Information System Plan For Online Maintenance Cars Services

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Abstract: Digitalization appears in all aspects of human life. A smartphone is one example of digitalization that exists. Smartphones have become something that has never been separated from its users, but a communication tool, but smartphones have also become a lifestyle. Smartphones also support various aspects of everyday society. Smartphones can also be integrated with many other aspects. One important aspect of society is transportation. One transportation for many people who have high mobility for private cars. Through various activities of car users, they need a breakthrough that can facilitate the maintenance of their cars. Because it was designed a technology-based mobile application and called My Car. My car can make it easier for users to get notifications that have arrived, then regular payments, there are still many other services offered. After creating an idea to make my car, this research wanted to make an application for my car in determining the form of their application. This application is designed with an attractive and easy model to use by users. The server will use Microsoft Azure because it is cheaper and has a lot of advantages.

Keywords: Mobile Apps, SWOT, Porter Five Forces, Ward and Peppard, Microsoft Azure, IS System

1. Introduction

Transportation is one of the important aspects in society. Currently private cars are a transportation choice for many people, especially those who have high mobility. Along with the many activities of car users, they need a breakthrough that can facilitate their car maintenance. However, there are still many car users who pay less attention to their cars. Like car owners who forget to do regular service on their cars. In this case, the user needs a reminder when the time and time to service periodically arrived.

For this reason, the writer is interested in planning a mobile application that can store important data of a user's car to be used as a reminder in an application that is named Mobilku. This car can make it easier for users to get notifications when it comes time for routine service and tax filling, and many other services offered such as providing the nearest workshop service information from the location accompanied by the choice of coming to their own workshop and can order online with a user-specified schedule or help bring in a mechanic to the user's location, tax filling service, and others.

The use of Social Media is increasingly developing in Indonesia, causing many companies to be interested in using social media as an easy marketing tool and can add value to the product. Using social media as a marketing communication tool is not just like using the internet and technology, but must use tactics and communication strategies. Mobilku which is an internet-based mobile application is very appropriate when using social media marketing on its marketing strategy. For this reason, the author wants to analyze the application of Social Media Marketing that is rightly applied to mobilku and what platform is most suitable for use.

2. Mobile Application

Mobile Application is a software application developed for use on mobile devices such as smart phones and tablets. Once developed, an application is sold through an application distribution platform, commonly known as an application store. Mobile applications can make it easier to carry out various activities such as seeking entertainment, selling, learning media, doing office work and much more.(Lim, Bentley, Kanakam, Ishikawa, & Honiden, 2014)

Mobile applications are software that is made for portable smartphone devices that must first download the mobile application software in the application store so that it can be used. Mobile applications have faster performance compared to mobile web. This is because a mobile application only has 1 domain. The mobile application is also far more attractive in terms of visuals. Users also have full access to this mobile application device. The security and quality of mobile applications are far more guaranteed because they are controlled by their respective vendors.(IDprogrammer, 2017)

3. Cloud Computing

Figure 1 Cloud Computing Logo

Cloud computing is a combination of the use of computer technology ('computing') and Internet-based development ('cloud'). Cloud (cloud) is a metaphor of the internet, as clouds are often depicted in computer network diagrams, cloud (cloud) in Cloud Computing is also an abstraction of the complex infrastructure that is hidden. It is a computational method in which information technology-related capabilities are presented as a service, so that users can access them via the Internet ("in the cloud") without knowing what is inside, being expert with them, or having control over technological infrastructure who helped him. (Fajrin, 2012: 32).

The main purpose of making a mobile-based application is to provide an experience for users to be able to use it more concisely, quickly and easily to use. Cloud service-based mobile applications or utilizing internet databases, allowing content or news on applications to be updated regularly.

