Development of Web Landing Page for Small and Medium Enterprise Promotion Bussiness

*Ferlin Firdaus Turnip[1], Mai Fernando Nainggolan[2], George Michael Tampubolon[3], Arjon Turnip[4]
[1]Porlak Parna AgroTourism Company, K.H. Ramli Buntu Street No. 25, South Jakarta, Indonesia
[2]Department of Agribusiness, Faculty of Agriculture, Padjadjaran University, Bandung, Indonesia
[3]Bachelor of Electrical Engineering, Faculty of Industrial Technology, National Institute Technology, Bandung, Indonesia
[4]Electrical Engineering Department, Padjadjaran University, Bandung, Indonesia

Keywords: SME, Marketplace, Landing Page, Waterfall, Framework.

Abstract: The development of information technology has changed the way of buying and selling transactions in the world. The existence of a marketplace at this time has changed the shopping lifestyle of the people from face to face in a conventional market to online shopping. Small and Medium Enterprises (SME) are small home business units that have around 5-10 employees. Technological advances make the SME players have to be creative in marketing their services or products in order to survive and increase sales. The existence of a marketplace and its features that normally only focus on providing product brochures and sell&buy online transactions makes it difficult for SME owners to introduce their business in detail. An exposure of complete information about owners, businesses and services, customers, testimonials, and other online information that can be accessed by the public is needed. Complete and structured information will increase the trust of service or product users. This study aims to build a web landing page that is used to promote SME's product or service business. Application development is carried out using a waterfall model with UML-based system modeling. The programming language used is PHP with the Codeigniter 3.1 framework and uses the MVC concept. Website design using CSS Framework Bootstrap and Javascript Library using Jquery. The RDBMS used is MySQL with the XAMPP tool. The results of this study are a website dashboard and landing page display that can be used to promote business.

1 INTRODUCTION

Technological developments have brought changes in people's behavior in buying and selling transactions. The conventional market is no longer the main place in running the economy. The existence of e-commerce sites is a new place for customers and businesses to carry out buying and selling transactions without having to face to face but only relying on shipping services. This has made economic activities more effective and at the same time made business actors, in this case Small and Medium Enterprises (SME), have to innovate to increase their income. SME is a sector that cannot be separated from the Indonesian economy, because its existence has been proven to help reduce unemployment by absorbing workers on a medium or large scale. Limited features of e-commerce sites make it difficult for SME owners to promote their business. SME owners need to explain in more detail about their profile and business information in detail. Similar research has been carried out before, namely the development of an online ticket booking application in Lake Toba with a payment system using the paymen gateway method (Turnip, 2020). SME in Tanzania has three regulations in the main structural practice of e-commerce, such as: marketing and image building with websites as media, conducting transactions using cellular technology extensively, and solving problems by establishing partnerships (Kabanda, 2017). SME entrepreneurs must explain a more detailed business profile, business model, buyer testimonials, and detailed information about services and products. SME requires a medium where everyone can access and get detailed information about business profiles to increase trust or trust for potential customers. The media must be connected to the internet so that anyone can access it as long as they are connected to the internet. One of the national products is

Simalungun Arabica coffee which is produced by Simalungun district. The strategy to empower young coffee farmers is to build entrepreneurial character (Nainggolan, 2020). The media is a website that is specially designed for the purpose of marketing strategies and it is easy for visitors to get information on SME and also for the purpose of achieving conversions. The website is a simple website, where the content is only one page with very limited information.

