

RKM Monitoring and Evaluation System in the City of Magelang: Proposed Concept

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ABSTRACT

Local government such as Regional Development Planning Agency (Bappeda), holds an important role in budget management. For example Bappeda of Magelang City in Jawa Tengah. However, there are still several issues related to the distribution of the budget from Bappeda of Magelang City to the community. One of the issues is related to the large number of neighborhood associations (RT) managed by Bappeda, which the total is 1032 RT. The issues create a challenge in managing, distributing, and monitoring the budget effectively and efficiently. The Government of Magelang City created an Advanced, Healthy and Happy Community Empowerment Program or commonly called Rodanya Masbagia. Therefore, a monitoring system for the implementation of Rodanya Masbagia is needed for the community so that the use of funds is in accordance with the needs of the community. This system focuses on monitoring Community Needs Plan (RKM) managed by Bappeda of Magelang City, especially in managing a budget of 30 million rupiah per year for each RT. This study uses a qualitative method, including data and information collection, analysis, and observation. The sample consists of one neighborhood from each district in Magelang City, focusing on mapping the results of monitoring and evaluating programs and budgets. Therefore, the results of this system will enable Bappeda of Magelang City to monitor and evaluate the distribution of funds for each RT, ensuring compliance with the proposed plan. The business process in the optimize of SIMASBAGIA uses the Ward and Peppard Methods. Analysis is carried out using PIECES, Value Chain Analysis and Fishbone Diagram which provides a big picture of the problem in terms of various aspects. The result of this research is a proposed information system for more optimal monitoring and evaluation.

Keywords: Community Empowerment; Community Needs Plan; Monitoring System; Regional Government; Ward and Peppard Methods

INTRODUCTION

The government holds an important role in providing a budget to meet community needs. Based on the provisions in Article 30 paragraph (1) Government Regulation Number 17 of 2018 concerning Districts, the district/city Regional Government allocates a budget in the district/city Regional Revenue and Expenditure Budget (APBD) for the construction of Village facilities and infrastructure and community empowerment in the village (Peraturan Walikota Magelang Nomor 24 Tahun 2021 Tentang Pedoman Pelaksanaan Program Pemberdayaan Masyarakat Maju Sehat Dan Bahagia, 2021). Based on this, the Mayor of Magelang created an Advanced, Healthy and Happy Community Empowerment Program or commonly called Rodanya Masbagia.

Rodanya Masbagia is a program to encourage active participation and role of the community in development at the district level based in the Neighborhood Association (RT) area. Rodanya Masbagia was previously monitored by the Regional Planning and Development Agency (Bappeda). The City Government of Magelang has allocated APBD funds of Rp. 30.000.000 (thirty million rupiah) per year for each RT, so that the amount of funds

monitored is Rp. 30.960.000.000 (thirty billion nine hundred and sixty million). Through this program, the community can participate and play an active role in formulating their own needs through the preparation of a Community Needs Plan (RKM). RTs receive an allocation of funds that are used to meet community needs, funding programs and activities at the RT level or a combination of RTs in one Citizens Associations (RW). according to the needs and proposals of the community.

Bappeda is the regional technical agency responsible for conducting research and regional development planning. Bappeda functions as an institution that directs, coordinates and supervises development activities in the regions and ensures that these development activities are in accordance with the vision and mission of regional development (Setianingsih et al., 2014). Through programs planned by the government of Magelang City, Bappeda holds an important role in ensuring that these programs are realized properly. One of them is the mayor's flagship program, Rodanya Masbagia through the RKM submitted by the RT.

In the current era of digitalization, information can be easily obtained. Almost all activity sectors use information systems in achieving the vision and mission of the organization or activity (Prayogo et al., 2021). Information systems have the ability to provide accurate data in terms of time, reduce the possibility of errors and risks, produce greater productivity, increase efficiency and effectiveness of time and cost (Veronica & Sari, 2017). Beside that is not much different from the government of Magelang City which has implemented an information system in several parts of the organization (Wilmar & Krisnanik, 2021). One of them is the Office for Community Empowerment, Women, Child Protection, Population Control, and Family Planning in Magelang City (DP4KB) which implements an information system as a convenience in community services. One of the sub domains created by DP4KB as an innovation to support the implementation of community empowerment program is the Rodanya Masbagia information system (SIMASBAGIA). SIMASBAGIA which can be accessed at the address <http://simasbagia.dp4kb.magelangkota.go.id/>. This system will present program implementation data as well as a means of outreach to the public as a form of accountability and transparency in the implementation of Rodanya Masbagia. Apart from being a means of socializing the program, SIMASBAGIA is also a provider of RKM data.