There are three types of services in cloud computing, where in the three architectures the user does not set directly, namely:

a. Infrastructure as a Service (IaaS): IaaS provides services to the level of the Operating System. So the user can choose the operating system that will be used in the form of a virtual machine. Users can also manage resources for hardware allocation such as memory size, hard drive size, and processor size. Examples of IaaS services are Microsoft Azure IaaS, Amazon EC2, Rackspace Cloud, and Open Stack.

b. Platform as a Services (PaaS): PaaS provides services at the platform level, so users are no longer bothered with operating system installations, web servers, database servers, and other applications. PaaS service providers have provided a complete operating system along with the applications needed for hosting applications such as web servers and database servers. Users can upload applications made through the control panel provided. Users can also choose packages as needed for the needs of small applications with limited users, to applications with large users. Contents of PaaS services are: Microsoft Azure PaaS (IIS, ASP.NET, Open Source technology), Google App Engine, Amazon Elastic Beanstalk, Cloud Foundry, and Heroku.

c. Software as a Service (SaaS): SaaS provides services directly to users in the form of ready-made applications. Forms of application services offered such as office application xservices, email, data storage services, etc. Examples of SaaS services are: Office 365, Gmail, Google Docs, DropBox, and Salesforce.

4. Microsoft Azure

Figure 2 Microsoft Azure Logo

Microsoft Azure platform is the Microsoft implementation of cloud computing.Microsoft Azureprovides resources and services for consumers.MicrosoftAzure programming model helpsdevelopers

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create applications that are easier to administer, moreavailable, and more scalable than those built in the traditionalWindows Server environment.

MicrosoftAzure relies on REST (Representational State Transfer) technology so that the communication process between applications can be done using the HTTP protocol.

Using MicrosoftAzure applications can bedevelopedapplications in almost any language and can integrate public applications from Cloud into existing ITenvironment. MicrosoftAzure includes the following features that enable customers to controlaccess to their data and applications:

a. Organizations can synchronize identification dataat headquarters with Active Directory fromMicrosoftAzure and allows single authenticationto simplify user access to their cloud-basedapplications. (CARUTASU, BOTEZATU, BOTEZATU, & PIRNAU, 2016)

b. At any time can be achieved security reports to monitor data access and contribute to riskmanagement.(CARUTASU, BOTEZATU, BOTEZATU, & PIRNAU, 2016)

c. Authentication can be done by several methods,which helps to prevent unauthorized access, also providing a mechanism for authentication inaddition to password. (CARUTASU, BOTEZATU, BOTEZATU, & PIRNAU, 2016)

d. Customers can implement authorization schemesto control users access to resources on the tasks of the role, the level of authorization andpermissions approved. (CARUTASU, BOTEZATU, BOTEZATU, & PIRNAU, 2016)

Microsoft Azure has five main parts: Compute, Storage, the Fabric Controller, the CDN, and Connect.(Madhurima, Vandana, & Madhulika, 2011)

a. Computing: Microsoft Azure computing can run various types of applications. Microsoft Azure runs several examples of each role, using load balancing for channeling all roles. It consists of two types of "roles". The first is the "Role of the Web", which basically means ASP.NET. The role of the Web is the code for the front end, screen, etc. that we describe for our users. Another role is "The Role of Workers". It's basically like a Windows Service or DLL that we use in ordinary .NET programming. The Role of Workers is a program that has no front end for users.(Madhurima, Vandana, & Madhulika, 2011)

b. Storage: The second component in Microsoft Azure is. We have three types here - Blobs, which are like files, tables, which are key value pair types, and Queues, which allow Web Roles and Worker Roles, are interconnected.(Madhurima, Vandana, & Madhulika, 2011)

c. Fabric Controllers: The third component in Microsoft Azure is the Application Fabric or Fabric controller. This component requires approval and transportation - not only between Microsoft Azure applications, but also from the server. We can say that we can have a large SQL Server or Oracle system and expose it to Azure applications, and we don't have to use applications to our network.(Madhurima, Vandana, & Madhulika, 2011)

d. Content Delivery Network: Storage of CDN deposits on sites that are closer to the clients who use them. Microsoft Azure CDN actually has more global caching locations than it visits, but the concept is correct. The first time a particular blob is accessed by the user, the CDN saves the blob permission in a location that is complete with that user. The next time it is accessed, the contents will be sent from the cache from a further original source.(Madhurima, Vandana, & Madhulika, 2011)

e. Connect: use useful applications in Microsoft cloud. However, connecting to the on-premises environment (applications and data we use in our organization) with Microsoft Azure is important. Microsoft Azure Connect is designed to help do this. By providing IP connectivity between Microsoft Azure applications and machines running outside Microsoft cloud, this can make combinations easier to use.(Madhurima, Vandana, & Madhulika, 2011)

5. Startup

A startup company is a new company that strives for existence. These entities are largely formed based on bright ideas and grow to succeed **Invalid source specified.**. Startup is a human institution designed to create products or services in the midst of extreme uncertainty (Ries, 2011).

