organizations and facilitating farmers participating collectively. In fact, e-commerce enterprises prefer to work with cooperatives over individual farmers for higher volumes or scale economies of on-line sales when costs can be lowered. Agriculture products sold on-line have regulations: production, processing, packaging and branding procedures. Hence, individual farmers must collaborate with others to form cooperatives, enterprises or family farms. Traceability helps farmers meet regulations and leads to easier branding practices.

48. There is collective farming in the Chongqing cases in Chengkou county for the Chinese Bee Breeding Cooperative and high quality products; in Moliang village with Cuiguan pear forming a fruit cooperative; in Xiushan county for scattered farmers forming cooperative for the flowers and in Pengshui county the Muhui Farm cooperative for an e-commerce platform for ecological vegetables and native produce for high end consumer groups of Hualong.com. Forming cooperatives will also work to better integrate and consolidate brands for more concentrated agriculture e-commerce sales by targeting specific markets. A traceability platform will improve cooperatives.

49. *The e-commerce channels for Chongqing rural mountainous areas are notable for developing in a cooperative method with assistance from the service stations.* There are five distinct categories of e-commerce:

* Business-to-business (B2B): a transaction between companies
* Business-to-consumer (B2C): a transaction between a company and an individual
* Consumer-to-consumer (C2C): a transaction between individuals, often conducted via an e-commerce platform, although not necessarily
* Government-to-business (G2B): a transaction between a company and a government, often in the form of electronic government (e-government) procurement
* Coop2Coop: An emerging form of e-commerce that takes place between cooperative organizations, which are autonomous associations of persons united voluntarily to meet their common goals

In addition to these categories, subsumed within the definition of e-commerce are mobile commerce (m-commerce) and social commerce (s-commerce):

* M-commerce is e-commerce conducted over mobile devices and networks.
* S-commerce is e-commerce promoted over – or potentially even conducted via – social networking platforms, such as WeChat.[[7]](#footnote-7)

Thus far, this report examined the M-commerce and the following are examples of B2C and B2B.

50. **Poland Honey Producer, B2C** This honey producer uses his website as a marketing channel to avoid distributors such as wholesalers and retailers and to sell directly to the customers. This kind of website can serve as B2C and at the same time B2B electronic commerce enabler. The farm honey producer can sell the offered products directly for the consumers through B2C transactions, but also to the retailers, wholesalers and other organizations that represent B2B electronic commerce.

51. Apart from honey, the B2C model of selling agricultural products runs into some difficulties connected with the specificity of agricultural products and agricultural production, that comes from such features as:

• most of agricultural products are perishable, not durable, and difficult to store;

• monetary value of agricultural products is relatively low comparing their cubic volume, and this causes problems with transport and storage;

• seasonal production causes that some fresh agricultural products like fruits are available only seasonally on the market;

• consumers usually buy food products in small quantities;

52. In food Internet shopping, it is very important that the ordered items are delivered very quickly to the customers. Even though, there are barriers and difficulties, online direct B2C sale of agricultural products is growing. The above example of honey producer refers to the agricultural products that are quite easy to store because honey is relatively less perishable product comparing with fruit and vegetable. From the producer perspective it is more difficult to sell online such seasonal and perishable products like fruit in B2C online transactions.

53. But even fruit producers try to avoid distributors and sell their products online. A very interesting case is the online citrus products shop called Fresh Citrus Direct (www.freshcitrusdirect.com.au) established in Australia by Pyap farmer Michael Arnold. As the farmer says, the traditional marketing channel consists of many different steps along the way from packers to supermarkets, and all the channel participants get their share. Using traditional marketing channels, after the fruit is picked from the field, it is graded, freighted, distributed, and all the processes last at least a week. Using the online route consumers get much fresher products two or three days after picking from trees. *Selling citrus fruit by traditional distribution channels makes 50 cents a kilogram and selling online rises to about $3.5 a kilo.*

54. *B2B in the form of electronic marketplaces also works well in Poland.* Electronic commerce is also strengthening wholesale institutions. Wholesale markets through e-commerce try to improve their services and attract as much enterprises as possible. For example, the Wielkopolski Wholesale Market (WGRO), which is one of the largest wholesale markets of food products in Poland has implemented an electronic system to improve the exchange of information between agricultural producers and buyers. Thanks to it, farmers can better plan the supply of products to the wholesale market. Besides, most of the large regional wholesale markets in Poland publish on their websites the current prices.

