Role of Support Infrastructure and Information System on Non-Cash Transaction Policies

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Article Info	Abstract
	_____ The transaction system in local governments has undergone a transition from manual to non-cash transactions. Semarang Regency is one of twelve regions selected as pilot projects. The initial implementation supporting infrastructure has not met the required targets. The existence of manual transitions to non-cash will be followed by different procedures and different information systems. The purpose of this study is to see the effect of supporting infrastructure and information systems on non-cash transaction policies and see the influence of supporting infrastructure on information systems. This research is a quantitative research, with variables of quality, quantity, perceptions about the ease of use, perceived usefulness, attitudes toward use, behavior to keep using. Sampling uses census sampling with 71 treasurer respondents. The method of data analysis uses SEM-PLS with software WAPLS 6. The results of the research obtained that the supporting infrastructure has no influence on non-cash transaction policies. Information systems affect the non-cash transaction policy. Supporting infrastructure affects information systems. .

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INTRODUCTION

Transactions conducted at the agency are currently undergoing a transition, namely from manual transactions to electronic transactions or more commonly referred to as non-cash transactions. In addition to increasing effectiveness, non-cash policies also encourage financial inclusion. Non-cash transactions, service users can directly access and use banking services (Djamaludin 2016, 153) .

In accordance with the initiative of Bank Indonesia and accompanied by the Minister of Home Affairs Circular No.910 / 1889 / SJ dated April 17, 2017 concerning the Implementation of Non-Cash Transactions at the Provincial Government and No. 0910/1867 / SJ dated April 17, 2017 concerning the implementation of Non Transactions Cash in the Regency / City Regional Government which explains the existence of a non-cash transaction policy on the Regional Budget system, especially regional expenditures.

In line with the preparation of non- cash transaction policies, there are several regions designated as pilot projects or testing projects for further policy. There are 12 districts / cities designated as pilot projects in Indonesia. One of the designated area is Semarang Regency.

Semarang Regency has begun to implement a non-cash policy starting in October 2017 starting at the Semarang Regency Regional Finance Agency (BKUD) which is armed with one EDC (electronic data capture) machine and 17 electronic cards that are handed over to the expenditure treasurer and treasurer of the spending assistant. In November the policy was expanded with implementation by several agencies in Semarang Regency. Implementation of the non-cash transaction policy in Semarang Regency is carried out in stages, which is carried out in October and November. There were several selected institutions appointed to implement the non-cash policy which was then carried out simultaneously in all institutions in Semarang Regency in December 2017.

The gradual policy implementation in Semarang Regency was initially implemented in eleven institutions, where eleven related institutions were designated institutions as a trial and representative from institutions in Semarang Regency.

Table 1. List of 11 agencies Policy Implementer Non-Cash Transactions In November

No.	Name of Agency
1	Ambarawa Hospital
2	Ungaran Hospital
3	Department of Population and Civil Registration
4	Service of Civil Service and Damage Unit
5	labor offices
6	Service Tourism
7	Regional Personnel Agency
8	Semarang District Secretariat
9	Ungaran Timur District
10	Ungaran Barat District
11	BKUD

Source : Semarang District BKUD

Non-cash transaction policy is a new movement, in its implementation it is necessary to adjust the new system from the old system. The Ministry of Home Affairs said there were seven strategies in implementing non-cash transaction policies, two of which were providers of goods / services (supporting infrastructure) and information systems.

Infrastructure is an important and main policy criterion. Considering that in the flood control system and optimizing thephysical building of infrastructure aspects is the main aspect because it will be directly related to the application of technical policies (Suseno and Sunarto 2011) .Information technology infrastructure (IT) is defined as a shared technology resource that provides a platform for detailed application of corporate information systems. IT infrastructure includes investment in hardware, software, and services, such as: consulting, education and training that is spread throughout the company or spread across all business units and companies.

The supporting infrastructure highlighted here is an EDC machine. The EDC machine is a data processing tool in transacting electronically. In 2017 there are 46 institutions and 11 of them are institutions chosen for the initial executor. Availability of supporting tools at institutions has a gap between target and realization.

