**Palengke Express (PalEx): A Purchasing Application**

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An Undergraduate Capstone Project Proposal Presented to the

College of Information Technology Education

**CHAPTER 1**

In this chapter, the researchers will discuss about the project context, purpose and description, general objective, specific objective, scope and limitation and definition of terms.

**INTRODUCTION**

**Project Context**

The Philippines is one of the countries in Southeast Asia where palengkes or public markets are being promoted.In some markets’ nooks, local artisans sell their works for a cheap price. It is the place as well to have a glimpse of how locals live their everyday lives. Now a days, we’re in the age of the technology and bringing distinct changes in the society.Technology has a capability to improve the individuals daily living.

Public market is a year-round, carefully crafted, intentional and diverse medley of owner-operated shops, stalls and/or “daytables”. It typically focuses on the sale of a full array of fresh, healthful, value added, and prepared foods – often locally grown or produced. Public markets are sometimes rounded out by crafts and/or a variety of needed neighborhood businesses. They usually include a seasonal, outdoor farmer’s market component.[1]

According to Pixilatedplante.com,when it comes to the word “market” in the Philippines, it has always been regarded to be valued as dirty and stinky which is always an overly-populated place where fresh cuts of meat and marketing food products could be bought. Some markets are deemed as unclean and have less sanitation due to the overcrowding of people. That is why some people prefer going to supermarkets and malls to buy their basic needs and food supply because they could not handle the unsoothing ambiance of the wet market. Even though the context of these local markets shows poor reviews, a lot of Filipinos still prefer going into these establishments because of the freshness of the goods which have a cheaper price that could still be lowered through haggling.[2]

In this present day, modern technology has drastically developed bringing distinct changes in the various field of society. According to myessaypoint.com, technology has been part of our life and it is one of the key ingredients for the survival of mankind to living in a fast-phase environment. The development of new technology helps people save lives, technology helps people make work easier and makes the world a better place to live in.[3] The field of new technologies affects all aspects of human life such as communication, transportation, education, health, travel, business, appliances, gadgets and many more which leads to convenience in human daily routines or works. The local public market is one of the areas where technology exists and mostly used for daily consumption, production, marketing and communication purposes. According to BusinessInquirer.net, a shift on cashless payment using QR code is being done on the New Marulas Public Market in Valenzuela City, Metro Manila. This proves that technology is essential tool for the public market to grow.[4]

In Tagum City as described by Daisy C. Gonzales (2005), Tagum public market is one of the central trading post for goods and produce from as far away as the towns of Davao del norte. Compared to the shopping malls in the city, prices at Tagum public market - for meat and fish, for example - are 20 to 30 percent cheaper, says Fernandez, the market official. In 2001, average sales in Tagum public market every day was 2 million pesos; during paydays, the sales could go as high as 5 million pesos.[5]

Improvements are still needed for the public market to excel. Specifically, in the areas of communication, production, marketing and security that are beneficial to the customers and vendors. Cleanliness and order are a concern in the one-hectare public market, which accumulates more garbage than any of the other public markets. Petty crimes are common. In Tagum and the other public markets are places to explore, not only for recreational but for a few pesos of savings in this increasingly difficult times.

To support the mentioned issues, the researchers interviewed some customer and vendors from the Bangkerohan Public Market In gathering information, A total of five (5) customer respondents and five (five) vendor respondents. A total of 4 out of 5 customer respondents said that an application can be helpful to lessen the issues they currently experience. A total of 3 out of 5 vendor respondents said that an application can be a milestone to promote their products effectively.

With those mentioned concerns, the researchers arise with the idea of designing an application that can provide a better way of improving the present condition by developing an automated online purchasing and budget efficient system called “Palengke Express (PalEx)”, A Purchasing Application.

**Purpose and Description**

The research is conducted to be able to support the following personnel or agencies in the public market, by reducing the effort done on doing transactions within the public market, especially to the customer and vendor.

The customer can log in to the application, after logging in they can view the list of two categories which are the wet market and dry market. Also, the customer could select the desired goods and choose the goods they want.

The vendors can post and update their own goods anytime, as well as update their prices as long as it will not exceed the suggested retail price (SRP) from the Department of Trade and Industries. When the vendor's price exceeds the suggested retail price (SRP) they will be prompted a warning for exceeding the price. The vendor can communicate with the customers using SMS for real-time feedback.

The market administrator through a web portal can create, update and delete a vendor's profile. The market administrator can also check the permits of the vendors if it is updated or not updated.

The Department of Trade and Industry and the Local Government Unit (LGU) will be in charge of the overall monitoring of the suggested retail price (SRP).

The Tagum City Government Business Bureau will validate the existing permits of the registered vendor in the system, together with the market administrator the application helps to determine the validity of their existing permits and provide a notification to violating vendors for not complying with the guidelines of the Tagum City Government Business Bureau.