55. Also, farmers may use electronic commerce in order to strengthen their position. Electronic commerce offers great opportunities for collaboration and joining forces by farmers. An example is the electronic consortia-owned marketplace of beef called Wołowina Sudecka. It was created by cattle ranchers, who thanks to this electronic marketplace and their own slaughterhouse sell to food industry enterprises and consumers avoiding intermediaries. In the Internet there are many emerging Polish websites related to agribusiness, which have the characteristics of public electronic marketplaces. However, they have usually the form of simple electronic catalogs of sale offers and buying requests.

56. EWGT is Poland's only electronic marketplace for agricultural goods, which enables complete transaction, including payment for the goods in a secure way. Although it is run by the Warsaw Commodity Exchange, it is not working according to the principles of commodity exchanges. Transactions can be conducted without the support of brokers. However, the description of the goods in offers is detailed and carried out according to a specific pattern. At the same time, it limits the number of product categories covered by the electronic marketplace. New product categories are introduced gradually.[[8]](#footnote-8)

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57. The case of Poland proves that Chongqing agriculture e-commerce can succeed by taking out costs from distributors and wholesalers and selling directly to consumers and businesses. This example shows selling on-line to individual consumers and to businesses, directly. Non-perishables such as honey do not require expensive refrigerated infrastructure and are a good model to markets for all agriculture products to increase agriculture e-commerce until cold warehouses and vehicles are available in strategic locations. The example of the on-line citrus fruit business in Australia is also instructive to Chongqing. Furthermore, Chongqing could investigate the use of electronic marketplaces to better organize farmers to reach volume sales with wholesalers as found in Poland.

58. Wuxi, Yunyang, Chengkou and Wulong counties have on-line businesses that could increase sales of honey. The Xingchen Chinese Bee Breeding Professional Cooperative has 521 households in Chengkou county and the Yunyang county honey processing factory that involves 30 households produces monthly volumes of 600 kilograms by the national honey standards. Moreover, e-commerce also makes marketplaces for other agriculture products possible with greater collaboration among farmers, especially among those forming cooperatives where Chongqing has progress. The case of Poland and Australia proves that Chongqing can increase incomes of farmers by eliminating the intermediaries and moving products to buyers faster by selling on-line.

59**. Farm Fresh Gambia: Marketing local products an e-commerce platform** Farm Fresh is a Gambian social enterprise that helps market smallholder farmers’ local products through an e-commerce platform. It was established in 2014 and is the first online grocery and delivery service in Gambia. The platform markets and sells online fresh and locally grown vegetables, fruits and processed food items in partnership with farmers across the country. By doing so, Farm Fresh ensures a regular source of income generation for farmers. Currently, Farm Fresh has more than 200 local products on the website. More than ninety percent of Farm Fresh’s orders come from outside The Gambia, as people living abroad send fresh fruit and vegetables to friends and family living in the country. Farm Fresh is now planning to expand in Sierra Leone and later in Senegal and Nigeria.[[9]](#footnote-9) There are five employees and over 300 registered customers.

60. The details of how Farm Fresh works for purposes of modeling for Chongqing are as follows:

-The staff visit the farmers to explain their service and highlight the necessary quality standards. Farm Fresh has a 10 percent mark-up on the price it pays farmers for produce to cover the cost to delivery to consumers as well as other over head costs.

-Buyers from anywhere access Farm Fresh website to purchase produce from farmers

-Marketing and customer feedback are crucial to on-line agriculture sales and product offerings. Social media and word of mouth are used to target family and friends of people living in The Gambia that moved abroad and send remittance back home.

-As for facilitating payments, Farm Fresh has numerous payment methods such as PayPal on its platform. Customers can also pay cash on delivery.

