The Influence of Inaportnet on the Effectiveness of Clearance In/ Out Ships at PT Oremus Bahari Mandiri Surabaya

Alwin^{a,1,*}, Markus Asta Patma Nugraha^{b,2}

^a Politeknik Ilmu Pelayaran Makassar, Jl Salodong, Biringkanaya, Makassar, Indonesia Politeknik Pelayaran Sumatera Barat, Jl syeh Burhanuddin, No 1, Padamg Pariaman, Sumatera Barat Indonesia

1 alintee.36@gmail.com; 2 markusjogja@gmail.com*

* corresponding author

ARTICLE INFO

ABSTRACT

Article history Received : 26 October 2021 Revised : 21 April 2022 Accepted : 29 April 2022

Keywords Clearance in/out Inaportnet, Ship This study aims to determine the effect of Inaportnet on the effectiveness of ship entry and exit permits at PT Oremus Bahari Mandiri Surabaya. Data collection was carried out at PT Oremus Bahari Mandiri Surabaya in June 2019 by means of observation, study documentation, and distributing questionnaires. The collected data was processed using simple linear regression analysis techniques, validity test, reliability test, and coefficient of determination. The results showed that Inaportnet at PT Oremus Bahari Mandiri Surabaya has been running well with an R2 value of 0.804 or 80.4% Inaportnet has an effect on the effectiveness of Clearance in/out Ships at PT Oremus Bahari Mandiri Surabaya.

This is an open access article under the CC-BY-SA license.



1. Introduction

The number of industries that use information technology has become a primary need in a company. Easy accessibility and being able to accumulate a lot of resources are the main choices in doing work. Information technology is a technology used to process data, including processing, obtaining, compiling, storing, manipulating data in various ways to produce quality information, namely information that is relevant, accurate and timely, which is used for personal, business and government, and is strategic information for decision making [1].

Meanwhile, according to Indrajit, information technology is the result of human engineering on the process of delivering information from the sender to the recipient so that it is faster, wider in distribution, and longer stored [2].

Indonesia is known as the largest archipelagic country in the world and has a strategic location between the two continents of Asia and Australia. Indonesia has many ports. Export and import activities caused many foreign ships to dock in Indonesian territory. Licensing for foreign ships is different from licensing for domestic ships, so the role of agents in receiving, providing services and information is very important. Lack of information will result in obstacles in the agency and in the field so as to support the optimization of the implementation of the Inaportnet system, it generally involves agencies such as the port office, customs and excise offices, quarantine offices, Pelindo offices, local immigration offices, and special port offices [3].

Then based on the Regulation of the Minister of Transportation Number PM 157 of 2015 concerning the Application of Indonesia Indonesia Port Net (Inaportnet) for Ship and Goods

Services at Ports. (Pane et al., 2018) Inaportnet is an internet/web-based single electronic service system to integrate information systems and stakeholders at ports.[4]

Inaportnet is an open and neutral electronic portal to facilitate fast, safe, neutral, and easy exchange of data and port service information that is integrated with relevant government agencies, port business entities, and logistics industry players to increase the competitiveness of the Indonesian logistics community [4]. Inaportnet is a system based on an internet/Web Service network related to ship arrival and departure services as well as loading and unloading activities. A system created so that service users (Shipping Companies and Loading and Unloading Companies) in requesting services or what we often hear in the shipping world, clearance in/out to carry out ship arrival and departure activities as well as related to Loading and Unloading Activity Plans for cargo on ships does not have to come to government agencies to make clearances, or minimize face-to-face service users with authorized government officials. This is in line with the Ministry of Transportation's commitment to eradicate illegal fees in the transportation sector

This is in line with the Declaration of Asean Concord II in Bali on October 7, 2003, strengthening the determination of the Government of Indonesia to implement a system of export and import document services at ports through one door without face to face. The government then formed a team to handle the Indonesia National Single Window (INSW) where the portnet system became one of the main pillars, especially related to the process of port clearance on ships services at ports [5].

