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Promote Local Agricultural Products Using E-Community Supported System

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Abstract: ***In modern generation of mobile technology, the number of smartphone and tablet ownership is rising continuously. People have been more concerned about their expectations in consumption and health. Therefore, the purpose of this is to create a web application and android application of e-Community Supported Agriculture (e-CSA) system which is done by software development life cycle (SDLC). The survey is conducted by concentrating on the impact of local agricultural products through the web application and android application development. The target members are customers and farmers, this e-commerce application benefits both farmers and customers. Using this application, customers can get opportunities to pay a fair price, receive fresh organic and healthy products, and request rare products. Farmers will get opportunities to increase sales, sale price, minimize loss and achieve good control of transportation. Our survey suggests that this application increase the economic growth in the local area for development as the exportation facilities are more suitable for small agricultural businesses.***
Keywords: Organic Products, Community Support Agriculture (CSA), Agricultural E-commerce, Farm US

I. INTRODUCTION

Trends of organic products are always growing because people are concerned about their health and quality of food consumption [1]. Therefore, they are willing to pay for organic products or healthier products [2]. Over the past decade, customers usually go to the wet market for fresh products. However, the quality and cleanliness of those products are not guaranteed. Instead, most people have been going to the supermarket since this business had ensured the quality standards and build up an image that is reliable and has quality. However, these products waste time in transportation and reducing the expenses [3]. We are focusing on supporting and developing the agricultural sector, including standards of quality production and being environmentally friendly. Therefore, owners of small farms who are interested in the organic production will earn investment support and be provided about the knowledge in organic farming by the government sectors and other organizations in order to help them increase their income.

At the present, the use of technology in daily lives has continuously increased. Therefore, the developers created an e-Community Supported Agriculture (e-CSA) system which is called “FarmUS". It is a web application and mobile application for a local social enterprise as a community for supporting customers and farmers where the administration is a distributor. This web application will help customers shop online by clicking only on the website and waiting for delivery, and there is a distributor for screening products in terms of quality and safety for the reliable farms. Hence, this method is called Community Supported Agriculture or CSA [5]. It is created for supportive relationships and community for both the consumers and farmers in supporting welfare ideals on site. It meets people who like the same things, wish for fresh products in seasonal and organic produce for their health, and share the financial risk with farmers within their locals [4]. There is no need for customers to go to the supermarket because they can find organic products from a farm near their homes on the mobile app. These organic products are certified as safe by FarmUS website while the order and pre-order of organic products through this web application help farmers save time and cost for transporting food, so consumers will get fresh goods and safe products at a low price; they also support local producers and improve their local economies. Therefore, this web application is a good choice and channel since it is helpful and convenient for both farmers and customers to sell and buy organic vegetables in a local community.

II. OBJECTIVES

Objective of this system is to promote local agricultural products at low cost. We are focusing on supporting and developing the agricultural sector, including standards of quality production and being environmentally friendly. There is no need for customers to go to the supermarket because they can find organic products from a farm near their homes on the mobile app. This web application and mobile application also helps farmers to easily manage customer’s orders and their production by showing graphs for decision making to produce, and they also get news and updates on the website and mobile app. Therefore, this web application is a good

choice and channel since it is helpful and convenient for both farmers and customers to sell and buy organic vegetables in a local community.

III. PROBLEM STATEMENT

Now a days, there are many methods for farmers to sell products. Every farmer use various marketing technics for selling their products. Many new generation people use technology in their day-to-day life therefore, with the use of the internet farmer give more attention to gain maximum customers and fulfil their needs. A technology is developed known as E-commerce that is middleware between sellers and buyers. E-commerce refers to the combination of use of the digital media and the business activities to achieve the goal of selling and buying goods and services, so as to improve the business efficiency. The development of agricultural e-commerce can change the pattern of selling, alter the structure of marketing agricultural products and improve market and price transparency.

Now a days there is lack of fresh and organic food in market, the day-to-day requirement of customer's are unknown. A system to provide solution for this major problems in which system will promote local agricultural products using E-community support system.

