

# THE EFFECT OF TECHNOLOGY ACCEPTANCE MODEL, ELECTRONIC WORD OF MOUTH (EWOM) AND SERVICE QUALITY IN APPLICATION CONTACT CENTER NTMC KORLANTAS POLRI ON THE LEVEL OF SATISFACTION

Ana Khairunnisa<sup>1</sup>, Eko Prasajo<sup>2</sup>

<sup>1</sup>Faculty of Administrative Science, University of Indonesia

<sup>2</sup> Faculty of Administrative Science, University of Indonesia

<sup>3</sup>ankhair@gmail.com

## Abstract

Traffic accident data that occurred in the last three years increased quite significantly from 2017 to 2018 by 5%, and the increase from 2018 to 2019 was 7%. Cases on this highway should be suppressed or even eliminated with an understanding of the safety of the community, especially motorists. One of the government's efforts to provide services to the community in the prevention and management of accidents, the National Traffic Management Center Polri which was later referred to as the NTMC Polri. Implementation of information technology is expected to provide positive and useful services. The purpose of this study was to analyze the effect of acceptance of the use of technology, Electronic Word of Mouth, Service Quality on the NTMC Contact Center application for the NTMC Korlantas Polri on the level of satisfaction. This type of research used in this research is quantitative explanatory. This research was conducted on the application of the NTMC Contact Center Korlantas Polri. The population in this study were 10,000 people who had accessed and used the NTMC application for public complaint service needs. The research sample was taken by using snowball sampling with the Slovin formula to obtain a sample of 100 people. Data analysis in this study used multiple linear regression analysis. The results showed that the technology acceptance model variable had a positive and significant effect on community satisfaction with a t-value of 3,120 > t table, 2,000 with a sig value of 0,000. Furthermore, the variable electronic word of mouth has no effect on community satisfaction with t-count value of 1.156 < t table, 2,000 with a sig value of 0.231. Service Quality variable has a positive and significant effect on community satisfaction with a t-count value of 2.730 > t table, 2,000 with a sig value of 0.000.

**Keywords: Electronic Word of Mouth, Technology Acceptance Model**

## 1. Introduction

In addition to the increasing rate of population growth, the government must also pay attention to the challenges posed by traffic policymakers, namely the increasing development and number of modes of transport and public transport on the highways. Increasing and developing modes of transportation and public transport on these roads generally lead to an increase in the level of congestion, traffic violations, and an increase in the rate of accidents. The increasing transportation modes and the number of existing vehicles, mostly inland transportation modes, have caused several problems, such as traffic accidents. Traffic accidents are things that can happen in all corners of the world and cause various losses. The resulting losses can be in the form of material losses and

casualties. Therefore, the government needs to consider the problems that occur on the highway carefully. Serious measures are taken to reduce the number of traffic accidents and losses that are feared to increase from year to year. Traffic accident data that occurred in the past three years. The data illustrates a significant increase in traffic accident cases from 2017 to 2018 by 5% and an increase from 2018 to 2019 by 7%.

Cases on this highway should be suppressed or even eliminated with an understanding of the community's safety, especially motorists. Understanding safety should be for the rider himself and protect security and safety for family and others. Therefore, to examine the problems that arise, the government tries to provide information services to provide information to road users who feel disturbed and impact congestion and traffic accidents at some points and increase community satisfaction in handling traffic violations and accidents.

One of the government's efforts to provide services to the community in the prevention and management of accidents, the National Police Traffic Management Center was formed which was later referred to as the NTMC Polri. NTMC is an information and communication control center that integrates information systems to five stakeholders, namely the National Police, the Ministry of Public Works, Transportation, Industry, and Technology Research. NTMC Polri is part or subsystem of the Police Technology Management System (SIMTEKPOL). All actual information about traffic which is the output of NTMC is collected, processed, and conveyed to interested parties and coordinated as material for handling problems.

People in the digital era now need excellent service where the flow of information runs fast. Therefore, the NTMC Polri made innovations and changes so that the service process could be faster and more effective for public acceptance. This innovation is in the form of the NTMC Contact Center application which provides services to the public to report traffic incidents directly to the NTMC Contact Center application.

Information technology is expected to provide positive and useful services. The long and continuous process proves that the implementation of this information technology is not easy. With this technology, it is expected that public satisfaction with the services in the NTMC Contact Center application can increase.

