DON JOSE ECLEO MEMORIAL COLLEGE
Justiniana Edera, San Jose, Dinagat Islands

WEB-BASED MARKETPLACE PLATFORM FOR LOCAL PRODUCTS IN DINAGAT ISLANDS

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Bachelor of Science in Information Technology

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The Researchers

ABSTRACT

WEB-BASED MARKETPLACE PLATFORM FOR LOCAL PRODUCTS IN DINAGAT ISLANDS

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In the contemporary business landscape, websites play a pivotal role in marketing by providing a platform to convey information about products and services. This study focuses on the creation of a web-based platform for promoting and selling local products in the Dinagat Islands, addressing challenges such as limited online promotion and the absence of direct interaction between buyers and local product producers.

The project employed the Rapid Application Development (RAD) methodology, emphasizing system analysis, design, development, testing, implementation, and evaluation. Consequently, the technical foundation utilized PHP, JavaScript, CSS, and MySQL to ensure a robust and user-friendly experience.

It was shown on the result using the ISO/IEC 25000 Software Quality Model that the system demonstrated high

functionality, reliability, usability, efficiency, maintainability, and portability. However, compatibility with mobile devices received a neutral rating, indicating a need for improvement in this aspect.

The Web-Based Marketplace Platform for Local Products in Dinagat Islands project has the potential to overcome challenges in promoting local products, fostering economic growth, and enhancing tourism. While the system excels in various aspects, the study recommends enhancing mobile compatibility to extend its reach and effectiveness.

Keywords: Local Products, Web-based Platform, Dinagat Islands

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CHAPTER 1

INTRODUCTION`

In recent business marketing, the website plays a crucial role as a primary channel for conveying essential information about the products and services offered. It enhances visibility on search engines and encourages clients to realize that they exist and that they are making the endeavor to modernize. For a local business, having a website is essential due to market expectations. Costumers often turn to the internet as their initial step when exploring various products and services, Neil Kokemuller, (2023).

In the province of Dinagat Islands where travel expenses often exceed the cost of desired products, having a webpage is very important. This isn't just advantageous for the consumer; it also facilitates increased sales in a more convenient manner, eliminating the need for physical stores in a marketplace.

Upon the researchers' thorough data gathering, they found that the majority of local products showcased in Dinagat Islands- DTI Office lack online promotion. This limits awareness to those in close proximity who can

visit in person, and the lack of contact between sellers and consumers contributes to sluggish product sales.

The mentioned problem motivated the researchers to contribute to the economic growth of Dinagat Islands by promoting and selling local products through web-based platforms. Consequently, it facilitates easy and convenient access to the various local products through an intuitive and user-friendly interface. In addition, it facilitates direct connections between consumers and local producers, allowing for the exchange of information which causes rapid growth of sales.

Hence, the researchers developed an e-commerce website that would address the issues mentioned.

1.1 Project Context

The project addressed challenges in the Dinagat Islands, where travel expenses often surpass product costs. A webpage becomes crucial, not only for consumer convenience but also to boost sales without the need for physical stores.

The proponents aim to contribute to Dinagat Islands economic growth by promoting local products through web-based platforms. The project focuses on creating an

intuitive, user-friendly interface for easy access to a variety of local products. The platform seeks to support the local economy by providing producers with a space to market and sell their products.

Furthermore, the initiative aims to enhance tourism by allowing visitors to explore and purchase authentic local products from Dinagat Islands through the online platform.

1.2 Purpose and Description

The project aimed to serve several key purposes:

Convenience and Cost Reduction: Given the high travel expenses, having the webpage becomes essential. This does not only benefits consumers but also increases sales by offering a more convenient alternative, eliminating the necessity for physical stores.

Economic Growth Contribution: The proponents aimed to contribute significantly to the economic growth of Dinagat Islands by actively promoting and selling local products. This strategy aimed to stimulate economic activities and create opportunities for local products.

User-Friendly Access: The project emphasizes the development of an intuitive and user-friendly interface

to ensure easy and convenient access to a diverse range of local products, enhancing the overall user experience.

Local Economy Support: By providing a dedicated platform, the project intends to support and stimulate the local economy. This involves creating opportunities for local producers to market and sell their products, thereby fostering economic development.

Tourism Enhancement: The initiative seeks to enhance tourism in the Dinagat Islands by offering visitors the chance to explore and purchase authentic local products through the online platform. It does not only support local businesses but also enriches the overall tourist experience.

Direct Connections and Information Exchange: It facilitates direct connections between consumers and local producers, and encourages an open exchange of information, creating a dynamic marketplace that benefits sellers and buyers.

1.3 Research Objective

The development of Web-based: Local Product in Dinagat Islands System was guided by set of general objectives.

General objective

The main objective was to develop an e-commerce website that promote buying and selling local products through a user-friendly web platform, fostering direct connections between buyers and sellers in Dinagat Islands.

Specific Objectives

A typical online shopping website does have the following modules:

1. FOR BUYERS(SHOPPERS)

a. Product Catalog – this module displays the list of products with corresponding relevant product information.
b. Shopping Cart – Allows users to add products to their cart for later purchase and manage the items in their cart.
c. Check-out – Guides users through the process of completing their purchases.
d. Search and Filtering – Enables users to search for specific products and filter based on criteria such as price, category, and brand.

2. FOR SELLERS

a. Order Management – Handles the processing including order confirmation and fulfillment.
b. Inventory Management - Manages the stock of products, updating quantities as purchases are made and restocked.
c. Customer Supports – Provides assistance to users through live chat.

1.4 Scope and Limitation of the study

This section provides a clear understanding of what the Web-based: Local Product System is expected to achieve while also acknowledging potential constraints and challenges that may be encountered during its implementation and operation.

Scope of the Study:

- The Web-based Local Products encompassed a comprehensive website with a user-friendly interface.
- The **admin** can register the **Local producer** (otherwise, the local producer cannot log in to the webpage). The **admin** can **also view registered local**

product producers (seller) and buyers on the dashboard and can add categories.

- The **local product producer** can **only log in to the webpage if he/she was already registered in the system by the admin.** In addition, the local product producer can update their **information, add new products, view buyers' orders, and communicate with them through chat once logged in.**
- For shoppers **allows users to browse and search for products, add items to their cart, and seamlessly complete purchase,** while for sellers, it facilitates **order and inventory management** alongside providing customers **support through live chat.**

Limitation of the Study:

- One major limitation is the requirement for **reliable internet connectivity,** as both buyer and seller depend on a stable internet connection to access the web platform.
- Another limitation pertains to the **admin's inability to view the local producer's and buyer's conversation.** Additionally, this platform is **not applicable on mobile devices.**

- The system could not process refunds, discounts, or implement payment options other than cash on delivery.

1.5 Significance of the Study

Relevance to the work doing the following perspectives:

Department of Trade and Industry: The Department of Trade and Industry (DTI) will benefit to this because they can now easily monitor the registered local producer.

Local Producer: Local producer stand to benefit significantly from the study as it opens up opportunities for market expansion. Web-based platforms provide businesses with a cost-effective avenue to reach a broader audience, increasing visibility and potentially boosting sales. This leads to improved profitability and sustainable growth for local enterprises.

Consumers: Consumers experience enhanced convenience and access to a diverse range of local products through the study's focus on creating an intuitive and user-friendly interface. It does not only improve the shopping

experience but also encourages support for local businesses, contributing to a vibrant local marketplace.

Community: The study's benefits for the community are profound; contributing to economic growth and overall community well-being. As local businesses thrive, there is increased employment, income generation, and improved quality of life. The community gains a sense of pride and identity as its economy flourishes.

Researchers: The Researchers find valuable benefits in the study as it contributes to the pool of knowledge in areas such as e-commerce dynamics and community engagement. The study serves as a reference for scholars exploring similar contexts, providing a foundation for further research and academic discussions in related fields.