IV. LITERATURE SURVEY

1) In Thailand organic farming is a growing sector. Now a day's domestic market for organic products has developed as customers are more concerned about the risks affected by pesticide residues in vegetables. Growing consumer concern for safe and healthy food as well as an increased environmental awareness, especially in larger cities has shifted the demand towards alternative health products. Different labelling programs for "safe food" were established.

2) Organically grown products have received increasing attention worldwide, as growing awareness of environmental problems and increased concerns about the health and safety of modern agricultural food production practices. Without affecting the apparent rise of both supply and demand for organic products in Thailand, This paper investigates the factors affecting consumers' willingness to pay a premium price for organic products.

3) An analysis of primary survey data on Thai shopping behaviour seeks to understand the relative satisfaction of consumers with wet markets and supermarkets, identifying the factors that affect frequency of visit to, and purchase behaviour within, these retail outlets. This provides the basis for engaging in a wider debate on the possibility of a 'Global Big Middle' for food retailing. On all salient attributes affecting retail outlet choice, supermarkets perform better than wet markets. Supermarkets are frequented more by higher educated and younger consumers and are identified by a bootstrapped bivariate ordered probit model in the capital city but penetration of supermarkets is high for all socio-economic groups.

4) The purported benefits of community found in Community Supported Agriculture (CSA) are reconsidered by this study.

5) To collect data on specialty crop farms an online survey was used in 2010 in Louisiana. The main objectives of this survey includes the adoption of electronic and Internet based technologies which will assist with marketing of differentiated products evaluation of familiarity with the Louisiana Food Market Maker website and the All about Blueberries website, about marketing channels use Variables included use and effectiveness of marketing channels, level of use and quality of internet service, use of Internet-based functions and applications, barriers to use internet, frequency use and usefulness of social media and smart phones, effectiveness of and familiarity with Market Maker and All about Blueberries websites and specific application.

6) The traditional agricultural products sales model is facing a huge challenge, along with the rapid development of information technology. Agricultural E-commerce platform carries three layers function, information exchange, online payment, logistics transportation and sales activity; second is intermediate function, it can provide financial analysis, market research and business plan one are its most basic functions; the final advanced features, the related subsidiary industry and service industry.

7) The growth in direct marketing is has been observed concurrent with steady growth in CSAs and related marketing structures and consumer interest in local foods. Original emphasis on organic and sustainable agriculture are evolved along with various measures of shareholder risk-sharing with producers (Ernst and Woods, 2009). Current business models for CSAs are diverse and innovative.

V. METHODOLOGY

A. Product purchasing

1) Algorithm: 1.Login to Account

2) Search and Select the Product

3) Select the Quantity of the product to buy.
4) If we want only one Product then click on Checkout and Pay
5) Else
6) Click in 'Add To Cart'.
7) Repeat step 2nd
8) Go to Cart
9) Click on Checkout
10) Select Payment Method (i.e. Net banking, COD, Credit Card, etc.)
11) Click on Place Order

B. Procedures

1) System Development Life Cycle (SDLC): Initially, the development team used System Development Life Cycle (SDLC). SDLC was a model used to develop the information system for software project management. It was necessary to analyse and design the system operation and describe the 5 stages of the process including planning, analysis, design, implementation, and maintenance of the information system, in order to involve an information system success development [8] as a android application, namely FARMUS.

