

WEBSITE DESIGN AND DEVELOPMENT FOR DESSERT SHOP: A CASE STUDY OF SWEET SHOP IN THAILAND

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ABSTRACT

This is a research and development. The objectives of this research were to 1) study the needs of websites for those who are interested in Thai desserts and 2) design and develop suitable websites for increasing distribution channels of Thai desserts, a case study of a dessert shop, Sweet Shop, during the COVID-19 epidemic. The research results revealed the need for a website for those interested in Thai desserts. The website was designed and developed in terms of appropriate design, formatting, and content management. The developed website is a channel to sell products on the internet of dessert shops which helps generate another additional source of income for dessert shop business in digital economy era.

Keywords---Website, Design and Development, Dessert Shop

INTRODUCTION

In the past, the channel for learning to bake was either a hobby or a personal preference and the learning has applied for baking classes as a spare time or gaining extra income by bringing snacks to sell in front of our own store. Nowadays, there is an epidemic, COVID-19, causing problems to not be able to attend classes in the classroom. The teachers also lack income and have expenses that must be paid about a place to study and sell products which they had higher rental prices due to growing economy and higher cost of living. Therefore, the cost of renting a place in a good location will increase accordingly.

Nowadays, information technology is growing rapidly. Internet has become more important to the general public. The online world is another way for customers to quickly access information about the store and is a channel for customers to know the product better.

Moreover, there is a lower cost compared to traditional trading. For these reasons, buying-selling sweets through online buying-selling system and the opening of additional online courses has become more and more popular, giving customers the convenience of not having to travel to a school or store. It also increases the speed of trading and selecting the desired product efficiently. They can study when they have free time and they were able to learn how to bake comfortably and they can solve the problem of high cost of place in terms of the rental money shop, decoration fee, wages for shopkeepers, etc., by presenting them through the website. This allows them to save a lot of costs in various fields.

Objectives of Research

- 1) To study the needs of websites for those who are interested in Thai desserts.
- 2) To design and develop suitable websites for increasing distribution channels of Thai desserts, a case study of a dessert shop, Sweet Shop, during the COVID-19 epidemic.

THEORETICAL CONCEPTS

Related concepts and theories were related to website development, electronic commerce, online learning, and Dessert shop business.

System analysis and design

System Analysis is a study of problems that occur in the current system in order to design a new system in addition to designing a new system. The goal of system analysis is to improve and modify the existing system to have a better direction to be the new system. The system currently in operation is called the current system, but if later a new system is developed and implemented, we will call the current system that used to be called the old system (Kittikhun & Suwit, 2019).

System Design is the use of the results obtained from system analysis to develop a physical model starting from the design of hardware and software in the input part, the processing part (Process), the output part (Output), the storage part (Storage), the design of the data model report design and screen design to interface with system users which it must focus on analyzing what solves the problem (What) and how does design help to solve problems (How).

System development cycle

System Development Life Cycle (SDLC) is the process of developing information systems in order to solve business problems and meet the needs of users. Within the cycle, the development process is divided into the following main groups: planning phase, analysis phase, design phase, creation and development phase (implementation phase).

SDLC is a cycle that represents various activities which is a sequence of steps in system development. SDLC consists of 7 phases of activities as follows: problem definition, analysis, design, development, testing, installation, and maintenance, respectively (Kanithabutra, Hengtragul, Surinwarangkoon & Hoang, 2020).

Electronic commerce

Department of Export Promotion, Ministry of Commerce (2021) defined that electronic commerce refers to all forms of business operations related to the purchase and sale of goods and services through and telecommunication systems or electronic media.

The World Trade Organization (2021) defined that electronic commerce refers to the production, distribution, marketing, sale or transportation of products and services by using electronics.

Sirawan Serirat (2003) has given the meaning that it is a process for online marketing of products and services. This includes product information, orders, invoices, payment processes and customer services, or refers to all business transactions related to the purchase and sale of goods and service via computer and telecommunication systems or electronic media.