Svitlana el all in her journal said that leaders of modern millennial companies must focus on how to build and maintain sustainable relationships with customers (Bondarenko, 2019). It is essential to convert potential customers into customers. Likewise, Diabate et al. Conducted research on the sustainable growth of SMEs through Entrepreneur Ability (EA) with Ivory Coast as the research location. In his research, it was found that the dimensions of Entrepreneurship Ability such as: creativity, risk control, relationship and opportunity detection ability have a major influence on innovation positively in entrepreneurship (Adjourman, 2020). Sebastian Kot also conducts research on SME supply chain management. The results of his research show that all areas of sustainable supply chain management such as business, environment and society are very important in SME. These elements are related to building long-term relationships and increasing customer satisfaction through expedited delivery (Kot, 2018). Abeer said that the role of a Landing Page Professional is needed to increase visitor conversions in electronic marketing based on clear criteria (Fayed, 2018). Increasing conversion rates is critical for SMEs which have traditionally lagged behind large companies. A study using 1184 objects with 6 SME sites using an exploratory regression analysis process resulted in the finding that the key factor for increasing conversions is a strategy that focuses on quality or promotion and avoids the attributes of mixed website promotion (Di Fatta, 2018). Other studies discuss the characteristics of specific website content. The placement of buttons on the website has an influence on the conversion of potential customers. The system identifies the optimal button placement and recommends alternative positions to increase the conversion rate. This study uses a reference model and text-based techniques (Luthfi, 2018). Juan Reyes explained that landing pages are designed for marketing campaigns in getting positive emotional from consumers as a measure of the success of digital campaigns (Reyes, 2016). Landing pages that have shorter content have

higher conversion rates at all locations and times where users with less information tend to provide data (Gafni, 2018).

Landing page will be more powerfull when added expert system, so expert system that contain knowledge about data in system (Afriansyah, 2019). Landing page dashboard also can be added monitoring application. It will better when it is developed based on android (Oktarino, 2019). Landing pages are designed in such a way as to attract the attention of visitors and to a product so as to generate conversions for website visits every day. The visitor attention is started from brain. Brain signal can be recorded by EEG-P300 tools (Simbolon, 2019). In this study, a simple, interactive, informative, and user friendly landing page was built and tested.

2 METHOD

This study uses a descriptive research method where the case study is described in full in the study. The web landing page is built using the waterfall model. This model has five stages of work in a row, including: Communication, Planning, Modeling, Construction, and Deployment which are described as: (i) Communication Phase with prospective software users, namely literature study, user needs analysis and software; (ii) scheduling of software work; (iii) compiling system requirements, designing and designing new systems to be built based on needs; (iv) implementation of designs and designs into program code; (v) Lastly is deployment, namely the application testing phase, application evaluation and maintenance.

The following is a design from an overview of the Waterfall software development model:
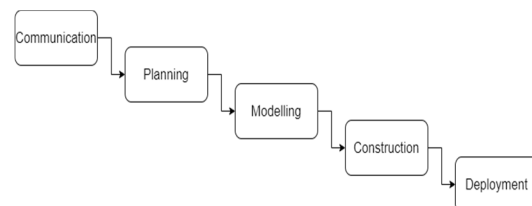

Figure 1: Stages of Waterfall SDLC.

3 RESULTS AND DISCUSSIONS

The development results in a website landing page with an affiliate marketing system. The system starts with entrepreneurs or marketers who have to register

first to get an account. After registering, the system will automatically send an email notification as a sign of successful registration. After that the user can log in to use the system. Entrepreneurs can add product or service data, testimonials and portfolios. Meanwhile, marketers get a referral code and several landing pages that are ready to be shared. If there are potential customers who are interested, they can click on the landing page, then register and pay on the form provided. The system will verify the payment. If the payment is correct, the system will send a successful payment notification. The system will store the referral code stored in the transaction and calculate the commission from the marketer. Prospective marketers who have made payments will also get the same referral code and landing page to share on social media. Based on the those description, the following information is obtained:

3.1 Business Activities

The proposed business activity cycle is affiliate marketing using landing page media. This cycle is shown in Figure 2.
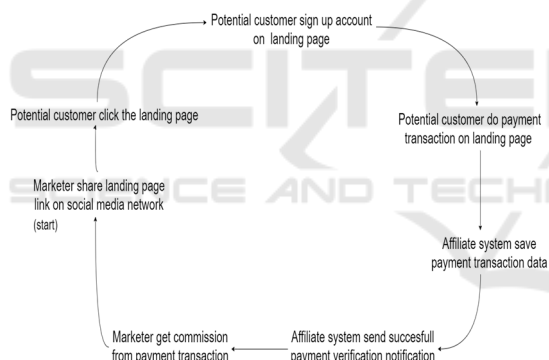
Figure 2: the Affiliate marketing business activity cycle.