CHAPTER 2

REVIEW OF RELATED LITERATURE AND SYSTEMS

In this chapter, the proponents introduced the relevant theories and concepts that served as guidelines and references for the researcher to come up with an idea to innovate, design, and implement Web-based; Local Products in Dinagat Islands.

Nurninawati, et.al 2023 said that a specialized product emblem Definier is growing fast as it anticipates receiving a huge variety of orders from outdoor the town or district in 2020. This is an end result of several consumers' word-of-mouth the store's presence and the excessive quality of the products presented thru an advanced web- primarily based totally product advertising data gadget

Moreover, a Web-Based Local Product Sales Information System in Bajo Village, Tilamuta District, Boalemo Regency became designed the usage of the waterfall approach. Waterfall is the earliest Software Development Life cycle technique used for software program improvement. Bajo Village is a village positioned at the coast that is positioned in Boalemo Regency, Gorontalo Province or what's typically known as

the Bajo tribe. The majority of the Bajo villagers make a residing as fishermen. The Bajo village network started to expand their creativity via way of means of making use of marine merchandise together with sea shells and seaweed which had been used as neighborhood merchandise. Sales of neighborhood merchandise are nonetheless executed with inside the conventional manner via way of means of traveling people's homes. This web-primarily based totally neighborhood product income data gadget can facilitate information processing, growth income, and facilitate product advertising and merchandising to outsiders, Thaib, R. et. al (2023).

In state-of-the-art technical advancements, the net has turn out to be extra large and is in call for via way of means of the overall public; on this fast paced period, it's far essential to continually comply with the ones wants, in spite of this separated area. Today, you could use Internet media to sell loads of merchandise, services, and data. Using the net to acquire data is quite simple and handy everywhere there's a network. A internet site- primarily based totally platform for the smoothness and development of MSMEs in Cisaat village is supplied via way of means of UNJ Digital Business Students in reaction to the foundation of numerous MSMEs from Cisaat village,

Serang, Banten, who're keen to research and enhance the functionality of enterprise actors with inside the area. They additionally offer wider data associated with e- trade for activities. SMEs (MSMEs). There is a verbal exchange platform at the bumdescisaat.com internet site that pursuits to set up a discussion board for enterprise actors in order that they will proportion studies and purchase and promote matters at the identical internet site. As an end result, an internet site became created that would function a virtual platform for assembly the wishes of carrying out enterprise. This internet site's aim is to offer a discussion board for neighborhood businesspeople in Cisaat Serang, Banten, who preference to have interaction in entrepreneurial endeavors. This internet site's aim is to function a discussion board and market for conversations among businesspeople or among businesspeople and consumers. This internet site is predicted to function an advertising device for marketers seeking to behavior enterprise on a brief and handy virtual platform, Usman O.(2022).

Consequently, Ihsan, M.(2023) said that each year, a huge variety of neighborhood product enterprise proprietors in Sungai Lebung Village, South Pemulutan District, Ogan Ilir Regency, nonetheless lack know-how

approximately the contemporary nation of data technology, now no longer to say the effect that the COVID-19 pandemic had on those identical enterprise proprietors. demanding situations with promoting regionally produced items in Sungai Lebung Village, and as of proper now, there's no clean manner to manipulate and help marketers in being capable of have interaction in regionally produced items advertising on a sensible basis. Thus, with a purpose to cope with those problems, researchers are growing an internet site utility for a neighborhood product advertising gadget in Sungai Lebung Village. By doing so, the authors assume to cope with the problems raised at Sungai Lebung Village, South Pemulutan District, Ogan Ilir Regency, via way of means of neighborhood product enterprise actors.

The introduction of MSME Product Promotion Applications takes into attention the specs of the BUMDes in Hinai Kanan Village. The intention of this studies became to growth the income of regionally produced items and the visibility of MSMEs so as to persuade village monetary improvement and generate earnings for the network. This take a look at hired the Rapid Application Development (RAD) technique, which incorporates necessities analysis, gadget improvement,

deployment, and prototype building. In order to permit MSME contributors to at once publish product pics to the MSME product advertising utility in Hinai Kanan Village, this take a look at makes use of a member technique to the utility. The on-line portal enables the smooth interplay of MSME proprietors with clients, lets in them to show their items, and acquire orders on-line. Local economies advantage whilst this approach is implemented because it will increase product visibility and income. Growing MSME product income growth family earning and guide the monetary increase of Hinai Kanan Village, Marlina, L. et. al (2023).

Synthesis of the Review

This concept suggests that an improved marketing strategy is required to enable enthusiasts who travel vast distances to buy things without difficulties. Our study was related to them since our main goal was to promote the local products of Dinagat Islands online and improve sales and convenient purchasing. To address the issues, we created a web-based system.

CHAPTER 3

TECHNICAL BACKGROUND

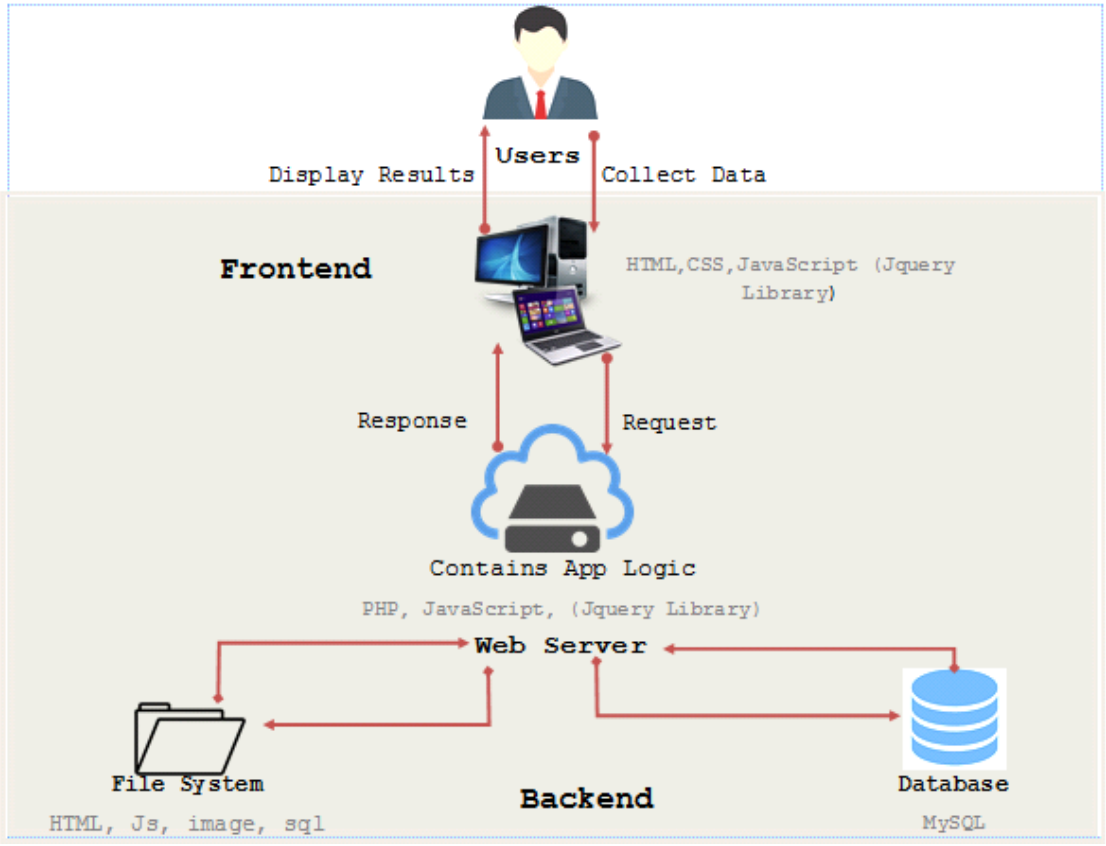


Figure 1: System Architecture

These are the roles for each user in the diagram:

Admin – This user has the highest level of access and control in the system. They are responsible for managing user accounts and monitoring overall health of the system.