Tanthima Chueakhiao (2007) explained that electronic commerce is all types of business operations which related to the purchase and sale of goods and services through computers and telecommunication systems or electronic media.

Electronic Transactions Development Agency (2020) aimed that electronic commerce is a trading transaction or exchanging goods and services on the internet by using the website or application as a medium for presenting various products and services, including communication between buyers and sellers. E-commerce makes people use the service from anywhere in every country or every corner of the world which they can access the store easily and 24 hours a day.

BRAND DOODEE (2017) stated that e-commerce is doing business using electronic media to achieve business goals that the organization has set, such as trading products and services, advertising through electronic media, whether it is a telephone, television, radio or even the Internet, etc., with the aim of reducing costs and increasing organizational efficiency.

From the above meaning, we can summarize the meaning of electronic commerce that it is the process of conducting trade and service business through electronic media.

E-commerce business model

There are two forms of electronic commerce as follows:

1) Click and mortar is a form of electronic commerce that is a combination of business stores or companies that offer trading services and have a website. One way to trade, it is an extension of business by being able to connect both trading and channels together, such as www.chulabook.com of Chulalongkorn University Book Center that sells books. There are both bookstores and websites as another channel to sell books online.

2) Click and click, a form of electronic commerce that is open for service. Trade through the website only one way. There is no business or physical storefront where customers can shop or pick up products, such as www.tohome.com, a website selling products and IT products.

Online learning

Online learning is another form of educational innovation which can change the way of learning in a traditional way to be a new class that uses technology to help teaching. In addition, it also means distance learning, learning through the web as well.

Online learning will be learned via the internet in the form of a computer. It is the use of modern technology, connect to the internet network, create high-quality interactive studies without the need to travel, support convenience and quick access anytime, anywhere, creating lifelong education for the population.

Online teaching

It is a self-study via the internet. Students can choose to study according to their own preferences. As for the content of the class, it consists of text, pictures, audio, VDO and other multimedia. These will be sent directly to the students through the web browser. Students, teachers and all classmates can communicate, consult, exchange ideas, thinking in the same way as learning in general classes by using e-mail, chat, social network, etc. For this reason, online learning, it is suitable for everyone to study anytime.

Thai dessert

Thai dessert means a kind of food that is not a food on the main dish but it is a food that is eaten after the food, for example, in lunch, there is chicken noodles as a food. Diners maybe served Tub Tim Krob as a dessert. etc. When consuming important meals such as breakfast, lunch and dinner, both savory and desserts should be consumed. What is used as a dessert can be dessert or fruit, besides eating dessert after a meal. We may eat sweets or desserts when we do not eat savory food but we will eat sweets or desserts as a snack or eating sweets and drinks.

Figure 1
Examples of Thai dessert



Thai desserts are sweet, or is so sweet that it feels on the tongue of the eater. Making Thai desserts is something that must be studied and practiced using art, science and patience, and order meticulousness in assembly. Authentic Thai desserts must be fragrant, sweet, oily, and refined from the preparation of the ingredients, until how to do. Thai desserts can be divided into different types, according to the nature of the seasoning, method of doing, and manner of cooking

RELATED RESEARCH

Sansanee Rattanawaraha (2015) studied the establishment of a Japanese bakery business by studying the approaches to strategic planning, business trends, with content about a comprehensive Japanese bakery business with a bakery. Japanese-style curry and sweets that are suitable for good health by selecting Japanese ingredients. It is placed under a clear concept and theme to be a bakery and cafe that responds to the needs of consumers who like to eat bakery products but have a need for health care. Including competitive liquidity and business factors. After that, there was an experiment to plan the establishment of a Japanese bakery business by studying and analyzing the competitive factors, analysis of external and internal environment as well as business trends for Japanese bakery service with a focus on customer care business and service for healthy bakery with good quality standards. It is a research study of data from a sample of 400 consumers in Bangkok.