Figure 2 shows the proposed business activity starting from the marketer sharing the landing page link. Prospective customers click on the landing page link, then fill out the registration page on the landing page. Then the prospective registrant makes a payment based on the product ordered on the landing page. The system performs payment verification. If the payment verification is appropriate, the system sends a successful payment notification via email and stores the referral code data on the landing page, then gives a commission to the marketer who owns the referral code.

3.2 Affiliate Marketing System Overview

The proposed system overview allows marketers and entrepreneurs to earn a commission from each payment transaction that occurs on the landing page.

Marketers can do the following: (i) Register an account; (ii) Account login; (iii) Choosing a landing page theme and filling in the landing page content; (v) Share the landing page link. Entrepreneurs can do the following: (i) Register an account; (ii) Account login; (iii) Select landing pages and manage product or service data, manage testimonial and portfolio data; (vi) Fill in our contact data. These are shown in the process diagram in Figure 3 and Figure 4, while the process for commission transactions in transactions is shown in Figure 5.
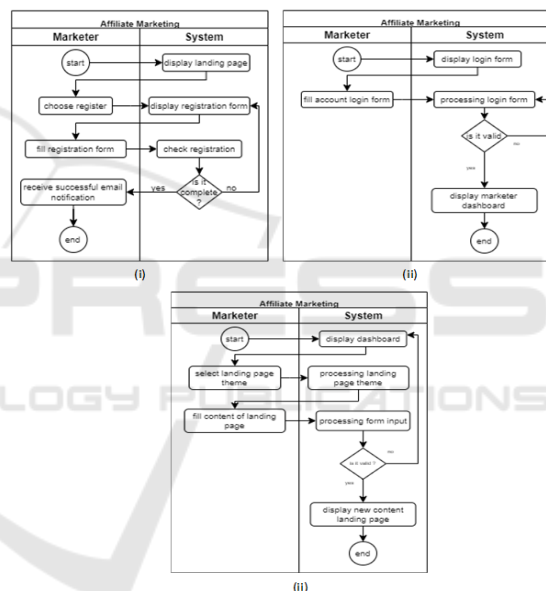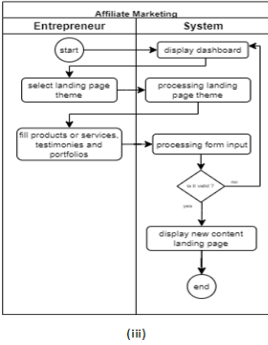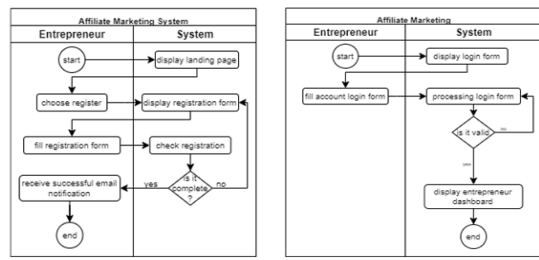

Figure 3: Diagram process of marketer.

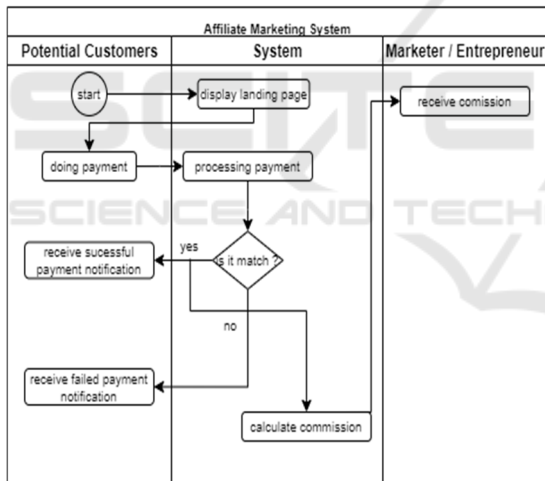Figure 4: Diagram process of entrepreneur.