-Farmers are responsible for quality control and packaging. Logistics is handled by Farm Fresh arranging two local delivery services to collect orders from farmers twice per week and deliver straight to customers.

61. **Freshket Thailand On-Line Fresh Food Aggregator Platform.** *This shows potential for* *Chongqing agriculture e-commerce B2B platform for new market channels. This model could be useful to Chongqing in achieving higher scale volumes of products needed to lower costs for logistics.* Freshket is an on-line fresh food aggregator platform to connect farmers and restaurant orders for supply direct from farms. One hundred thousand farmers registered on the national agriculture database or 10 percent of all farmers.

62. This simply means that suppliers and restaurants can, not only find each other on Freshket, but also complete their buy/sell transaction easily with Freshket’s simple workflow system. Freshket is a web based B2B platform: [www.freshket.co](http://www.freshket.co). Key features for supplier farmers and restaurants are: matching, ordering, invoicing, paying and reporting on the dashboard real-time of the website platform. Quality is checked by Freshket as suppliers need to have professional certifications such as internationally recognized GAP and provide their own logistics. Freshket becomes a key partner to the farmer suppliers by gathering data to better serve B2B customers by collecting information regarding optimal temperatures, warehouse technology and freezer room specifications, to scale distribution for smart farmers on the platform.

63. **Northeast Georgia Locally Grown, Georgia Mountains Farmers Network**

This online marketplace is a B2C platform of locally grown with certified organic or certified naturally grown farms. The platform workers personally visit each farm before approving. Not all growers are required to have certification, but all growers are committed to not using any synthetic chemicals on the food or the surrounding land. This farmers market operates a little differently than most.

64. Every week, and all year long, the platform connects customers with local food from dozens of small farms within 80 miles committed to chemical-free growing practices. Northeast Georgia, U.S.A. Locally Grown help farmers save time and transportation costs so they can focus more on farming while providing on-line customers with exactly what they want as viewed on the platform. Customers and growers are from 13 county region.

65. Approved farmers use the website market page (northeastgeorgia.locallygrown.net) to list what they predict will be ready for harvest that week. The market opens for customer orders Fridays at 9 p.m. and stays open for orders through Monday at 9 p.m. Farmers harvest and pack your order Tuesday and Wednesday. Volunteers organize your order in a basket with your name and ready for pickup at your selected pickup location from 5 – 6:30 p.m. Wednesday evening. Payment is accepted at pickup. To make payment easier, NE Georgia Locally Grown shares a cash box with the farmers.

66. There is a small annual membership fee of $20 per household to help promote local food projects in the region and help cover overhead costs. Customer Growers to the website create an account on the website. This will add growers to the system and market managers will contact growers with the next step. The charge for listing as a grower is 12% of your overall sales (which will be automatically deducted from weekly sales). Three percent of this total goes towards software licensing fee and the remaining 9% cover costs for the market (mostly transportation). Like at a traditional farmers’ market, growers do get to set their own prices and list items as they wish.

Growers also need to read “Guidelines for Growers” document. The link can be found in the text of the OUR GROWERS page. Sample listings from this B2C e-commerce:

**Edamame-Karakachi Bitter Melon Price $4.00 (known for medicinal properties)**

 [](https://northeastgeorgia.locallygrown.net/files/product/image/223248/original/20180722_014915.jpg?1532239273) 

**Price $3.00/half lb. Grower: Little Toccoa Creek Farm**

67. **IZY SHOP HQ Maputo, Mozambique** **Founded 2015**

Izyshop is Mozambique’s first online supermarket. It lists a wide range of food and drink on its website and sells fruit and vegetable boxes sourced directly from farmers. Consumers purchase these boxes on a subscription basis, receiving on average two boxes per week. Produce purchased through this method is fresher than supermarket produce that passes through several intermediaries and helps support rural farmers in Mozambique that must compete with produce imported from South Africa. It is also more convenient for the consumer, with the boxes popular with the middle-class urban population.

* Smallholder farmers that sell produce via this method earn more than $100 per month, compared to the average monthly income of $18–20 for smallholder farmers in Mozambique. There are 12 employees and 153 registered farmers.