Local Producer (Seller)– This user is responsible for adding or updating their profile information, uploading

data such as images and descriptions about the products they sell, and managing their orders and inventory.

Buyer – This user can browse and search for products view product details, and potentially make purchase.

The technical foundation of the Web-Based Marketplace Platform for Local Products in Dinagat Islands is constructed on a resilient framework. Harnessing PHP, JavaScript, CSS, and MySQL, it delivers a powerful, efficient, and user-friendly experience for local producers and buyers alike.

PHP (Hypertext Preprocessor) functioning as the server-side scripting language, handles dynamic content generation, user authentication, and interacts with MySQL for data manipulation.

JavaScript enhances the client-side, ensuring a responsive and engaging user interface.

CSS (Cascading Style Sheets) takes charges of front-end styling, maintaining consistency and visual appeal.

MySQL serves as the chosen database management system, storing and managing critical data.

This cohesive blend of PHP, JavaScript, CSS, and MySQL forms an integrated architecture, where PHP manages server-side logic, JavaScript enhances interactivity, CSS

ensures visual coherence, and MySQL provides a robust data management platform. Together, these technologies serve as the bedrock, enabling efficient transactions, precise data management and user-friendly experience for both local producers and buyers in the Web-Based Marketplace Platform for Local Products in Dinagat Islands.

CHAPTER 4

METHODOLOGY

RAD Methodology

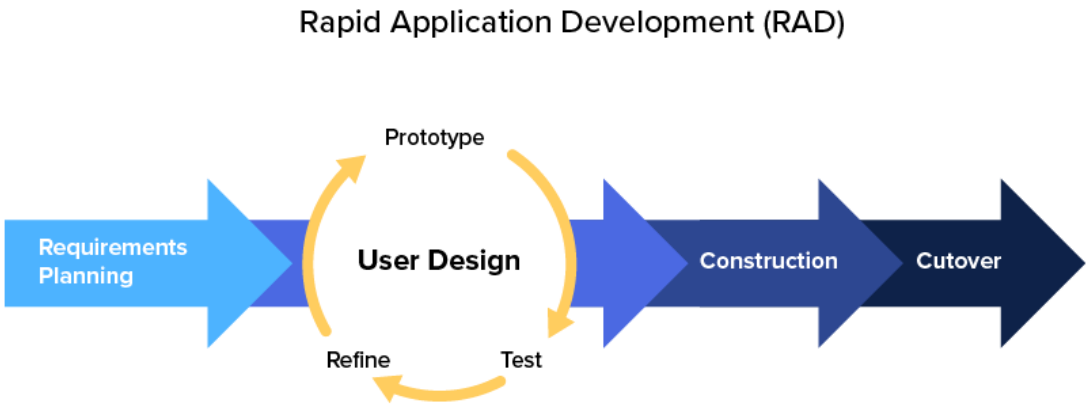


Figure 2: Rapid Application Development Diagram

The RAD methodology is crucial for the Web-Based Marketplace Platform for Local Products in Dinagat Islands project, especially considering the challenge of travel expenses often exceeding product costs. The significance of RAD is fast- tracking the development and adjustment of the online platform allows for a meticulous adaptation to the specific dynamics of the economy. With the aid of RAD, the project's goal of creating a swift and intuitive interface is rapidly achieved, facilitating

consumer convenience without the need for physical appearance.

The following steps outline a RAD methodology for this project:

Phase 1: System Analysis and Design

The researchers sent formal letter to the director of the Department of Trade and Industries requesting a personal gathering of data to the office. Upon analyzing the data presented by the staff of the said department, the researchers found that some of the existing local products were not promoted online.

The researchers identified the gap in online promotion for local products at the Dinagat Islands-DTI Office, emphasizing the limited awareness and slow sales resulting from the absence of direct interaction between sellers and buyers.

To address these issues, the researchers developed a system that bridged these gaps ultimately fostering a more efficient and widespread marketplace.

Phase 2: Development of the System

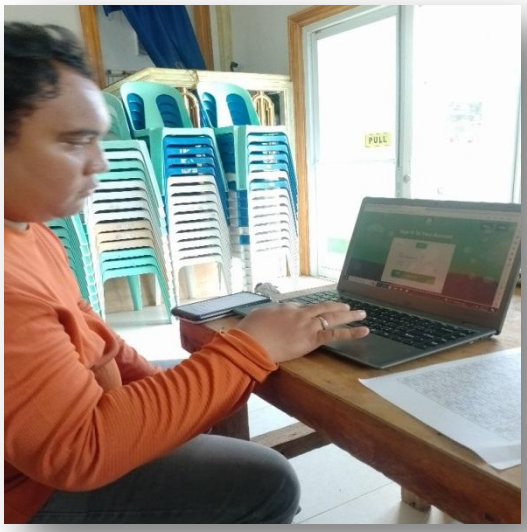
The system was designed to promote the local products online, as well as allowing buyers to purchase even in a distance. To ensure an efficient user- friendly interface, the researchers utilized recommended tools and employed model-based design techniques. Specifically, PHP/JavaScript enhancing user side interactivity, CSS insuring a visually appealing presentation, and MySQL managing the data storage and retrieval. These were leveraged to create the user interface with a strong emphasis on system functionality.

Phase 3: System Testing

In this phase, the researchers together with the seller and buyer rigorously assessed the functionality and performance of the developed online marketplace system. The researchers executed various test scenarios to ensure that all features work as intended from user registration and product browsing to transaction processing and seller-buyer communication.

Phase 4: System Implementation

In this phase, the researchers send a formal letter to the Department of Trade and Industry, as well as to the seller and buyer. The researchers allowed the sellers and buyers to configure the system in an actual environment. To ensure an effective implementation and safety, the researchers trained the users to enhance their knowledge and proficiency in utilizing the technology.



Phase 5: System Evaluation

Based on ISO/IEC 25000 requirements, the Web-Based Marketplace Platform for Local Products in Dinagat Islands was thoroughly examined, with particular attention paid to functionality, efficiency, compatibility, usability, reliability, security, maintainability, and portability. The assessment instrument, which comprises recording system functions and identifying performance characteristics, underwent a rigorous validation process to ensure that it is successful in complying with ISO/IEC 25000 criteria.

Stakeholders with specialized knowledge, such as sellers, buyers, safety administrators provided crucial insights that confirmed and validated the efficacy and compliance of the system.

For the primary analysis, the researchers calculated the descriptive statistics such as the mean for the system evaluation. The means are interpreted as show in the table below. The researchers utilized 5-point Likert-Scale Description Measurement.

Likert-Scale Description	Scale	Interval
Strongly Disagree	1	1.0 – 1.8
Disagree	2	1.9 – 2.6
Neutral / Uncertain	3	2.7 – 3.4
Agree	4	3.5 – 4.2
Strongly Agree	5	4.3 – 5.0

Table 1. Likert-Scale Description Utilized in System Evaluation

Development and Testing

In designing, developing and evaluating the Web-Based Marketplace Platform for Local Products in Dinagat Islands, the researchers used the ISO/IEC 25000 Software Quality Model. The system was evaluated by thirty respondents, including sellers and buyers. To provide a varied representation, the respondents were chosen using random sampling. The respondents were given a validation

survey instrument to evaluate and rank the system's performance according to the specified criteria.

