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Website Development for Online Sale of Cold Brew Coffee: A Case Study of MNM Shop

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Abstract

The objectives of this research were to: 1) study the demand for websites selling cold brew coffee, and 2) develop a website for online sale of cold brew coffee. This work used research and development methodology. The stages of the research compose of feasibility, analysis, system analysis, and development. The research result was found as follows: 1) from the website development work of creating a website with the WordPress website system and using the Woo Commerce add-on (plugin) for MNM stores, they can sell products online. 2) From the operating results, the website can meet the users' needs. The system can be applied and continue to develop for better use, which will allow the store to increase product



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sales during the impact of the COVID-19 epidemics. The researchers have created a website which MNM shop is able to sell products to customers who cannot come to the store.

Key words: Website development, Online sale, Cold brew coffee

Introduction

At present, cold brew coffee is very popular in Thailand. It is well-known to people of all genders and ages. Nowadays, people are more interested in the unique taste of coffee and the unique aroma of cold brew coffee. Cold brew coffee has an advantage over hot brew coffee in that it provides more caffeine due to the brewed coffee takes more time and gives a less bitter taste. The taste of cold brew coffee is mellow, not bitter and not sour, cold brew coffee does not need to add a lot of milk or sugar. This makes it suitable for health and health groups. Currently, the trend of drinking cold brewed coffee among Thai people has begun to change from drinking instant coffee to drinking cold brewed coffee more because it has a clearer aroma and is easier to drink than instant coffee.

From a survey of Thai people, there is a tendency to turn to drinking cold brewed coffee more because it is easy to drink. Nowadays, the coffee business has expanded its market and more investors have come to invest in the cold brew coffee business.

Research Objectives

Objectives of this research were to:

1. Study the demand for websites selling cold brew coffee.
2. Develop a website for online sale of cold brew coffee.

Scope of research

The scope of website development has been defined as follows:

At member section, users able to register as a member to log in by Login and Logout. There is a shopping cart system. Members can search for product information and order products.



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At administrator section, admins able to log into the system, add, delete, edit product information, summarize product order reports, and change the order status.

Project duration was in July - October 2021, for 4 months.

Related Concepts and Theories

History of Coffee

Coffee is a native plant of Abyssinia and Arabia. It was discovered in the 6th century around the year 575 in Arabia. Some people said that coffee is a native plant found in the city of Kaffa, which is a province of Ethiopia. Coffee is therefore named after this province, and also called many different things. The original origin of coffee is from Abyssinia or Arabian countries of the Middle East. At that time, no one paid much attention until the 9th century. There was an Arabian goat farmer named Kaldi who took the goats out to raise goats as usual. The goat ate a type of red fruit and became unusually excited. He brought the story to a Muslim and took the fruit of the tree and cracked the bark, took the seeds, roasted them, then boiled them in hot water to drink and saw that they were energetic. Therefore, he tells it to others. Arabian people have become more familiar with the coffee plant. As a result, the prevalence of coffee increased from Arabia, enter to Italy, Netherlands, Germany, and France.

History of coffee in Thailand

Coffee in Thailand has its origins with a Thai person who is Muslim, Mr. Dee Mun had the opportunity to go on a pilgrimage to Mecca, Saudi Arabia. Coffee seeds were brought to be planted at Ban Nod subdistrict, Saba Yoi District, Songkhla province in 1904. The coffee that was brought appeared to be the Robusta variety, and the cultivation was reasonably successful. After that, the variety was propagated and the cultivation of Robusta coffee was widely promoted in the southern region of Thailand, by promoting it as an intercropping crop in rubber plantations as a secondary income from rubber tapping. Currently, coffee cultivation in the South has developed greatly. It can be grown as a main crop and generates good income for farmers.



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System Development Life Cycle (SDLC)

There are steps for System Development Life Cycle (SDLC) as follows:

1. Feasibility Study

The first step determines what the problem is and decide whether developing the information system or modifying the old information system is feasible that it must cost and take as little time as possible in order to work efficiently. The problem must be determined whether a solution is technically possible or not. Technical problems involve computers and the software on them. As for the computers being used, are they sufficient or not? We then analyze whether it is possible or not in terms of costs and time required to develop the system. In starting to develop the system, it must be analyzed and developed in order to meet the needs of users.

2. System Analysis

System analysis begins with the study of how the system works. Analyzing and designing a new system is difficult when you don't know how the old system works. After that, the new system requirements were set. This will require various data collection techniques, so the system analysts have to study existing documents and check current working methods.

3. System Development

The principles of website design can be divided into steps which it will be suitable for beginners to use as a guide in creating and developing websites as follows:

1) Planning

Planning is very important in creating a website in order to work in various steps. There are clear guidelines and can be implemented according to the goals.

