

Guidelines for Online Sales Application Development for Community Products in Bangkok and Vicinity

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Abstract

The objectives of this research were to study the requirement of use for online sale application for community products and find the guideline for online sales application development for community products in Bangkok and vicinity, Thailand. This research used mixed methodology. The research samples were community products customers in Bangkok and vicinity which were selected from by simple random sampling method. The research tool for data collection was a questionnaire. Data were analyzed in terms of percentage, mean, and standard deviation. The researcher also conducted interviewing with 5 community product entrepreneurs and community leaders in Bangkok and vicinity. They were selected by purposive sampling. The research result revealed that community product entrepreneurs had gained high benefits from the use of online sales applications, especially in terms of customer services. However, some entrepreneurs are not yet understanding of using the application, unfamiliarity, makes it difficult to use the system and cumbersome. The guidelines for the use of online sales applications for community products were as follows: 1) the community product entrepreneurs must provide online sales applications for the use of online sales applications in order to enhance business competitive, 2) online sales applications must be designed and developed in terms of helpful information support and ease of use, and 3) appropriate promotion and update information for the use of online sales applications must be put in place for customers. The proper use of online sales application for community products will help the community earn more income and support sustainable development.

Keywords: Application Development, Online Sales, Community Products

Introduction

From the volatility of the world economy, terrorism, natural disasters affect the current business operations more. Therefore, the development of modern business methods for entrepreneurs

keep pace with competitive conditions, especially in the field of application of information technology for helping entrepreneurs to operate their business with ease, speed, accuracy, and support operations in the current situation. Research in appropriate online sales application development for community products in the digital economy era. will be a way to make Thai community product entrepreneurs attend to develop an online sales application and to motivate community product entrepreneurs to develop and use online sales applications for proper community products. This will result in an increasing for community product sales channels, ultimately increase the competitiveness for Thai community products, lead to income distribution and profits which will be generated by expanding online community product sales channels, reduce inequality, and promote sustainable development of the basic economy.

Research Objectives

The objectives of this research were as follows:

1. To study the demand for community product sales applications in Bangkok and its vicinity at present
2. To find guidelines for online sales application development for suitable community products in the digital economy era

Literature Reviews

Theoretical concepts for developing an online sales application for community products include consumer behavior, concept of decision-making processes, mobile application concept, popularity in mobile application development, trends in the use of mobile applications, the benefits of mobile applications for business, and the benefits of mobile applications for consumers.

1. Consumer behavior

Mowen and Minor (1998) defined that consumer behavior refers to the study of purchasing units and exchange processes related to acquisition, consumption and restrictions on goods, services, experiences and ideas. Schiffman and Kanuk (1994) defined consumer behavior as the behavior that consumers search for in relation to their purchase, using assessments, paying in products and services, which were expected to meet their needs.

In conclusion, consumer behavior refers to the behavior that consumers search for products they want to buy, assessment of product usability, dispensing of goods and services that can meet demand. Consumer behavior is the process that occurs before purchasing a product or service.

2. Concept of decision-making process

The purchase decision is the thought process of the consumer in making a decision to purchase products or services. In which the buying behavior of consumers cannot happen immediately, there needs to be a step-by-step thought process (Wutt, 2012). The result of the whole process will create a positive consumer experience and negative. The previous purchase decision will also influence the next purchase decision (Phawinee, 2011). The process of consumer decision-making is a process that expresses the feelings and behaviors of consumers in a step-by-step manner. The consumer purchasing decision process is divided into 5 steps, as follows: (1) awareness and awareness of the problem, (2) seeking information, (3) alternative assessment, (4) purchase decision, and (5) behavior after purchase, respectively.

3. Concept of mobile application

Mobile Application means an application that enables users to perform tasks on mobile devices such as mobile phones. These applications will run on different operating systems (OS)

(Suchada, 2011). Examples of mobile operating systems are: (1) Nokia's Symbian OS, (2) Microsoft Windows Mobile, (3) RIM's BlackBerry OS, (4) Palm's Web OS, (5) Apple's iOS, and (6) Google's Android OS.