6. SWOT Analysis

. SWOT analysis consists of: Strength, Weakness, Opportunities, and Threats. SWOT shows a framework to help researchers or planners identify and prioritize business objectives, and to further identify strategies to achieve them. SWOT analysis can help them gain insight into the past and think about possible solutions to existing or potential problems, both for existing businesses or for new businesses (Ommani , 2011) . SWOT analysis consists of :

Strength	Weakness
1) Mobilku application can be downloaded for free on the play store and app store. 2) Display applications that are friendly and easy to use. 3) Facilitate users for car maintenance with various features in one application .. 4) Based on a mobile application, so it is flexible to be accessed and used by users anywhere and anytime. 5) Using marketing social media strategies	1) Not all people use smartphones. 2) Uneven internet access is still an obstacle in Indonesia, 3) Community readiness to switch to online systems.
Opportunities	**Threats**
1) Creating car maintenance applications in mobile applications is more efficient. 2) The use of smartphones is growing rapidly. 3) Number of car users in South Kalimantan	1) Number of similar business competitors 2) Application is not acceptable to the community properly. 3) Bad comments given by users in the playstore / app store can affect other potential users. 4) People still choose the offline system.

7. Competitive Advantage

Mobilku is an application needed by a private car owner in South Kalimantan to facilitate maintenance of their cars. Mobilku presents many complete features with sophisticated and modern technology for the maintenance of the user's car with just one application. In addition, in South Kalimantan there is no digital car maintenance service offered by Mobilku.

8. PEST analysis

PEST analysis is an approach to analyzing external business environments. PEST analysis stands for Politics, Economics, Social and Technological Analysis and describes the framework of macro environmental factors used in the component of environmental scanning of strategic management (Gupta, 2013). PEST analysis found in the company, namely:

Political	Economic
1) Article 26 of Law No. 11 of 2008 concerning Information and Electronic Transactions ("ITE Law") is the main legal basis regarding the protection of information concerning one's personal data that is used through electronic media. 2) PP of the Republic of Indonesia Number 82 of 2012 concerning the Implementation of Electronic Transactions and Systems. 3) Regulation of the Minister of Communication and Information of the Republic of Indonesia Number 20 of 2016 concerning Protection of Personal Data in Electronic Systems. 4) Regulation of the Minister of Communication and Information of	The economic factor of concern for my Mobil is that the current economic level of the people is becoming increasingly uncertain so that people pay more attention to their primary needs than their car maintenance. In addition, many car users use motorbikes more often because of these factors. But the economic opportunity that can be achieved is the emergence of cheap cars that make the number of car users increasingly.

the Republic of Indonesia Number 7 of 2018 concerning Electronic Integrated Business Licensing Services in the Field of Communication and Information Technology.	
Social	**Technological**
The social factors that are the social factors of concern for Mobilku are the development of population numbers, changes in people's lifestyles, and increasingly developing technology. Cheap car trends make more and more people own private cars. People are now more accustomed to using technology in their daily lives.	The technological factors that are of concern from Mobilku are internet connections, the development of internet usage, mobile phones, automation, innovation, access to technology, technological development, and people's dependence on technology.

9. Analysis of Porter's 5 forces:

Porter's 5 forces analysis consists of: Threat of New Entrants, Bargaining Power of Suppliers, Bargaining Power of Buyers, The threat of substitutes and Competitive Rivalry (Competition competitive). The intensity of these forces greatly determines the expected level of average profit in an industry and their overall understanding, both individually and in combination, is useful in deciding which industry to enter, and in assessing how a company can improve its competitive position. The strength of each of the five forces is inversely proportional to prices and profits so that weak competitive forces can function as opportunities, while strong forces can function as a threat. (Indiatsy, Mwangi, Mandere, Bichanga, & George, 2014). Analysis of Porter's 5 forces found in the company, namely:

a) Threat of New Entrants

This power determines how easy (or difficult) it is to enter this automotive service industry.