Furthermore, according to Malisan, Inaportnet strives to integrate standard port information systems in physically serving ships and goods from all agencies and stakeholders because currently the function of ports is not only to dock ships by transporting thousands of people or vehicles, but currently the port management system needs to be supported. by a modern information system so that the port is expected to have an effective and efficient port performance, increase economic growth and reduce national logistics costs [6]

From an external perspective, the better the service quality Inaportnet will have an impact in terms of satisfaction felt by users and service providers. The high satisfaction received by users and service providers will encourage users and service providers to fully support Government programs. From an internal perspective, the continuous existence of Inaportnet requires governance and evaluation, both in terms of system infrastructure development, system maintenance, application capability in adapting to technological developments, and reliable human resources, so as to create optimal service quality.[7]

The series of activities for handling ship arrivals or departures includes notification of planned ship arrivals and departures, determination of docks, implementation of ships docking and departing, requests for ship needs, up and down passengers, as well as processing of ship clearance in and out ship documents to related parties or agencies. The smooth process of completing all operational matters greatly determines the speed and timeliness of ship departure. If these stages are hampered, the ship will experience a delay in the operational schedule [8].

Clearance In is a document inspection of ships arriving or arriving at the port. Long before the ship arrives, the shipping company or agent, in this case the operational section (Operational Chief) receives an e-mail or facsimile from the ship's master in the form of a notification of the estimated time of arrival of the ship or Estimate Time Arrival (ETA). After receiving the report, the shipping company or agent forwards the report to the parties involved in managing the Clearance in.[9]

Meanwhile, Clearance Out is an inspection of the ship that will sail from the port that the ship has met the requirements of Shipping Safety and Security with other obligations. After everything is done, the representative from the shipping company or agent will arrange Clearance Out [9]

2. Method

The population in this study is the incoming and outgoing ships that are read in the Inaportnet system at PT Oremus Bahari Mandiri Surabaya. While the sample consists of 30 ship samples taken randomly and then statistical data is made.

Data collection was carried out at PT Oremus Bahari Mandiri Surabaya in June 2019 by means of observation, documentation studies, and distributing questionnaires. The distribution of the questionnaires is based on a Likert scale and consists of several statements that must be filled out by the respondent [11].

Questionnaires are used to measure the effect of inaportnet (x) on the effectiveness of in/out clearance.

The questionnaires in this study are:

Table 1. List of statements for the inaportnet variable

No List of statements for the inaportnet variable (X)

- 1 Inapornet facilitates coordination and supervision for the improvement of the loading and unloading process.
- 2 Inapornet makes it easier to carry out tracing and tracking cargo more broadly.
- 3 Inapornet provides gate out/loading authorization when all logistics actors have given authorization.
- 4 The use of Inaportnet makes all activities realtime.
- 5 Using Inaportnet makes it easier to consolidate customs, commercial, and logistics data.
- 6 The use of Inaportnet reduces dwelling time.
- 7 The use of Inaportnet reduces the manual mobility of personnel.
- 8 The use of Inaportnet reduces waiting time at the container terminal.

Table 2. List of statements for the clearance in/out effectiveness variables.

No	List of statements for	[,] the clearance in/o	ut effectiveness	variables. (Y)
----	------------------------	---------------------------------	------------------	----------------

- 1 1 Clearance in/out uses less time and effort when using Inaportnet.
- 2 2 The data needed for clearance in/out activities can be real time 24 hours/day using Inaportnet.
- 4 4 Inaportnet makes it easy to manage inventory and stock accounts.
- 5 5 Clearance in/out process in real time.

For the questionnaire, before being applied, the validity and reliability tests were carried out first [12]. Validity test is used to measure whether a questionnaire is valid (valid) or not. A questionnaire is said to be valid if the statement on the questionnaire is able to reveal something that will be measured by the questionnaire. The validity test is calculated by comparing the calculated r value (correlated item – total correlation) with the r table value [13].

To test the relationship of the independent variable to the dependent variable used regression analysis [14]. So that the analytical method used by the researcher is simple linear regression, validity test, reliability test, and coefficient of determination, to determine the direction of the relationship between the independent variable and the dependent variable whether each independent variable is positively or negatively related and to predict the value of the dependent variable if the value independent variable increased or decreased [10]

Simple regression analysis was used to determine the effect of the independent variable on the dependent variable. The simple linear regression equation is as follows:

 $\mathbf{Y} = \mathbf{b}\alpha + \mathbf{b}\mathbf{X} + \mathbf{e}$

(1)

Hypothesis testing in this study using t test (Partial Test). This test is used to determine whether the independent variables individually have a significant effect on the dependent variable. Where if t table > t count, H0 is accepted. And if t table < t count, then H1 is accepted, as well as if sig < (0.05), then H0 is accepted, H1 is rejected and if > sig (0.05), then H0 is rejected, H1 is accepted.

