MARI

Sales Management System

Bong Jing Yee[1], Syahida Hassan[1]*

[1]School of Computing,
Universiti Utara Malaysia, Kedah Darul Aman, Sintok, 06010, MALAYSIA

*Corresponding Author Designation

Abstract : Nowadays, online shopping has become essential due to Covid 19 restrictions. Small businesses are also proliferating to grab this opportunity of increasing their sales through online platforms. Although many have successfully implemented online businesses on multiple platforms, such as Instagram, Facebook, Lazada, and Shopee, many could not sustain their businesses as they do not have adequate tools to assist them with record keeping. Often, small businesses failed to keep track of their sales and revenue, which caused them to struggle with the growth of their business. Thus, this project aims to provide a tool for this target group by developing the Sales Management System (SMTS). SMTS is a web-based system that allows users to record information related to sales, products and suppliers. It can also generate sales reports. Rapid Application Development (RAD) was used as the methodology for this project, where we prioritise rapid prototype iterations. RAD has four phases, which are requirements planning, user design, rapid construction, and cutover. During the requirements planning phase, the requirements were gathered using the content analysis method where finding from past research was analysed to identify the problem and solution. Next, the low fidelity prototype was developed. SMTS was developed using JavaScript, HTML, CSS, MySQL, and PHP in the rapid construction stage. Upon completion, usability evaluation has been conducted to understand how users interact with the system. Improvements were made to the system based on the results. The system is hoped to provide a cheaper alternative in managing their data, consequently leading to better decision-making.

Keywords: Online Shopping, Management System, Sales, Product, Suppliers

1. Introduction

Malaysia's retail outlets have been forced to close due to the COVID-19 pandemic. Many businesses have been affected by this situation, which has been described as unprecedented. Due to a drop in revenue, small businesses switch from traditional marketing to social media [1]. At the same time, customers are also shifted from brick-and-mortar stores to e-commerce approaches due to the movement restrictions. More people are interested in digital grocery stores, and thus more are trying to

take advantage of their benefits [2]. Therefore, most of the businesses transformed to be online businesses.

Among online platforms used by small businesses are Instagram, Facebook, Lazada, and Shopee. Some are using more than one channel to reach out to their customers. Although many of these businesses are gaining revenue in the short term, the issues on business sustainability remain a problem. Most of these small businesses rely on the social media platform, which has limited functions in managing sales information; they need additional functional tools to manage their sales records. The purpose of this project is to develop a sales management system for online small business owners. Sales Management System (SMTS), as shown in **Figure 1**, is a web-based system that aims to help users managing their sales information. Users can record the sales and products and suppliers' information in the Sales Management System (SMTS). Furthermore, it also can generate two types of sales report with table, which is daily sales report and sales report with a range of the dates.
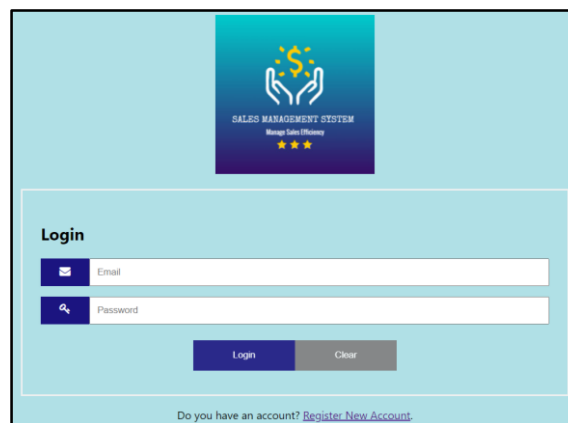

Figure 1: Login Screen of Sales Management System (SMTS)

2. Materials and Methods

The methodology used to develop Sales Management System (SMTS) is Rapid Application Development (RAD). **Figure 2** shows the four phases in RAD: requirements planning, user design, rapid construction, and cutover. First, the requirements were gathered using the content analysis method during the requirements planning phase, where findings from previous research were analysed to identify the problem and solution. The low-fidelity prototype was then created and ensure the system meets all the requirements. Next, SMTS was created using JavaScript, HTML, CSS, MySQL, and PHP during the rapid development stage. After that, an usability evaluation was carried out with 33 respondents to see how users interacted with the system.
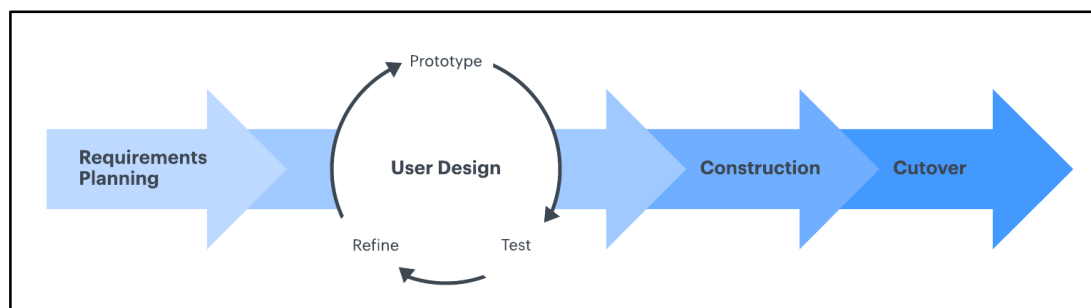

Figure 2: Process of Rapid Application Development (RAD)

3. Results and Discussion

Sales Management System (SMTS) was successfully developed, as shown in **Figure 3** and can be accessed via the following link: http://www.albeeneko.com/SalesManagementSystem/ at the user's convenience. Users are required to sign up to use the system. The user's guide is provided in the system.