A mobile application is a type of development that is used on portable mobile devices such as mobile phone, smart phone, etc. Mobile applications can be downloaded and stored on such mobile devices as a download. Computer programs on the Internet include free mobile applications and mobile applications sold.

4. Popularity in mobile application development

Popularity in mobile application development were as follows:

(1) Location-based services will continue to be popular. Location-Based Services (LBS) has advanced to provide real-time, instant user information and location-based information, plus security features and usage controls for travel services as well.

(2) Augmented Reality (AR) technology is included in the application for functional purposes. Applications that use AR are seen as gimmicks or tools to promote things, but over time The number of applications that use AR continues to grow. As wearables give us a clearer picture, AR is being used more efficiently than ever before which make it easy for users to remember the messages in the application.

(3) Instant Android applications will be use as normal. Google recently announced a feature that makes Android applications available immediately, don't waste time downloading or installing, with just a tap, these applications work immediately.

(4) The inclusion of artificial intelligence in applications has become standard. There are many developers who are building Machine Learning and Artificial Intelligence (AI) while we can easily create image filters. Developers can find new ways for apps to learn on their own so that the screens can be tailored to user preferences and location-based information.

(5) The integration of applications for the Internet of Things (IoT) is not very much of a challenge, the IoT industry is becoming more and more powerful now. Security education, smart homes, vehicles, and more are waiting to evolve with the advancements of IoT (Kittikhun and Suwit, 2019).

(6) Application security has become more important than in the past because of the large volume of sensitive user data on smartphones, especially contact information and user accounts. This makes smartphone security more important than ever. The developers must not ignore this matter. Applications with security installed can differentiate them from other applications. Security becomes a top priority at the API level.

5. Trends in the use of mobile applications

The trend of using smartphones has increased exponentially. This is a result of the development of mobile applications and the technology of the phone from the manufacturers, especially the development of applications on mobile devices of various companies. Competing to be one of the mobile applications, which application development is divided into the development of system applications (operating system) and soft applications. Responsive software and with more and more powerful applications that mobile users are more likely to use to meet daily activities such as financial transactions connect and search on the internet network, watch movies, listen to music or even play games that are both online and offline (Suchada, 2011). As a result, many leading mobile phone companies are focusing on mobile application development, which there will be a noticeable growth in download rates for use. The most popular communication device today is a mobile phone with a smartphone, with the proportion of smartphone sales increasing dramatically. This is a result of mobile applications that have been developed more from the mobile phone service companies or from many software companies turning to develop applications on mobile phones.

6. Benefits of mobile applications for business

The benefits of mobile applications for business are as follows: (1) have tools to promote their businesses and make them more known in the society, (2) reduce the cost of producing media for public relations, (3) increase the image of the business to look good, have strengths and own selling points, resulting in increased sales of the business, (4) have better customer service, and (5) reduce the work process to make it more convenient to contact.

7. Benefits of mobile applications for consumers

The benefits of mobile applications for consumers are as follows: (1) reduce the process and save time when dealing with transactions such as money transfers, (2) provide a wide range of options that allow quality and price comparisons without marketing survey, and (3) save the cost of choosing different services.

Relevant Research

Suchada (2011) studied the trend of using mobile applications and it was found that smartphones have increased exponentially in the past few years. This is a result of the development of mobile applications and the technology of the phone from the phone manufacturers, especially the development of mobile applications of various companies that compete for the top of mobile application market. Application developments were divided into the development of operating, system applications and software applications which respond to the use of the device. Due to the increasing and more efficient application, this makes mobile users more likely to use different programs for daily activities such as financial transactions, connecting and browsing on the internet, watching movies, listening to music or even play games online and offline. With the growth of mobile device usage, many leading mobile phone companies are focusing on mobile application development. It is believed that there will be a noticeable growth in download rates for use.

