

Segundamano: An Online Platform for Selling/Trading Second-Hand Items

Arnel Samson¹, Arvi P. Sapon¹, Christopher V. Cundanan¹, Danica B. Umlas¹, Daniel L. Villaruel¹,
Jonhmark T. Castillo¹ and Kimberly S. Sulayao¹

Abstract

The researchers come up with this study because of rapid development of e-commerce industry. It happens that there are a lot of problems within the second-hand-consumption of the people, in particular trading as well. They have problems finding a trustworthy second-hand shop for quality second-hand items or in promoting their company. Particularly, some people have no clear communication and knowledge where to find such second-hand shop that has quality second-hand-items and promising trading qualities. It takes stress and time to go outside and find for second-hand shops. When it comes to second-hand items, people have never been so trusting since it has never been seen or checked by them. There is where An Online Platform for Selling/Trading Second-hand Items to reduce these problems. The proposed study is targeted for Selling/Trading and Buying Second-hand items in Pampanga. The proposed system is expected to make faster and efficient communication, time-saving, accurate, and reliable to offer services that can help to sell/trade and buy quality second-hand items. The Segunda-Mano system was built using the Rapid Application Development (RAD) methodology that helped the researchers to obtain and observe a quick and continuous development. The proposed system was evaluated by three (3) IT Experts and Fifty (50) Respondents and got an overall mean of 4.32 which is equal to an excellent rating. This indicates that the application has followed and met the specifications and expectations of the consumers.

Keywords: *second-hand, trading, used items, segundamano*

Introduction

Nowadays, increasing amounts of people who used online technological assemblies to search for what they expected to, is significantly faster than before because of fast development. Obviously, the innovation holds extraordinary potential for encouraging complex transactions (Benneth, 2017). The Internet is an efficient technology that provides a broad awareness about e-commerce. There's a lot of users searching in the internet every single day, looking for products and services. The second-hand marketplace for second-hand and recondition items keeps to widen in most of economies around the world. A clear factor that the consumers consume of second-hand items is price

affordability, availability, efficiency and durability. The used of marketplace evolves particularly on the adaption with online ecommerce structures (Kwarteng, 2018). And for the person or seller who has a physical store, and for the owner who has an item and wants to sell it. They are limited by the geographical area or location and limited purchaser, but with the help of the e-commerce website, anyone in the world can access and purchase items online. As a result, the store is always open and people can browse the product all day, every day at their convenience, from where they are located. This makes it easier and more convenient for all the parties involved.

¹Bachelor of Science in Information Systems

Currently the use of online is one of the best approaches to gathered relationship for their own items and ventures. One of the most searched in the website is retailing. Retail includes the offer of merchandize from a separate purpose of obtained legitimately to a client. Furthermore, productive by the utilization of web based. By the utilized of retail thought, the second-hand consumptions are being known. Mobilizing the second-hand item. Fortune chasing and running over a genuine find, persuade purchaser to make second-hand purchases (Steffen, 2016).

Purchasing and selling useful merchandise is something that has been experienced for such a long time ago. Through the most previous years, fast development of second-hand items consumptions has the approval of analysts and brought up why people purchased second-hand items, which is people always looking for useful items with affordable price. The fast development of the internet platform has created various features and make a collaboration with the new high-technology that brought up the fast-faced consumptions of useful items (Big Commerce, 2021). The uses of new generation of technology have also comply with second-hand items consumption.

As a result, it is imperative to focus at the variables that affect the purchase of second-hand items for the reason that it's anything but a sincere kind of mercantilism. It is a way of existence, a method to secure products that researcher require and get rid of those items that the researcher do not see as valuable any more. It turned into visible that cost changed into the most significant aspect impacting customers when shopping for second-hand items; chance is the second one most impacting detail and brand is the third and location come remaining as most affecting variable. The reason for this examination is to make new records in the place of second-hand items usage and consumer purchasing conduct by determining elements that effect the customer in purchasing second-hand items. Numerous individuals sell

second-hand things in light the fact that there are others who have different devices being used and rather than simply allowing them to down, they simply sell them for benefit (Hobbs, 2016).

The study focuses on a system that helps people to help by starting selling their products even though it is obsolete or used and will help also to interact with other people who want to buy a cheaper item but a usable one (Carousell, 2019).

In typical garage sales there are numerous things they have to do. However, presently as opposed to investing every one of your amounts of energy on those tedious things, they can simply use are Segunda-Mano website where they can post an items that they want to sell with all details, emptying all the undesirable stuff from your home that they would prefer not to keep any longer, (Bohlin, A., 2019) once the items are published, they just need to sit at their place and entertain the buyers. Then again the purchasers will get it from their deal and make an examination as it helpful for themselves effortlessly. Segunda-Mano will present to them an understanding on how second-hand consumption is all about. The research ensure they offer them the most energizing second-hand items accessible. The researcher's style, tips and guidance will permit them to shop with more certainty.