The application helps the future researchers to attain similar study regarding vendor direct purchase specifically in the public market. They can add some features and functions that they have not done yet so they can also help the public market and as help the government improve its overall economic growth.

1. Online product reservation, by using internet connection reserving raw goods in the wet and dry public market makes it easier for both customers and vendors to reserve goods with the use of cellular phones with an internet connection. The automated system provides various categories to choose from, example fish and meat section and vegetable section.
2. Search Product, The application is capable of suggesting the best product to choose from various stalls within the group of goods they want. the application is capable of showing different price range from different stall owners
3. Sets a time, the application is capable of setting the desired time and date for both customer and vendor when picking up the product from the Vendor with the use of an appointment system like a calendar. An SMS platform can be used for communication purposes upon picking up the reserved product.
4. Give Remarks, the customer can provide remarks together with their requests, before submitting an order.
5. Review legality, this application can give the legitimacy of the vendor through profiling as well as show trust-points given by recently catered customers.

f. Un-renewed Business permit, the application will notify the public market vendor if business permits are opted to expire. With the help of the market administrator together with the  Tagum City Government Business Bureau, the vendors will be notified through the application that their permits are about to expire or has already expired.

g. Prevent unauthorized vendors, the application will not allow unrenewed/unauthorized business permit from selling to prevent illegal vendors from trading products without permission from the government.

h. Provide a correct suggested retail price (SRP), the application verifies the vendor's price's used for selling a particular product. the vendor should have a small variance from the suggested retail price (SRP) as set by the Tagum City Department of Trade and Industry.

**General Objective**

This study aims to create an application mainly to resolve the customers struggle to go to the public market particularly in making transactions physically and to promote vendors aim at selling goods more efficiently. This is a tremendous relief especially to people with disabilities and elderly people by developing an automated online purchasing and budget adequate system that is a vendor direct purchasing application.

**SPECIFIC OBJECTIVES**

The following remarks are the specific objectives of the research:

**It allows the customer to**

* Register to the application;
* Log-in to the application;
* View the categories of products and goods;
* Reserve the goods in the particular vendor;
* Set a time and date when to pick-up the goods;
* Communicate to the vendor with the use of an SMS platform;

**It allows the vendor to**

* Register to the application assisted by the market administrator;
* Log-in to the application;
* Post the goods by type of categories;
* Update the price and other input goods;
* Accept orders and request of customers:
* Communicate to the customer with the use of an SMS platform;

**It allows the Market Administrator to**

* Assist the vendor upon registering on the system using the web portal;
* Update, suspend, Delete and store records of vendors profile using the web portal;
* Verify the vendors' legitimacy and credentials using the web portal;
* Implement overall application maintenance using the web portal;

**It allows the Tagum City Department of Trades and Industries to**

* Monitor and verify the vendors posted prices in coordination with the market administrator using the application;

**It allows the Tagum City Business Bureau to**

* Monitor and verify the vendors registered business permits along with the market administrator;

**Scope of the Study**

A vendor direct purchasing application focused on reserving goods for the customers and helping vendors sell products inside the public market. The application requires an internet connection to allow users to access the application anywhere.

Designed to reduce the hassle of the customers going to the public market and aim to help vendors sell products effectively.  The target users and beneficiaries of this project are aimed mainly to the customers, vendors, market administrator, the Tagum City Business Bureau (BB), and the Tagum City Department of Trade and Industry (DTI). The users can access the PalengkeExpress(PalEx) online. The proponents are responsible to gather information needed and evaluates proper outcomes to come up with an efficient idea that contributes solution towards those cited problems and opportunities.

The proposed application has the feature of reserving goods in the public market through a mobile application. The customers can register to the application, log in to the application view the categories of goods and can select the desired goods. The vendors can log in the application, post goods by categories and update the price. The market administrator can add vendors profile and update the vendor’s profile. The Tagum City Department of Trade and Industry (DTI) monitor the price of the goods. The Tagum City Business Bureau checks the business permit of the vendor.

The researchers use the Windows Apache, MySQL, PHP (WAMP) version 5.5 to create the database of the vendor's profile and records. Through MySQL query, it determines the number of vendors who have registered on the system.

“Palengke Express” application has one (1) server. The only server is used for the Windows operating system used for the vendors Profiling and records database web portal managed by the market administrator only.

This will be the project proposed by one group of Bachelor of Science in Information Technology (BSIT) students in University of Mindanao Tagum Campus for the Second semester of the Academic year 2018 – 2019 up to the First Semester of Academic Year 2019 – 2020.

 Other circumstances might encounter are beyond the control of the proponents of this project such as internet problems.

**Delimitations of the study**

Here are some areas that the application can’t do. Some of these Delimitations are possible and that is for the future developers of this application.