Nowadays, various businesses have begun to adjust accordingly, especially in the e-commerce business and online food delivery business, but even if smartphones play a role in the daily life of Thai people more but the e-commerce business and most online food ordering service businesses still operate mainly in the offline world. The e-commerce segment has a market share of only 3.8% of the Thai retail business and service business. Online food delivery has a market share of only 4.9% of the total restaurant market in Thailand. Therefore, there are still many market opportunities for online-to-offline or O2O businesses. Online channels help solve time and budget constraints, as well as facilitate and create alternatives to access products and services in daily life, covering restaurants, trade, consumer products, pick-up and delivery, travel and tourism (Israwali, 2018).

Research Methodology

This research is a mixed methodology by using qualitative research and quantitative research in order to obtain guidelines for online sales applications development for community products in the digital economy era.

This research collected data from 2 sample groups, the first group was 400 samples which were selected from people in Bangkok and its vicinity by a simple random sampling method based on Taro Yamane's sample size table at 95% confidence level. Data were collected by using online questionnaire.

In addition, data were collected by interviewing the second group who were product business operators in the community in Bangkok and community leaders in Bangkok about using the online sales application for community products in the digital economy era. The 5 samples were selected by purposive sampling in order to collect data about their present use of online

sales application, benefits and problems of use, their future use plan, and suggestions about the online sales application development for community products.

After that, the collected data were analyzed in term of descriptive analysis in order to find guidelines for the proper online sales application development for community products in the digital economy era.

Results

1. General information of the sample

The most of the samples were male, aged between 35-44 years, and having a bachelor's degree. The most of sample have income 25,001-30,000 Baht per month, next is the sample group with income 30,001-35,000 Baht per month, 40,000-45,000 Baht per month, and 45,001-50,000 Baht per month, respectively.

2. Forms of use of online sales applications

Using information technology devices for online sales applications, it was found that most of the respondents used mobile phones the most, followed by personal computers (PCs), notebooks, i-PADs and PDAs, respectively, which was shown in table 1.

Table 1: Using information Technology devices for online sales applications

Devices	Persons	Percentage
Mobile phones	348	87.0%
PDA	42	10.5%
i-PAD	78	19.5%
Notebook	140	35.0%
PC	296	74.0%

3. Benefits and Problems of Using Online Selling Applications

It was found that the overall sample benefited from using an online sales application at a high level. The benefits of information support for decision making, and convenience, these two aspects are at the highest level. Next are the factors that provided benefits at a high level: accumulating points, promotions and discounts, searching for information, data comparison, time saving, and modernity, respectively.

Overall problem of using online selling applications was moderate level. The only problematic factor was the problem of ease of use. Other factors, there were moderate problems such as convenience and speed, reliable accuracy, data integrity, save cost, data reliability, gaining knowledge, and use of technology to be useful, respectively.

4. Satisfaction with using the online sales application

Overall, the sample group was satisfied with using the online sales application at a high level. The sample group takes into account the satisfaction of presenting information to individual customers first, followed by information support for decision making, user satisfaction, and data security, respectively.

5. The use of mobile applications at present

Nowadays, online sales applications for community products are widely used by entrepreneurs for their operations by applying modern technology in order to facilitate the operation, most entrepreneurs try to implement online sales applications for support in all aspects of work. Marketing store customer data, assessing customer needs, advertising, etc.

The components of developing an online sales application for community products are as follows: (1) data, (2) hardware i.e. computers, and devices, (3) software, (4) authorized users to access the system, and (5) networking, which is connected to the database of the system.

6. Benefits and problems of using online selling applications for community products

Benefits, which entrepreneurs get from using online sales applications for community products, were as follows: (1) Entrepreneurs benefit a lot. It helps entrepreneurs to bring information to manage their operations effectively. 2) Entrepreneurs can monitor, follow up and control their operations in the relevant steps to ensure accuracy and help to monitor operations.