Segundamano has major features that each user makes benefits using these modules. The researcher discusses the comparison and contrast of features in other popular e-commerce here within the Philippines. The add to cart feature is common in e-commerce websites, but the researcher wants to create it more efficient and fewer consume time when the user adding their items. In other websites when the user clicked the add to cart button, the user is directed to the purchasing Cart webpage (Shopee.com, 2021), thus the researcher did was when the user clicked the add to cart button the product will be automatically added to their cart and still the buyer will be on at segundamano home page.

Send Offer Feature is allowing the buyer to make an offer to seller in several amount that they will save cash. Making an offer is like getting into a proper deal with buyer, as soon as the seller has accepted the buyer offer (Blog.carousell.ph, 2019). The difference of Segundamano and Carousell within the make an offer feature is Segundamano contains a percentage discounted price of the item. Providing discounts on purchases is a way to quickly draw people into the seller store. When the seller informs a consumer that he can save cash, the seller probably to get buyer interest.

These image search and voice search features is big help to the user who searching for an item to buy but don't know what it is and no matter where buyer are and certain to see individuals' beauty in amazing fashion, looking stylish and simply owning it. All it takes could be a quick snap of the item or their outfit, and upload a picture within the search box and leave it to the shopping websites to curate similar items from their own listings (Zalora.com, 2015). Voice search allow clients to dictate what they want with their voice to look for their items. These modules where segundamano don't have but other e-commerce like Lazada, Shopee, Carousell, Zalora and more does.

This feature is the major uniqueness of segundamano to other ecommerce website, Swap-Item features allow buyer and seller to bargain items or add a cash when the item its more high value. Swapping is an excellent way to get rid of waste and interact in reuse, and also is a system of exchange where individuals in a transaction directly exchange items or offerings for other goods or offerings without the use of a medium of exchange, including cash (wikipedia.org/wiki/barter). It is a great way to satisfy new people and construct a sense of community. Segundamano is an online market platform that created by Researcher to allow and help the users to deal, purchase, and swap their second-hand items.

Statement of the Problem

After the observation by the researchers the following problems were identified such as:

1. There are item(s) that are no longer in use and are being kept despite the fact that they are still useful and needed by others.
2. They don't have enough money to purchase brand-new products that would be useful to them, and brand-new items come at a high price. They don't have the means to purchase things that are both costly and useful.
3. There are obsolete objects that are not properly disposed of and are thrown away when they can still be used and function.

Objectives of the Study

To create and grow a valuable store that will assist in capitalizing on those goods that have been stored for a long time in order to make a profit and to assist those individuals who are looking for inexpensive items for them.

1. To be a useful e-commerce platform that will assist in making the most of certain goods that have been stored by selling them.
2. To be an effective e-commerce platform that recognizes the rarity of wealth in order to purchase certain goods at a lower cost.
3. Increase the usefulness of obsolete products by repurposing them and reducing waste.

Method

RAD has more benefits such as very quick time for system development (Andreswari, 2020). RAD approach helps the researchers by the quicker software development and non-stop iterations, for a quicker method of software development, Rapid Application Development (RAD) approach gives them the great option or to be taken into consideration, aside from finishing starting the development from the start every time due to recommended adjustments, replication.

Phases of RAD Methodology

Requirement Planning: Define and finalize project requirements

At the same stage in this step, researchers communicate together to explained and finalize the project requirements including project goals, what are the assumption, timelines, budget and gathering various design, idea and information of other related studies and literature finished by other researcher or developer to make the system more efficient. When all have clearly defined and scope out each aspects the projects requirement, The researcher can seek for the approval of the project.

Prototype Cycle

The researchers begin building prototype systems and gather user feedback. As soon as scoping of the project is finished, the development of the system is next. Designers and developers will work intimately with the information to build and enhance on working prototypes until the last project is ready. Prototype and beta systems, systems that is undergoing to testing, are transformed into running models. Gathering response from the users to adjust and enhance prototypes and build feasible product.

Design construction & Testing

This step requires to test the software product and make sure that each one its running parts working wise as per client expectancies. Continuing integrating to client response as the codes are examined and retested for smooth functioning.

Design implementation & release: Present the system

The final step before the completed of the project goes to release. It includes data discussion and user training.

Results

Evaluation Results

This part presents the results of the researcher evaluations conducted with surveys. The system's performance was evaluated in terms of Functional Suitability, Performance Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability. The evaluation came from the potential non-IT experts and IT experts.