The threat of the entry of newcomers in the automotive digital service industry is very likely to occur, because seeing technological advancements and the growth of smartphone users plus the number of car users today, many people might be interested in making a business similar toMobilku. With the potential market in South Kalimantan for this business, this threat indicates that this threat has a very strong position in the automotive digital service industry.

b) Bargaining Power of Suppliers

The bargaining power of suppliers becomes high if only a few suppliers provide the information needed while many competitors need it.

Mobilku uses information from other parties to run the application. In addition, Mobilku requires cooperation with workshops, mechanics, and car sellers to provide services to users. So that it can be said that the position of the threat of supplier bargaining power in this business is very strong because Mobilku requires other parties to smooth the running of the application and the provision of services.

c) Bargaining Power of Buyer

This power assesses the bargaining power or supply strength of buyers / consumers. The price of services and the lower number of downloads means that the revenue for the company is also lower. On the one hand, the Company requires high costs in producing high quality services. Conversely, the lower the bargaining power of the buyer, the more profitable the company will be.

The bargaining power of users in the business that is run by Mobilku is quite high. This is because if the price of the service provided by Mobilku is expensive, the user will prefer to place their own order in the workshop. In addition to car advertising if the cost of advertising is expensive then advertisers will prefer to sell directly. Mobilku can provide strategies such as giving discount coupons for workshop bookings or calling a mechanic.

d) The Threat of Substitutes

This obstacle or threat can occur if a similar application is available that offers cheaper and wider coverage of services. The fewer similar applications available will be more profitable for Mobilku. The

growth of technology very significantly can cause many similar applications to emerge. This is because digital services through mobile applications are seen as potential businesses.

For Mobilku it will feel weak because there are no similar applications in South Kalimantan that offer convenience in car maintenance. Most similar services are offered new in big cities and have not yet entered South Kalimantan. So that indicates that this threat has a weak position in the automotive digital service industry in South Kalimantan.

e) Competitive Rivalry

This power is the main determinant, Mobilku must be able to compete aggressively to get a large market share. Mobilkuakan increasingly benefit if the company's position is strong and the level of competition in the market (Market) is the same low. For that Mobilku continues to innovate to provide digital services complete.

For Mobilku it's weak. Competitors in South Kalimantan provide only certain services. Unlike in Mobilku which offers almost all the features needed in car maintenance. In addition, similar competitors have only reached large cities and have not reached the South Kalimantan area.

10. Competition

Competition includes all actual and potential offerings and substitutes that might be considered by the buyer. For my own car, there are no similar business competitors reaching South Kalimantan. However, there are several large competitors that are not impossible to penetrate the South Kalimantan market such as:

a) Go-Auto

Go-Auto, is an on-demand automotive service offered by the Go-Jek company. Go-Auto can now be enjoyed by users in the Jakarta, Depok, Tangerang and Bekasi regions. Go-Auto is presented to answer customer needs for solutions automotive that is fast, easy and convenient. Go-Auto service consists of Auto Care, which is a car maintenance service. Auto Care includes car wash (interior, exterior, tires), removal of beret (wax), cleaning of glass mushrooms, and cleaning of the engine. There is also an Auto Service feature, which provides tune-up, oil change, and battery replacement services. there is a function called 'Emergency' to serve tire replacement.

b) Montir.id

Montir.id is an automotive service company and spare parts on demand.Montir.id offers a solution for vehicle owners to facilitate the process of servicing vehicles more simply and comfortably. Through the Montir.id application that is available on android or website, the customer can write down any car problems or problems and choose a consultation schedule.

c) Montirgw.com

Montirgw.com is a website that connects customers who need to call a mechanic with a workshop partners and automotive community through the media will online.Customer Hire / hire a mechanic call according to damage his car wherever the user is located.