68. Izyshop works with farmer leaders to reach local farmers and educate them about the service. Consumers make orders through Izyshop's website. Farmer leaders receive the order on their mobile phones. Marketing & customer care: Izyshop raises awareness of the service through social media and word-of-mouth. Payment facilitation: Mobile money is used to pay farmer leaders, who then share it between smallholder farmers. Logistics: Izyshop arranges for a third-party delivery service to collect the order and deliver it directly to the consumer. Quality control: Farmer leaders are responsible for quality control. This includes aggregating, checking and packing the produce from different smallholder farmers. [[10]](#footnote-10)

69. **TaniHub, Jakarta, Indonesia** The TaniHub agriculture e-commerce platform is instructive to Qinba and Wuling, Chongqing for grouping farmers into cooperatives. The challenge to farmers is controlling costs to earn a profit in order to realize the benefits of long-term, on-line selling of products to satisfied customers. The heavy burdens of branding, quality control, sales and marketing, packaging and logistics (warehouse storage (cold) and transportation) are lightened for individual growers, groups and cooperatives by a platform such as TaniHub. This case shows how the staff of the TaniHub platform are actively involved with government agencies (regulations), farmer regions, rural-urban demand creation, payment facilitation, quality control and logistics.

70. The registering of farmers is vital to the success of agriculture e-commerce, especially for poverty alleviation. The TaniHub app launched in 2015 with 138 employees (staff) and 16,000 registered farmers is now 30,000 registered farmers on the platform as of 2020. The platform connects smallholder farmers with many business buyers such as supermarkets, hotels, catering, restaurants, retailers and individuals that have high quality standards for fruits, vegetables, meat and fish.

71. How farmers register is important in order to alleviate poverty in Chongqing. TaniHub farmers register through three methods:

1. TaniHub sourcing team that searches crops and farmers. There are 1,751 vendors (farmer groups and cooperatives) accounted by the following agriculture categories: 803 vendors for fruits, 276 for vegetables, 197 for poultry, 178 for freshwater fish, 174 for spices and 123 for dairy and dry goods. Operations are in 5 major cities and partner with farmers from all major farming regions. There are 926 stock keeping unit (SKU) products.
2. Government socialization program. Could Chongqing service centers be used?
3. On their own through TaniHub social media.

After registering, TaniHub follows up those registered through methods 2 and 3 with questions and make site visits to verify the vendors (farmers, groups, cooperatives). Once verified, TaniHub fully onboards them as a vendor for the platform.[[11]](#footnote-11)

72. The background to TaniHub is that there was a transition period before TaniHub established as an agriculture e-commerce platform. Agriculture products were put on Tokopedia, which is Indonesia’s Alibaba or Tesco, among other Indonesia e-commerce platforms, then created its own app for buyers to purchase produce directly from TaniHub. The result is more work for TaniHub sales and marketing activities for directing buyers to its platform. This is useful to Chongqing to increase the rural-urban demand bond.

73. The business plan for TaniHub is to first improve the market and access to funding, then in 2020 establish a certification and traceability program aligned with international standard practices by GlobalGAP, ISO 22000 and GS1. Chongqing could use the established and large platforms as a starting point, then transition to their own platform or app dedicated to their local needs which could eliminate the fees causing the loss of farmers’ profits.

74. Forming cooperatives and agri-business groups are useful to Chongqing for managing fixed costs and variable costs. The ADB report, “Information and Communication Technology for Agriculture in the People’s Republic of China,” cited fixed costs: office, office facilities, internet site, transportation, warehouse and processing site and cited variable costs: e-commerce platform, advertising, platform services and labor. The highest costs are labor and transportation.[[12]](#footnote-12)

75. Tani Hub reduces the cost burden for farmers by working with farmer groups and cooperatives to help improve economies of scale for cheaper logistics costs, for example. Also, groups and cooperatives build reliability so that it is easier to get the commitment of farmers. Usually, each cooperative or each group has a least one smart phone or computer for them to sell their products to TaniHub.

76. TaniHub does not work directly with most rural farmers far deep in the mountains or jungle. However, their cooperatives and groups expand their membership and recruit more farmers as members. So, TaniHub relies more on the cooperatives and groups to help recruit farmers in more remote areas for cost efficiency reasons.