An organization has a main target in implementing their IT/IS. In the information management process, automation is needed to help work efficiency (Giri Prawiyogi & Solahudin Anwar, 2021). However, SIMASBAGIA's performance has not been maximized and has not been automated, and cannot even be called an information system. SIMASBAGIA is more similar to an online repository because it only consists of links connected to Google Drive in the system. The Google drive contains one of the RKM monitoring and evaluation excel files. SIMASBAGIA does not yet have an active system role that can be used by many users, easily accessible, easy to use and informative. The system seems not ready to use. The impact of the SIMASBAGIA condition that has not been maximized is the decreased effectiveness in conducting monitoring and evaluation of the RKM. Even though there have been attempts to establish an information system to support Rodanya Masbagia, this has remained ineffective.

The proposed information system is expected to facilitate monitoring and evaluation of the Community Needs Plan by Bappeda of Magelang City. So that the Bappeda gets direct feedback from the RT and easily checks the conformity between the proposed RKM implementation and the contract given by Bappeda. In order to achieve the research objectives, several research questions that will be answered through this research are:

- (1) How to optimize SIMASBAGIA which is more effective and integrated in assisting RKM monitoring and evaluation?
- (2) How are the business processes in SIMASBAGIA development more effective and integrated in assisting RKM monitoring and evaluation using the Ward and Peppard Methods?

The results of this study are expected to be able to develop an existing system into an effective and efficient system in monitoring and evaluating RKM by Bappeda of Magelang City. The use of the Ward and Peppard Methods, especially on factors that impact on the organization (internal and external) which are carefully evaluated to achieve the formulation of new strategies in information systems and information technology (such as portfolios). This research can produce strategic plans that are able to provide suggestions or solutions for more effective and efficient development and implementation in an organization (Agnes & Wijaya, 2020).

LITERATURE REVIEWS

This research uses the Ward and Peppard Methods with a qualitative approach. This method has a match in designing strategic planning of information systems because the Ward and Peppard Methods has the aspects needed in designing strategic information systems that are effective and efficient (Nainggolan et al., 2022). The Ward and Peppard Methods is used because it has a complete and transparent framework. This method emphasizes the business needs of the organization (Prasetyo & Wijaya, 2021).

Ward and Peppard Methods has several tools such as Value Chain Analysis, Fishbone Diagram and PIECES Analysis. Value Chain Analysis is a strategic analysis to build value for the organization to be more creative and innovative so that the organization's vision and mission are achieved (Prayogo et al., 2021).

Fishbone diagram can be used as a precise visual representation of a phenomenon that identifies the problem from various cause-and-effect factors and how they are interconnected (Coccia, 2018). The problem will be broken down into a number of related categories including people, materials, machines, procedures, policies and others (Benny, 2018). Fishbone diagrams are very useful in quality improvement because they can visualize the roots of many problems into a simple format (Kurnia & Irawan, 2019).

The use of PIECES tools as a system analysis and evaluation is carried out in detail and comprehensively, obtaining results in the form of advantages and disadvantages of the system and can be identified and used as a reference for future development (Kinanti & Dwi, 2021). Qualitative approach is a type of research that aims

to create a description and relationship between the phenomena being investigated (Maryus, 2021). Qualitative makes it easier for writers to find data by analyzing the results of interviews from parties involved in the research (Erwinsyah et al., 2020).

Empowerment can be interpreted as a delegation or granting of power that will produce a hierarchy of power in order to be able to manage existing potentials to be utilized as well as possible (Dianti & Effendi, 2019). Community empowerment is an effort to improve the skills and potential of the community so that they can maximally realize their identity, human dignity, survive and develop independently in the social, economic, religious and cultural fields (Maison et al., 2022). Community empowerment programs lead to one goal, namely for the welfare of the community. Community welfare can be achieved if people are able to fulfill their basic needs (Yefni, 2018).

