The Effectiveness of Using Digital Media in Government Systems in the Industry Era 4.0 (Lapor! At Kominfo Office of Solok City)

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ABSTRACT

The government has now used digital media in government system services to be more practical, effective and efficient. Like the LAPOR! which is a means to submit complaints, aspirations and requests for information from the public to the government that is guaranteed the security and confidentiality of its users. The purpose of this study is to find out how effective LAPOR! as a means of government communication with the community (At the Solok City Information Office). The method used in this research is mixed methods with sequential explanatory design where to conduct quantitative research first, analyze and qualitative research as a complement. Data collection method is done by distributing questionnaires, interviews and literature reviews. The results obtained state that LAPOR! as a means of government communication with the community (Dinas Kominfo Kota Solok) is very effective. This can be seen in the analysis of effectiveness data consisting of five categories, namely understanding, pleasure, influence on attitudes, good relationships and actions. Where the overall score is 526.5 with a scoring scale of 105.3. This is evidenced by the national award received by the City of Solok which was included in 30 public service complaint management competitions in 2019, which was attended by 312 agencies consisting of 187 categories of government agencies, public service complaint management and 165 categories of service implementing units.

Keywords : *Effectiveness, Digital Media, Government Systems, LAPOR!*

1. INTRODUCTION

The existence of the digital media revolution today is characterized by the emergence of social media platforms that are able to change communication patterns that develop to be more transparent, more open and more reachable. This makes the government also take advantage by applying digital media to government service systems to make it easier to use, practical, effective and efficient.

In line with the development of democracy in the government system, which has an impact on the need for information and public services to society where its fulfillment must be of high quality . The occurrence of a shift in people's lives is due to the starting level of public education and views on government organizations and the increasingly critical community in thinking and actively providing input to the government. This change is the benchmark in the policy-making process and the first step

to changing bureaucratic behavior from passive to more responsive for the sake of better governance.

In 2018 the Ministry of Administrative and Bureaucratic Reform (PAN RB) evaluated the implementation of e-government in 616 government agencies. The results consisted of the first 82 government agencies (13.31%) with good, excellent and satisfactory ratings. The second is 534 government agencies (86.69%) with sufficient and insufficient predicate. This reflects that the National SPBE has not met the expected target, namely the category with a good predicate, with an index of 2.6 or more which is expected to be realized in 2020 [11].

In accordance with Law Number 25 of 2009 concerning public services which states that in order to fulfill service needs in accordance with statutory regulations for every citizen and resident of goods, services, and / or administrative services provided by public service providers.

One of the public services used to accommodate all types of reports from the public to the government is the LAPOR! Application . (People's Online Aspiration and Complaints Service) which can be used in 5 ways, namely: first by accessing the solokkota.lapor.go.id website, second, using the application on Android by downloading the SP4N LAPOR! Application. on playstore, windows store or apple store (by clicking new list). The third one uses twitter LAPOR! 1708: @LAPOR! 1708 by including #LAPOR, the fourth is facebook LAPOR! PEMKO SOLOK: @LAPOR PEMKOSOLOK and the fifth is SMS service to number 1708 with complaint format KOTASOLOK (space).

LAPOR application! used by the Solok City Government in 2017 which is managed by the Solok City Information and Communication Office. The number of reports received from the public to the Government of Solok of the year 2017-2019 can be seen on t a bell below:

Table 1. List of report recap in the LAPOR! Solok City Government

No.	Year	Report Status			total
		Has not been followed up	In process	Completed follow up	
1	2017	0	0	7	7
2	2018	0	0	36	36
3	2019	0	0	70	70
total		0	0	113	113

According to information obtained by researchers from the Ministry of Administrative and Bureaucratic Reform, the number of user accounts is LAPOR! at the Solok City Communication and Information Service can be seen in the table below:

Table 2. Recap of the LAPOR! Solok City

No.	Service Category	Year			total
		2017	2018	2019	
1	Website	2	10	26	38
2	SMS	2	10	11	23
3	Android	1	5	15	21
4	Call center	-	-	3	3
5	Agency Email	-	-	1	1
6	Facebook	-	-	1	1
7	Face to face	-	-	1	1
8	Telephone	-	-	1	1
total		5	25	59	89