11. Architecture Cloud Computing

The Cloud Computing architecture used in this study is Software as a Service (SaaS). The form of the application that will be built will be a mobile application that can be installed on a user's smartphone which acts as a client and can use defined services to implement its functionality, so that users can use this application anywhere and anytime. User data will be integrated into one on the Cloud Server. In the cloud itself, there will be several servers such as web servers, database servers, application servers, and firewalls for security.

This system will be supported by Microsoft Azure as a server that is expected to optimize services that will be used by users. Azure application service can easily combine services between backend, frontend, and database. The frontend, backend will be processed by the blue application service that will be generated as a service that can be accessed via the internet. Users can use this mobile application with fast and easy internet.
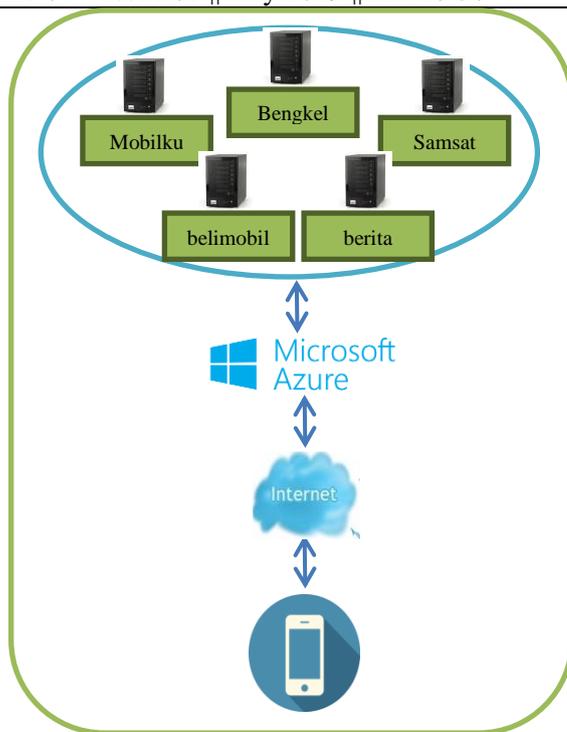
Figure 3Cloud Computing System mobile apps scheme mobilku

The above system scheme shows that through the mobile application cloud network can exchange information between users and servers by bridging Microsoft Azure and the internet. If there is an update of data inputted by the user into the application, the data will be sent to the server via the internet and Microsoft azure. Likewise, if the user wants to open data on the server, the internet and Microsoft Azure will bridge the transfer of data from the server to the user..

12. Design User Interface

The first feature that will appear in the Mobilku application is the login page. Users can login by synchronizing the user's social media account, namely Facebook or Google account.

Figure 4: Login&Sign Up Page

If the login / sign up process is successful, the user will be directed to the Home Page application of Mobilku. On this page there is information about user profiles that can be changed. This page also has a number of menus that can be selected to then deliver the user to the Page of the user's chosen destination. The menus provided on this page are: Mobilku, News, Selling Cars, Contact, Account Settings, and Logout Profile.

Figure 5 Home Page

When choosing the Mobilku menu, Mobilku Page will appear. Mobilku page contains menus that are useful for user car maintenance, which consists of 4 menus namely: Mobilku Details, My Workshop, My Taxes, and Notifications.

Figure 6Mobilku Page

One of the menus on Mobilku page is detail Mobilku menu. Detail Mobilku are the features that Mobilku presents to store car user data. This feature will give a warning / alarm when it is approaching the date for routine service / tax filling for the user's car.

Detail Mobilku page displays information about the users' cars that have been previously registered and there are add and delete menus to add car details and delete car details. If the time for filling out routine tax / service is less than 31 days, the information will be marked in orange. If the user has done routine service / tax filling, then he can press the green checklist and then the fill / service data form will appear. And after being filled in, the stored information is updated.

Detail Mobilku information can be clicked to display Detail Mobilku data such as car data, tax data, and service data. This data can be edited by the user. When adding data for the first time it will be directed to the South Kalimantan Bakeuda website. Users only need to enter the license number number and the data in Bakeuda will be copied to the Mobilku application. Users only have to add some other additional data that is not in Bakeuda's information.