Figure 5: Diagram process of the transaction commission sharing process.

3.3 Class Diagram

A class diagram is one of the UML diagrams showing the entities and their attributes. These entities are related to each other and have methods that will be used in programming languages. The class diagram on the landing page is shown in Figure 6.
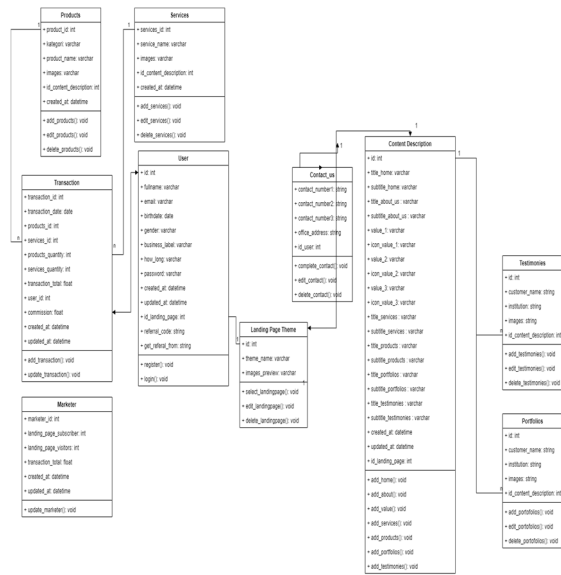

Figure 6: Class Diagram.

Figure 6 entities that are related to each other and have attributes and methods. This is the basis on which to build the proposed system using a programming language.

3.4 Use Case Diagram

Use case diagrams describe the relationship between the system and the user in system use. The landing page use case diagram is shown in Figure 7.
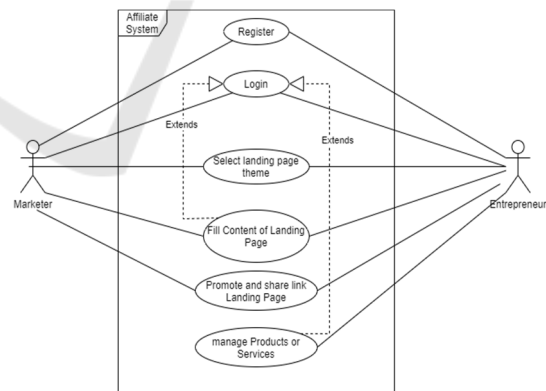

Figure 7: Use Case Diagram.

Figure 7 illustrates the relationship between users as entrepreneurs and users as potential customers. Entrepreneurs can register, log in, choose a landing page theme, fill in the landing page content and share the landing page. Meanwhile, potential customers can share the landing page on social media or contact business owners.

3.5 Main Menu Display

The main menu function is as an initial guide containing commands in relation to other content based on the main menu. On the main menu, users can select several features such as Home, Register / Login, Demo, Details, and Contact.

3.6 Landing Page

Landing page is the main page or content where potential customers place the main content of the landing page with several features such as: registration, login, and viewing a demo of using the landing page. Registration is the process of getting a system account, while login is the process of logging in to the system dashboard before managing the landing page. The landing page usage demo contains videos of how to use the landing page and landing page marketing (Figure 8). This is the main thing that attracts potential customers to register for an account.
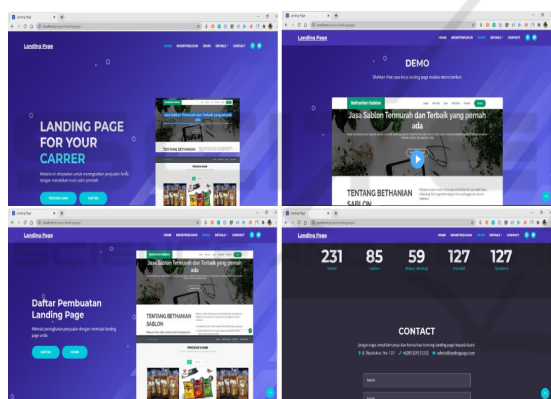

Figure 8: Landing Page Interface.