With make use of digital media as a means to obtain information and means of communication between the community and the government can be realized with a system known as e-government or electronic government. Which is one of the government's efforts to realize a government system that is cleaner, more effective, transparent and accountable and provides quality and trustworthy public services by implementing an electronic-based government system. This is in accordance with Presidential Regulation No.95 of 2018 concerning Electronic Based Government Systems (SPBE) which is implemented with the principles of effectiveness, integration, sustainability, efficiency, accountability, interoperability and security as stated in article 2. This is one of the ways the government deals with industrial revolution 4.0 by implementing e-government in managing government systems and public services.

With the application of digital media, one of them is LAPOR! the system of government is an effort to encourage reform of the bureaucracy that has a public service that is nice to have an impact on the effectiveness of the use of digital media in the system of government in an era of industry 4.0 (LAPOR! In Solok City Department of Communication and Information Technology).

2. LITERATURE REVIEW

1. Effectiveness

Hidayat (1986) states that effectiveness is a measure that states how far the target (quantity, quality and time) has been achieved. If the higher the percentage achieved, the higher the effectiveness [14].

According to Muasaroh (2010), Aspects of the effectiveness of a program consists of: the first aspect of the task or. the second aspect of the plan or program. The third aspect of the provisions and regulations. The fourth aspect of the ideal goal or condition, namely if the ideal goal or condition of the program can be achieved and can be seen from the achievements achieved by the learners [3].

The measure of communication effectiveness consists of five categories namely first understanding,. Both pleasures. The third influence on attitude. The fourth is a better relationship. The fifth act [24].

According to Sudjiono [21] to find out the average about the effectiveness of digital media use, the author uses the formula:

$$MX = \frac{\sum X}{N}$$

Information: MX = Mean (average)
X = Number of variables X
N = Number of cases

After that it is formulated using the effectiveness category

Table 3. Effectiveness categories

No.	Score	Information
1	105-125	Very effective
2	85-105	Effective
3	65-85	Effective enough
4	45-65	Less effective
5	25-45	Ineffective

2. Industrial Era 4.0

[5] states that in the industrial era 4.0, which is a technological revolution based on continuous communication using the internet, interaction and

information exchange can occur, not only between humans, humans and machines, even between machines and machines.

The fourth wave industrial revolution (industrial revolution 4.0). The 2000s era until now is the era of the application of modern technology, including fiber technology and integrated network systems, which work in every economic activity from production to consumption. The fourth industrial era or better known as four point zero (FPZ), started with the internet revolution which is not only a search engine, but more than that everything can be connected intelligently [1].

According to [19] there are four main components in industry 4.0, namely the first cyber-physical system (the connection between the real world and the virtual world), the second the Internet of Things (IoT), the third the Internet of services (IoS) and the third. the fourth Smart-factory. In industry 4.0 there is digitalization and automation of all aspects to produce products that can provide satisfaction to consumers. With advances in technology, human manual activities have decreased because they have been replaced by technology. Including the management of customer data that is analyzed and stored in the cloud and the extensive exchange of information between people and objects through wireless communication networks.

The fourth revolution is marked by the capabilities of sensor technology, interconnectivity and data analysis that enable mass customization, supply chain integration and higher efficiency based on cyber-physical systems. It can be said that industry 4.0 is a rapid transformation in the design, manufacture, operation and service of products and production systems [2].

According to Zesulka (2016) industry 4.0 is used in three interrelated factors, namely: first digitization and economic interaction with simple techniques towards economic networks with complex techniques, secondly digitizing products and services and thirdly new market models [1].

3. Digital Media

Stored conversations between users of new media and the ease with which they are used through search engines are specific aspects of new media [23]. According to [16] the main characteristics of new media are interconnection, access to individual audiences as message recipients or senders, interactivity, various uses as open characters and their ubiquitous nature.