Problems with using online sales applications for community products were shown in table 2. The main problems were as follows: (1) Some entrepreneurs are not yet knowledgeable. Understanding of using the application, unfamiliarity, makes it difficult to use the system and cumbersome. (2) Security, as it sometimes exposes some of the customer's confidential information. (3) Flexibility, mobile apps are not fluent, there will be system usability problems by improper use, difficult to use, and 4) User satisfaction., if the internet system is slow, it will make the application work slow and inefficient. Additionally, some organizations have old and outdated technology, and lack of maintenance.

Table 2: Problems with using online sales application for community products

Problem aspects	Mean	Standard deviations	Level
Mistake information	3.25	.725	Medium
Incomplete information	3.25	.954	Medium
Inconvenience/Slow	3.27	.757	Medium
Difficult to use	3.63	.967	High
No cost saving	3.16	.862	Medium
Lack of knowledge providing	3.13	.736	Medium
Not up to date technology	3.27	.732	Medium
Unreliable information	3.15	.873	Medium
Can't use technology to benefit	3.12	.772	Medium
Total	3.24	.820	Medium

7. Future use of online sales applications for community products

The application of information technology in various areas in the future included the development of online sales applications for community products for research and development for products and services, systematically recording the results of product research, related factors analysis of results and reporting.

Developing an online sales application for community products are as follows: (1) Entrepreneurs should regularly review the data. and develop technology to be up-to-date. (2) Entrepreneurs should develop software for developing online sales applications for community products suitable for use. (3) They should develop a system for checking and evaluating the quality of customer service. The relevant information should be recorded in the customer service process, and problems found as evidence of quality checks in the service process and communication with customers to build credibility in order to make customers trust in the quality of service.

8. Suggestions for guidance to develop an online sales application for future community products.

Suggestions on future models for using online sales applications for community products are as follows: (1) Entrepreneurs should improve their customer service processes from a multi-step old system. (2) Entrepreneurs should design the application to be easy for use, modern and can process data accurately. This will allow users to use it conveniently and quickly. (3) Entrepreneurs should develop an online sales application that covers usage for various activities by reducing complex and cumbersome work processes. (4) Entrepreneurs should systematically use online sales applications for community products by learning and understanding the proper use of the application. (5) Information obtained from using the online sales application should be used for planning purposes, setting goals for increasing sales, evaluating and expanding sales channels. They should select and use technology which can clearly define metrics in terms of sales and development in order to improve the quality of service.

Discussion

Using information technology devices for online sales applications for community products through various devices, it was found that the majority of respondents used mobile phones the most, followed by personal computers (PCs), notebooks, PDAs and i-PADs. Accordingly, entrepreneurs should make it easy for all online sales application users to have access to the application. In addition, the application must be able to support display through devices such as mobile phones, personal computers, notebooks, i-PADs and PDAs, etc.

Using an online sales application for community products helps entrepreneurs benefit. They have quick and easy access to relevant information, and the use of online sales applications for community products improves the quality of service. The application allows operators to apply information to work management and customer service. In addition, the use of online sales applications for community products helps entrepreneurs to continuously increase their business competitiveness, increase revenue both directly and indirectly, reduce labor costs, reduce redundant costs, and create a good image for the product in the eyes of consumers.

For the problems with using online sales applications are moderate, the most problematic factor was the problem in terms of ease of use. For other factors, there were moderate problems such as in terms of convenience and speed, reliable accuracy, data integrity, save cost, data reliability, and gaining knowledge. Therefore, entrepreneurs should develop an online sales application that is designed to be user-friendly, easy to use, and not complicated. In addition, entrepreneurs should be trained and practiced in the proper use of online sales applications. In addition, entrepreneurs should be trained and practiced in the proper use of online sales applications. This allows personnel to use the application easily, quickly and efficiently.

The sample group was satisfied with using the online sales application at a high level. Flexibility was first considered, followed by the ability to manage data, user satisfaction and data security, respectively. Therefore, entrepreneurs should develop an online sales application to respond appropriately to the users. The entrepreneurs should inquire about user needs. They should arrange for research and development of online sales applications to be suitable for use and improve the system to work accurately, up-to-date and always secure.