Respondents	N	Percentage
Local Product Producer	10	33.33%
Buyer	20	66.67%
Total	30	100%

Table 2. Distribution of Respondents

By employing a validated evaluation instrument and involving a diverse set of respondents, the study obtained comprehensive feedback on the system's functionality, efficiency, compatibility, usability, reliability, security, maintainability, and portability. This data contributed to a robust assessment of the system's performance and helped identify areas for improvement or further development and can be shown on figure 3 at Chapter 5.

CHAPTER 5

RESULTS AND DICUSSION

Implementation Results

This section provides an overview of the outcomes and achievements of the Web-Based Marketplace Platform for Local Products in Dinagat Islands implementation. This aimed to assess the functionality, efficiency, compatibility, usability, reliability, security, maintainability, and portability. It highlighted the key results obtained during the deployment of the system.

- **Log In to the System**

    1. Username
    2. Password
    3. Login

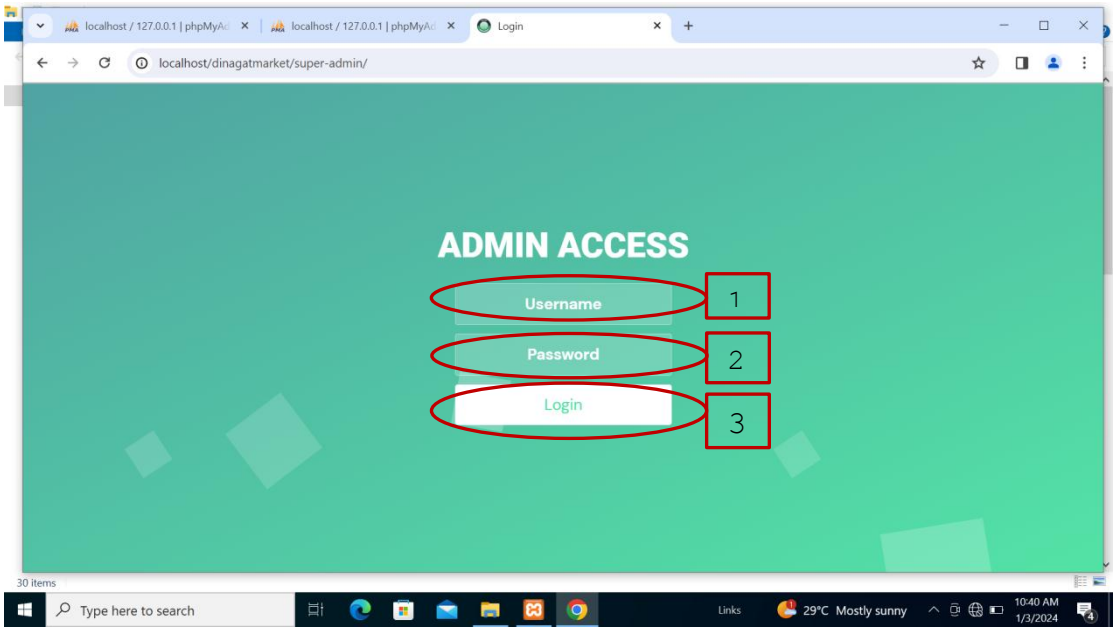


Figure 3: Admin Log In Form

The page shown in Figure 3 is easy to navigate, and the login form of system administrator.

- **Admin Dashboard**

    1. Search bar
    2. User Information
    3. Category list
    4. Click to Add New Category and Register New Seller
    5. Click to Log out

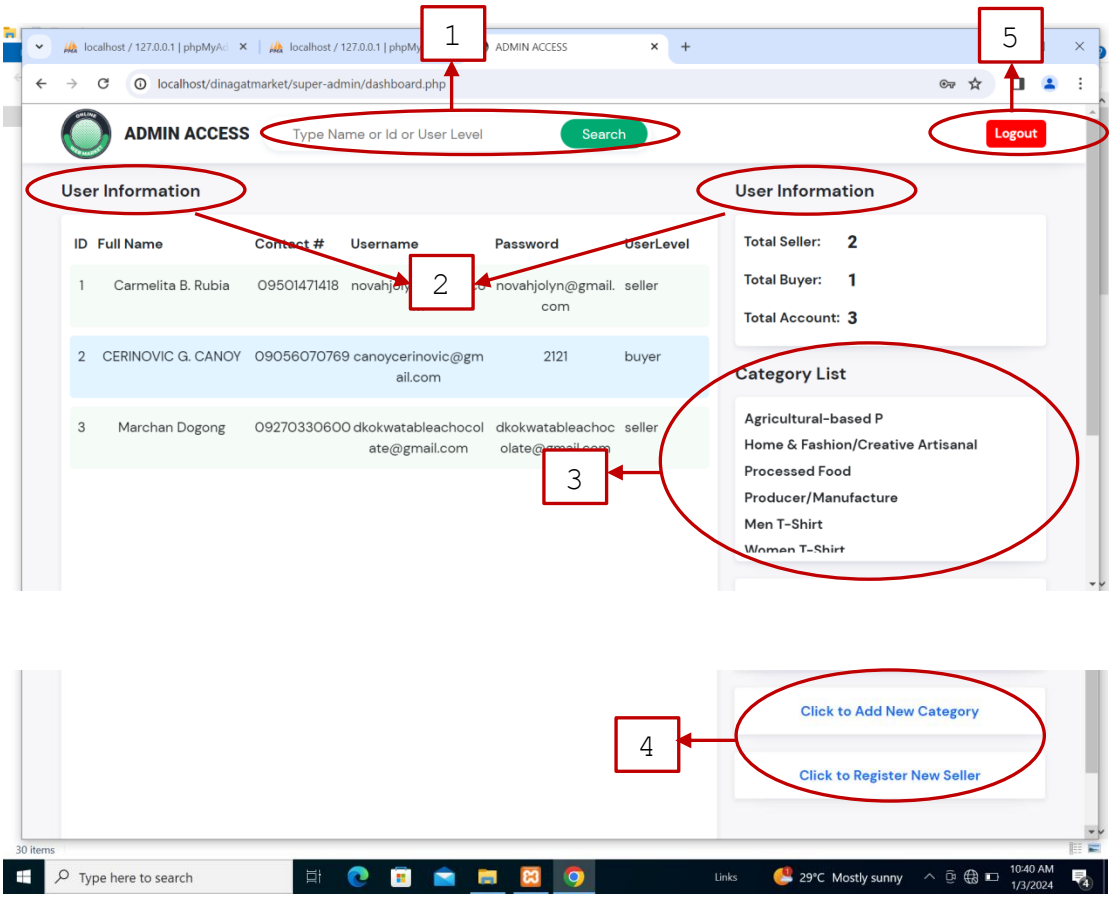


Figure 4: Admin Dashboard (Admininistrator All Access)

In Figure 4 is simple and straightforward. The admin will able to view user information that has been registered to the system, such as the total number of registered local product producers and buyers. Additionally, the admin can add a new product category and register a new local product producers.