The function of social media mass there are four according to Lasswell namely: first as social surveillance. The second is social correlation. The third is socialization, which is bequeathing the noble value from one generation to the next. And the fourth is entertainment [13].

Figure 1. Complaint Management Flowchart LAPOR! At the Solok City Communication and Information Service

3. METHODS

Researchers use mixed methods with explanatory sequential design in which the researcher conducts quantitative research first and then completes it in more detail with qualitative research. Qualitative research is called explanatory because the results of the data obtained quantitatively at the beginning are further explained by the data obtained qualitatively. This is said to be sequential because the quantitative phase is followed by a qualitative phase [8].

In this study, the methods used cannot be combined at the same time, but only data collection techniques can be combined, where quantitative research with data collection techniques for distributing questionnaires and to check and explain the results of the questionnaire, observation and interview techniques are used [22].

The population in this study are people who use LAPOR! In submitting complaints, aspirations and requests for information to the government, there are 89 user accounts. The method used in this study is a non-probability sample (convenience sample), namely the selection of respondents to represent the population [6].

The constraints that the researchers encountered were the limitations in this study, namely the difficulty of reaching respondents so that the data collection technique used, namely non-probability, was the selection of the sample not through random or random techniques, meaning that all members of the population did not necessarily have the same chance of being selected as samples because of a balance. by researchers [15]. The results of this study apply only to the sample level.

Researchers use two categories in the use of the LAPOR! Application. that is, the first community to use LAPOR! in submitting complaints, aspirations and requests for information. The second is people who access the solokkota.lapor.go.id website. Here's the explanation :

Table 4 . User categories LAPOR!

No.	User Category	total
1.	Using REPORT! in submitting complaints, aspirations and requests for information	7
2.	Access the solokkota.lapor.go.id website	18
	total	25

[4] Says that data collection techniques are part of a data collection instrument that can determine the success or failure of a study. In this study, researchers used several methods including distributing questionnaires, interviews and documentation. The documentation method here intends to collect data in the form of public documents (for example newspapers, papers, office reports) or private documents [7].

In analyzing the data, the researcher categorizes based on the highest index value and the lowest value based on the respondent's answer. the index value is obtained from the multiplication of the weight of the highest value and the lowest value with the number of indicators used. The formula used in determining the scale range [25] is:

$$Rs = n \, (m-1) \, / \, M$$

Description: Rs = scale range

n = number of samples

m = number of alternative answers for each item

M = number of classes formed

The use of interval scores in data analysis can be found by:

a. Determine the maximum score and minimum score
1. Maximum score = lowest score weight x number of samples
2. Minimum score = weighted highest score x number of samples
b. Class width = range / class formed

4. RESULTS AND DISCUSSIONS

Researchers obtained data and information based on a questionnaire distributed to 25 respondents and conducted interviews with the public using LAPOR! in submitting complaints, aspirations and requests for information as well as parties related to LAPOR !. The following are the results of distributing questionnaires and interviews that researchers obtained:

1. Characteristics of respondents
   a. Based on gender

Table 5 . Characteristics of respondents based on gender

No.	Characteristics	Frequency	Percentage
1.	Male	16	64%
2.	Women	9	36%
	total	25	100%

Based on the results obtained, there are LAPOR! most of them were male, as much as 64% and female as much as 36%. This is in accordance with data from KemenPAN RB, which researchers interviewed with Mardiana said that:

" On the LAPOR application! can see the gender of the REPORT user! with a ratio of almost 1: 2 with the most users being male.

The Head of the Public Opinion and Aspiration Management Section, Mr. dedy Masri, said different things, namely:

""That at this time for a while REPORT! Solok city does not yet have data on the number of users LAPOR! male and female and also unable to know the gender of the user LAPOR! and Dinas Kominfopun does not have user data LAPOR!. ".

b. Based on the Age of Respondents

Table 6 . Characteristics of respondents based on the age of the respondent

No.	Age	Frequency	Percentage
1	14-25 years	6	24%
2	26-36 years	10	40%
3	37-48 years	8	32%
4	49-51 years	0	0%
5	Above 52 years	1	4%
	total	25	100%