VI. SYSTEM ARCHITECTURE

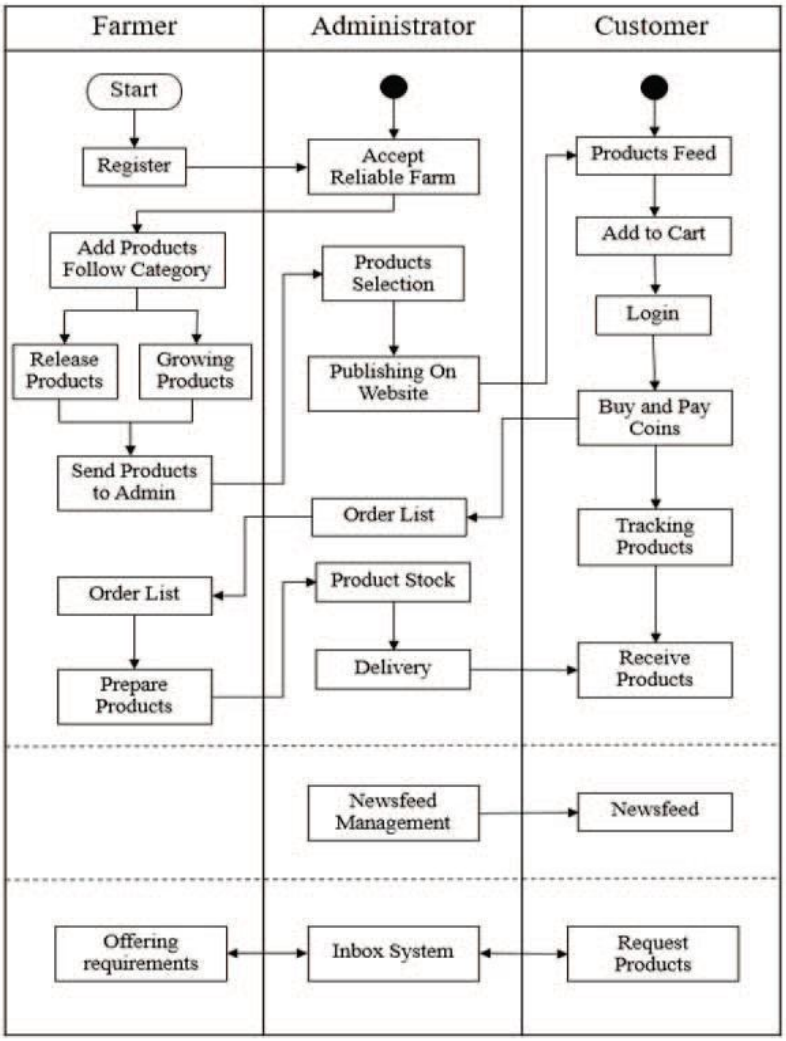


Fig.1. System Architecture

Above system architecture define the flow control of the system, this can be implemented on simple smart devices like smart phones, tablet PCs, etc.

VII. CONCLUSION

Hence, we conclude that "FARMUS" Android application provide day-to-day requirements of customer to farmer as well as the vegetable shop keeper, and using these requirements farmer or shop keeper is able to fulfil the customer's requirement avoiding the unwanted wastage of vegetables, and able to provide the fresh and organic vegetables to get the relevant profit.

REFERENCES

[1] Santichai Wicha, Teerpong Photiphun, Patomporn Janjaroenpan, Chakrin Taweesak, Intaratat Chainilwan and Poramat Rodmanee "Proposed of e-Community Supported Agriculture (e-CSA) system to promote local organic products: The empirical study of Chiang Rai province"Y. Sriwaranun, C. Gan, M. Lee, and D. A. Cohen, “Consumers’ willingness to pay for organic products in Thailand”, International Journal of Social Economics, vol. 42, no. 5, pp. 480–510, May 2015.

[2] M. Gorton, J. Sauer, and P. Supatpongkul. “Wet markets, supermarkets and the “big middle” for food detailing in developing countries: evidence from Thailand”, World Development, vol. 39, no. 9, pp. 1624, 011.

[3] Pole and M. Gray, “Farming alone? What’s up with the ‘C’ in community supported agriculture”, Agriculture and Human Values, vol. 30, no. 1, pp. 85–86, Jul. 2012.