Table 2 . Target Data And Realization Of EDC Machines In Semarang Regency In 2017

Name of Agency	Target	Realization
SKPD	46	46
UPTD Puskesmas	27	3
UPTD Education	68	2
total	141	51

Source: Semarang District BKUD

Supporting infrastructure is one of the resources in the non-cash policy and the availability of supporting infrastructure is closely related to the achievement of success. Policy implementation contains four important criteria, namely communication, resources, bureaucratic attitudes, and organizationalstructure. The availability gap will affect the implementation of the policy. With one factor being hampered, it will make the policy crippled and hampered (Haedar, 2010).

The indicator in seeing supporting infrastructure is quality and quantity. The quality of a tool or product can be seen through its dimensional approach. Availability of supporting infrastructure is one guarantee of the implementation of policies properly. In 2017 the EDC engine had undergone a change to review quality and update on the latest output.The replacement of the engine is related to the quality of the engine, on the other hand the quantity of engine needs is still not enough. With the non-cash transaction policy, it is expected that there will be a comprehensive transaction system from top to bottom governments. The lack of available machines must be an important focus in implementing the policy. Because quality and quantity influence each other in implementing policies.

Information system is a collection of interrelated aspects, with the presence of non-cash innovations, update in the field of technology which indirectly will cause a little change in procedures local government. Treasurer as a brainware needs to make adjustments and adaptations to non- cash transaction policies, especially there are additional devices in the transaction cycle. This fairly new non-cash transaction policy needs to be reviewed to see how the policies are achieved. The approach used in looking at information systems for non-cash transaction policies can be seen using the TAM approach (technology acceptance model) .

TAM Model divided into four, namely (1) perceptions of the ease of use, (2) perceptions of usefulness, (3) attitudes toward use, (4) behavior to keep using. TAM model by (Budiman and Arza 2013) punctuate computer user behavior, which based the belief , attitude , intensity , and the relationship of user behavior. Purpose of this study is to measure and analyze the influence of supporting infrastructure and information systems on non-cash transaction policies, the effect of supporting infrastructure on information systems. on the implementation in Semarang Regency to find out the process of implementing non-cash transaction policies held in Semarang Regency, where the existing analysis can be used as a reference to similar policies.

RESEARCH METHODS

The type of research used in this study is quantitative research. This research is used to examine certain populations or samples. This type of research is research to determine the relationship between the variables that are related. The method of collecting data using the questionnaire and documentation method

The data used in this study are primary data and secondary data. Primary data is used to directly observe the on non-cash transactions. While secondary data obtained from BKUD of Semarang Regency was used to support the validity of this study.

The population used in this study were all treasurers in 11 institutions in Semarang Regency, totaling 71 Treasurers. Sampling in this study using census sampling method or saturated sample.According to (Sugiyono 2015, 134) , saturated sampling is a sampling technique if all members of the population are used for the sample. This is done because the population is relatively small and generalizes small errors.

The data analysis method used is the SEM (structural equation model) method . The SEM method used is Structural Equation Model-Partial Least Squares (SEM-PLS) using WarpPLS 6.0 software .SEM method according to Santoso dalam (Harianto and Subagio 2013) is a multivariant statistical technique which is a combination of factor analysis and regression analysis (correlation). SEM aims to examine the relationships between variables that exist in a model, both between individuals. SEM here is a SEM-PLS. The SEM-PLS assumption can use a small sample size unlike the covariant-based SEM that requires researchers to use large sample sizes because SEM is a multivariant procedure requiring large amounts of data, for example at least 400. Conversely SEM-PLS does not require researchers use large amounts of data. Thus this procedure provides benefits for users when difficulties seek large amounts of data (Sarwono, 2012)

RESULTS AND DISCUSSION

The results of the study show that there is no influence of supporting infrastructure on non-cash transaction policies. The influence of non-cash transaction policy information system. The influence of supporting infrastructure on information systems.

The results of data processing using the SEM-PLS approach which is processed using WarpPLS 6 software shows the results of the influence of supporting infrastructure on non-cash transaction policies. The results of processing the data presented in table 3 are processed using WarpPLS 6.0 software , stating that the supporting infrastructure does not affect

the non-cash transaction policy. The results show that the p-value is 0.252 which is greater than the value of 0.05 so that the hypothesis Ho is accepted, where the hypothesis Ho is the supporting infrastructure does not affect the non-cash transaction policy.
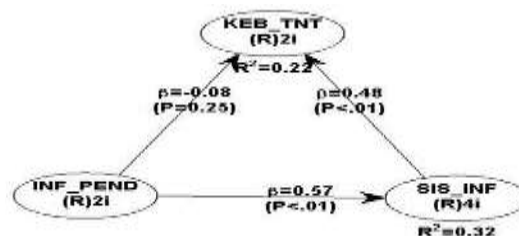
Picture 1. Data Processing Results of the Direct Effect Model
Source: WarpPLS 6.0 results, processed

The supporting infrastructure in this study is an EDC machine. In implementing policies, the facilities needed must support and be adequate for the sustainability of the applicable policies. The need for supporting infrastructure must be considered in terms of quality and quantity. Availability that meets infrastructure performance and is one of the keys to the success of the policies implemented.