Based on the results of data acquisition, there are LAPOR! Most were in the age range 26-36 years, as much as 40%, while for the age range 49-51 years, none of them used LAPOR !. This is in line with the explanation given by Mrs. Mardiana from KemenPAN RB who said that " the average age of LAPOR users! ranged from 21-30 years " .

c. Based on educational background

Table 7 . Characteristics of respondents based on educational background

No.	Education	Frequency	Percentage
1	SD	0	0%
2	Junior High School	0	0%
3	High school	10	40%
4	S1	10	40%
5	S2	5	20%
	total	25	100%

Judging from the level of education of the people who use LAPOR! There are as many as 40% of LAPOR users with high school and undergraduate education and none of them have elementary and junior high school education. This shows that the level of community education is good. In accordance with the results of the researcher interview with KemenPAN RB with Mrs. Mardiana who said that " in using the LAPOR application! all people can use LAPOR! in submitting complaints, aspirations and others, there is no educational background that uses LAPOR! " . The same thing was conveyed by the Head of the Management of Opinion and Public Aspirations of the Office of Kominfo Kota Solok, Mr. Dedy Masri said that "the identity and education level of the reporter cannot be seen / reflected in the LAPOR! Application. But in general the LAPOR! is user friendly which can be easily used by all circles of society " .

d. Based on the use of the media used

Table 8 . Characteristics of respondents based on the media used

No.	Media used	frequency	percentage
1	Website	16	64%
2	Twitter	0	0%
3	Mobile Application	4	16%
4	SMS	2	8%
5	Facebook	1	4%
6	Direct Complaints	2	8%
	total	25	100%

From the results that the researchers obtained from the distribution of questionnaires, it was found that no one used the Twitter media in submitting complaints, aspirations and requests for information, but the public was more likely to use website media with the most users 64%.

e. Based on the frequency of use

Table 9 Characteristics of respondents based on frequency of use

No.	characteristics	frequency	percentage
1	1 time	15	60%
2	2-5 times	8	32%
3	More than 6 times	2	8%
	total	25	100%

As revealed by Mardiana's mother from KemenPAN RB said that "the use of lapor! ideally it can be done periodically, because if there is a follow-up then the community can give its response".

The same thing was also conveyed by the Head of Public Opinion and Aspiration Management at the Solok City Information Office, Mr. dedy Masri said that "there is no ideal limit for the community in using the LAPOR!

2. Effectiveness of Use of Digital Media

Researchers divide the effectiveness of communication into five categories, namely understanding, enjoyment, influence on attitudes, good relationships and actions. Following are respondents' answers to aspects of communication effectiveness:

Table 10 . Respondents' answers to aspects of communication effectiveness

No.	STATEMENT	ANSWER ALTERNATIVE					Score
I	Understanding	STS	TS	KS	S	SS	Score
		1	2	3	4	5	
1.	I understand the information conveyed by LAPOR! regarding my complaint	0	0	5	17	3	98
2.	I understand how to submit complaints that will be submitted in LAPOR!	0	0	2	16	7	105
3.	I understand the response in response to complaints is fast	0	0	5	17	3	98
	Total score						369
	Scoring scale						123
II	Enjoyment	STS 1	TS 2	KS 3	S 4	SS 5	Score
1	I love using LAPOR! because the information submitted can be accounted for	0	0	4	19	2	98
2	I love using LAPOR! because the security is guaranteed	0	0	2	16	7	105
3	I love using LAPOR! because you can keep your identity secret by clicking on the anonymous column	0	1	4	13	7	101
	Total score						304
	Scoring scale						101.3
III	Influence on attitude	STS 1	TS 2	KS 3	S 4	SS 5	Score
1	Information conveyed through LAPOR! give influence to user attitude	0	0	5	14	6	101
2	The language used LAPOR! in conveying information affects user attitudes	0	0	2	19	4	102
3	I prefer to use LAPOR! because it is easy to use	0	1	6	14	4	96
	Total score						299
	Scoring scale						99.7
IV	Good relationship	STS 1	TS 2	KS 3	S 4	SS 5	Score
1	I believe in submitting complaints through LAPOR! processed quickly	0	0	5	17	3	98
2	I believe using LAPOR! provide the best solution	0	0	2	17	6	104
3	With the LAPOR! can establish a good relationship between	0	1	4	16	4	98