3.7 Register and Login Page

Register and Login page is a registration page where users must register and log in to use the landing page system. Registration is the process of getting an account, where potential customers must make payments to be able to promote a landing page. Meanwhile, login is the process of entering the marketer's dashboard which can be opened after making a payment. The register and login landing page menus can be seen in Figure 9.
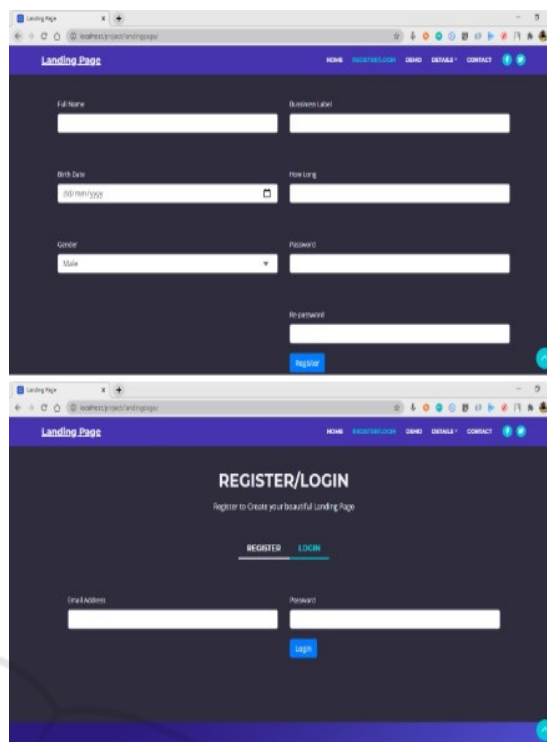

Figure 9: Register and Login Interface.

3.8 User Dashboard

After logging in, the user will be directed to the dashboard page with user fields to create the landing page as desired. On the dashboard, if the user is an entrepreneur, you can manage several things related to menu content such as adding, editing, and deleting products or services, testimonials and portfolios. This is done to enhance the appearance and attract the attention of potential customers. Meanwhile, if the user is a marketer, you can share the landing page link on social media. The user dashboard is shown in Figures 10 and 11.
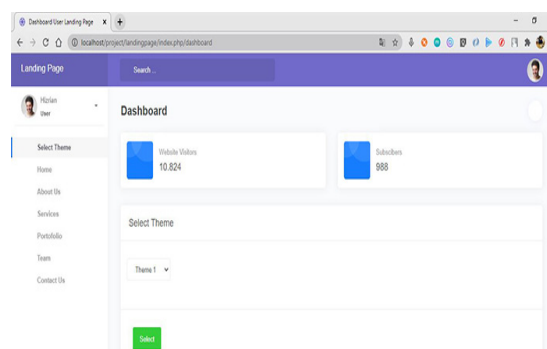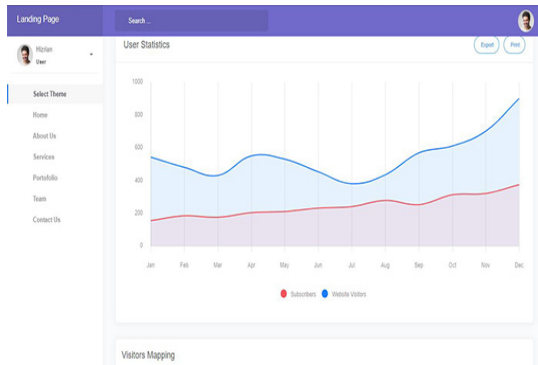

Figure 10: User Dashboard Interface.