Table 3. Output Path Coefficients Direct Effect Model Supporting Infrastructure for Non-Cash Transaction Policies.

	porting infrastructure	
	Path Coefficient	P-value
non-cash transaction policy	-0,078	0, 252

Source: primary data processed, 2018

The public policy theory proposed by Merille S. Grindle in (Ramdhani and Ramdhani 2017) suggests that the implementation of public policy is influenced by two major variables, namely: content of policy implementation of context (context of implementation) . These variables include: the extent to which the interests of the target group are contained in the

policy content, the types of benefits received by the target group, the extent to which the desired changes in a policy, whether the placement of the program is appropriate, and whether a program is appropriate, whether a policy has mention the implementation in detail, and whether a program is supported by adequate resources. Supporting infrastructure in (Pandey, 2014) states that supporting devices or facilities affect the financial performance of SKPD leaders in managing regional finance for the preparation of financial statements.This shows that the report produced is the output of a series of accounting cycle processes that produce financial statements.

In this study, supporting infrastructure has no influence on non-cash transaction policies. In the theory put forward by Merilee S. Grindle policy is influenced by whether the location of the program is appropriate. In accordance with the provisions stated that the minimum payment or transaction on the non-cash transaction policy is Rp. 2,500,000. Ten of the nineteen agencies that were the object of the research location were kelurahan. Transactions carried out at the kelurahan level are transactions classified as small-scale transactions. Small-scale transactions are carried out in cash, so that the use of EDC machines in the kelurahan can be classified as rare. In implementing the non-cash transaction policy, it cannot be implemented all because of the different needs of each agency.

Unlike the supporting infrastructure, the information system assessed using theTAM approach shows different result, as follows :

Table 4. Output Path Coefficients Model Direct Effect Information System for Non-Cash Transaction Policies

	Information Systems	
	Path Coefficient	P-value
non-cash transaction policy	0. 478	< 0.0 0 1

Source: primary data processed, 2018

The information system influences the non-cash transaction policy accepted based on

looking at the P-value. The test results using WarpPLS 6.0 software show that information systems influence non-cash transaction policies. The information system coefficient path is 0.478 and is significant at <0.001, where the p-value of the information system is smaller than 0.05.

The information system in this study was reviewed using the technology acceptance model (TAM) approach . The TAM concept developed by Davis according to Handayani in (Devi and Suartana 2014) offers a theory as a basis for studying user behavior in receiving and using information systems. In line with the research (Budiman and Arza 2013) regarding the TAM approach in the success of the implementation of regional management information systems which showed that perceptions of ease of use, perceived usefulness, perceived attitude towards use, and attitude to use remained a significant positive effect on the successful implementation of the SIMDA Application. SIMDA is a product of an information system to facilitate regional financial management at the SKPD level. One of the successes of the management came from an understanding of following the regional transaction flow from SIMDA, which was also reviewed by the TAM assessment. Therefore, understanding and using SIMDA applications by regional authorities will support the successful implementation of the SIMDA application in regional financial management.

TAM's theory according to Davis in (Agustian and Syafari 2014) TAM model is actually adopted from the theory of Reasoned Action (TRA) model, which is a theory of reasoned action with a premise that a person's reactions and perceptions of things will determine the person's attitude and behavior. The reactions and perceptions of IT users will influence his attitude towards acceptance of these technologies. TAM model developed from psychological theory, explains the behavior of computer users that is based on trust (belief), attitude (attitude), desire (intention), and the relationship user behavior (user berhaviour relationship). In line with previous research and the theories described above, the information system in this study shows a positive influence on

the policies implemented. The information system in this study is easily understood by users where the user is the treasurer. The information system is also in accordance with the needs of regional financial management. Treasurer still uses the information system because the benefits of the treasurer feel like saving time, money and energy. With the information system the treasurer feels helped by technology that develops on the public side, especially the management of regional finance.