- **Local Product Producer Registration Form**

  1. Enter the full information of the new local product producer

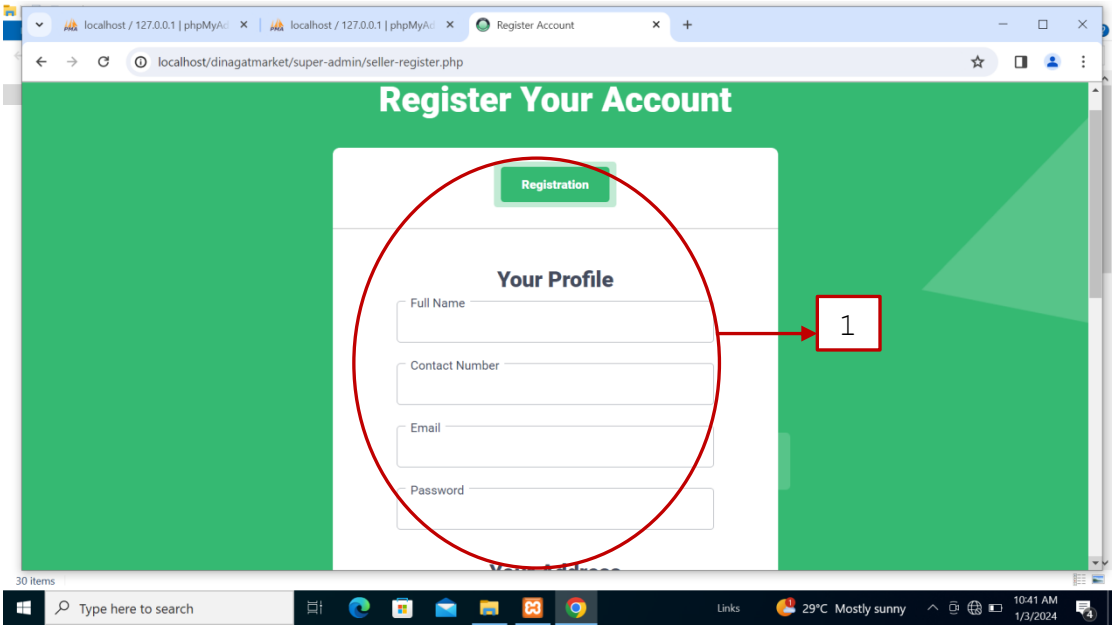


Figure 5: Local Product Producer Registration Form

In the figure 5, the admin fill out the form for the registration of a new local product producer.

- **Product Producer and Buyer Log In Form**

    1. Local Product Producer
    2. Buyer

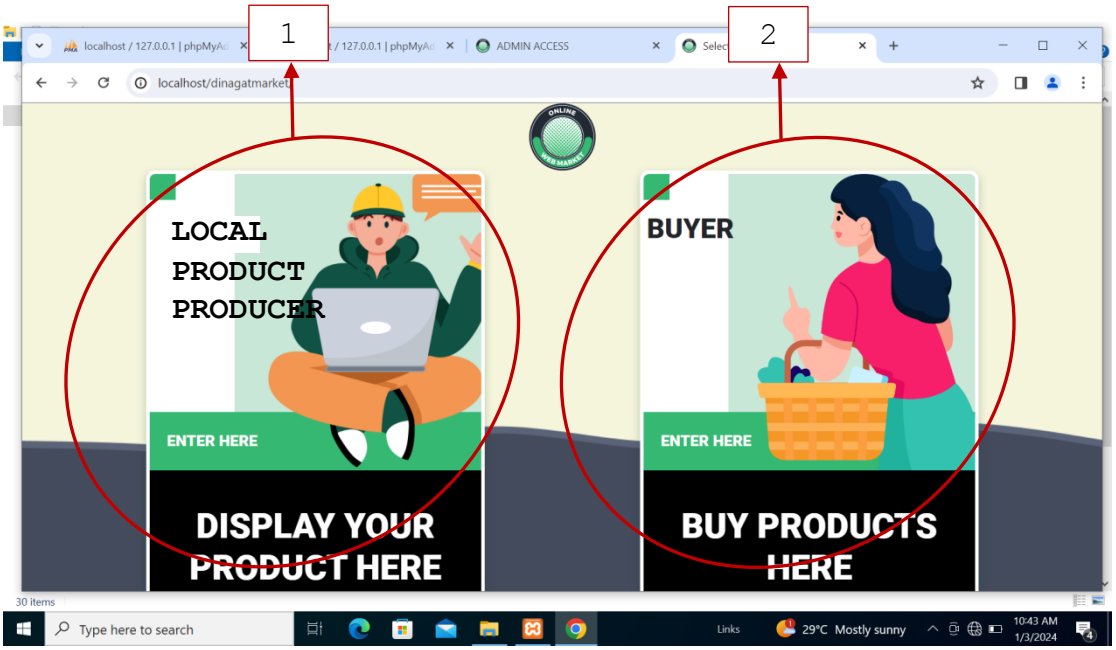


Figure 6: Local Product Producer and Buyer Log In Form

In figure 6, this is what the local product producer and buyer will see upon browsing the webpage. Just clicked "Local Product Producer" if they were a registered local producer and clicked "buyer" if you are a buyer.

- **Local Product Producer Log In**

1. Click Seller
2. Enter Email and Password
3. Click Sign In

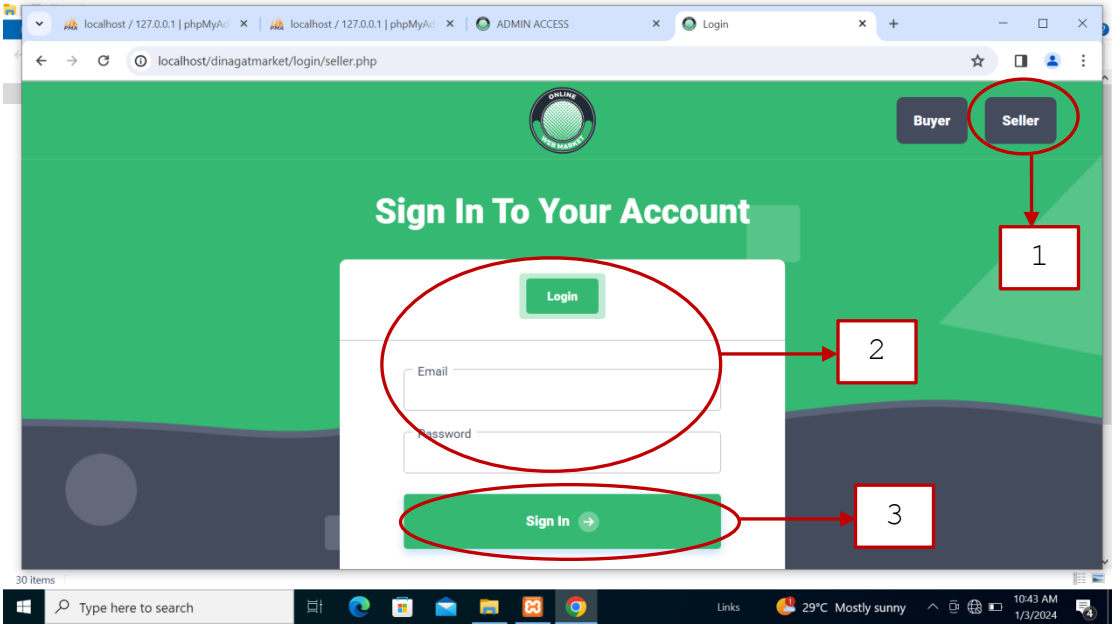


Figure 7: Local Product Producer Log In Form

In this figure, once the admin has registered the local product producer, the local producer can now log in using this form, by simply clicking the "Seller" button and logging in.