There are 33 respondents who have participated in the usability testing of SMTS. **Figure 4** illustrates the demography and background information of the respondents. Only nine respondents have experience using a similar system like SMTS, and the other 24 respondents never use this type of system. The results from the usability testing show that some functions are a bit complicated to use without written instructions (Refer to **Figure 5**). Although the percentage is low (10%), this issue needs to be addressed. Therefore in future, SMTS will be improved to provide a better environment and feel toward the user.
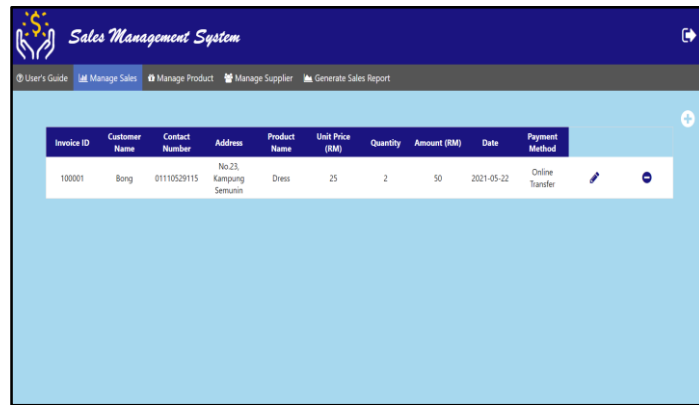

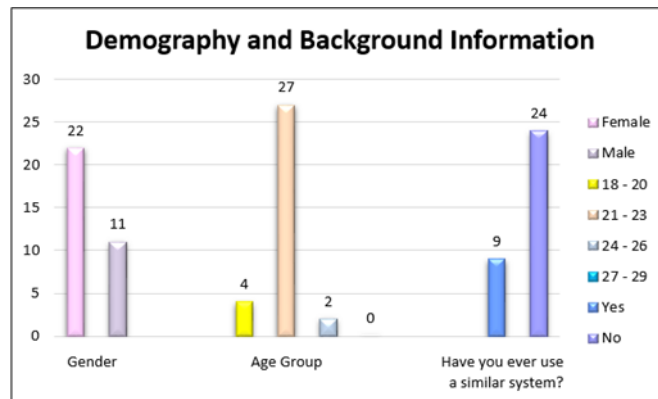**Figure 3: Manage Sales Screen of Sales Management System (SMTS)**

Figure 4: Finding for demography and background information from the usability testing
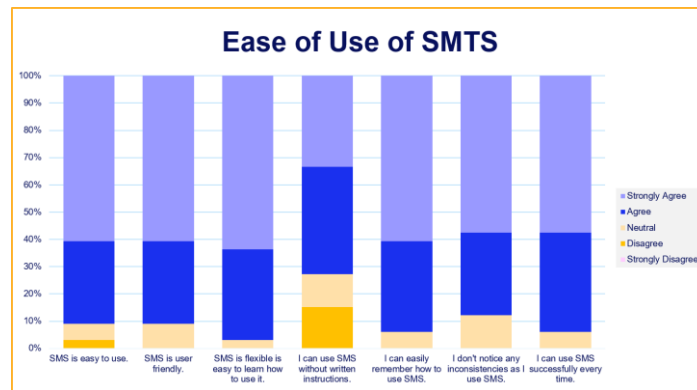
Figure 5: Findings for ease of use of SMTS from the usability testing

4. Conclusion

In conclusion, a web-based system was developed to online small business owners more efficiently and effectively manage their sales in this project. The users can save their time using Sales Management System (SMTS) because it can automatically generate sales reports with input the date only. SMTS will be improved to provide users with a better experience in the future.

References

[1]   M. I. Effendi, D. Sugandini, and Y. Istanto, "Social media adoption in SMEs impacted by COVID-19: The TOE model," J. Asian Finance Econ. Bus., vol. 7, no. 11, pp. 915–925, 2020.

[2]   Hasanat, Mohammad Waliul, Ashikul Hoque, Farzana Afrin Shikha, Mashrekha Anwar, Abu Bakar Abdul Hamid, and Huam Hon Tat. "The impact of coronavirus (COVID-19) on e-business in Malaysia." Asian Journal of Multidisciplinary Studies., vol. 3, no. 1, pp. 85-90, 2020.