Supporting infrastructure is the media or means of software applied and is an inherent place of software. The results of data processing using the SEM-PLS approach which is processed using WarpPLS 6 software, supporting infrastructure on the information system as follows:

Table 5. Output Path Coefficients Model Direct Effect Supporting Infrastructure for Information Systems

	Supporting infrastructure	
	Path Coefficient	P-value
Information Systems	0. 568	<0.001

Source: Primary data obtained, 2018

Influential supporting infrastructure on information systems received based on looking at the P-value. The test results using WarpPLS 6.0 software show that information systems influence non-cash transaction policies. The information system coefficient path is 0.568 and is significant at <0.001, where the p-value of the information system is smaller than 0.05. The hardware in this research is an EDC machine as a place for collecting data or information. In other studies, hardware is often interpreted as a computer for processing data. Hardware is one component that must exist in information systems. According to Bodnar and Hopwwod in (Rahadi 2007) states there are three things relating to the application of computer-based information technology, namely: hardware , software, and users. The three elements interact with each other and are

connected with an input-output- media device that matches their respective functions.

According to research (Pitriyani, et al. 2012) input and output function for computers to get information from the outside world, and put the results of their work there, can be physical (hardcopy) or non physical (softcopy). The function of hardware in the information system itself is to translate high-level language into machine language by using compilation (complier) and translators (interpreters) . Allocate computer resources to various applications through loading memory and providing access to data tools and files.

In the description states that hardware or hardware is one of the vital elements of an information system. With the problem or unavailability of hardware in the information system, there is no container or media to hold data and information. Hard device is a media for software to be or applied. Hardware is also a tool for users or brainware as a medium in processing information that will later become output output.

Benefits of Institution Non-Cash Transaction Policy in Semarang Regency, the non-cash transaction policy in the regional government which began in 2017 has benefits both for internal agencies and for the public. Internal benefits such as: Encouraging regional financial transparency and accountability, preventing the circulation of counterfeit money, preventing illegal transactions, realizing orderly administration of cash management (BKUD Semarang District 2017) . The benefits of non-cash transaction policies in general are as follows: building the culture of the community and business world to switch to using non-cash transactions, building and empowering small and medium enterprises (SME) business sectors, building a culture of shopping according to priority needs (BPKAD Kota Bogor 2017). Supporting infrastructure which is an EDC machine in this study has not been able to show positive results towards the implementation of non-cash transaction policies.

The results obtained are because the kelurahan unit has not been able to fully carry out

non-cash transactions because the amount of the transaction has not reached Rp. 2,500,000.00.

Non-cash transaction policies provide benefits felt by the apparatus which are measured by the TAM approach in accordance with the results of the analysis using WarpPLS which positive results. The TAM approach shows the results of information systems in accordance with the needs in regional financial management. Treasurer still uses the information system because the benefits of the treasurer feel like saving time, money and energy. With the information system the treasurer feels helped by technology that develops on the public side, especially in managing regional finance.

Non-cash transactions, the performance of the apparatus will be more effective and efficient. With the transition from manual to electronic, it will simplify the work and increase the productivity of the treasurer. Productivity is how to produce or increase the results of goods and services as high as possible by utilizing resources efficiently (Nasron and Astuti 2012) . With the presence of technological resources that are present in the transaction makes work easier and saves time. With the transition from manual to electronic, it will simplify work such as cutting down on time at work. When the treasurer needs to withdraw funds in a manual transaction then pay to a third party, in carrying out non-cash transactions, the treasurer conducts transactions by making a nominal transfer using the banking system.

CONCLUSION

Based on the results of the research and discussion previously described, it can be concluded that supporting infrastructure has no influence on non-cash transaction policies, information systems have an influence on non-cash transaction policies, and supporting infrastructure has an influence on information systems.

Non-cash transaction policies in local governments have benefits both for internal agencies and for the public. The implementation of the non-cash transaction policy in Semarang Regency has been carried out gradually and consistently. The role of supporting infrastructure has been fulfilled in various institutions, but the function cannot be fully utilized at the kelurahan level, but has not yet reached the minimum nominal for non-cash transactions.

In terms of the information system reviewed using the TAM treasurer approach, it benefited from the non-cash transaction information policy system with technology that developed on the public side, especially in regional financial management.

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