- **Local Product Producer Dashboard**

1. Home
2. Register Products
3. Settings
4. Order List
5. Search bar
6. Product List
7. Product Info
8. Logout

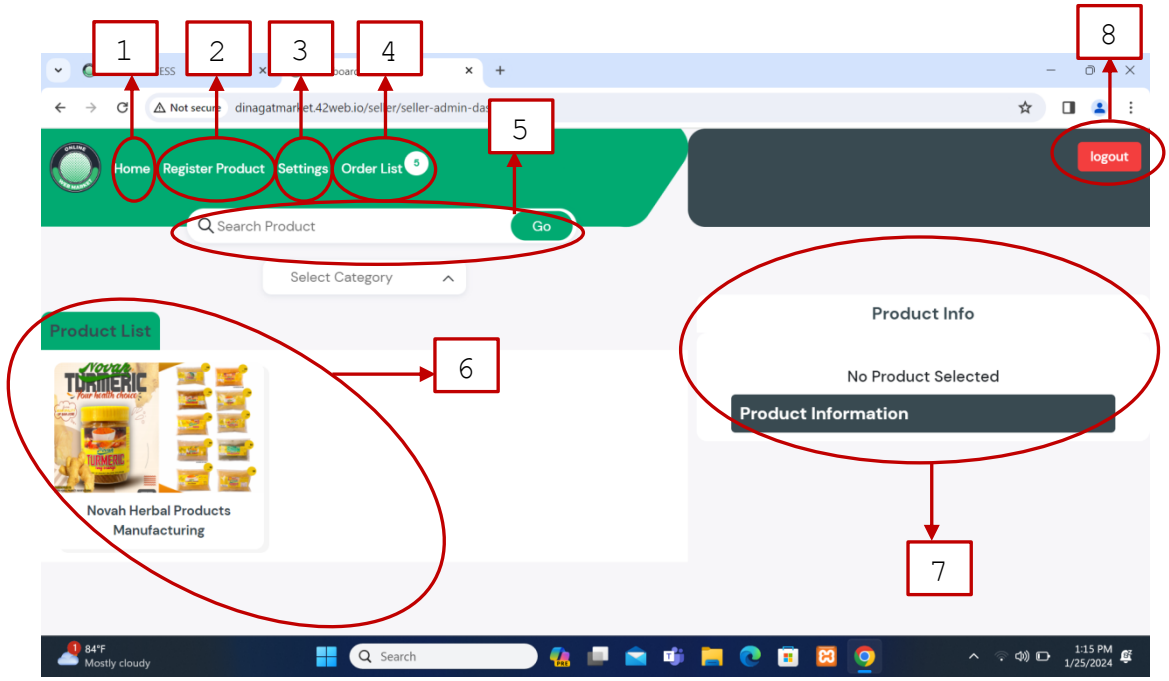


Figure 8: Local Product Producer Dashboard

In this figure, it shows the local product producer's dashboard. They can register a new products, update their profile in settings, view buyer orders with notification in order list and communicate with them.

- **local Product Producer Order list Notification**

  1. Click Order List

  2.Pending Orders

  3.Ongoing Orders

  4.Delivered Orders

  5.List of Pending Orders

  6. Action Taken

  7. Click to Log out

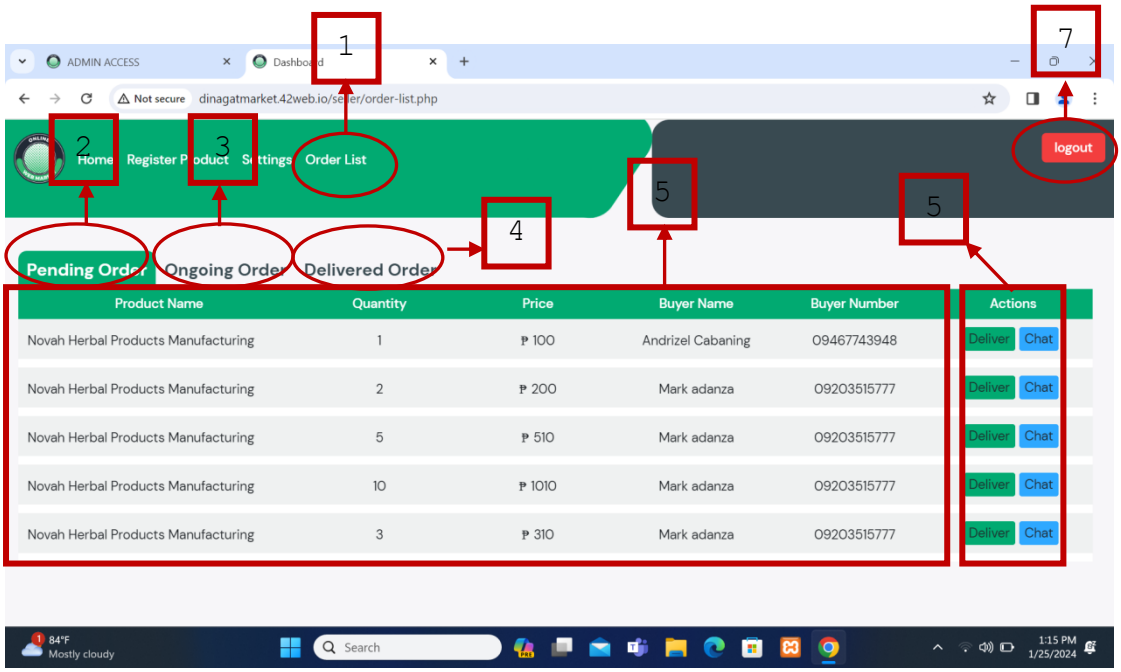


Figure 9: local Product Producer Order list Notification

In Figure 9, the local product producer can see the orders placed by the buyer.

- **Buyers Log In Form**

1. Click Registration
2. Input the information needed to register
3. Click Log in to log in

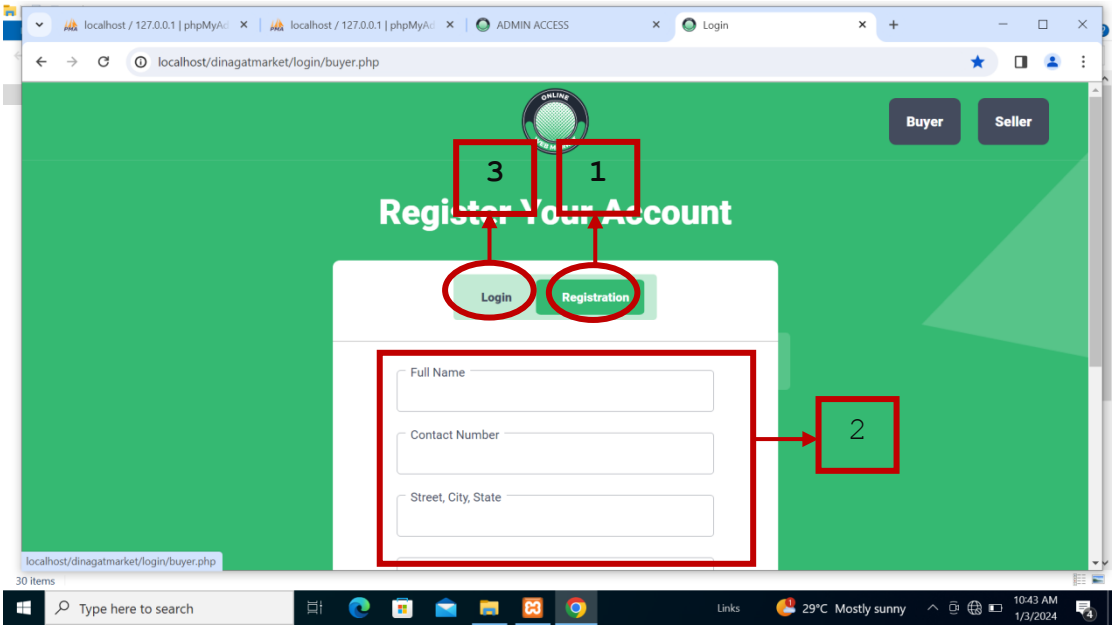


Figure 10: Buyers Log In Form

In Figure 10, if you haven't registered yet, please register first before logging in.