Community satisfaction is a very important factor and can ensure the success of a business entity because people are the users of the products produced. The level of community satisfaction can be seen from the comparison between the services received by the community and the expectations for the services provided. If it is below expectations, people will be very disappointed. If the service is in line with expectations, the community will be satisfied.

Therefore, the National Police's NTMC must be able to fulfill the wishes and wishes of the community in order to achieve the satisfaction expected by the community. Community satisfaction can be realized by providing quality services to its users. Quality service can be evaluated by the community itself from how the service provider provides a service. Another evaluation can be seen from how much gratitude the service provider received. Therefore, service providers need hard enough efforts to improve the quality of the services to be provided in order to meet community satisfaction. So, the quality of a service is something that must be observed by the service provider industry in order to successfully carry out community satisfaction.

The level of satisfaction is influenced by several factors, namely acceptance of the use of technology and quality of service. Several approaches to understanding the acceptance of technology use are the Technology Acceptance Model (TAM) and the Electronic Word of Mouth (EWOM). TAM is a model that links cognitive beliefs with individual actions and attitudes towards technology acceptance. Then TAM is used to see how far the level of public interest is in welcoming data technology which results in perceived convenience for users. TAM explains and estimates the extent of society's acceptance of technology.

EWOM is a positive or negative statement made by potential people, real people, about a product or company that can be accessed by many people or institutions via the internet (Hennig-Thurau, et al., 2004). eWOM is a venue or a place that is very important for the public to give their opinion and is considered more effective than WOM because of its level of accessibility and wider reach than traditional WOM which uses offline media (Jalilvand, 2012). With the recommendations or reviews given by other people in a sharing review platform or community, it will undoubtedly be able to influence people's decisions to use a product.

This study aimed to examine the impact of acceptance the use of technology, electronic word of mouth, quality of service on the application NTMC Contact Center on the level of satisfaction.

## **2. Literature Review**

### **2.1. Community Satisfaction**

Satisfaction is a condition experienced by society after using a service. The community can compare the services they expect with the services received by the community. The notion of satisfaction itself describes the level of a person's feelings after getting service and compares his expectations with the service received (Porwati, 2020). If the service is below the expectations of the community, the community will be disappointed. Likewise, if the services provided are in accordance with expectations, then the community will be satisfied. People who are satisfied will use these services for a long time, are less sensitive to the price given, and provide good recommendations to other users.

Community satisfaction is a very important factor to ensure the success of a service, because people are the users of the services produced. This statement is reinforced by the statement by Hoffman & Bateson, (1997), namely: "Without customers, the service firm has no reason to exist". The definition of community satisfaction according to Mowen, (2015): "Customers satisfaction is defined as the overall attitudes regarding good or service after its acquisition and uses". Therefore, business entities are required to fulfill the wishes and wishes of the community so that they can achieve the satisfaction desired by the community.

According to Faiz and Sitti Saleha, (2014) the dimensions of community satisfaction can be divided into 2 types, among others:

1. Satisfaction refers to the application of ethical signals and standards of police work services. Satisfaction defined includes evaluation of satisfaction in terms of:
  - a) Relationship between police and society,
  - b) Convenience of society,
  - c) Freedom to make choices,

- d) Knowledge and technical competence (scientific knowledge and technical skills),
  - e) Service effectiveness.
2. Satisfaction refers to the application of all police service requirements. A service is considered acceptable if the application of all police requirements can relieve sufferers. The dimension of good police service is what follows:
- a) Availability of police services (available),
  - b) Fairness of police services (appropriate),
  - c) Continuity of police services (continue),
  - d) Recipients of police services (acceptable),
  - e) Achievement of police services (accessible),
  - f) Affordability of services Police (affordable),
  - g) Police service efficiency (efficient),
  - h) Police service quality (quality).

## **2.2. Technology Acceptance Model**

TAM is a form of technology application that adopts the Theory of Reasoned Action (TRA) from Fishbein & Ajzen (1975) which is used to see how much public acceptance is in welcoming data technology. TAM was formed to explain how the community or users can welcome a technology. TAM also details what factors can affect the acceptance of a technology in the data system.