77. Farmers have confidence in the TaniHub platform because all the operational functions are handled by TaniHub so that there is a clearer path to market entries and farmers can devote their resources to producing higher quality products. In fact, farmers working with TaniHub tend to start producing more because they feel that they have a certainty of market(s). The higher quality products with quality control handled

by TaniHub results in a price premium to the branded products viewed and purchased by customers on the TaniHub platform. As such, TaniHub gives a slightly higher price to the farmers. Hence, the combination of more sales (volume) plus higher prices gives the farmers more income and a potential lesson or model for poverty alleviation for Chongqing.

78. TaniHub has branded products grouped as follows on their website: SomerVille for fruits, VIS for fish/seafood, Fowler for poultry and GoldFarm for vegetables.[[13]](#footnote-13) TaniHub cross-border e-commerce sales are only with exporters that ship to countries that don’t produce their own agriculture, such as Singapore. TaniHub is planning to export more, but first must build the demand (sales and marketing) and supply.[[14]](#footnote-14)

79. TaniHub has investors that link credit and finance to benefit farmers. TaniHub is part of Tani Group which has a crowd funding platform, TaniFund. TaniFund has the following services:

* connects investors to farmers to allow producers-growers to gain affordable credit to buy agriculture inputs
* provides capital for unbanked farmers, minimum amounts are $2,200 and maximum are $180,000
* credit scoring from farmers reputation on TaniHub
* profit sharing scheme with 40 percent (lenders), 40 percent (farmers) and 20 percent Tani Fund, and
* credit insurance for crops is in the planning stages.

The results are up to 120 percent overall income increase, 100 percent harvest absorption and less than 30 days to get funds.

80. Another service is the TaniGrower for cultivation assistance. This TaniHub service provides:

* knowledge on best practices for cultivation.
* data is provided by Boger Agriculture University and other farmer members
* the service is accessed by clicks, only.

The results are up to 80 percent increase in yields on 76 varieties of crops.[[15]](#footnote-15)

TaniHub received funding through angel investors to build its own distribution network.

81. In summary, TaniHub agriculture e-commerce platform provides measurable benefits to rural farmers that are members of established cooperatives and groups. The results are economies of scale (volume) to lower business costs and increase farmers’ gate prices from reliable customer markets. TaniHub staff are instrumental to:

* visit farmer regions and work with government agencies to connect TaniHub to farmers
* the platform connects farmers to business buyers
* sales team and social media develops markets to promote fresh produce to urban buyers that pay more for premium products (quality control)
* payment facilitation on the platform or in cash
* logistics costs are lowered by TaniHub using third party delivery services, cold chain logistics and its own vehicles to distribute produce to customers. Inbound is handled by groups of farmers while outbound by TaniHub third party logistics.
* Staff handles quality control by checking quality and grade of produce to buyer requirements. Supermarkets have strict conditions on size and weight.
* Warehouse storage is after inspecting, then TaniHub packages items ready for deliveries in their 4 cold-storage warehouses. Chongqing rural farmers are advised that a key challenge is the post-harvest wastage averages of 30 to 40 percent without cold storage facilities.[[16]](#footnote-16)

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82. The international developing country case of TaniHub, Jakarta, Indonesia suggests many ways for Qinba and Wuling, Chongqing farmers to make better use of an agriculture e-commerce platform to resolve challenges, especially those associated with costs for poverty alleviation. Platform staff are vital to the success of agriculture e-commerce enterprises that work with farmers. Staff can be used to first register farmers, then secure markets to manage quality control and for distribution business functions. In fact, purchase orders, fulfillment, and settlement (payments) are all on one platform, TaniHub. Could Chongqing service centers or the Digital Commerce Center be used in a similar manner?

83. The highlighted challenges in the Chongqing cases are consolidating the numerous brands to on-line business, logistics problems of moving products from village to county to cities and strengthening the rural-urban demand bond. TaniHub can serve as an example to group Chongqing farmers into better cooperatives that are registered and that have higher quality products to be branded and sold through cooperatives partnering with TaniHub and its TaniFund and TaniGrower services. Price premiums flow direct to farmers that can alleviate poverty.