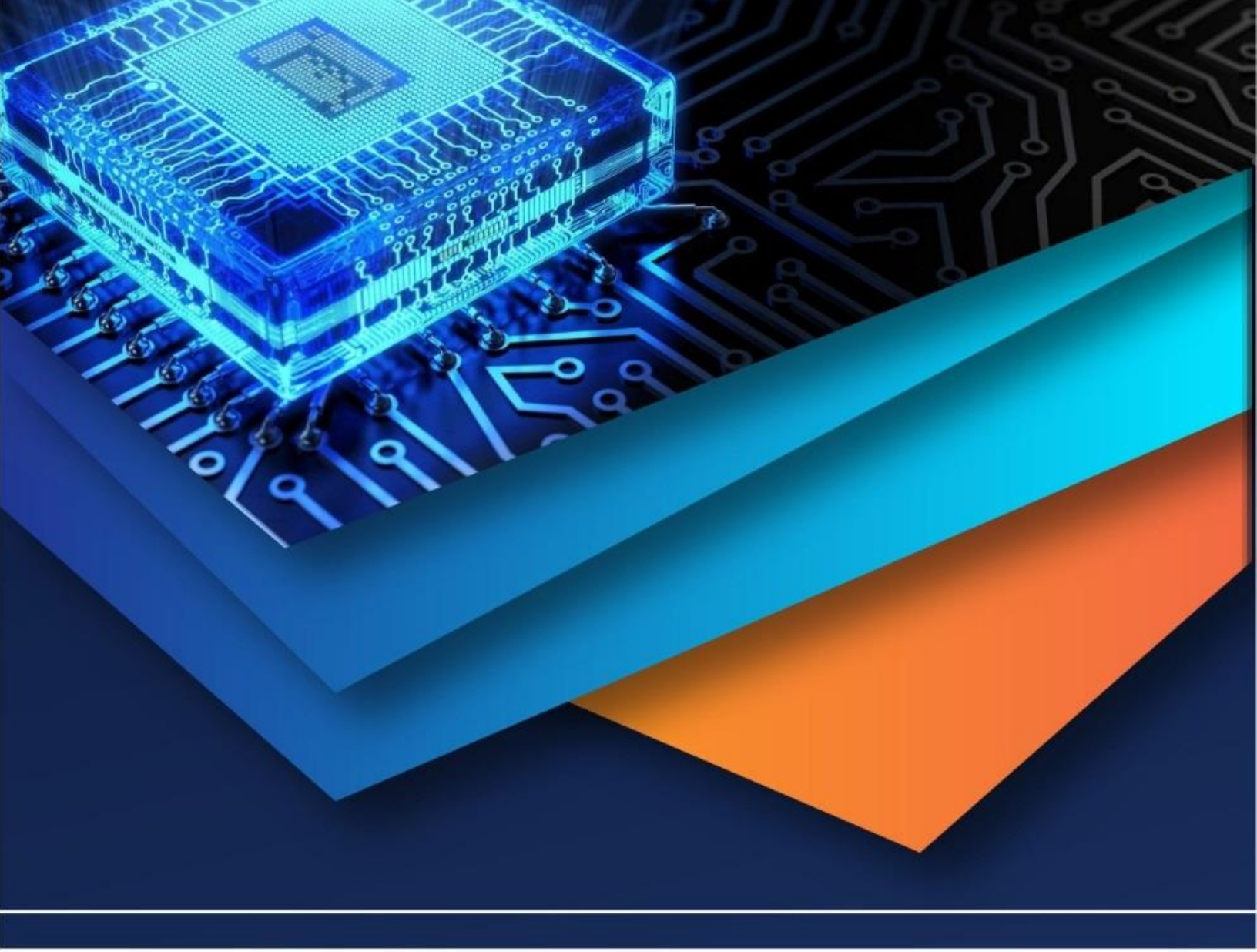
[4] S. K. Kankanamge, “Marketing Channels and Internet Technology Used by Specialty Crop Farmers”, Sri Lanka, 2012.

[5] Y. Cai, Y. Lang, S. Zheng, and Y. Zhang, “Research on the Influence of E-commerce Platform to Agricultural Logistics: An Empirical Analysis based on Agricultural Product Marketing”, International Journal of Security and Its Applications, vol. 9, no. 10, pp. 287–296, Oct. 2015.

[6] M. Ernst, “Community Supported Agriculture”, the Department of Agricultural Economics. April 2013.

[7] C. Gerrard, M. Janssen, L. Smith, U. Hamm, and S. Padel, “UK consumer reactions to organic certification logos”, British Food Journal, no. 5, pp. 727–742, May 2013.

[8] P. K. Ragunath, S. Velmourougan, P. Davachelvan, S. Kayalvizhi, and R. Ravimohan, “Evolving a new model (SDLC Model-2010) for software development life cycle (SDLC)”, international Journal of Computer Science and Network Security, vol.10, no.1, pp. 112-119, Jan. 2010.



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