Pornwalai Wutthichak (2018) studied the Durian-Chan Café business plan by studying behaviors and factors affecting the decision to use the cafe service and the trend of consumption of desserts and beverages made from durian among Thai tourists in Chanthaburi province. Then the obtained information is used to develop products and services to meet the needs of the customer group. An in-depth interview was conducted using open-ended questions related to cafe service behavior and interest in durian desserts and beverages. There were 8 Thai tourists in Chanthaburi province who interviewed and studied the trend of interest in products from medium and small resort operators in Chanthaburi province. There were 5 interviewees in this

group and asked each interviewee for additional information on the issues of interest, in order to collect information from the point of view of consumers and entrepreneurs in its entirety

Pimpinit Pewpong (2017) studied the factors influencing the decision to consume desserts in Hua Hin district by studying about the factors influencing the decision to consume dessert shops in Hua Hin district. The researcher determined the scope of the study by selecting demographic factors such as gender, age, education, occupation and income level. and marketing mix factors (7P), which are product factor, price factor, distribution channel factor, marketing promotion factor, person factor, physical and presentation factor, and process factor, which were used as a conceptual framework for studying the relationship with consumer choice. The sample group is consumer groups who have experience in consuming dessert shops in Hua Hin district.

Suthicha Pamornvejwan (2015) studied a full-service dessert and snack shop, Sweet Sphere, by studying the approach and feasibility of setting up a full-service dessert shop project. from consumers who have a passion for eating sweets who are between 16 - 45 years old, have a good education, have purchasing power in Bangkok where the data collection period is between June 2015 -September 2015 and the researcher will use the information to establish a complete dessert and snack shop project.

Naphakon Sanguantang (2015) study the behavior of working-age consumers in Bangkok on the consumption of Thai desserts by studying the behavior of working-age consumers in Bangkok on the consumption of Thai desserts. A questionnaire was used as a tool to collect data from 300 people working in organizations in both business and government sectors whose offices were located in office buildings in Bangkok. Quota sampling was used by dividing age groups which were divided into 3 groups: 100 cases in the age range of 20-29 years, 100 cases in the age of 30-39 and 100 cases in the age range of 40-60 years. Data were analyzed by using frequency, percentage and mean, it was found that the group of office workers in Bangkok aged between 20 and 60 who bought Thai desserts were females with a bachelor's degree. It is a group working at the level supervisor/owner/executive and a group of operational staff/housewives. In a similar proportion, the most of them prefer to buy fresh Thai desserts. Most people like to buy still / boiled / stirred desserts, popular Thai desserts that use natural ingredients, followed by maintaining an ancient dessert, having health benefits, respectively. The product factors that most influenced purchasing decisions were tasty and clean. Most fresh, bought to eat by themselves.

Suwanna Nanumchok (2016) studied the snack market factors that affect consumers' purchasing decisions. The research found that personal factors of the Department of Health personnel, most of the questionnaires were female, 253 persons, aged between 31 and 40 years old, postgraduate year of study with monthly income 15,000-25,000 Baht. The overall market factors were at a high level in terms of product prices, distribution and marketing promotion, all of the packaging, the use of sales staff, the provision of information, and the use of energy were at high levels while the overall consumer demand was at a high level. Consumer satisfaction, the convenience of purchasing and variety of advertising media were all at a high level. The results of the hypothesis analysis showed that personal factors such as gender and different ages had different demands for snacks consumers at the statistically significant level at the 0.05 level. The level of education and the average monthly income were different. There was no difference in the demand of consumers for snacks. The market factors were related to consumer needs.

METHODOLOGY

This is a research and development. The researchers have studied and researched information, collect information, and analyze the content information on the website and documents related to sweets.

Design a website to suit the needs

The researchers have designed the website page to suit the needs with the use of components, namely Design content on your website by categorizing it into separate categories. The design is an important part that the researchers pay attention to because it is like a face or what the researchers want to offer to those who are interested in learning how to make desserts and want to buy and have access to another trading channel of the shop. The design of the website page allows the author to divide and separate the types of desserts into categories in order to make it easy to use.