- **Buyer Dashboard**

1. List of Products
2. Buyer Pending Orders
3. Click to Log out

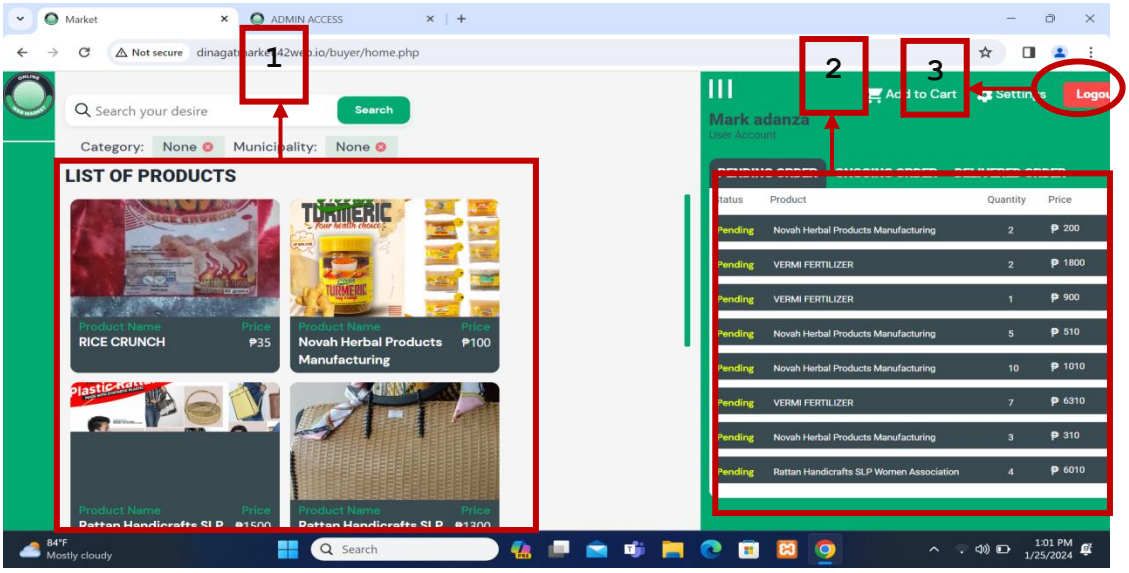


Figure 11: Buyer Dashboard

In Figure 11, the buyer will see their dashboard. They can view list of products, add to cart, place orders with Local product producer and communicate with them.

- **Add To Cart**

1. Add to cart the product
2. Click to Cancel

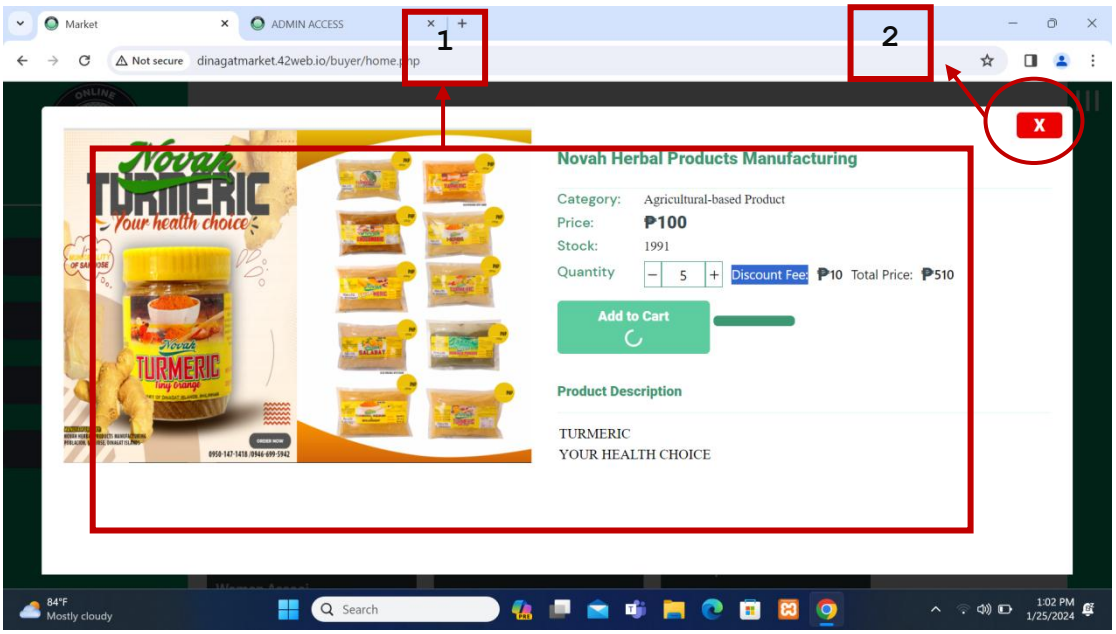


Figure 12: Add To Cart (Buyer)

In Figure 12, the buyer can add the selected product to the cart with the price of each item and the total cost indicated.

- **Checkout (Buyer)**

1. Product in the Shopping Cart
2. Click to Check out

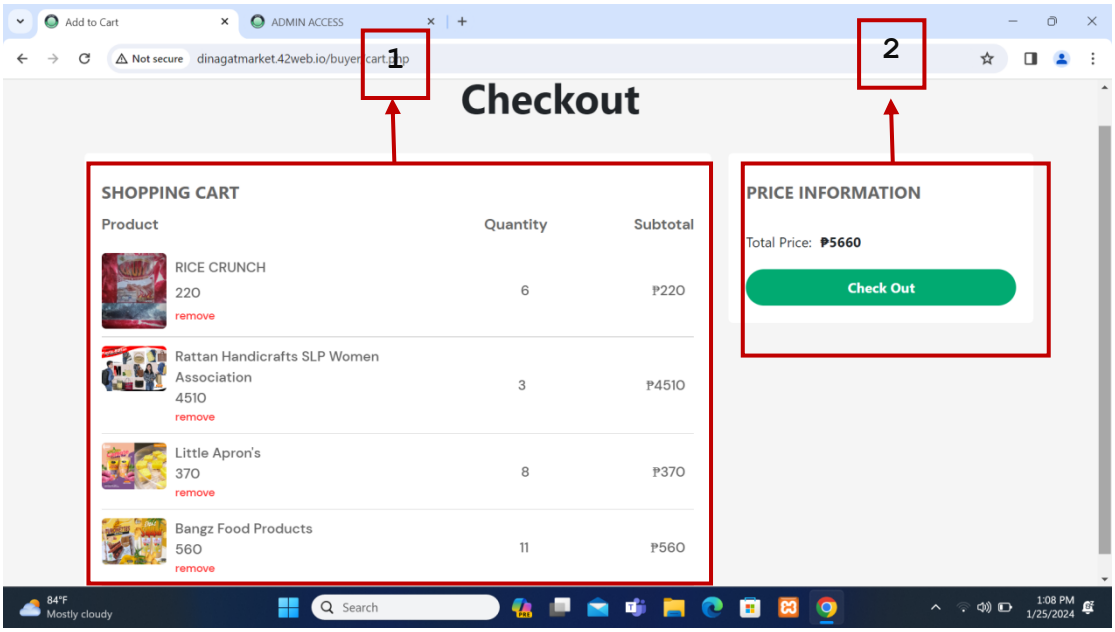


Figure 13: Checkout (Buyer)

In Figure 13, you will see the products added to the cart. The total price is also visible, and when you wish to proceed to checkout, you just need to click on the checkout button.

A.FUNCTIONALITY	MEAN	DESCRIPTION	INTERPRETATION
1. The system performs its intended functions effectively.	4.36	Strongly Agree	Functional
2. The system is user-friendly and easy to navigate.	4.46	Strongly Agree	Functional
3. The system integrates well with other tools or systems.	4.26	Strongly Agree	Functional
Average	**4.36**	**Strongly Agree**	**Functional**

Table 3 A. Functionality of the System

Legend:

Point Score	Score	Descriptive Rating	Descriptive Interpretation
5	4.20-5.00	Strongly Agree	Functional
4	3.40-4.19	Agree	Functional
3	2.60-3.39	Moderately Agree	Functional
2	1.80-2.59	Disagree	Not Functional
1	1.00-1.79	Strongly Agree	Not Functional

(https://www.researchgate.net/figure/The-Likert-Scale-Level-of-Functionality_tbl2_329735540)

Shown in table 3 A. was the respondent's assessment on the system's function. The entire mean score was 4.36, indicating a strong agreement. This showed that respondents were pleased with the system's functionality. The system satisfied the demands of the responders, specifically, a user-friendly and easy to navigate.