V	Action	STS 1	TS 2	KS 3	S 4	SS 5	Score
	the government and the community						
	Total score						300
	Scoring scale						100
V	Action	STS 1	TS 2	KS 3	S 4	SS 5	Score
1	I'll use LAPOR! come back if you make a complaint	0	0	2	18	5	103
2	Every complaint submitted to LAPOR! realized in accordance with the reality in the field	0	0	2	19	4	102
	Total score						205
	Scoring scale						102.5

Source: Researcher Data Processed Results, 2020

Minimum score = weighted lowest score x number of samples

$$= 1 \times 25 = 25$$

Maximum score = weighted highest score x number of samples

$$= 5 \times 25 = 125$$

Rs = n (m-1) / M
$$= 25 (5-1) / 5$$
$$= 20$$

The following is a recapitulation of the calculation of all categories contained in the effectiveness of the use of digital media in government systems in the industrial era 4.0 (LAPOR! At the Office of KOMINFO Kota Solok), namely:

Table 1 1 . Recapitulation of effectiveness calculations

No.	Dimensions	Score	Scoring scale
1	Understanding	123	Very effective
2	Enjoyment	101.3	Effective
3	Influence on attitude	99.7	Effective
4	Good relationship	100	Effective
5	Action	102.5	Effective
	Total Score	526.5	
	Scoring scale	105.3	Very effective

Based on the results of the recapitulation of categories contained in effectiveness, the results of the effectiveness of the use of digital media in the government system in the industrial era 4.0 are very effective with a rating scale of 105.3. This is confirmed by the results of interviews with researchers with KemenPAN RB, namely Mrs. Mardiana saying that:

"Government communication with the public using the media LAPOR! already effective, because the application LAPOR! follow-up system of complaints such as chat, so it can interact with each other by giving responses between the government and the community".

The same thing was conveyed by the Head of the Management of Opinion and Public Aspirations at the Solok City Communication and Information Service, Mr. Dedy Masri said that:

"With the LAPOR! communication between the government and the community is running effectively, related to the delivery of aspirations and public complaints in terms of public services organized by the City Government.".

From the results obtained researchers can be concluded that the effectiveness in the use of digital media in government systems in the industry 4.0 era has a type of centralized communication that is located in the central government, this can be seen in the user data LAPOR! which only exists in the central government, namely KemenPAN RB, while local governments cannot know about the reporting data, except for the reporter who does not keep his identity secret, namely the reporter who does not click on the anonymous column in the format of the report submitted, only then the institution / local government concerned can find out the identity of the reporter. Likewise, a reporter who keeps his report secret by clicking on the secret column, his report cannot be seen by the public, unless only the report admin can find out the report. This is done to maintain the confidentiality and security of LAPOR! User data. If viewed from the process of incoming reports, all types of incoming reports are sent to the central government first and after that the related institution or government is disposed of in accordance with the incoming reports for further follow up.

According to Berger, Roloff, Ewoldsen (2010), there are six things that are always related to and accompanying social communication via the internet, including: the first is the reduced face-to-face communication and the tendency to reduce non-verbal expressions which are already part of the interaction via text, the second is related with people who are not or with people who are indeed part of the topic of discussion, the third is the depiction of oneself and others through absolute anonymity, pseudonymity, nominal identification or attempts to authenticate the qualifications of others, the fourth time response is asynchronous, the fifth The potential audience that can be reached is much greater than the number of individuals in traditional communication and the sixth is able to answer messages "hiding" without messing up the message [9].

Current technology allows the audience to respond and produce messages, to become active participants in communicating. This is also in line with Presidential Instruction No.9 of 2015 concerning the management of public communication to absorb public aspirations and accelerate the delivery of information on government policies and programs.