Develop website

When getting information and designing a suitable system, designing and building that website. The organizer will highlight the cheap classrooms and the best-selling popular sweets on the homepage website in order to make it easier for users and increase the efficiency of the website.

Assessment of user satisfaction

Once the development of the website is completed, it must be validated and evaluated for satisfaction. from users of the site.

RESEARCH RESULTS

Consumer personal information

Consumer personal information from questionnaire were displayed in Table 1.

Table 1 Displays frequency and percentage of consumer personal information from questionnaire.

Personal information	Frequency (persons)	Percentages
1. Gender		
Male	83	41.5
Female	117	58.5
Total	200	100
2. Age		
Less than 18 years old	7	3.5
18-25 years old	73	36.5
26-30 years old	70	35
31-40 years old	41	20.5
41-50 years old	6	3
Above 50 years old	3	1.5
Total	200	100
3. Occupation		
Students	71	35.5
Governments employees	15	7.5

Personal information	Frequency (persons)	Percentages
Own business	87	43.5
Business employees	18	9
Unemployed	9	4.5
Total	200	100
4. Salary per month		
Less than or equal to 15,000 Baht	69	34.5
15,001-25,000 Baht	49	24.5
25,001-35,000 Baht	26	13
35,001-50,000 Baht	54	27
More than 50,000 Baht	2	1
Total	200	100

Snack buying behavior through websites

Data on snack buying behavior through websites that responded to the questionnaire was showed in Table 2.

Table 2 Shows frequency and percentage of data on snack buying behavior through websites that responded to the questionnaire.

Snack buying behavior through websites	Frequency (persons)	Percentages
1. Buying channels		
on online application such as Lazada, Shopee	3	1.5
go to store	58	29
Order via online website	55	27.5
Order through a food ordering application such as Line Man, Grab Food	84	42
Total	200	100
2. Frequency of snacks eating		
Daily	22	11
15-20 times per month	38	19
10-14 times per month	53	26.5
1-9 times per month	87	43.5
Total	200	100
4. Reason for buying		
tempting promotion	17	8.5
want to eat	78	39
recommended staff	17	8.5
internet review	75	37.5
novelty of sweets	13	6.5
Total	200	100
5. Find information before buying snacks from anywhere		
friend recommended	47	23.5
Facebook	94	47
Instagram	19	9.5
Websites	40	20
Total	200	100

Snack buying behavior through websites	Frequency (persons)	Percentages
6. Preferred promotion		
discount promotion	53	26.5
Promotion buy 1 get 1 free	39	19.5
free delivery promotion	48	24
Promotion, the more you buy the more you save	60	30
Total	200	100

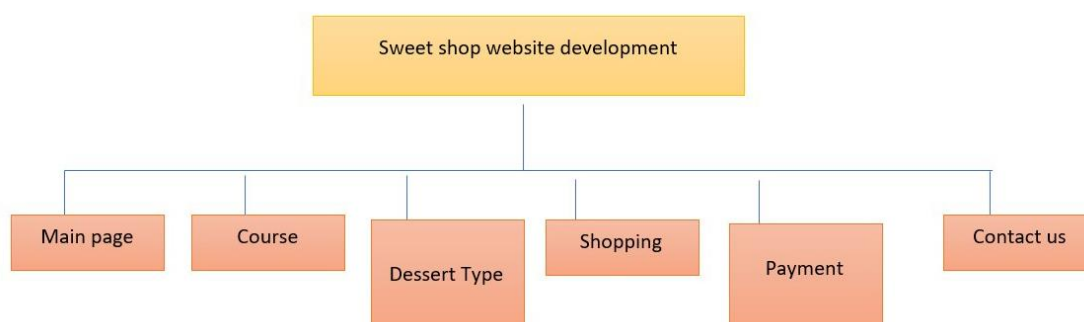
Website design and development for dessert shops

The researchers have divided the types of desserts into categories. Each category contains information and is divided into menu buttons and sub-menus of that section of content: Menu 1. homepage, Menu 2. course, Menu 3 product category: egg type dessert, steamed type dessert, boiled type dessert, stir-fried dessert, baked and baked dessert, fried dessert, toasted dessert confectionery type, type of candy, type of candy with coconut milk sweets, syrups, puffed sweets, compotes, Menu 4. shopping, Menu 5. payment methods, bank account number, payment notification, Menu 6. contact us, Menu 7. apply for membership, and Menu 8. Login.