B.RELIABILITY	**MEAN**	**DESCRIPTION**
1. The local products system consistently performs its intended functions without errors.	4.23	Strongly Agree
2. The system can recover gracefully from failures or unexpected events.	4.36	Strongly Agree
3. The system maintains its performance level under varying workloads.	4.46	Strongly Agree
Average	**4.35**	**Strongly Agree**

Table 3 B. Reliability of the System

Legend:

Point Score	Score	Descriptive Rating	Descriptive Interpretation
5	4.20-5.00	Strongly Agree	Very Reliable
4	3.40-4.19	Agree	Reliable
3	2.60-3.39	Moderately Agree	Moderately Reliable
2	1.80-2.59	Disagree	Not Reliable
1	1.00-1.79	Strongly Agree	Not Reliable

In table 3 B, the aggregate mean score of 4.35 and the consistent Strong agreement across individual questions highlighted users' positive perceptions of the system's reliability.

C. USABILITY	MEAN	DESCRIPTION
1. The local products system is easy to learn and navigate.	4.43	Strongly Agree
2. The system provides clear and concise instructions for use.	4.4	Strongly Agree
3. The local products system efficiently supports users in accomplishing their tasks.	4.56	Strongly Agree
Average	**4.46**	**Strongly Agree**

Table 3 C: Usability of the System

Legend:

Point Score	Score	Descriptive Rating	Descriptive Interpretation
5	4.20-5.00	Strongly Agree	Very Usable
4	3.40-4.19	Agree	Usable
3	2.60-3.39	Moderately Agree	Moderately Usable
2	1.80-2.59	Disagree	Not Usable
1	1.00-1.79	Strongly Agree	Not Usable

In table 3 C, the average mean score of 4.46 across the three usability category indicated that users believe the system was very useable. These findings suggest that individuals usually see the system as effective, intuitive, well-integrated, and conducive to a short learning curve.

D.EFFICIENCY	**MEAN**	**DESCRIPTION**
1. The local products system efficiently handles tasks and processes.	4.23	Strongly Agree
2. The system minimizes unnecessary steps or actions to achieve tasks.	4.56	Strongly Agree
3. The system provides quick response times for user interactions.	4.63	Strongly Agree
Average	**4.47**	**Strongly Agree**

Table 3 D: Efficiency of the System

Point Score	**Score**	**Descriptive Rating**	**Descriptive Interpretation**
5	4.20-5.00	Strongly Agree	Very Efficient
4	3.40-4.19	Agree	Efficient
3	2.60-3.39	Moderately Agree	Moderately Efficient
2	1.80-2.59	Disagree	Not Efficient
1	1.00-1.79	Strongly Agree	Not Efficient

This showed that the system was well received in terms of meeting the needs and expectations of the users when it comes to its efficiency for it garnered the over mean of 4.47. The consistency of favorable responses verifies the system's great performance, resulting in an overall mean score that indicates a pleasant user experience.

E.MAINTAINABILITY	MEAN	DESCRIPTION
1. The local products system is designed in a way that makes it easy to identify and fix issues.	4.43	Strongly Agree
2. Documentation for the local products system is comprehensive and easy to understand.	4.53	Strongly Agree
3. The local products system provides tools or features to monitor its performance and identify potential issues.	4.66	Strongly Agree
Average	**4.54**	**Strongly Agree**

Table 3 E: Maintainability of the System

Legend:

Point Score	Score	Descriptive Rating	Descriptive Interpretation
5	4.20-5.00	Strongly Agree	Functional
4	3.40-4.19	Agree	Functional
3	2.60-3.39	Moderately Agree	Functional
2	1.80-2.59	Disagree	Not Functional
1	1.00-1.79	Strongly Agree	Not Functional

It can be gleaned on table 3 E, that the overall mean of systems' maintainability was 4.54 which indicated that the system is maintainable.

F.PORTABILITY	MEAN	DESCRIPTION
1. The local products system can be easily installed on different platforms.	4.53	Strongly Agree
2. The system's components are designed to be reusable in various contexts.	4.36	Strongly Agree
3. The local products system can seamlessly integrate with other systems or applications.	4.6	Strongly Agree
Average	**4.49**	**Strongly Agree**

Table 3 F: Portability of the System

In Table 3 F, the results showed a generally positive attitude about the system's portability, with an overall mean score of 4.49.

G.COMPATABILITY	MEAN	DESCRIPTION
1. The system is compatible with various operating systems (Windows, macOS, Linux).	4.1	Agree
2. The system is compatible with different web browsers (Chrome, Firefox, Safari, Edge).	4.13	Agree
3. The system is compatible with android phones and IOS.	1.7	Strongly Disagree
Average	**3.31**	**Neutral**

Table 3 G: Compatibility of the System

The average score of 3.31 across three compatibility factors suggests that the compatibility of the system was neutral. This was highlighted on the compatibility to android phones and IOS which resulted to strongly disagree because the system was only designed to laptops.

H.SECURITY	MEAN	DESCRIPTION
1. Regular security audits and assessments are conducted on the local products system.	4.3	Strongly Agree
2. The system has mechanisms in place to detect and respond to security incidents.	4.63	Strongly Agree
3. The local products system has robust user authentication mechanisms.	4.46	Strongly Agree
Average	**4.46**	**Strongly Agree**

Table 3 H: Security of the System

The survey's findings reflect a solid assessment of the system's security procedures, with an overall mean score of 4.46. This means that the system can promise security.

System Evaluation in terms of:	Mean	Description
Functionality	4.36	Strongly Agree
Efficiency	4.47	Strongly Agree
Compatibility	3.31	Neutral
Usability	4.46	Strongly Agree
Reliability	4.35	Strongly Agree
Security	4.46	Strongly Agree
Maintainability	4.54	Strongly Agree
Portability	4.49	Strongly Agree
Grand Mean	**4.305**	**Strongly Agree**

Table 4: System Evaluation Result

It can be gleaned on the table 4, the System Evaluation Result based on the ISO/ IEC 25000 categories only the **Compatibility** resulted with Neutral for the system was design for laptops, not for android phones and

IOS. However, the remaining 7 categories resulted to **Strongly Agree** which means that the system showed users' great satisfaction with functionality, efficiency, usability, reliability, security, maintainability, and portability. This means that there was a slight recommendation for improvement. This thorough study emphasized the system's strong performance.

CHAPTER 6

CONCLUSION AND RECCOMENDATION

Conclusion

In conclusion, the creation of a Web-Based Marketplace Platform for Local Products in Dinagat Islands can overcome challenges such as limited local product promotion and the absence of online visibility. By focusing on economic growth, facilitating direct connections between local product producer and buyers and supporting local producers, the initiative sought to provide sales methods with a more convenient and accessible online approach. Additionally, the project aspired can boost tourism by showcasing authentic local products, contributing to the overall vibrancy and development of the Dinagat Islands.

Recommendations

Considering the challenges outlined, it was strongly recommended to enhance the system for mobile compatibility. This adaptation would better serve the needs of users, especially in areas of Dinagat Islands where travel expenses are a significant concern. Mobile accessibility would extend the reach of the webpage,

promoting local products effectively and facilitating convenient interaction between local product producer and buyers.

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