Monitoring can be explained as awareness of what one wants to know, high-level monitoring is done in order to make measurements through time that show movement towards the goal or away from it (Aditya et al., 2021). The monitoring system is a system used to collect data in real time from various sources which functions as a supervision of the stages of the activities carried out (Wilmar &

Krisnanik, 2021). Monitoring is incomplete without evaluation (Aditya Wijaya, 2018), because evaluation can use data provided through monitoring activities (Jaya et al., 2018). Evaluation relates to the results of information about the benefits of a policy that has been carried out. Through this evaluation activity, it can be used to review how well the activity program is carried out and how to develop it in the future.

METHODS

In this study will use the Ward and Peppard Methods. In conducting research, systematic steps in collecting information or data are very important to achieve research objectives and obtain knowledge or truth (Meitarice et al., 2022). One of the most frequently used research methods is the qualitative method, which utilizes interviews and observation as a means of collecting data (Agustina, 2021).

In this study, a qualitative method was used by conducting interviews and observations at Bappeda Office of Magelang City. The results of using this method will provide a deeper understanding of the problems faced by the organization and help find the right solution to overcome these problems. The research methodology carried out can be seen in Figure 1.

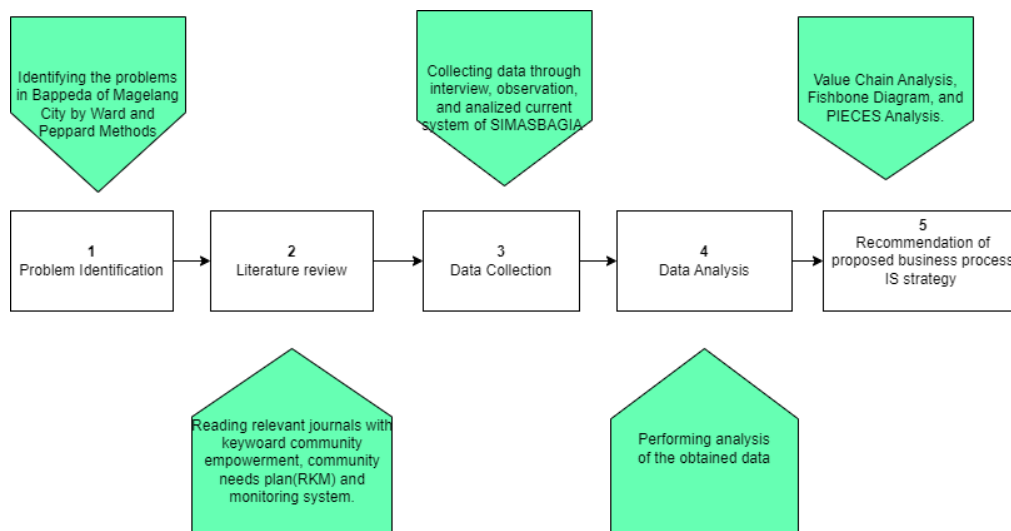


Figure 1. Research Methodology

In order to achieve the research objectives, the concept of analysis and research design uses the Ward and Peppard Methods which involve structured and interrelated steps. The first stage in this research is to identify the problems that exist in Bappeda of Magelang City, with the aim of knowing and identifying the problems that are being faced.

The second stage is to conduct an in-depth literature study with a focus on understanding the Ward and Peppard

Methods. In this stage, information search will be carried out from various sources that are relevant and related to this research, such as journals, articles, books, and other related documents. By doing this stage, it is expected to enrich the researcher's knowledge and understanding of the problem at hand and broaden the horizons in conducting research.

The third stage of the research process was data collection using observation and interview techniques at Bappeda of

Magelang City to obtain primary and secondary data. Interviews and observations were carried out to ascertain the problems that are currently happening at Bappeda to be analyzed whether they are suitable strategy. The proposed interviews were conducted with related parties at Bappeda of Magelang City Such as officials, employees and staff to gain a deeper perspective and understanding of the problems at hand. In addition, observations were also made to see firsthand how the system and work processes are taking place at Bappeda of Magelang City. This will assist in obtaining a more accurate picture of the situation at Bappeda and obtaining more valid data.