Figure 7 Detail Mobilku Page

Figure 8 Detail Mobilku Page 2

The news page is a feature provided by Mobilku to display the latest news about the automotive world. On news, a filter is provided to determine the type of news you want to find. In addition, news can also be sorted from the latest or the longest.

Figure 9 News Page

Selling a car is a feature provided on the Mobilku menu. Selling Cars provides information about home car adverts made by users. Display containing photos of cars, prices of cars, regions, and others. In this feature, every car sale made will be controlled and offered by the special sales of Mobilku. So the security factor when the transaction will be very guarded. Mobilku also offers information about installments from 5 famous leases. On this page a filter feature is also provided to determine search criteria.

Figure 10Jual Mobil Page

The contact page contains information about my Mobil customer service contact. The contact contains telephone numbers, email, live chat and several social media accounts belonging to Mobilku. Users can interact directly with Mobilku if they experience problems or need other information.

13. Business Model Canvas

Gambar 4.36 Business Model Canvas

By using this canvas canvas model business, a company's business model can be described in one document that can be understood by all parties. Nine building blocks of the business model in Mobilku's canvas business

a) Customer Segments

Customer Segments ask who is the company's customer? What is the description of the person who wants to solve the problem? What are their characteristics?

Customer Segments for my own car are car users in South Kalimantan who have high mobility and want the convenience of car maintenance. The average car user himself is a middle class and above. And because this application is mobile, the targeted users are people who use smartphones.

b) Value Proposition

What solutions do you offer to corporate customers? What's interesting about company solutions? What makes consumers want to choose, buy, and use company value?

The value proposition offered by Mobilku is a mobile application that can be downloaded for free both in the playstore / app store on a smartphone. Cars offer applications about maintenance of user cars with various features in it with just one application. This application has an attractive design and is easy to use.

c) Channel

How can the value / solution of your problem reach consumers?

Mobilku will be run using the internet with smartphone media so it is very flexible to use. Mobilku uses social media marketing channels on several social media platforms to introduce this new application to the public.

d) Customer Relationship

How do companies interact with consumers to maintain customer loyalty?

Mobilku has a relationship with customers in several ways. In the application there is a customer service feature that can do live chat with users. The customer service feature is also available via call and email. Besides that Mobilku has several social media accounts that can also be used to communicate with users. With so many ways of dealing with users, it is expected that they will help users if there are problems and are also expected to add value to the user's eyes.

e) Revenue Stream

How does this business make money from the value offered by the company?

Revenue stream that Mobilku gets is that of the number of application visitors. In addition Revenue streams also come from advertisements on applications, online workshop reservations, mechanic calling, car advertisement installation, and car sales fees.

f) Key Resource

What resources should the company have in order to be competitive in creating value?

Key resources needed Mobilku includes: for human resources (staff it, programmer, mechanic) while for other resources (internet, computers, servers, telephones, cloud systems, tax data, workshop data, and car data).

g) Key Activity

What are the key activities or competitive strategies that a business does to create its value proposition?

Key activities in Mobilku include collaborating with many workshops and home mechanics, promoting through several social media platforms, controlling Mobilku applications, providing services to users.

h) Key Partnership

Who is the partner who supports the company to always be competitive?

Key partnership Mobilku to run this business includes samsat for providers of information about taxes, workshops, car sellers, leasing companies, internet providers and cloud computing service providers

i) Cost Structure

What are the factors that make up the costs that must be incurred by the company?

Cost Structure in Mobilku is the cost of the internet, application maintenance costs, employee salaries, costs of using cloud computing, promotions, equipment costs, building costs, telephone costs, and electricity costs.

14. Conclusion

Many Indonesians choose private transportation, namely cars to support their mobility and daily activities. For this reason, car demand is always in accordance with the needs so that it can be used comfortably by the user. But there are still many car users who pay less attention to their cars. Like forgetting to do regular service, forgetting to increase car tax, and a few other things. Where it has been explained to do periodic service and the tax must represent what must be done by the car owner. Because it was designed a mobile application called Mobilku. This car can make it easier for users to get compilation, come to routine services and fill taxes, as well as many other services offered.