According to Davis et al., (1989) TAM estimates the acceptance of technology use comes from 2 (two) cognitive factors, including perceived usefulness and perceived ease of use (Yavie, 2019). Thus, acceptance of the use of the system can be seen from the ease with which people use a system. Acceptance indicators for TAM include: External Variables, Perceived Ease of Use, Behavioral Intention to Use, Actual System Use, Perceived Usefulness), Attitude Toward Using, Perceived Ease of Use, Behavioral Intention to Use, Use of the System by Factual (Actual System Use), Perceived Usefulness, Acceptance (Acceptance). If these indicators are met, the technology can meet the reduced use factor and the benefits have been achieved (Yafie, 2020).

## **2.3. Service Quality**

According to Tjiptono & Chandra (2011: 164), the concept of quality is thought to be like the dimensions of the integrity of a product or service, which consists of concept quality and conformance quality. Concept quality is the use in a particular way of a product or service; quality conformity is a dimension of how much conformity between a product or service with the requirements or quality details that was inaugurated.

Therefore what is meant by quality is when some factors can fulfill customer dreams such as a statement about quality by Goetsch and Davis in Tjiptono & Chandra (2011: 164), "Dynamic conditions related to products, services, human resources, processes, and the environment. meet or exceed expectations ". The first research (Parasuraman, 2014) has successfully identified ten important factors or dimensions that ensure service quality:

1. Reliability (reliability) is expertise in distributing the promised services carefully and reliably.

2. Responsiveness (energy of understanding) is the willingness to help the community and deliver services in a flash.
3. Competence (competence) is the ability of expertise and insight needed in order to be able to provide services needed by the community.
4. Access (access), is a relief to be contacted and met.
5. Courtesy (courtesy), is an act of courtesy, respect, attention, and friendliness of front line employees.
6. Communication (communication), is to share data with the community in a language they can understand, and always pay close attention to their suggestions and complaints.
7. Credibility (integrity), is an honest and trustworthy character.
8. Security (security), is free from threats, effects, or doubts.
9. Understanding know the customer (the expertise to rule the community), is trying to dominate the community and their desires.
10. Tangible (physical facts) is the performance of physical facilities, equipment, personnel, and communication materials.

#### **2.4. EWOM (Electronic Word Of Mouth)**

EWOM is not purely interpersonal communication because it can be accessed by many people, but it is also not entirely mass communication because it is only aimed at certain people specifically. Schiffman and Kanuk (2010) define eWOM as a Word of Mouth which is conducted online. According to Jansen in Wijaya & Paramitha (2014), although it is similar to the form of WOM, eWOM offers various ways to exchange information, many of which are anonymously or in secret. This is done to provide geographic and temporal freedom, especially since eWOM has at least some of it permanent in writing. Another definition states that eWOM communication is a positive or negative statement made by potential communities, real people, or former communities about a product or company that can be accessed by many people or institutions via the internet (Hennig-Thurau, et al., 2004). the common thread between the two definitions of eWOM above. Among other things, eWOM is a WOM message that is conveyed through the internet and eWOM messages are conveyed by the public (potential people, real people and former communities).

Yi-Shuang Wu, et al., (2013) Electronic Word Of Mouth can be divided into three indicators, namely:

1. eWOM Quality can be seen from several aspects, including: a) The online review/comment is exact, b) The online review/comment is understandable, c) The online review/comment is helpful, d) The online review/comment is credible, e) The online review/comment has sufficient reasons supporting the opinions, f) In general, the quality of each online review/comment is high.
2. eWOM Quantity consists of several indicators: a) the number of online review/comment is large, inferring that the product is famous, b) the quantity of online review/comment information is excellent, inferring that the product has good sales, c) Highly ranking and recommendation, inferring that the product has good reputations.
3. Sender's Expertise consists of several indicators: a) The persons who provided online reviews/comments are experienced b) The persons who provided online reviews/comments have abundant knowledge toward the

product, c) The persons who provided online reviews/comments have the ability on judgment, d) This person provided some different ideas than other sources, e) This person mentioned some things had not considered.