Guidelines for online sales applications development for community products

By using the information which were obtained from the literature reviews, research results and suggestions, the researcher therefore proposes guidelines for developing an online sales

application for community products as shown in figure 1, which consists of the following issues:

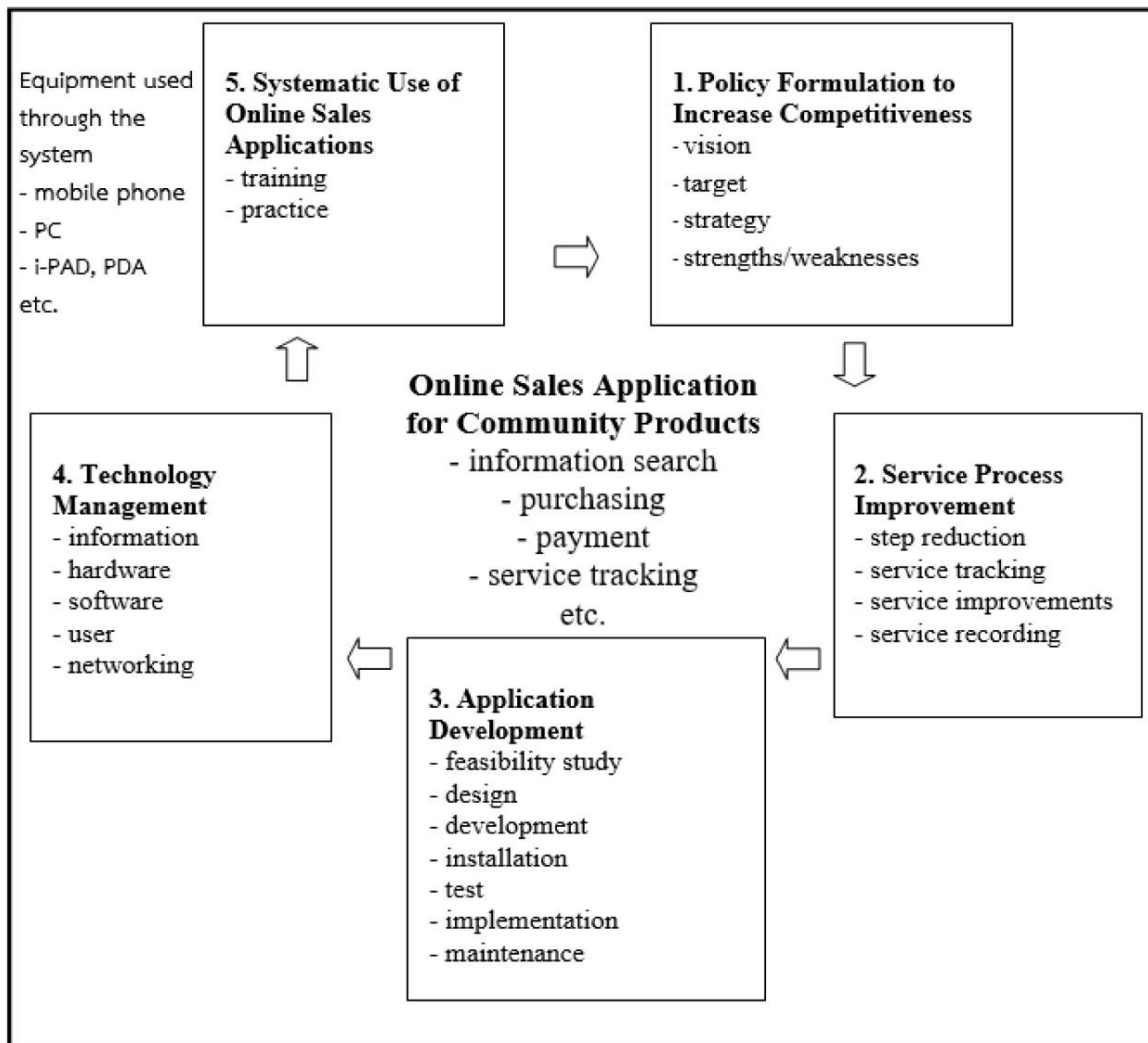


Figure 1: Guidelines for online sales applications development for community products

1. Establishing a policy on the use of online sales applications for community products in order to increase business competitiveness

The management of entrepreneurial philosophy, vision, goals, and strategies has a profound effect on the impetus for the creation and development of online sales applications for community products. If entrepreneurs are unable to adapt and develop technology to be up-to-date, it will result in a loss of business competitiveness.