Sweet shop website development

Site map design for Sweet shop was shown in Figure 2.

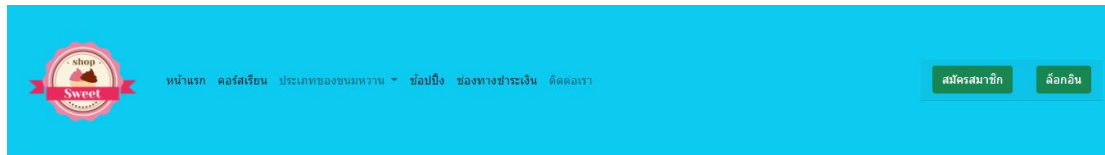
Figure 2
Site map for Sweet shop



Website development results

The examples of website development results for dessert shop were as follows: main page was illustrated in Fig. 3, courses of Thai dessert learning was shown in Fig. 4, and List of Thai dessert for shopping was shown in Fig. 5.

Figure 3
Main page



ประวัติความเป็นมา



Figure 4
Courses of Thai dessert learning



คอร์สแนะนำ





 <p>ขนมมงคล9อย่าง ถ้าเป็นงานมงคลสมรสมักจะทำขนมหวานให้ครบ 9 สิ่งขนมที่ใช้ในงานมงคลสมรสตามประเพณีทางฝ่ายเจ้าสาวจะต้องเป็นผู้จัด</p> <p>จองคอร์สนี้</p>	 <p>ขนมประจำเทศกาล ตามความเชื่อของคนไทยในทุกๆเทศกาลจะมีขนมประจำเทศกาลเช่น สงกรานต์ ปีใหม่ เข้าพรรษา และอีกมากมาย</p> <p>จองคอร์สนี้</p>	 <p>ขนมหวานในความทรงจำ คอร์สพิเศษสำหรับคนรักอิสระ สามารถเลือกขนมหรือประเภทหรือขนมหวานในความทรงจำของคุณที่อยากเรียนมากที่สุด เราจะช่วยคุณทำขนมในความทรงจำของคุณเอง</p> <p>จองคอร์สนี้</p>	 <p>หวานน้อยอร่อยนะ ขนมหวานสำหรับคนรักสุขภาพ สูตรพิเศษของผู้ที่รักสุขภาพ</p> <p>จองคอร์สนี้</p>
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Figure 5
Lists of Thai dessert for shopping

รหัส	รูป	รายการ	ราคาทุน	จำนวนคงคลัง	เลือกรายการ
15		ทองหยอด	43.00	4	CLICK
16		เม็ดขนุน	45.00	8	CLICK
18		ฝอยทอง	48.00	10	CLICK
19		ขนมไข่	45.00	10	CLICK

CONCLUSION

For dessert shop website design and development, researchers has studied the history of the dessert shop, the purpose of the system, analyzed and designed the system, and tested the system by developing from the design and development of the dessert shop website, dividing the work as follows: homepage, course, product category (egg type dessert, steamed type dessert, boiled type dessert, stir-fried dessert, baked and baked dessert, fried dessert, toasted dessert confectionery type, type of candy, type of candy with coconut milk sweets, syrups, puffed sweets, compotes), shopping, payment methods (bank account number, payment notification), contact us, apply for membership, and login.

From the website design and development for dessert shop, Sweet Shop, the store had additional income channels by using Visual Studio Code to develop and design websites, the system can work efficiently and it is also quick and easy to use.

Future work

The layout and layout of the website also needs to be further customized in order to satisfy all groups of users.

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