**Table 1. Variable, Definitions, Indicators**

Variable	Operational Definitions	Indicators
Technology Acceptance Model (TAM) (X1)	The Technology Acceptance Model (TAM) is a model that can test the factors that affect an information system's acceptance.	<ol style="list-style-type: none"> <li>1. Perception of usefulness</li> <li>2. Perceived ease of use</li> <li>3. Attitude towards use</li> <li>4. Interest in service behavior</li> <li>5. Behavior to keep using</li> <li>6. Real conditions of use of the system</li> </ol>
Quality Service (X2)	A product and service situation to satisfy consumers' needs and preferences and the consistency of balancing consumer expectations	<ol style="list-style-type: none"> <li>1. Providing satisfactory service</li> <li>2. Responsiveness in service</li> <li>3. Providing good and polite services</li> <li>4. Providing accurate information services</li> <li>5. Completeness of facilities and infrastructure</li> </ol>
eWOM (X3)	eWOM as an online Word of Mouth	<ol style="list-style-type: none"> <li>1. Intensity</li> <li>2. Valence of Opinion</li> <li>3. Content</li> </ol>
Community Satisfaction (Y)	Community satisfaction is a feeling of enjoyment or dissatisfaction that is affected by a product or service that meets its standards or exceeds them.	<ol style="list-style-type: none"> <li>1. Service procedures</li> <li>2. Terms of service</li> <li>3. Clarity of service officers</li> <li>4. Discipline of service officers</li> <li>5. Responsibilities of service personnel</li> <li>6. Ability of service officers</li> <li>7. Service speed</li> <li>8. Justice gets service</li> <li>9. Courtesy and friendliness of officers</li> <li>10. Reasonableness of service fees</li> </ol>

3.		11. The certainty of service fees 12. The certainty of service schedules 13. Environmental comfort 14. Service safety
----	--	--

### Research Methods

This type of research used in this research is quantitative explanatory. According to (Sugiyono, 2015), explanatory research is a research where the researcher explains the causal bond due to the impact between variables through hypothesis testing. This research was conducted on the NTMC Korlantas Polri Contact Center Application. The population in this study was 10,000 people, where this number is taken from the number of devices that have download the NTMC Polri Contact Center application on the google play store as a need for public complaint services. The research sample was taken by using snowball sampling with the Slovin formula in order to obtain a sample of 100 people. Data analysis in this study used multiple linear regression analysis.

## 4. Result and Discussion

### 4.1. Validity and Reliability Test

#### 4.1.1 Validity Test

Based on validity test results, all values of  $r\text{-count} > r\text{-table}$  0.05 for sample (n) 52 are 0.268, so that all instruments on all research variables are said to be valid. The results of the validity test are as follows:

**Table 2 Validity Test**

Variable	r-count	r-table	Explanation
Technology Acceptance Model	0.563-0.875	0.300	Valid
Service quality	0.578-0.833	0.300	Valid
Electronic Word of Mouth	0.436-0.865	0.300	Valid
Satisfaction	0.629-0.898	0.300	Valid

#### 4.1.2 Reliability Test

Based on reliability test result, known that all Cronbach's Alpha values in the four variables are  $> 0.60$ , so that the above variables are said to be reliable.

**Table 3 Reliability Test**

Variable	Alpha	Explanation
Technology Acceptance Model	0.885	Reliable
Service quality	0.867	Reliable
Electronic Word of Mouth	0.895	Reliable
Satisfaction	0.912	Reliable

#### 4.1.3 Descriptive Analysis

The results of the descriptive analysis show that the Technology Acceptance Model variable is in the very high category, then for the variable Service Quality and Community Satisfaction it is in the high category, then the Electronic Word of Mouth is in the high enough category.

**Table 4 Descriptive Analysis**

Variable	Average score	Explanation
Technology Acceptance Model	4.23	Very high
Service quality	4.06	High
Electronic Word of Mouth	3.21	High enough
Satisfaction	4.12	High

## 4.2. Classic assumption test

### 4.2.1 Normality test

Based on normality test result, known that all Sig Z values > 0.05 so that the four variables above are said to be normally distributed.

**Table 5 Normality test**

Variable	Kolmogorov Smirnov	Sig	Explanation
Technology Acceptance Model	0.896	0.583	Normal
Service quality	0.435	0.432	Normal
Electronic Word of Mouth	0.532	0.623	Normal
Satisfaction	0.637	0.754	Normal

### 4.2.2 Multicollinearity Test

The results show that the Tolerance value > 0.10 and the VIF value < 10 which indicates that there is no multicollinearity of the research data.