3. Results and Discussion

3.1. Results

The results of the respondents' answers regarding the questionnaires that have been distributed are as follows:

Table 3: Respondents' responses to the Inaportnet variable

Respondent			of Res	spond	lent ()	K Vari	iable)		tot
Capt Nguyen Van Tien	4	5	5	5	5	5	5	5	39
Capt Phi Dinh Manh	5	4	4	5	5	5	4	5	37
Capt Nguyen Tiem Nam	4	5	5	4	5	5	5	5	38
Daniel Karaeng	4	4	4	5	4	4	4	5	34
Capt Zay Yar U	5	4	5	5	5	4	5	5	38
Capt Zang Haumin	4	4	4	4	5	4	4	4	33
Capt Azdar Bin Juma	4	4	4	4	4	5	4	4	33
Capt Khin Aung Zaw Oo	5	4	5	4	5	4	5	4	36
Capt Ahmad Yunus	4	4	4	4	4	5	4	4	33
Capt Juhana	5	5	5	5	5	5	5	5	40
Capt Joen Hosin	4	4	5	4	4	5	5	4	35
Capt Nguyen Duc Quang	4	4	4	4	4	4	5	4	33
Capt Jastor	4	4	4	4	4	4	4	4	32
Capt Muh Ilham	4	4	4	4	4	4	5	4	33
Capt Arsis Normansya	4	4	5	5	4	4	5	5	36
Capt Chandra Hasan	4	5	5	4	4	4	5	4	35
Capt Agus Katamso	5	5	5	4	5	4	5	4	37
Capt Zarni Oung Oung	5	4	4	4	5	4	4	4	34
Capt Manlapig Gilbert	4	5	4	5	4	5	4	5	36
Capt R Wais Bandaso	4	4	5	4	4	4	5	4	34
Capt Muh Lukman	5	5	5	5	5	5	5	5	40
Capt Idawati	4	3	3	4	4	5	5	4	32
Capt Zayar Win Htut	4	4	4	4	4	4	4	4	32
Capt Wang Taebeom	4	4	4	4	4	4	4	4	32
Capt Abelarde Marcelo	4	4	4	4	4	4	5	4	33
Capt King Maung Zaw	5	5	5	5	5	5	5	5	40
Capt Chang Jing	4	4	4	4	4	4	4	4	32
Capt King Daeyeon	4	4	4	4	4	4	4	4	32
Capt Lu Hongguang	4	4	4	4	4	4	4	4	32
Capt Lee Changrim	4	4	4	4	4	4	4	4	32

Alwin Nugraha et.al (The Influence of Inaportnet on the Effectiveness.....)

The results of the respondents' answers regarding the questionnaires that have been distributed are as follows:

Respondent	Res	ponse	of Res	spond	ent (Y Va	riable	e)			Total
Capt Nguyen Van Tien	4	5	5	5	4	5	5	5	4	5	47
Capt Phi Dinh Manh	5	4	4	5	4	5	4	5	4	4	44
Capt Nguyen Tiem Nam	4	5	5	4	4	4	5	5	4	5	45
Daniel Karaeng	4	4	4	5	4	5	4	5	4	4	43
Capt Zay Yar U	5	4	5	5	4	4	5	5	5	5	47
Capt Zang Haumin	4	4	4	4	4	4	4	4	4	4	40
Capt Azdar Bin Juma	4	4	4	4	4	5	4	4	4	4	41
Capt Khin Aung Zaw Oo	5	5	5	4	5	4	5	5	5	5	48
Capt Ahmad Yunus	4	4	4	4	4	5	4	4	4	4	41
Capt Juhana	5	5	5	5	5	4	5	5	5	5	49
Capt Joen Hosin	4	4	5	4	4	4	5	4	4	5	43
Capt Nguyen Duc Quang	4	4	4	4	4	4	4	4	4	4	40
Capt Jastor	4	4	4	4	4	4	4	4	4	4	40
Capt Muh Ilham	4	4	4	4	5	4	4	4	4	4	41
Capt Arsis Normansya	4	4	5	5	4	4	5	5	4	5	45
Capt Chandra Hasan	4	5	5	4	4	5	4	4	4	4	43
Capt Agus Katamso	5	5	5	4	4	5	4	4	5	4	45
Capt Manlapig Gilbert	4	5	4	5	4	4	4	5	4	4	43
Capt R Wais Bandaso	4	4	5	4	4	5	4	4	4	4	42
Capt Muh Lukman	5	4	5	4	4	4	5	5	5	5	46
Capt Idawati	4	5	5	4	3	4	5	4	4	5	43
Capt Zayar Win Htut	4	4	4	4	4	4	4	4	4	4	40
Capt Wang Taebeom	4	4	4	4	4	4	4	4	4	4	40
Capt Abelarde Marcelo	4	4	4	4	4	5	4	4	4	4	41
Capt King Maung Zaw	5	4	5	4	5	4	5	5	5	5	47
Capt Chang Jing	4	4	4	4	4	4	4	4	4	4	40
Capt King Daeyeon	4	4	4	4	4	4	4	4	4	4	40
Capt Lu Hongguang	4	4	4	4	4	4	4	4	4	4	40
Capt Lee Changrim	4	4	4	4	4	4	4	4	4	4	40