Figure 11: the Advanced User Dashboard Interface.

In Figure 10, users can see website visitors and subscribers. Website visitors is a feature about how many people have viewed the landing page while Subscriber is a feature about how many people want to get notifications via email or phone. Figure 11 will appear when the user scrolls down the dashboard which aims to display website visitor and subscriber statistics for the past month.

Figure 12 describes the affiliate marketing commission system. Every transaction that occurs from a potential customer will be converted into a commission for the marketer. Click is a feature of the number of potential customers who open the landing page link. Register is a feature of the number of potential customers who have registered. Conversion is a monthly analytical comparison feature of the landing page links that are shared.
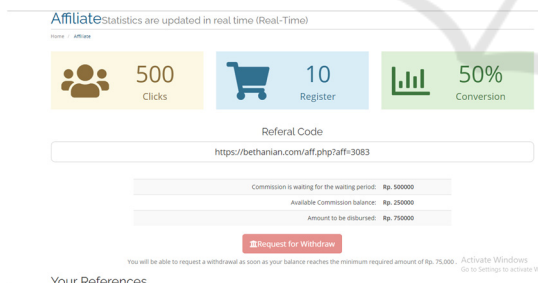

Figure 12: the Commission System of Affiliate Marketing.

3.9 Landing Page Content Form Menu

The menu for selecting a landing page theme is also available on the sidebar as shown in Figure 13. The landing theme content will be filled in based on what the user has filled in the menu section on the dashboard sidebar. So users can write as attractive as possible to attract the attention of potential customers.
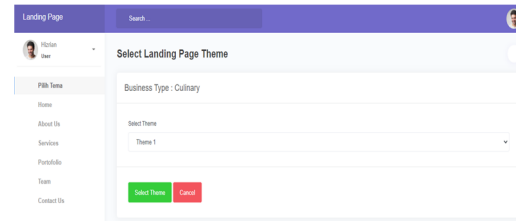

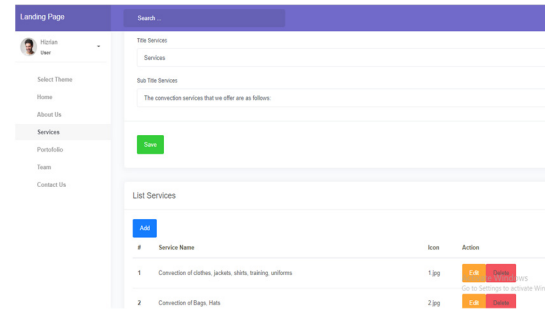Figure 13: Select landing page theme section.

Figure 14: Services Section Form Interface.

Figure 14 describes the Service section where the user must fill in the Services title and subtitles, then add the Service name and image. Users can also change and delete Service data. Service section is a section that contains services offered by SME Entrepreneurs. Filling in the same way is also done in the Products, Portfolio and Contact Us sections. The Products section contains products that SME Entrepreneurs sell. The product section display contains the product title and subtitle as well as a list of products offered by SME. Users can add, change and delete product names, categories, and display images.

The Portfolios section contains testimonials on the use of products or services from SME and also contains production results in the form of SME products. The Portofolios section must also be filled in by the user. The Portofolios section contains form fields such as the name of the customer, customer agency and testimonial content about the use of SME services and products and also contains a form about production results such as the name of the product and the picture.

The Teams section contains a list of entrepreneurs building SMEs. Users can fill in the name of the entrepreneur, job title and social media profile. In the Team section, users can choose to fill in or not. Prospective customers can see who owns the SME and the team behind the SME. The Contact Us section contains details on how to contact a business owner or office address. The Contact Us section is then displayed on the landing page in the

footer section of the page, so that potential customers can contact the business owner for more information about the business and transactions.

3.10 The Affiliate Marketing through Landing Page Interface

Each landing page theme has its own menu content. On the dashboard, the user does not have to fill in all section menus, but each section menu will affect the appearance of the landing page content. So that users are advised to fill in the complete content. An example of a service landing page display using the affiliate marketing system is shown in Figures 15 to 20.