Digital media is used as a means to convey messages by the public to the government so that there is an interaction between the two parties which has a very large influence and can support and improve services for the better and equitable development in all fields. A new pattern of communicating using digital media is in the form of cybernetic organisms, where individuals will be connected in the cyber world with all the consequences [9].The industrial revolution 4.0 has the potential to empower individuals and society, because this phase of the industrial revolution can create new opportunities for economic, social, and personal development [1].Public concern in submitting complaints, aspirations and requests for information in communicating with the government using digital media is a form of community participation in development matters, especially the delivery of input in terms of supervision.

According to [20] there is a change in the current condition of the people who are required to interpret local problems to national problems and to global problems. The shift of communication transactions from a simple need to a level of government, an increasingly complex need that covers all aspects of life. The commitment of organizational personnel (government apparatus) can be realized through the first high level of participation, the second a strong desire to keep working, the third is involvement in work that is high and the fourth is good work performance.

The effectiveness of the use of digital media in government systems in the industrial era 4.0 is evidenced by the existence of the City of Solok getting a national award which is included in the TOP 30 (thirty) Public Service Complaint Management competition in 2019. The competition consists of 187 categories of Government Agencies (IP) Organizers of Complaints Public Service and 165 in the Implementing Unit (UPP) Category, this has increased by 92.5% compared to the number of participants last year.

Figure 2. The City Government of Solok received a national award
Source: https://infopublik.solokkota.go.id/lapor-pemko-solok- achieved national-award /

Kellner (2003) states that media presents a culture where people can build identity, taste, culture, nationality; establishing boundaries between us and them; forming a general view of the world and its innermost values; define what is good and what is not; also

provides materials to create an identity where individuals enter themselves in contemporary techno-capitalist societies as part of global culture [9].

Nurudin (2016) states that there are times when the media maintain loyalty in the midst of intense competition, so that audiences occupy an important position and emerge after finding satisfaction. tends to be large, spread over various areas of mass communication target coverage, the three audiences are heterogeneous and come from various layers, the four audiences tend to be anonymous, namely they do not know each other, the five audiences who are physically separated by the communicator [18].

Currently , with the presence of Industry 4.0, activities that are usually carried out manually by humans are now starting to be replaced by digital media, where the determining factor is human resources who are reliable and understand current technology. Compared to the manual method, digital media has a wider range of interaction space, is freer and is not bound by codes of ethics and regulations and can be done anytime and anywhere. With the use of digital media, everything can be done quickly.

The Open Government Indonesia (OGI) has been implemented since 2008 through the Law on Public Information Disclosure, which is a joint movement between the government and the community to realize the openness of the Indonesian government and accelerate the improvement of Indonesian public services. OGI is committed to implementing programs that are based on 3 pillars, namely transparency, participation, and innovation [10].

In the industrial era 4.0, there are six design principles, namely interoperability, virtualization, decentralization, real time capabilities, service-oriented and modular. In other words, the industrial era 4.0 can be said that all entities within it can communicate with each other in real time at any time with the use of internet technology and CPS in order to achieve the goal of creating new values or optimizing existing values of any industrial process [17]. In the current era of the 4.0 revolution, computers and the internet can help all aspects of human work compared to human labor itself. The era of the industrial revolution 4.0 will be based on the use of the digital world, computerization and big data analysis and artificial intelligence (AI) technology in the industrial world [1].

5. CONCLUSION

The application of digital media in the current government system has provided many benefits, both to the people who use it and the government itself, where the use of current technology can streamline time, cost and transparent information . The public is also quick to get the information needed in accordance with the stipulated provisions and to submit complaints and aspirations. Use the LAPOR application! in Solok City government can be said to be very effective in its utilization. This can be seen from the results of the researcher's data processing that has

been carried out by distributing questionnaires to the public. From the number of reports submitted to the City of Solok Communication and Information Office which has increased from year to year. And also with the increasing number of accounts using LAPOR !.

In the use of digital media, namely LAPOR !, the government guarantees the right of the public so that complaints from anywhere and of any kind will be channeled to public service providers in accordance with their authority. LAPOR! is one of the digital media used in government systems to accommodate aspirations and complaints from the public to face the industrial era 4.0.

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