Table 3: Respondents' responses to the Inaportnet variable

Simple Regression Test

The validity test is calculated by comparing the calculated r value (correlated item – total correlation) with the r table value. If r count > t rabel and the value is positive, then the item or question is declared valid. The results of the validity tests that have been carried out are as follows:

Statement X	r count	r table	Validity Results
Statement 1	0,668	0,367	Valid
Statement 2	0,741	0,367	Valid
Statement 3	0,754	0,367	Valid
Statement 4	0,732	0,367	Valid
Statement 5	0,761	0,367	Valid
Statement 6	0,529	0,367	Valid
Statement 7	0,564	0,367	Valid
Statement 8	0,797	0,367	Valid

Table 5. Validity Test of X Variable (Inaportnet)

Based on the table from the results of the validity test of the two variables above, the sample information in this study is declared all valid. It is declared valid because the value of the calculated r is greater than the table r.

Statement Y	r count	r tabel	Validity Results
Statement 1	0,738	0,367	Valid
Statement 2	0,521	0,367	Valid
Statement 3	0,759	0,367	Valid
Statement 4	0,487	0,367	Valid
Statement 5	0,424	0,367	Valid
Statement 6	0,803	0,367	Valid
Statement 7	0,779	0,367	Valid

Tabel 6. Validity Test of Y Variabel (Efektivity of Clearance in/ out)

Based on the table from the results of the validity test of the two variables above, the description of the sample in this study is declared all valid. It is declared valid because the value of the calculated r is greater than the table r.

Reliability Test

The results of the reliability tests that have been carried out using the SPSS statistical software are as follows:

Table 7. Reliability Test

Variable	Croncbach's Alpha	Limit	Reliability Results
Inaportnet (X)	0,845	0,6	Reliable
Clearance in/ out (Y)	0,860	0,6	Reliable

Table 8. Variable Description

	Variables Entered/Removed ^a							
Model Variables Entered Variables Removed Method								
1	INAPORTNET ^b		Enter					
	ent Variable: CLEARANCE.IN.C ested variables entered.	DUT						

Simple Regression Test

The analytical method used in this study is simple linear regression analysis, simple regression analysis is used to determine the effect of the independent variable on the dependent variable. The results of processing simple linear regression analysis are as follows:

Table 9. Simple Regression Analysis Test

		Coef	ficients ^a			
Unsta	andardizedCo	efficients		Standardized Coefficients Beta	t	Sig.
Mod	lel	B Std	. Error			
1	(Constant)	10,695	3,021		3,540	0,001
	INAPORT NET	0,928	0,087	0,897	10,714	0,000
a. D	ependent Var	iable: CLEA	RANCE.IN.	OUT		

As in the two tables above, it can be seen that the dependent variable in this study which is shown in table 4.6 description of the variable is Clearance in/out and the independent variable or predictor is Inaportnet. While the results of the processing of simple linear regression analysis above obtained a significance value of 0.001 and t count 10,714>1,699, which means the hypothesis is accepted.

Correlation Coefficient and Determination Coefficient

In Table 10 below, it can be seen that the correlation coefficient (R) is 0.897. These results indicate that the correlation between clearance in/out and inaportnet is strong. While the coefficient of determination (*R* Square) in Table 10 shows the results of 0.804. The coefficient of determination measures how far the model's ability to explain the variation of the dependent variable. In this study showed 0.804 x 100% = 80.4%. This means that in/out clearance has an effect of 80.4% on inaportnet. The remaining 19.6% is influenced by other variables not examined in this research model.