The fourth stage, namely data analysis. Data analysis of available primary and secondary data (Primadewi & Hanafi, 2020) will be analyzed using framework PIECES, Value Chain Analysis and Fishbone Diagrams. PIECES analysis

is used because this model can easily analyze from various reas, starting from performance, information, economic, control, efficiency and service (Nulhakim et al., 2018). Analysis data aims to present information that is more structured and easily understood by researchers and related parties. The results of the data analysis will be used to formulate conclusions and recommendations for improving the information system at Bappeda of Magelang City. The fifth stage is the recommendation of IS business process strategy proposals resulting from Value Chain Analysis, Fishbone Diagram, and PIECES Analysis which can be implemented.

The flow carried out in the Ward and Peppard Methods is shown in Figure 2.

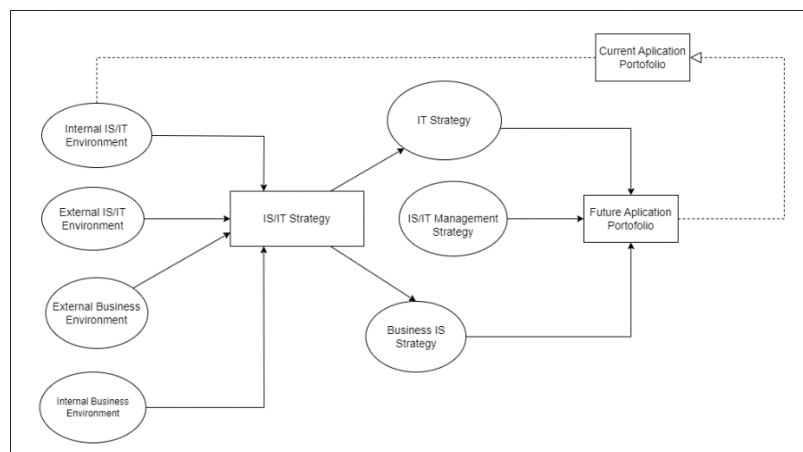


Figure 2. Ward and Peppard Information Strategy

RESULTS AND DISCUSSION

A. Problem Identification and Literature Review

The City Government of Magelang has a vision and mission that is the direction of goals in sustainable urban development. The vision and mission are spelled out in several work programs that are well structured, so as to produce optimal output in public services and infrastructure development. These work programs continue to be developed in an integrated manner and are aligned with the long-term development plan and the vision and mission of the City of Magelang government.

The vision of Magelang City is "Meeting the basic service needs of the community to improve the quality of human resources." As for the mission, it is to improve empowered and sustainable community development (1). Realizing good and innovative governance (2). Improve the quality of services in order to create advanced and sustainable regional development (3). Carry out monitoring and evaluation

activities of community needs so that they continue to develop better (4).

This vision and mission does not only cover physical development alone, but also involves better social, economic and environmental development for the benefit of society and the city of Magelang as a whole. In an effort to achieve this vision and mission, the Bappeda of Magelang city assists the mayor in realizing the Rodanya Masbagia. Through the Bappeda of Magelang City that the RKM budgeted in each RT is 30 million per year can be realized properly.

B. Data Collection and Data Analysis

The research was conducted by conducting interviews and direct observation with Bappeda of Magelang City to identify problems related to RKM monitoring and evaluation. The list of questions can be seen on Table 1.

Table 1. List of Questions

NO	Questions
1.	What are the main activities in Bappeda of Magelang City?
2.	What are the supporting activities in Bappeda of Magelang City?
3.	What is the current RKM monitoring and evaluation process?
4.	When do monitoring and evaluation usually take place?
5.	How long will the RKM monitoring and evaluation take?
6.	Has there been an information system before?
7.	What is the system performance like?
8.	Is the system effective enough to use?
9.	Can Bappeda immediately find out the RT's response regarding contracts that have been handed down?