Table 1. Assessment of the Respondents

Criteria	Mean	Descriptive Rating
Functionality	4.24	Excellent
Reliability		
Usability	3.98	Very Good
Efficiency	4.33	Excellent
Maintainability	4.07	Very Good
Portability	4.24	Excellent
Overall Mean	4.24	Excellent

Table 1 shows the summary results that the researchers conducted with the Fifty (50) non-IT Experts or respondents which includes twenty (20) potential seller and another thirty (30) potential buyers/customers. The result of the performance for the Non-I.T. Experts of the system gained an overall rating of 4.18, which is equivalent to Very Good rating. Functionality was rated 4.24 or an Excellent rating, which means that the users found very minimal errors when they tested the system. Reliability is the degree to which a system, product or component performs specified functions under specified conditions for a specified period of time, got a mean of 3.98 which is equivalent to Very Good. Usability was also given a rating of 4.33 which equates to an Excellent rating. This shows that the users found the system easy to use regardless of their background and inclination towards computer and system usage in general. The Performance Efficiency of the software was given a rating of 4.07 or an Very Good rating., meaning it processes inputs in a timely manner. Maintainability was given an Excellent rating or a mean score of 4.24 which indicates that the system

is easily tested and navigated easily by the users. The last characteristic, Portability was given a rating of 4.24 which equates to an Excellent evaluation. This indicates that the system can be effectively adapted for different hardware software and other operational or usage environments.

Table 2. Assessment of the IT Experts

Criteria	Mean	Descriptive Rating
Functionality	4.66	Very Good
Efficiency	4.22	Very Good
Compatibility	4.66	Very Good
Usability	4.55	Very Good
Reliability	4.33	Very Good
Security	4.66	Very Good
Maintainability	4.13	Very Good
Portability	4.44	Very Good
Overall Mean	4.46	Very Good

Table 2 shows the summary of the evaluation results that the researchers conducted with the three (3) IT experts. The result of the performance of the system gained an overall rating of 4.46, which is equivalent to a very good rating. This shows that the system performs well and can be developed by future researchers. Functionality, which is how the system works or functions as a whole, got a mean of 4.66 which is equivalent to a rating of very good. Performance efficiency represents the performance relative to the amount of resources used under stated conditions, got a mean of 4.22 which is equal to a rating of very good. Compatibility is a degree to which a product, system or component can exchange information with other products, systems or components, and/or perform its required functions, while sharing the same hardware or software environment, got a mean of 4.66 which is equal to a rating of very good. Usability got a mean of 4.55 which is equivalent to rating of very good. Maintainability is a characteristic represent the degree of effectiveness and efficiency with which a product or system can be modified to improve it, correct it or adapt to changes in environment, and in requirements, got a mean 4.13 which is equal to

a rating of very good. Portability got a mean of 4.44 which is equivalent of a very good rating.

Discussion

The assessment of the IT experts reached a general mean of 4.46 which is equivalent to a "Excellent" rating. For the non-IT respondents acquired an overall mean of 4.18 which is equal to "very good" rating. The study reached an overall normal mean of 4.32 which is equivalent to an "excellent" rating. This will demonstrate that the system has met the necessities of the users. Researchers resolved the problems and achieved the objectives that needed. It is also stated the delimitations of the system. Moreover, the researchers indicated the use of descriptive method as a research design as it was found to be useful in developing the system and the employment of Rapid Application Development (RAD) for fast, efficient, accurate system development and delivery. The researchers also presented what procedures were undertaken in the research. It also mentioned the five-point Likert Scale used for the evaluation and the diagrams used such as ERD, DFD and Use Case. the researchers had the choice to find out that the proposed system was effectively accomplished and met the requirements of the customers as assessed by the IT experts and respondents. With a rating mean of 3.79, which is equivalent to "very good" from the IT experts and a rating mean of 4.29 which is equivalent to "excellent" from the respondents, this demonstrates that the system has met the necessities of the users.

Conclusion

The conclusions of the study are based on the objectives and the results generated from data analysis. The researchers accomplished the first and second objectives of the study, which is to provide an online art service where artists can sell their artworks.

1. The researchers created the system with a form that includes selling or trading of secondhand items for user to make profit. This includes

swap item features that gives the seller and buyer an option of trading and offering other items besides of buying the posted item by seller.

2. The researchers created the system with product categories for user to easily find what kind of secondhand items are available in the market.
3. The researchers created the system with bargain form that compare original price and secondhand price and make a fine deal between the seller and the buyer.

Recommendations

Based on the results of the study, the following are the recommendations for future researchers:

1. Make a mobile application version of the system that is compatible with Android and IOS devices.
2. Use SMS Notification that notifies the user without having to use the internet.
3. Use other online payment other than ATM Cards for more convenient transactions.
4. Extend the coverage of the system nationwide.
5. Search thru image search or voice search.
6. Nearby- it will automatic show the nearby items to the buyer's specific location (this will include the location of the user).
7. Make a partnership with the courier.

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