	Model Summary ^b									
				Std. Error		Change St	atistics			
Model	R	R Square	Adjusted R Square	of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	
1,89	7 ^a	0,804	0,797	1,277	0,804	114,798	1	28	0,000	
a. Pred b. Depe	a. Predictors: (Constant), INAPORTNET b. Dependent Variable: CLEARANCE.IN.OUT									

Table 10. Correlation and Determination Coefficient

3.2 Discussion

Based on the value of the entire sample in this study, it is declared valid, this is because the value of r count > than the value of r table. Furthermore, the value of the independent variable and the dependent variable is declared reliable / accepted. This is because the Cronbach alpha value generated from data processing using SPSS 25 is above the predetermined limit value.

The implementation of Inaportnet services for ships and goods at the port is carried out according to the duties, functions, authorities and responsibilities of each government agency and relevant stakeholders at the port based on the provisions of laws and regulations.

The series of activities for handling ship arrivals or departures includes notification of planned ship arrivals and departures, determination of docks, implementation of ships docking and departing, requests for ship needs, up and down passengers, as well as processing of ship clearance in and out ship documents to related parties or agencies. The smooth process of completing all operational matters greatly determines the speed and timeliness of ship departure. If these stages are hampered, the ship will experience a delay in the operational schedule (delay).

Based on the results of the study also showed that Inaportnet had a significant effect on the Effectiveness of Clearance in/out. This can be seen from the results of the regression analysis and the results of the determinant coefficient test which shows that the R Square value is 0.804 or 80.4%. In other words, Inaportnet has an effect of 80.4% on the effectiveness of Clearance in/out at PT Oremus Bahari Mandiri..

The clearance settlement process has changed from a manual system to an online system or using Inaportnet. The completion of ship clearance using the Inaportnet system goes through several stages, namely, preparation, the clearance in process, starting from before the ship arrives and when the ship docks at the port, and the clearance out process.

The contributions of Inapornet in supporting the effectiveness of Clearance in/out are as follows:

- 1. Inapornet facilitates coordination and supervision for the improvement of the loading and unloading process.
- 2. Inapornet facilitates coordination and supervision for the improvement of the loading and unloading process. In addition, inapornet also makes it easier to carry out tracing and tracking cargo more broadly.
- 3. The use of Inaportnet makes all activities realtime.
- 4. Using Inaportnet makes it easier to consolidate customs, commercial, and logistical data
- 5. Using Inaportnet reduces dwelling time
- 6. Use of Inaportnet reduces manual mobility of personnel.
- 7. The use of Inaportnet reduces waiting time at the container terminal.

Based on the description above, it shows that the role of Inaportnet is very important in the effectiveness of Clearance in/out. Because one of the causes of the delay time on ship departure

is at the clearance implementation stage. The clearance in and clearance out settlement processes have not been carried out effectively and efficiently, resulting in delays in the Estimated Time of Departure (ETD).

Ship delays not only have an impact on the dissatisfaction of ship service users. If there is a delay, the ship owners (principals) are also subject to the obligation to pay a penalty in the form of extra money for the sake of managing the ship's administrative documents at a port. So that with the implementation of Inaportnet, these problems can be overcome properly.

Furthermore, the results of the study also show that the positive impacts felt from the implementation of Inaportnet are as follows:

1. Clearance in/out is easier when using Inaportnet.

2. Clearance in/out uses less time and effort when using Inaportnet

3. The data needed for clearance in/out activities can be real time 24 hours/day using Inaportnet.

4. Inaportnet makes it easy to manage inventory and stock accounts.

5. Clearance in/out process in real time.

6. Using Inaportnet increases the acceleration and accuracy of information in performing Clearance in/out.

7. Inaportnet greatly facilitates permit management and so on

8. Inaportnet optimizes Clearance in/out activities.

9. Inaportnet facilitates Clearance in/out activities.

Some of the descriptions above also show that the Inaportnet system actually provides benefits in ensuring transparency of ship and goods services at the port, fairness of service (first come first served), accelerating the completion of ship and goods services, minimizing costs required in handling ship and goods services, improve the validity and accuracy of data related to ship and goods service activities, and increase national competitiveness and encourage investment. Based on the points above, it appears that all commercial ships at the Port can be served by the Inaportnet system.