Mobilku that is presented based on this mobile application can be downloaded both on the app store and on google apps. The application is presented with an attractive and attractive desaign. Then the application is also designed so that it can be used easily by the user. This is interesting so that many are interested in using Mobilku.

15. Referensi

[1]. Selladurai, M. (2016). CONCEPTUAL FRAMEWORK ON TECHNOPRENEURSHIP. *SELP Journal of Social Science*.

[2]. Ahmadi, C., & Hermawan, D. (2013). *E-Business & E-Commerce.* Yogyakarta: Andi.

[3]. Alalwan, A. (2018). Investigating the impact of social media advertising features on customer purchase intention. *International Journal of Information Management, 42*, 65-77. doi:https://doi.org/10.1016/j.ijinfomgt.2018.06.001

[4]. CARUTASU, G., BOTEZATU, M., BOTEZATU, C., & PIRNAU, M. (2016). Cloud Computing and Windows Azure. *ECAI 2016 -International Conference –8th Edition.*

[5]. Chang, Y.-T., Yu, H., & Lu, H.-P. (2015). Persuasive messages, popularity cohesion, and message diffusion in social media marketing. *Journal of Business Research, 68*(4), 777-782.

[6]. Dijkmans, C., Kerkhof, P., Buyukcan-Tet, A., & Beukeboom, C. (2015). Online Conversation and Corporate Reputation: A Two-Wave Longitudinal Study on the Effects of Exposure to the Social Media Activities of a Highly Interactive Company. *Journal of Computer-Mediated Communication, 20*(6), 632-648. doi:https://doi.org/10.1111/jcc4.12132

[7]. Etikan, I., Musa, S., & Alkassim, R. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1-4.

[8]. Explorable.com. (2009, May 17). *Non-Probability Sampling*. Dipetik February 05, 2019, dari Explorable.com: https://explorable.com/non-probability-sampling

[9]. Galati, A., Crescimanno, M., Tinervian, S., & Fagnani, F. (2017). Social media as a strategic marketing tool in the Sicilian wine industry: Evidence from Facebook. *Wine Economics and Policy, 6*, 40-47. doi:http://dx.doi.org/10.1016/j.wep.2017.03.003

[10]. Gogoi, B. (2013). Bidyut Jyoti Gogoi Study Of Antecedents Of Purchase Intention And Its Effect On Brand Loyalty Of Private Label Brand Of Apparel. *International Journal of Sales & Marketing Management Research and Development (IJSMMRD), 3*(2).

[11]. Gupta, A. (2013). Environment & PEST Analysis: An Approach to External Business Environment. *International Journal of Modern Social Sciences, 2*(1), 34-43.

[12]. Hutter, K., Hautz, J., Dennhardt, S., & Fuller, J. (2013). The impact of user interactions in social media on brand awareness and purchase intention: the case of MINI on Facebook. *Journal of Product & Brand Management,, 22*(5/6), 342-351.

[13]. IDprogrammer. (2017, April 10). *Pengertian Mobile Web dan Mobile Aplikasi*. Dipetik August 19, 2018, dari idprogrammer.com.

[14]. Indiatsy, C., Mwangi, M., Mandere, E., Bichanga, J., & George, G. (2014). The Application of Porter's Five Forces Model on Organization Performance: A Case of Cooperative Bank of Kenya Ltd. *European Journal of Business and Management, 6*(16).

[15]. Keller, K., & Kotler, P. (2016). *Marketing Management 15 Global Edition.* Pearson.

[16]. Kosidin, & Farizah, R. (2016). PEMODELAN APLIKASI MOBILE REMINDER BERBASIS ANDROID. *Seminar Nasional Teknologi Informasi dan Komunikasi 2016 (SENTIKA 2016).*

[17]. Kotler, P., & Armstrong, G. (2014). *Principles of Marketing, 15th Edition.* Pearson.

[18]. Lim, S., Bentley, P., Kanakam, N., Ishikawa, F., & Honiden, S. (2014). nvestigating Country Differences in Mobile App UserBehavior and ChallengesforSoftware Engineering. *IEEE Transactions on Software Engineering.*

[19]. Madhurima, Vandana, & Madhulika. (2011). Windows Azure Platform: an Era for Cloud Computing. *International Journal of Computer Science and Information Technologies, 2*(2).