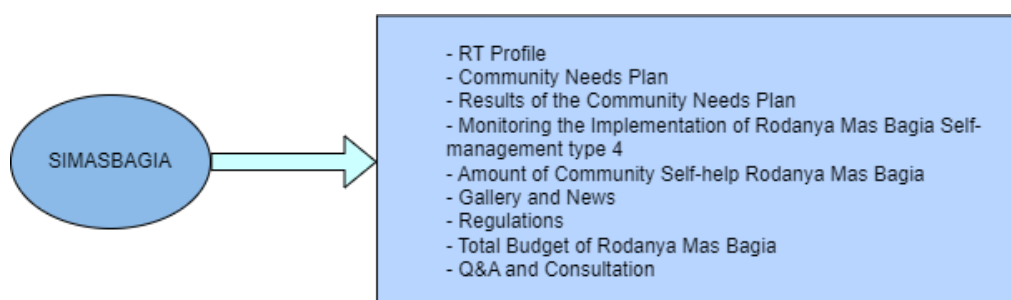


Figure 3. Current SIMASBAGIA Features

The current SIMASBAGIA system can be seen in Figure 3. First, RT profile contains real data on regional and population conditions which are presented in detail. This data covers 1,032 RTs, 17 Villages and 3 Districts in Magelang City. Second, RKM that contains a recapitulation of the types of activities and the amount of proposed RKM for each village that has been proposed. Third, Results of the Community Needs Plan contains details of the RKM results that have been realized for each RT in Magelang City. The results of this RKM come from regional apparatus or Regional Organizations (OPD) Rodanya Masbagia so that the public can know the benefits and magnitude of the realization of the RKM. Presented data updated everyday.

Fourth, Monitoring the Implementation of Rodanya Masbagia Swakelola Type 4. This feature is used to find out the progress of the implementation of Rodanya Masbagia in urban villages in the city of Magelang on a self-managed type 4 basis. Percentage of financial realization and financial accountability achievements carried out by each community group (Pokmas). The data presented is updated every day. So that the public can find out how far the implementation of Rodanya Masbagia carried out in the village. Fifth, Total Community Self-help Rodanya Masbagia. The community can find out the amount of community self-help in Rodanya Masbagia

every sub-district. Recapitulation of community self-help at the district level up to the city level.

Sixth, Galleries and News that contains links from online mass media and news publications written by community empowerment companions or facilitators in each sub-district. So that the public can find out the publications or results of Rodanya Masbagia has already been implemented. Seventh, Regulations that contains laws and regulations related to Rodanya Masbagia and socialization materials for the Magelang city government to the community as well as training materials for facilitators for Rodanya Masbagia.

Eight, Total Budget Rodanya Masbagia contains the amount of the Rodanya Masbagia. Through this feature, the public can find out the amount of Rodanya Masbagia every year in the Magelang City APBD starting in 2021 and 2022. Ninth, FAQ and Consultation. This feature is an interaction tool for community consultation with the Rodanya Masbagia directly connected to the official's WhatsApp contact. In this case, the Head of the DP4KB Community Empowerment Division for Magelang City, the Head of Magelang City Administration, the Head of Procurement of Goods and Services for Magelang City.

C. Recommendation of proposed business process IS strategy

The results of the review of interviews, observations, and analysis of the current SIMASBAGIA system, in this study are described using Value Chain Analysis, Fishbone Diagram, and PIECES Analysis in details below.

(1) Value Chains Analysis

This analysis is used to identify which activities have value within Bappeda. This analysis describes all activities in Bappeda, both main activities and supporting activities. Here are the results analysis value chain obtained from interview results which can be seen in Figure 4.

The **Main Activities** of Bappeda of Magelang City can be explained as follows. First, Regional Condition Analysis. Bappeda conducts a thorough analysis of regional conditions and potential. This includes data collection, Third, Implementation of Regional Development Programs. Bappeda is involved in the implementation of planned development programs. Bappeda cooperates with related parties to carry out activities development. Fourth, Reporting, Bappeda conducts periodic reporting regarding the implementation of development programs to the mayor of Magelang. Reporting includes information on program achievements, budget usage, constraints encountered and results achieved.

Fifth, Monitoring and evaluation. Bappeda conducts monitoring and evaluation activities on the implementation of development programs. Bappeda monitors the progress, performance and impact of the implemented programs and evaluates them success achievement of objectives development. The results of monitoring are used to identify problems, make improvements, and take the necessary steps to improve effectiveness and efficiency of development programs.