The implementation of Inaportnet is carried out with the aim of improving ship services so that they can run fast, reliable, transparent, standardized and with minimal costs. Furthermore, the obstacles that occur in the process of completing ship clearance using the Inaportnet system, among others, are the number of ship documents that must be uploaded, internet connections that do not support the Inaportnet system, the process of checking the expired date of ship certificates is still manual, tidal conditions that cause the ship could not immediately dock, and the length of time the cargo arrived at the port. The process of completing ship clearance with the Inaportnet system makes it easy for companies or agents and service users..

4. Conclusion

The results show that Inaportnet is a single internet/web-based service system that integrates a standard port information system in the ship and goods service system by all relevant agencies (stakeholders) at the port.

Furthermore, the research data also shows that in general, Inaportnet at PT Oremus Bahari Mandiri Surabaya has been running well, as can be seen from the readiness carried out by the Port Authority. This readiness includes facilities and human resources / operators, as well as service user support. Integrated services for ships and goods electronically have been running well.

Furthermore, based on the results of the regression analysis that has been obtained, it shows that Inaportnet has a positive and significant effect with an R2 value of 0.804 or 80.4% on the effectiveness of Clearance in/out Ships at PT Oremus Bahari Mandiri Surabaya.

References

[1] Sutabri, Tata, *Pengantar Teknologi Informasi*. Edisi Pertama. Penerbit Andi. Yogyakarta, 2014.

- [2] Indrajit, Eko dan Richardus Djokopranoto, *Konsep Manajemen Supply Chain*. PT Grasindo. Jakarta, 2002
- [3] Husada, F. R, Optimalisasi Penerapan Sistem Aplikasi Inaportnet Guna Efisiensi Kapal Di Pelabuhan Gresik. Skripsi, 8(5), 55, 2019
- [4] Maryana, F., Ridhawati, R., & Astuti, R. E. "Pengaruh Kualitas Sistem Dan Kualitas Informasi Terhadap Kepuasan Pengguna (Survei Pada Pengguna Jasa Pengguna Sistem Aplikasi Inaportnet Yang Terdaftar Di Kantor Kesyahbandaran dan Otoritas Pelabuhan Kelas I Banjarmasin)" Jurnal Ekonomi Dan Bisnis, 12(1), 162–179, 2019.
- [5] Padilah, H., Utami, T., Dewi, A. M., & Akpelni, P. B. (n.d.). Sistem inaportnet. 79-85, 2018
- [6] Malisan, J., Tresnawati, W., Laut, P. T., Penyeberangan, D., & Perhubungan, B. L.. Implementasi Inaportnet dalam Pelayanan Terpadu Satu Pintu di Pelabuhan Tanjung Perak Surabaya. 31(10), 67–74, 2019.
- [7] Puspitasari, N., Pangestu, R., Pelayaran, A., Surakarta, N., Kapal, O., & Inaportnet, S. *Muara*. 4(1), 38–41, 2021.
- [8] Sirait, S. S., & Thalib, F, "Analisis Kualitas Layanan Inaportnet Dikantor Otoritas Pelabuhan Utama Tanjung Priok Dengan Metode Servqual Dan Qfd" *Jurnal Ilmiah Ekonomi Bisnis*, 25(1), 82–96. <u>https://doi.org/10.35760/eb.2020.v25i1.2409</u>, 2020.
- [9] Mayssara A. Abo Hassanin Supervised, A. Paper Knowledge . Toward a Media History of Documents, 2014
- [10] Sugiyono, *Statistika Penelitian*. Edisi Kedua. Penerbit CV Alfabet. Bandung, 2017.
- [11] J. Sarwono and B. Herlina, Statistik Terapan Aplikasi untuk Riset Skripsi, Tesis, dan Disertasi menggunakan SPSS, AMOS dan Excel. Jakarta, Indonesia: PT. Elex Media Komputindo-Kompas Gramedia, 2012.
- [12] R. Vikaliana and Irwansyah, Pengolahan Data dengan SPSS. Serang: CV AA RIZKY, 2019.
- [13] R. Lupiyoadi and R. B. Ikhsan, Praktikum Metode Riset Bisnis. Jakarta, Indonesia: Salemba Empat, 2015.
- [14] S. Nurhasanah and R. Vikaliana, Statistika Sosial, 1st ed. Jakarta, Indonesia: Salemba Empat, 2021.