2) Determining the content and purpose of the website

Determining the content and purpose of the website must be created, such as a website to provide news and information about various services, selling products, etc.

3) Target group setting

To make website creation and design popular, defining the target audience for website visits is also considered to be quite important, such as websites for youth and students to search for information, website for the general public who uses various services, etc.



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4. Data preparation

Content or information is considered. It is the first thing that invites others to visit or be interested in a website and they must know that various information what sources can it be taken from, such as thinking about presenting information yourself or bringing interesting information from other media.

5. Preparation of necessary things

In designing a website, various abilities are required, such as programs for creating websites, animations, and multimedia.

6. Data structuring

After data collection, content and purpose of the website, target group setting, and data preparation are determined in order to organize the system, and use as a framework for designing and implementing the next steps.

Relevant Research

The design and development of e-commerce website case study: Cosmic Sound Shop has studied and researched the use of the WordPress website system, which is a content management system on the website that can create websites and uses plugins (Woo commerce) to help create a website for the Cosmic Sound store, where the Cosmic Sound store can sell products online without consumers having to come directly to purchase products at the store (Phattharawut Srisanan, 2016).

Website e-commerce for the Model Car Shop has studied about organizing product stock, checking stock, searching for products, adding-deleting on product records and creating product receipts. Within the database system, there will be information on checking products, searching for products, adding and deleting on data in order to understand the stock system and various components within the system and users can use the computer with maximum efficiency, know how to fix and prevent basic computer threats as well, and can also apply the knowledge gained from studies to daily life or create a career with extra income (Thanadol Singsoorn & Chinkrit Bua-in, 2018).



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From the study of room reservation systems, a room reservation system was developed by applying web services developed in PHP and HTML along with a database system, MySQL, and designed the system using UML language in order to facilitate tourists and agencies who come in contact with the bungalow. The system can provide services to tourists and agencies via the internet. The system can help to manage room reservations better than before and the system developed has overall efficiency at a good level and can be applied effectively (Teeraphon Danwariyakul, 2006).

Research Methodology

This is a research and Development. The researchers collected data about users demand and developed a website for online sale of cold brew coffee.

Population and samples

The population are people in Bangkok. 400 samples were chosen by convenience sampling method in order to know demand of website use for online sale of cold brew coffee.

Research tools

Questionnaires were used for data collection in order to know users demand for website. WordPress was used for website development. Xampp was used for database system. Woo commerce was a plug-in tool which was used to customize storefront and product category pages and customize the display of different sections on the website.

Data collection

Data collection for the development of this website of online sale for cold brew coffee, which data were collected from an internet questionnaire via Google Form, it consists of the following 4 parts: 1) Basic information such as gender, age, education, occupation, 2) Cold brew coffee consumption behavior, for example, Do you drink cold brew coffee often? Reasons for drinking cold brew coffee What influences your decision to buy cold brew coffee? What kind of cold brew coffee do you like? What is your favorite cold brew coffee brand?, 3) Satisfaction in using the website, such as content, design and formatting of the website, utilization, and 4) Other suggestions.



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Data analysis

This research used descriptive statistics for data analysis, including percentage, mean, standard deviation, and Likert's rating scale.

Research Results

General information

The majority of samples are male, with 240 persons representing 60%, females with 160 persons representing 40%, respectively.

Behavioral information on cold brew coffee consumption

The most common reason for drinking cold brew coffee is liking the taste of cold brew coffee. There were 130 people, accounting for 32.5%, reducing drowsiness, 90 people, accounting for 22.5%. Relieving stress, 80 people thought, it was 20%. Coffee addiction symptoms were 100 people, accounting for 25%.

The reason for deciding to buy cold brew coffee was mainly based on taste, there were 200 people, accounting for 50.0%, price was 100 people, accounting for 25.0%, and brand, there are 100 people, accounting for 25.0%.