84. The Xiushan county, “Jumiao” golden silk chrysanthemum case has many attributes of the TaniHub case. Farmers benefit from a system of processing, grading, packaging, training through cooperatives and brand the finished products for the

farmers scattered in the rural areas. The result is a price premium for high quality chrysanthemums to reduce Xiushan county poverty. This case is also similar in that assistance funds are from the Agriculture Bank and leaders are used to guide farmers as well as assistance from the village party branch. The need is for a TaniHub type of agriculture e-commerce app with supporting staff.

85. However, it is not clear from this chrysanthemum case and similar successful agriculture e-commerce cases of Chongqing of how and what functions are by the “on-line sales channels” and “selling them on e-commerce platforms.” TaniHub can show how the platform itself can be the means to solving so many of the challenges confronting the farmers in scattered areas. The next phase for Chongqing agriculture e-commerce development can be like TaniHub transitioning from Tokopedia platform and constructing a dedicated agriculture e-commerce platform as a business.

86. **James Tyler, Australia and New Zealand Farms to China** (separate document)

1. 1 TRANSLATION: FREE CLASSIFIED AD SERVICE (STRAWBERRY SEEDLINGS) [↑](#footnote-ref-1)
2. “Case Study, Vodafone Turkey Farmers’ Club”, GMSA, June 2015. [↑](#footnote-ref-2)
3. Miskioğlu, Sena, Marketing Representative, Vodafone Turkey, e-mail interview, Wallack, Robert L. ADB Consultant, February 13, 2020. [↑](#footnote-ref-3)
4. The Global System for Mobile Communications is a standard developed by the European Telecommunications Standards Institute to describe the protocols for second-generation digital cellular networks used by mobile devices such as mobile phones and tablets. It was first deployed in Finland in December 1991. [↑](#footnote-ref-4)
5. “GoviMithuru, Knowledge Support to Sri Lanka Farmers through Mobile ICT,” Case Study B,E-Agriculture in Action, Food and Agriculture Organization of the United Nations, 2017, pages 13-24. [↑](#footnote-ref-5)
6. “TraceVerified, Electronic Traceability Solution for Agriculture,” Case Study E, E-Agriculture in Action, Food and Agriculture Organization of the United Nations, pages 41-52. [↑](#footnote-ref-6)
7. “Defining E-Commerce, Box 1,” UNCTAD Information Economy Report 2015, p.1. [↑](#footnote-ref-7)
8. “The Development of Electronic Commerce in Agribusiness – The Polish Example,” and “Selling of Agriculture Products Via the Internet,” 2011, Dariusz Strzębickia, Science Direct, 2014 [↑](#footnote-ref-8)
9. FAO.org/e-agriculture, July 24, 2017. [↑](#footnote-ref-9)
10. “E-commerce in agriculture: New Business Models for Smallholders’ Inclusion into the Formal Economy,” Jolner, James and Okeleke, Kenechi, GSMA Intelligence, 2019, pg. 43. [↑](#footnote-ref-10)
11. Wineka, Pamitra, Principal, TaniHub, Interview by e-mail questions by Wallack, Robert L. ADB, International Consultant, U.S.A., January 15, 2020. [↑](#footnote-ref-11)
12. , “Information and Communication Technology for Agriculture in the People’s Republic of China,” ADB, 2019, Table 8.2 and 8.4, pages 62 and 63. [↑](#footnote-ref-12)
13. , <https://tanihub.com/products> [↑](#footnote-ref-13)
14. Wineka, TaniHub, Interview. [↑](#footnote-ref-14)
15. Wineka, Pamitra, TaniHub Group, “The GSMA AgriTech Webinar: Collaborating for Success in the Agri e-commerce Sector, GSMA, UK aid, October 17, 2019. [↑](#footnote-ref-15)
16. “E-commerce in Agriculture: New Business Models for Smallholders’ Inclusion into the Formal Economy,” GSM Association, London, 2019, page 45. [↑](#footnote-ref-16)