The **Supporting Activities** of Bappeda of Magelang City can be explained as follows. First, Public Service Management. Bappeda is involved in coordinating and

mapping of social, economic, environmental and infrastructure conditions, as well as analyzing development challenges, opportunities and needs in the City of Magelang. Second, Regional Development Program Planning. Bappeda is responsible for formulating a comprehensive and directed development program plan based on an analysis of regional conditions. Bappeda identifies development priorities, sets goals, strategies and activities to be implemented to achieve the goals.

managing the provision of basic services to the community. Public service management activities by Bappeda include development planning, resource and budget allocation, program implementation monitoring and evaluation to ensure quality and sustainable public services for the community. Second, HR Management. Bappeda has responsibility for the management and development of Human Resources (HR) in Magelang City. Bappeda is involved in planning, training, skills development and monitoring human resource performance in related sectors to improve workforce quality and productivity.

Third, Management of Information Technology. Bappeda carries out information technology management activities which include management of information systems, IT infrastructure, and utilization of information technology in supporting the process of planning, developing and implementing programs at Bappeda. This aims to improve efficiency, transparency, and accuracy in managing data and information. Fourth, Procurement of goods and services. Bappeda is responsible for the procurement of goods and services needed to support planning and development activities.

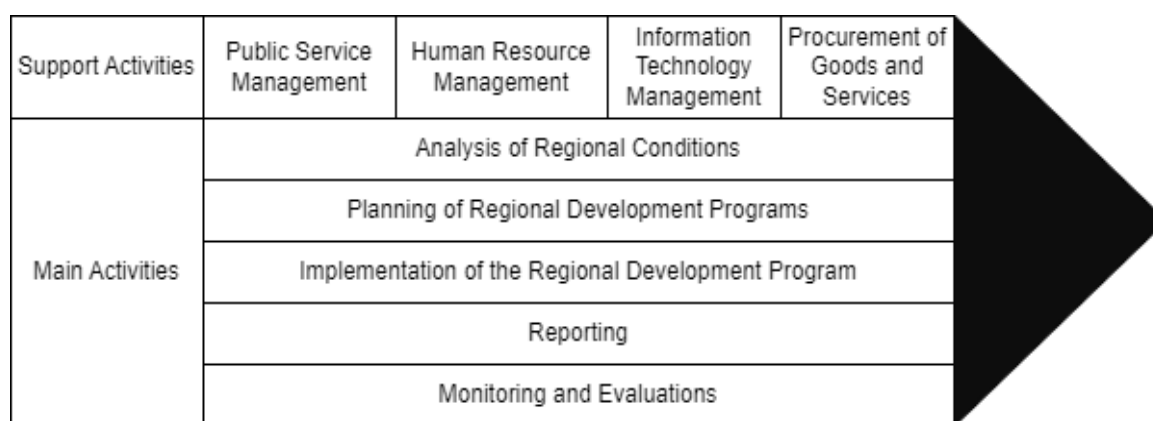


Figure 4. Value Chain Analysis of Bappeda of Magelang City

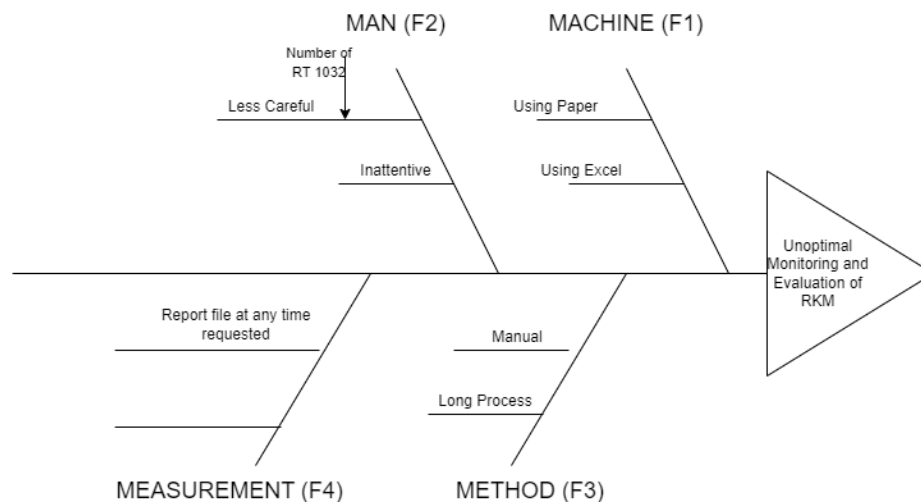


Figure 5. Fishbone Diagram

(2) Fishbone diagrams

After knowing the activities in Bappeda, the purse based on the issues to be raised, namely regarding monitoring and evaluation. More specifically the monitoring and evaluation of RKM in the City of Magelang. Analysis of the factors that influence the monitoring and evaluation of RKM in Magelang City is not optimal using the Fishbone diagram which can be seen in Figure 5.