[20]. Magatef, S., & Tomalieh, E. (2015). The Impact of Customer Loyalty Programs on Customer Retention. *International Journal of Business and Social Science, 6*(8), 78-93.

[21]. Novak, D. (2011). PROMOTION AS INSTRUMENT OF MARKETING MIX. *International Symposium Engineering Management And Competitiveness 2011 (EMC2011).*

[22]. Ommani , A. (2011). Strengths, weaknesses, opportunities and threats (SWOT) analysis for farming system businesses management: Case of wheat farmers of Shadervan District, Shoushtar Township, Iran. *African Journal of Business Management, 5*(22), 9448-9454.

[23]. Paniagua, J., & Sapena, J. (2014). Business performance and social media: Love or hate? *Business Horizon, 57*(6), 719-728. doi:http://dx.doi.org/10.1016/j.bushor.2014.07.005

[24]. Riadi, E. (2016). *Statistika Penelitian (Analisis Manual dan IBM SPSS).* Yogyakarta: CV. Andi Offset.

[25]. Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses.* New York: Crown Business.

[26]. Satyaputra, A., & Aritonang, E. (2012). *Java for Beginners with Eclipse 4.2 Juno.* Jakarta: Elex Media Komputindo.

[27]. Seo, E.-J., & Park, J.-W. (2018). A study on the effects of social media marketing activities on brand equity and customer response in the airline industry. *Journal of Air Transport Management.*

[28]. Shah, H., Aziz, A., Jaffari, A., Ejaz, W., Fatima, M., & Sherazi, K. (2012). The Impact of Brands on Consumer Purchase Intentions. *Asian Journal of Business Management, 4*(2), 105-110.

[29]. Sudarsih, E. (2013). PENDIDIKAN TECHNOPRENEURSHIP: MENINGKATKAN DAYA INOVASI MAHASISWA TEKNIK DALAM BERBISNIS. *Konferensi Nasional "Inovasi dan Technopreneurship"*, 1-9.

[30]. Sugiyono. (2015). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif dan R&D).* Bandung: CV. Alfabeta.

[31]. Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D.* Bandung: Alfabeta.

[32]. Tania, D., & Dharmayanti, D. (2014). Market Segmentation, Targeting, dan Brand Positioning dari Winston Premier Surabaya. *Jurnal Manajemen Pemasaran Petra Vol. 2, No. 1*, 1-7.

[33]. TAT, M., & Gurel, E. (2017). SWOT ANALYSIS: A THEORETICAL REVIEW. *The Journal of International Social Research, 10*(51).

[34]. Teece, D. (2010). Business Models, Business Strategy and Innovation. *Long Range Planning 43*, 172-194.

[35]. Thomas, B., & Tobe, J. (2013). *Anticipate: Knowing What Customers Need Before They Do.* John Wiley & Sons.

[36]. Tuten, T., & Mintu-Wimsatt, A. (2018). Advancing Our Understanding Of The Theory And Practice Of Social Media Marketing: Introduction To The Special Issue. *Journal of Marketing Theory and Practice*, 1-3.

[37]. Tuten, T., & Solomon, M. (2014). *Social Media Marketing* (2nd edition ed.). SAGE Publications Ltd.

[38].   Wingit , R., Maulina, E., Rizal, M., & Purnomo, M. (2016). DIVING TOURISM BUSINESS MODEL CANVAS IN NATIONAL TOURISM STRATEGIC AREA: STUDY OF TULAMBEN – AMED, KARANGASEM, BALI, INDONESIA). *International Journal of Management and Administrative Sciences (IJMAS).*

[39].   Wu, C.-W. (2016). The performance impact of social media in the chain store industry. *Journal of Business Research.*

[40].   Wu, K.-J., Tseng, M.-L., & Chiu, A. (2012). Using the Analytical Network Process in Porter's Five Forces Analysis – Case Study in Philippines. *Procedia - Social and Behavioral Sciences 57.* Elsevier Ltd.

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