Figure 15: The Example of Landing Page: Screen Printing service.
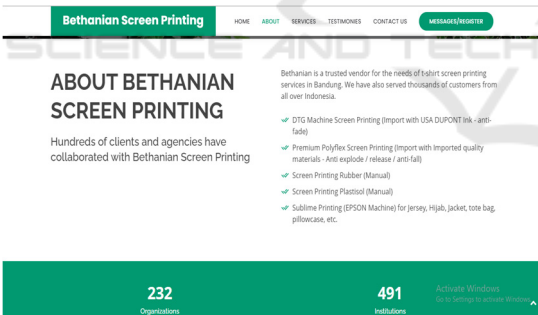

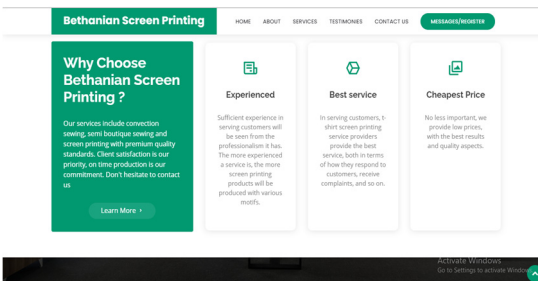Figure 16: The Example of Landing Page: Screen printing service (2).

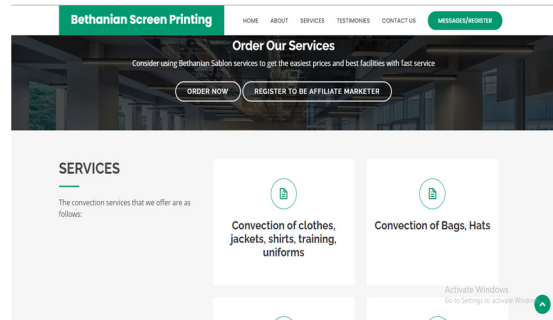Figure 17 The Example of Landing Page: Screen printing service (3).

Figure 18: The Example of Landing Page: Screen printing service (4).
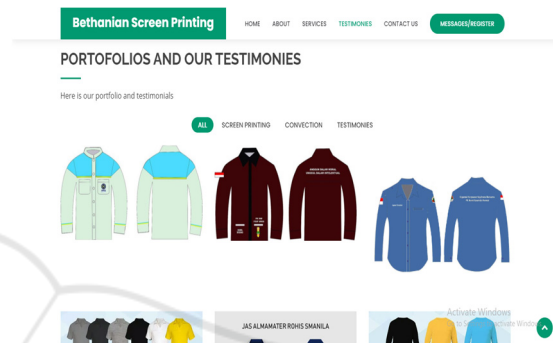

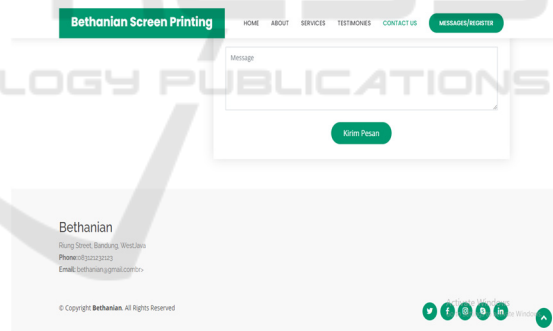Figure 19: The Example of Landing Page: Screen printing service (5).

Figure 20: The Example of Landing Page: Screen printing service (6).

Figures 15 - 20 describe the landing page for services. In Figure 15 is the main landing page containing a Call to Action for potential customers to contact the business owner. Figure 16 is a continuation of Figure 15, when the prospect scrolls down the landing page and contains a Business Profile. When scrolling down again, it displays Figure 17 which contains a description of why potential customers should use the services of an SME owner, then Figure 18 contains the services offered, Figure 19 contains portfolios and testimonials from customers who have used SME

services. Then page 20 contains the footer of the landing page, so that potential customers can find the contact person and office address. So Figures 15 to Figure 20 are on 1 web page.