**Table 6 Multicollinearity Test**

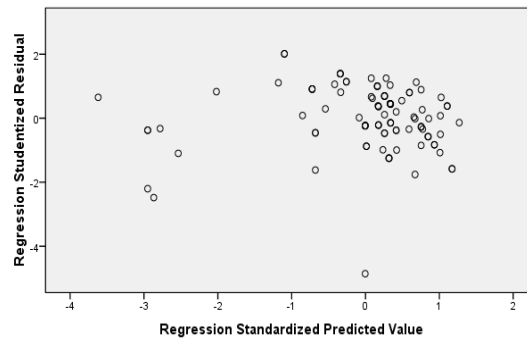
Variable	Tolerance	VIF	Explanation
Technology Acceptance Model	0.821	1.534	Nonmultikolinieritas
Service quality	0.823	1.445	Nonmultikolinieritas
Electronic Word of Mouth	0.832	1.653	Nonmultikolinieritas

### 4.2.3 Heteroscedasticity Test

Heteroscedasticity test results can be seen in the table below:

**Figure 1 Heteroscedasticity test**





The results of the heteroscedasticity test for the independent variable on the dependent variable show that the dots are spread above and below zero. The dots spread out and do not form a certain regular pattern so that it can be concluded that in the regression model heteroscedasticity does not occur.

### 4.3 Regression Test

The multiple linear test results can be seen in the table below.

**Table 7 Regression Test**

Variable	Beta	Sig	t-count	Explanation
Constanta	0.153			
Technology Acceptance Model	0.642	0.000	3.120	Positive Significant
Service quality	0.311	0.000	2.730	Positive Significant
Electronic Word of Mouth	0.087	0.231	1.156	Non significant
F count	7.453			
Sig	0.000			
R <sup>2</sup>	0.564			

- a. The Technology Acceptance Model variable regression coefficient is 0.642; This means that if other independent variables are fixed in value and the Technology Acceptance Model variable has increased by 1 unit, then public satisfaction will increase by 0.642. The coefficient is positive and the significance value is less than 0.05, which means that there is a positive and significant effect of the Technology Acceptance Model on community satisfaction.
- b. Service Quality variable regression coefficient of 0.311; This means that if the other independent variables are fixed in value and the Service Quality variable has increased by 1 unit, then public satisfaction will increase by 0.311. The coefficient is positive and the significance value is less than 0.05, which means that there is a positive and significant effect of Service Quality on community satisfaction.
- c. The regression coefficient for the Electronic Word of Mouth variable is 0.087; This means that if other independent variables have a fixed value and the Electronic Word of Mouth variable has increased by 1 unit, then public satisfaction will increase by 0.087. The coefficient is positive and the significance value is greater than 0.05, meaning that there is no effect of the Electronic Word of Mouth on public satisfaction.

- d. The results of the F statistical test obtained a statistical value of f counting 7,453 and a significance value of 0,000 where this result is greater than F table (2.74) at n of 100 so that Ho is rejected, which can be concluded that there is a simultaneous significant effect of all independent variables on community satisfaction .
- e. Based on the results of the R Square test of 0.564 or (56.4%). This shows that the percentage of the contribution of the influence of the independent variables on community satisfaction is 56.4%. While the remaining 45.6% is influenced or explained by other variables not included in this research model.

## 5. Discussion

The results showed that the Technology Acceptance Model and service quality had a positive and significant effect on community satisfaction. Meanwhile, eWom has no effect on community satisfaction. Public attitudes towards data technology systems have an important role in the successful implementation of technology. The advancement of technological attitudes should receive special attention in the conditions of information technology applications. Technical factors, attitudes, atmosphere and technology society personnel need to be considered before technology is implemented. The arrival of the latest technology can generate a response in society, both positive and negative responses.

Acceptance of technology can be interpreted as the attitude of society to support a technology by using this technology. The quality of a technology's application system is an application that is attached to the application system to meet needs. If people who use the system feel that the quality of the NTMC Contact Center application system is the best, they will be satisfied using the application system. If the quality of system data continues to improve, it will have an impact on increasing the level of public satisfaction with the application system.

Based on the validity and reliability tests for the Technology Acceptance Model, eWOM and service quality variables, the test results are valid and reliable. Based on the results of descriptive analysis, the Technology Acceptance Model variable is in the very high category, the Service Quality and Community Satisfaction variables are in the high category, then the Electronic Mouth Word is in the quite high category.

Adjusted R Square in this study has a value of 0.564 or 56.4%, this can be seen in table 7, which means that the effect of independent variables on community satisfaction is 56.4%. While the remaining 45.6%. This or the fact by other variables not included in the research model. Based on the F test, the variables Technology Acceptance Model, Quality Service and electronic Word of Mouth have a simultaneous significant effect on community satisfaction.