* Can not check the un-freshness of goods
* Online payment is not involved
* No online SMS program involved

**Definition of Terms**

The following are some of the technical terms used throughout the whole study. These terms are as follows:

**Palengke Express (PalEx)**

The study aims to develop an application for Public Market that will help the consumers and also to the stall vendors to address their problems regarding in reserving and negotiating in the public market on ordinary days especially on holiday sessions and busy times.12]

**Android**

The operating system that has remained developed by Google, android has different version, and each version is related sweets. The researchers have used android as the operating system of the mobile based application for fisheries management ecosystem [4]

**The Tagum City Business Bureau (BB)**

Business Bureau under the Office of the City Mayor has its objective of provided that effective system and practices in issuing Business Permits and Licenses to the entrepreneurs of Tagum City. [5]

**The Tagum City Department of Trade and Industry (DTI)**

Philippine Department of Trade and Industry is the [exclusive department](https://en.wikipedia.org/wiki/Executive_Departments_of_the_Philippines) of the [Philippine Government](https://en.wikipedia.org/wiki/Philippine_Government) tasked as the main economic catalyst that enables innovative, competitive, job generating, inclusive business, and empowers consumers.[7]

**Dry Market**

The dry [market](https://en.wiktionary.org/wiki/market) selling [clothing](https://en.wiktionary.org/wiki/clothing), [electronics](https://en.wiktionary.org/wiki/electronics), etc. rather than [fresh](https://en.wiktionary.org/wiki/fresh) [meat](https://en.wiktionary.org/wiki/meat) and [produce](https://en.wiktionary.org/wiki/produce). [8]

**IOS**

The [mobile operating system](https://en.wikipedia.org/wiki/Mobile_operating_system) created and developed by [Apple Inc.](https://en.wikipedia.org/wiki/Apple_Inc.) completely for [its hardware](https://en.wikipedia.org/wiki/List_of_iOS_devices). It is the operating system that presently powers many of the company's mobile devices, including the [iPhone](https://en.wikipedia.org/wiki/IPhone), [iPad](https://en.wikipedia.org/wiki/IPad), and [iPod Touch](https://en.wikipedia.org/wiki/IPod_Touch). [9]

**Mobile-based application**

The mobile app or mobile application is a [computer program](https://en.wikipedia.org/wiki/Computer_program) or [software application](https://en.wikipedia.org/wiki/Software_application) designed to run on a [mobile device](https://en.wikipedia.org/wiki/Mobile_device) such as a [phone](https://en.wikipedia.org/wiki/Smartphone)/[tablet](https://en.wikipedia.org/wiki/Tablet_computer) or [watch](https://en.wikipedia.org/wiki/Smartwatch). Apps formerly intended for productivity assistance such as Email, calendar, and contact databases, but the public demand for apps caused rapid increase into other areas such as [mobile games](https://en.wikipedia.org/wiki/Mobile_games), factory automation, GPS and [location-based services](https://en.wikipedia.org/wiki/Location-based_services), order-tracking, and ticket purchases, so that there are now millions of apps available. [10]

**Public Market**

Palengke is an open air public market for just about anything you can see. From clothes to pots and pans, art work to meat and vegetables, from music to jewelry, from tournament to cockfighting, and the very best restaurants and all can be found in the Filipino Palengke.Public. [11]

**Retailing**

The Retail is the procedure of selling [consumer goods](https://en.wikipedia.org/wiki/Consumer_goods), stuff or [services](https://en.wikipedia.org/wiki/Service_(economics)) to customers through multiple [channels of distribution](https://en.wikipedia.org/wiki/Distribution_channel) to earn a profit. [13]

**Vendor**

Supply chain, a vendor, or a seller, is an enterprise that donates goods or services. Generally, a supply chain vendor manufactures inventory/stock items and sells them to the next link in the chain.[14]

**Wet Market**

The wet market is an open marketplace with stalls of vegetables and other food items accessible for sale. Many wet markets are found in China and the Philippines. The name is based on the fact that these informal market environments usually have wet floors. Shoppers tolerate sloppy floors and items piled on mats or boards as the foods sold at wet markets are known for their fresh quality and low price. The moisture is created by market workers regularly covering the produce and floors with water. [15]

**Web-based application.**

A Web-based application refers to any program that is accessed over a network connection using HTTP, rather than existing within a device’s memory. Web-based applications often run inside a Web browser. However, Web-based applications may be also client-based, where a small part of the program is downloaded to a user’s desktop, but processing is done over the Internet on an external server. Web-based applications will be applied to the Market Administrator of the public market portal.

**Web Portal.**

A single page that all the information about the Vendors Profile and records may be viewed. Web Portal has been used as the means by which the Vendors and other agencies such as the Tagum City Department of Trade and Industries (DTI) and  The Tagum City Business Bureau can view their records and check the status.