4 CONCLUSIONS

Based on the results and discussion of the affiliate marketing landing page created, this can help entrepreneurs to make simple landing pages easier and then be able to promote their MSMEs and share the link on social media. It is hoped that the landing page marketing system will not only increase the income of entrepreneurs, but also customers who register as marketers. The existence of a landing page website is expected to expand the marketing of products or services, so that many people know the products or services they sell, thereby increasing income rather than daily income, also transactions can occur between cities through shipping services.

ACKNOWLEDGEMENTS

REFERENCES

Kabanda, S., & Brown, I., 2017. A structuration analysis of Small and Medium Enterprise (SME) adoption of E-Commerce: The case of Tanzania, Telematics and Informatics, 34(4), 118-132.

Nainggolan, M.F., Nugraha, D.R., Turnip, A., 2020. Empowering of Young Farmer for Arabica Coffee Farming Business in Simalungun, IOP Conference Series: Earth and Environmental Science.

Simbolon, A, I., Amri, M. F., Suhendra, M. A., & Turnip, A., 2019. A New Technique of Room Access Security based Brain Computer Interface. Internetworking Indonesia Journal, 11(1).

Afriansyah, A., Oktarino, A & Turnip, A., 2019. Expert System for Diagnosing Children Allergic Diseases through Web Forward Chaining. Internetworking Indonesia Journal, 11(2).

Oktarino, A., Afriansyah, A & Turnip, A., 2019. Design and Implementation of Android-Based Village Fund Monitoring Application. Internetworking Indonesia Journal, 12(1).

Turnip, A., Kusumandari, D., Novita, D., et al., 2019. An Increase of the Central Frequency of Alpha Brain Wave Effected by Soy Peptide in Open Eyes Condition based EEG Signals, IEEE International Conference of Computer Science and Information Technology (ICoSNIKOM).

Bondarenko, Svitlana., et. all., 2019. Modern Lead Generation in Internet Marketing for the Development of Enterprise Potential, International Journal of Innovative Technology and Exploring Engineering (IJITEE), Vol. 8, issue 12, p. 3066 – 3071.

Diabate, Ardjouman., et. all., 2019. Assessing SMEs' sustainable growth through entrepreneurs' ability and entrepreneurial orientation: an insight into SMEs in Côte d'Ivoire, Sustainability, 11(24), 7149.

Kot, S., 2018. Sustainable supply chain management in small and medium enterprises, Sustainability, 10(4), 1143.

Fayed, A. E., 2018. The Role of Professional Landing Pages in Increasing Conversion Rates by Applying to the Saudi Electronic Marketing Websites, International Journal of Business and Social Science, 9(12).

Reyes, J. F., 2016. Effect of Emotion on Marketing Landing Page Conversion, Partial Fulfillment to the Requirements for the Degree of Master of Science. ProQuest LLC; 23(3), 368-392.

Gafni, R., & Dvir, N., 2018, May. How Content Volume On Landing Pages Influences Consumer Behavior: Empirical Evidence, Proceedings of the Informing Science and Information Technology Education Conference, La Verne, California, pp. 035-053.

Di Fatta, D., Patton, D., & Viglia, G., 2018. The determinants of conversion rates in SME e-commerce websites. Journal of Retailing and Consumer Services, 41, 161-168.

Lutfi, A., & Fasciani, S., 2018. Automating the Optimization of Web Interfaces for E-Commerce. Recent Trends in Computer Applications, pp. 221-235. Springer, Cham.

Turnip, F. F., & Turnip, A., 2020, June. Development of Online Ticket Booking Application for Ferry Crossing Website Based in Toba Lake Area. IEEE, 3rd International Conference on Mechanical, Electronics, Computer, and Industrial Technology (MECnIT), pp. 381-385.