Website development

1. Main page

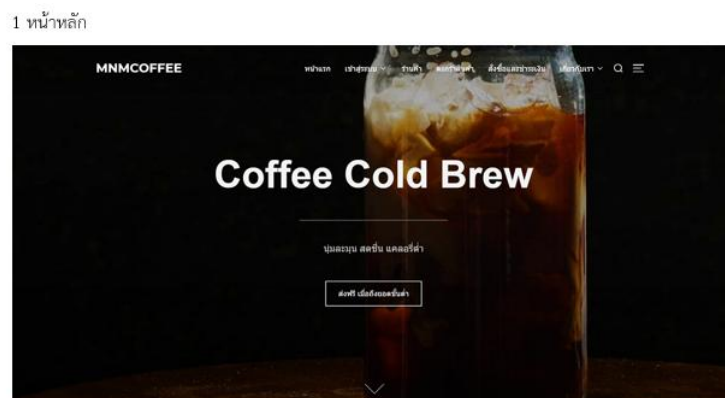


Figure 1: Main page



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2. Products page

3 หน้าร้านค้า

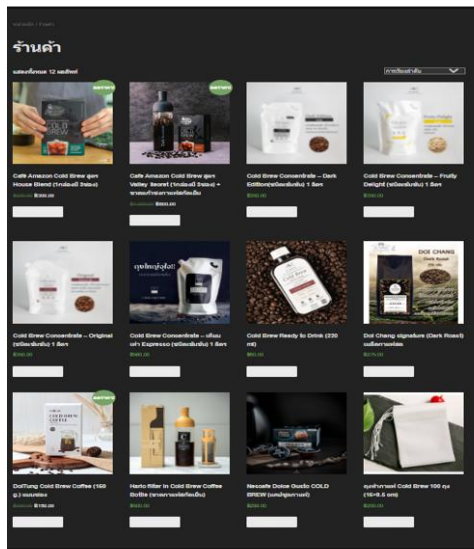


Figure 2: Products page

3. Product details page

4 รายละเอียดสินค้า

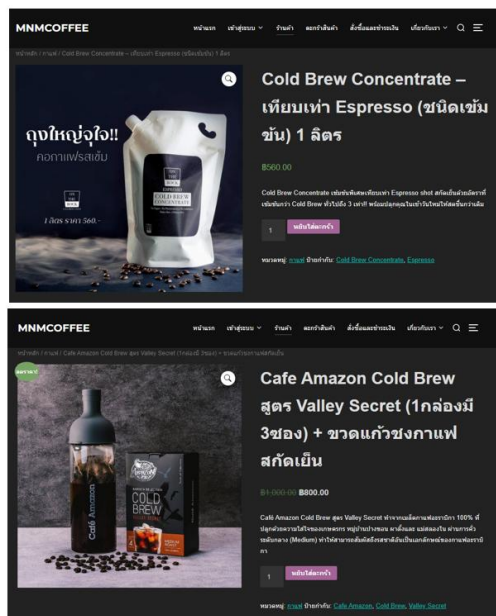


Figure 3: Product details page



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4. Order and payment page

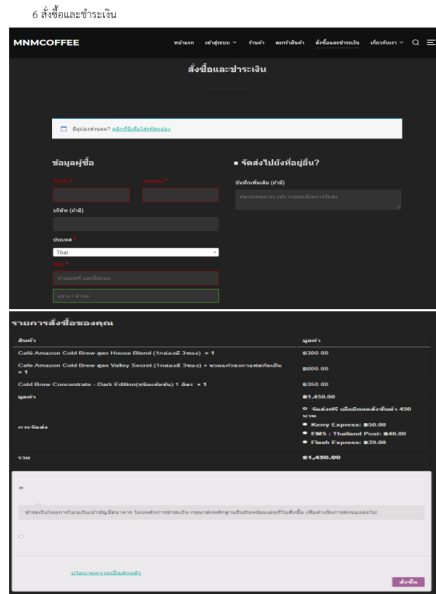


Figure 4: Order and payments page

5. Log in and member registration page

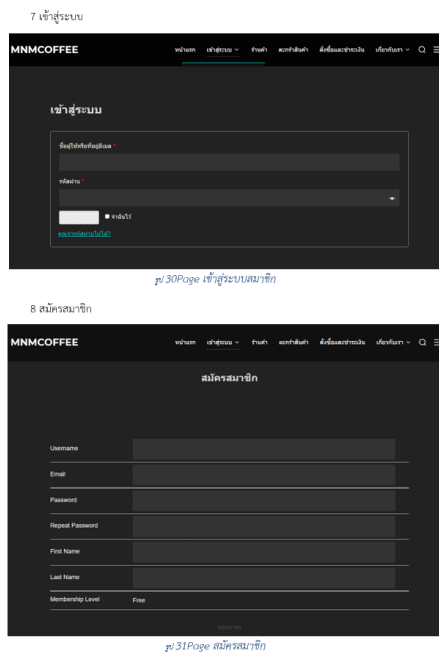


Figure 5: Log in and member registration page



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6. About and contact page

9 เกี่ยวกับเรา



รูป 32 Page เกี่ยวกับเรา

10 ติดต่อเรา

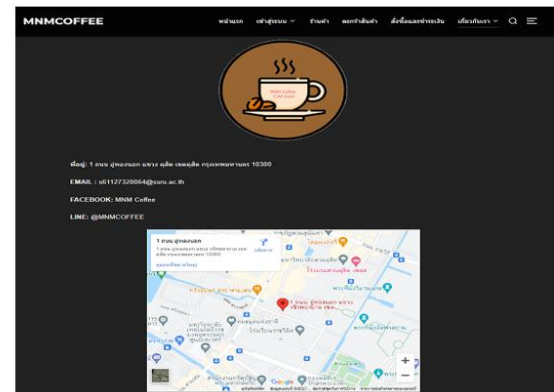


Figure 6: About page and contact page

Results of user satisfaction assessment

From collecting data on satisfaction with the use of the website of online sales for cold brewed coffee online, MNM shop using 40 questionnaires, the satisfaction of the sample group can be summarized as shown as follows:

Content

It is clear and completely accurate with a mean of 3.67 and a standard deviation of 0.85, at a good level of satisfaction. Arranging products into categories with a mean of 3.67 and a standard deviation of 0.85 is at a good level of satisfaction. The illustrations and products



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correspond in the same way with a mean of 3.77 and a standard deviation of 0.86, which is at a good level of satisfaction. Ease of searching for information on various products with a mean value of 3.72 and a standard deviation of 0.84, which is at a good level of satisfaction.

Website design and formatting

The home page is beautiful, appropriate and interesting with a mean value of 3.65 and a standard deviation of 0.73, which is at a good level of satisfaction. The formatting on the website is easy to read and use with a mean of 3.77 and a standard deviation of 0.80, it is at a good level of satisfaction. The font style, size and color are easy to read, beautiful and appropriate with a mean of 3.55 and a standard deviation of 0.81, it is at a good level of satisfaction. The images and content are consistent and can convey meaning with a mean of 3.62 and a standard deviation of 0.80, it is at a good level of satisfaction.

Utilization

Putting information to good use with a mean of 3.77 and a standard deviation of 0.76, it is at a good level of satisfaction.

Summary and discussion

From the website development work of creating a website with the WordPress website system and using the Woo Commerce add-on (plugin) for MNM stores, they can sell products online. From the operating results, the website can meet the users' needs. The system can be applied and continue to develop for better use, which will allow the store to increase product sales during the impact of the COVID-19 epidemics. The researchers have created a website which MNM shop is able to sell products to customers who cannot come to the store.



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Suggestions

1. Suggestion for the use of research results

From the analysis of website design and development by the system developer, there are suggestions regarding websites that the website system can be developed even further according to the needs of the store.

2. Suggestion for further study

Developers should add a PayPal payment method to make payments easily for those who live abroad. A payment method should be added by deducting money from the user's credit card. The website page should be able to change between Thai and English in order to allow foreign users to shop. Moreover, the website should be developed and updated regularly.

References

- Aun Thai Laboratories Company Limited. (2016). *WordPress What is it?* Retrieved July 29, 2021, from <https://seo-web.aun-thai.co.th/blog/web-blog-wordpress/>.
- BKK THEMES. (2015). *Woo Commerce*. Retrieved July 30, 2021, from <https://www.bkkthemes.com/woocommerce-extensions/>.
- Duangphon Kiangkham. (2006). *Manual for Creating Your Own Website*. Retrieved July 31, 2021, from http://library.christian.ac.th/opac/showsearch_bk.php?pointer=T021858.
- Kanokorn Tisomboon. (2020). *History of "Coffee"*. Retrieved August 2, 2021, from <https://sites.google.com/site/mugglestory/history-of-coffee>.
- Natthaphong Suwannarat. (2017). *What is Xampp?* Retrieved July 29, 2021, from <https://sites.google.com/a/satunatc.ac.th/kar-srang-websit-sux-kar-sxn/bthkhwam/details/webserverxamppkhuxxari>.
- Nipa Technology. (2015). *Knowledgeable about E-commerce*. Retrieved July 29, 2021, from <https://nipa.co.th/th/article/digital-marketing/Knowledgeable-about-e-commerce-and-Nipa-technology>.
- Phatrawut Sisanan. (2016). *Design and Development of Websites Selling Products Online*. Retrieved July 29, 2021, from <https://tni.ac.th/PhatWutthi-SiSanan-CRT-IT-2016.pdf>.



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Ratchakrit Woraphinyopas. (2018). *Website for Online Sales of Second-hand Clothing*.

Retrieved July 29, 2021, from [https://atc.ac.th/online-product-sales-system-website-Types-of-second-hand clothing.pdf](https://atc.ac.th/online-product-sales-system-website-Types-of-second-hand-clothing.pdf).

Thairath (2020). *Get to know "Cold Brew Coffee", a healthy drink for office ladies*. Retrieved August 2, 2021, from <https://www.thairath.co.th/women/beauty/health/1842428>.

Thanadol Singson. (2018). *Online Product Sales Website: Toy Car Model*. Retrieved July 29, 2021, from <https://atc.ac.th/Types-of-toy-car-models.pdf>.