## 6. Conclusion

The findings showed that there was a strong and important impact on group satisfaction with the Technology Acceptance Model component. In addition, the electronic word of mouth component does not affect community satisfaction. The variable service quality has a positive and significant impact on community satisfaction.

## References

- Ajzen, I., & Fishbein, M. 2015. *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Addison-Wesley.
- Akbar, Robby Nur., A. Z. dan S. 2016. *Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan ( Studi pada Nasabah Prioritas PT. AIA Financial cabang Malang, Jawa Timur )*. *Administrasi Bisnis (JAB)*, 30(1).
- Arikunto, S. 2015. *Prosedur Penelitian Suatu pendekatan Praktek*. Rineka Cipta.
- Bateson, H. 2016. *Service Marketing, International Edition 4e*. Cengage Learning.
- Charo, N., Sharma, P, Shaikh, S., Haseeb, Abdul., Sufya, M.Z. 2015. *Determining the Impact of Ewom on Brand Image and Purchase Intention through Adoption of Online Opinions*. *Journal of Humanities and Management Science*, Vol. 3, Issue 1.
- Davis, F. D., Gahtani, S. A., Matthews, J., & Kochtanek, S. 1989. *User Acceptance of Computer Technology: A Comparison of Two Theoretical Models*. *Management Science*, 35(8), 982–1002.
- Fishbein, M., & Ajzen, I. 1975. *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research, Reading*. Addison-Wesley.
- Goldsmith, R.E. & Horowitz, D. 2006. *Measuring motivations for online opinion seeking.* *Journal of Interactive Advertising*, 6(2). Available online at: <http://www.jiad.org>
- Hennig-Thurau, T., Gwinner, K.P., Walsh, G. & Gremler, D.D. 2004. *Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet?*. *Journal of Interactive Marketing*.
- Hoffman, K. D., & Bateson, J. E. 1997. *Essentials of Service Marketing Florida*.
- Jalilvand, M. R. 2012. *The Effect of Electronic Word of Mouth On Brand Image and Purchase Intention: An Empirical Study in the Automobile Industry in Iran*. *Marketing Intelligence & Planning*, Vol. 30 Iss: 4 pp. 460 – 476.
- Jasfar, F. 2005. *Manajemen jasa: pendekatan terpadu*. Ghalia Indonesia.
- Mandasari. 2017. *Pengaruh perceived usefulness, perceived ease of use, dan kualitas layanan terhadap kepuasan untuk membangun loyalitas*. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, 6(10).
- Mowen. 2015. *Perilaku Konsumen dan Komunikasi Pemasaran*. Karanganyar: Sutisna.
- Nasution, F. N. 2004. *Penggunaan Teknologi Informasi Berdasarkan Aspek Perilaku (Behavioral Aspect)*.
- Parasuraman. 2014. *The Behavioral Consequences Of Service Quality New Jersey: Prentice Hall*.
- Porwati, P. 2020. *Implementasi Kualitas Pelayanan Jasa Terhadap Kepuasan Pasien Pada Klinik As-Sakinah Tamansari Banyuwangi (Doctoral dissertation, Universitas Muhammadiyah Jember)*.
- Schiffman & Kanuk. 2010. *Perilaku konsumen*. Edisi 7. Jakarta: Indeks
- Sugiyono. 2015. *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*. Alfabeta.
- Supranto. 2017. *Teknik Sampling untuk Survey dan Eksperimen*. Rineka Cipta.
- Tjiptono, F. 2011. *Manajemen & Strategi Merek*. Andi.
- Tjiptono, F., Chandra, Y., & Diana, A. 2004. *Marketing scales*. Penerbit Andi.
- Yamit, Z., & Viviria, V. 2012a. *Pengaruh Kinerja, Kepuasan Kerja dan Senioritas Terhadap Penetapan Gaji Karyawan di Perusahaan PT. Hero Supermarket, Tbk*.

Yafie, E., & Haqqi, Y. A. 2019. *Development Application “Detection of Growth and Development for New Born Until Two Years” Based on Android*. International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-2S9

Yafie, E., Samah, N. A., Mohamed, H., & Haqqi, A. Y. 2020. *Collaborative Mobile Seamless Learning (CMSL) based on Android Apps to Improving Critical Thinking in Higher Education in the Post-Covid-19 Era*. Jour of Adv Research in Dynamical & Control Systems, 12(07), 428–441.