The use of online sales applications for community products should not be used solely to keep historical and current records but the information should be used for planning purposes, goal setting, project implementation, assessment, control and monitoring. The system should be developed to be able to set numbers/metrics in various fields clearly, such as improving the quality of service, sales increase, etc.

2. Improving the process of providing services

Implementation of an online sales application for community products, operators should take into account nature of business. The technology must be used to work in accordance with the

work process of the business. Some processes may need to be modified in order to provide efficient customer service.

Improving the process of providing services must be done appropriately. The entrepreneurs may change the process from the old system that has many steps which makes data collection and operational monitoring difficult. Reducing unnecessary steps and eliminating redundant tasks will allow personnel to serve customers more conveniently and quickly.

3. Using a proper online sales application for community products

Entrepreneurs should research the need for online sales applications for community products. The focus is on designing an online sales application that is easy to use, modern and can process data accurately. This will allow users to use it conveniently and quickly, including maintaining the system to be ready for use at all times.

Due to the rapid progress of information technology in the era of globalization. Entrepreneurs should apply technology to their business operations appropriately, including computer equipment, and network communication equipment. Nowadays, wireless networking and high-speed internet are gaining more and more attention. The application for the development of online sales applications for community products should be chosen according to the nature of use.

In addition, entrepreneurs should take into account the ability of online sales applications for community products to link to the database system in the network. Modules should be able to work together. They can exchange information with each other instantly via online communication. The system should have the ability to record and be able to search information accurately, conveniently, and with sufficient information. Moreover, online sale applications must have a good security system to prevent computer virus problems and intruders who will come into the system such as hackers, crackers, etc., including the system maintenance.

4. Technology Management

Entrepreneurs should have a good management of the components of the system which compose of: 1) information, 2) hardware, including computers and various devices, 3) software, 4) users, who are personnel within the organization and outsiders who are allowed to use the system, and 5) network systems, that covers the use and users can connected to the database of the system. The exchange of information in the network will create the value of using the information from the system to be more useful. In addition, operators must provide a good system security system in order to protect and maintain important corporate information.

5. Systematic use of online sales applications

Entrepreneurs should encourage personnel to use online sales applications systematically by learning and understanding the correct use of online sales applications for community products, and by studying and attending training on how to use the application as well as hands-on practice on how to use online sales applications for community products. This will enable efficient use of the online sales application for community products.

Conclusion

The guidelines for the use of online sales applications for community products were as follows: 1) the management of entrepreneurs must set philosophy, vision, goals, strategies has a profound effect on the impetus for the creation and development of online sales applications for community products, 2) the community product entrepreneurs should improve customer service processes from legacy systems with multi-step processes, 3) the community product entrepreneurs should design applications that are easy to use, modern and capable of accurately processing data. This will help users to use it easily and quickly, 4) the entrepreneurs should develop an online sales application that covers usage for various activities by eliminating

complex and cumbersome work processes, 5) the entrepreneurs should systematically use online sales applications for community products by learning and understanding the proper use of the application. Moreover, the obtained information from the use of the online sales application should be used for planning purposes, setting goals for increasing sales, evaluating and expanding sales channels. The use of technology should be developed that can clearly define metrics, both in terms of sales and development in order to improve the quality of service.

Suggestions for future research

From the analysis of guidelines for using online sales applications for community products in Bangkok and its vicinity, the researcher recommends that the further research can be conducted to 1) study the use of online sales applications for various types of community products such as mobile applications, social commerce, etc., and 2) study the use of online sales applications for community products by comparison with other areas such as Chiang Mai province, Phuket province, etc.

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