In the fishbone diagram, it can be seen that the factors that influence monitoring and evaluation of RKM are not optimal. These factors can be explained as follows:

- Machine (F1)

After deeper analysis, RKM monitoring and evaluation still uses paper. The RT collects the report in paper form and then submits it to the sub-district and transfers it to the form excel. But in reality, even though it is copied into excel it does not make monitoring easy and effective because the data is too small imputed from 1032 RT.

- Man (F2)

The next factor is human. Because reporting is still manual using paper and then inputting it in excel, there is a risk of erroneous data occurring due to human negligence. Paper form data piled up and it is not immediately inputted it is also prone to loss.

- Method (F3)

The method used in monitoring and evaluation is still manual and has a long process. The RT reports to the sub-district, then the sub-district submits it to the district and finally to Bappeda. This made Bappeda not receive data in real time from each RT and made monitoring not optimal.

- Measurements (F4)

The reporting time for the RT is not specified. The sub-district can at any time request a report file to be submitted to the district. This can have an impact on report files being made up or report files not being available because they are needed at any time.

Rodanya Masbagia is a work program created by the Mayor of Magelang to achieve the vision and mission of the Magelang city government. Through the results of interviews and observations with Bappeda, it is known that this program has been equipped with an information system that can facilitate the community and government in planning, monitoring and evaluating RKM.

However, after analyzing SIMASBAGIA, it appears that the system cannot be categorized as a reliable and effective information system. This system is still not able to provide its active role as a system that can be used by many users, easily accessible and not yet fully ready to use. After further research and analysis, it is known that Rodanya Mas Bagia's information system still requires further development so that it can be used optimally by the community and the government. Apart from not being multi-user and easily accessible, the system also does not yet have sufficient features to monitor and evaluate RKM, and is not well integrated so that it is unable to communicate effectively with each section. Therefore, efforts are needed to develop and improve the Masbagia information system so that it can meet the needs and demands in planning to monitoring and evaluating RKM. As a result, these data are not connected to each other effectively and efficiently. Without proper integration,

Bappeda stated that they did not yet have a clear policy in managing human resource development to deal with the implementation and development of IS/IT. This is due to a lack of understanding on the part of management regarding

the development of IS/IT, and the absence of a section or individual specifically responsible for the maintenance and development of IS/IT. In the long run, this problem can have an impact on a lack of ability to solve problems related to IS/IT, as well as experiencing difficulties in developing IS/IT in the organization as a whole. Therefore, a strategy that is more organized and responsive to this problem is needed to ensure optimal IS/IT development in the future.

(3) *PIECES Analysis*

The results of the interviews were conducted by asking several questions to the next Magelang City Bappeda employees analyzed using PIECES analysis. The following results of the analysis using PIECES can be seen in Table 2.

Table 2. Table of PIECES Analysis

	Running System	Proposed System
Performance	The performance of the current system is still not optimal because the recording uses paper. (P1)	Input/check the proposed RKM according to the contract from BAPPEDA.
Information	Information or feedback from RTs that BAPPEDA receives for monitoring and evaluation is very slow because it has to be done in stages from RT-Kelurahan-District-City (BAPPEDA). (P2)	RT uploads pictures of activities and gives ratings.
Economics	Because reporting from the RT still uses paper, it is necessary to pay a fee to buy the paper. (P3)	Planning, contracting and monitoring files can be viewed from each RT's system, eliminating the need for physical documents. The files can be downloaded and printed if needed. This will minimize the use of paper.
Control	As a result of reporting using paper, there is a risk of data being lost, irregular and the data input process becomes very long. (P4)	Create a system that can save data directly to the database.
Efficiency	The impact of the long reporting process is that it takes a long time to process data so that human errors can occur during data collection. (P5)	Create a monitoring feature with a certain period of time.
Service	Monitoring and evaluation system services from BAPPEDA are not maximized because BAPPEDA does not receive real-time information due to the lengthy process. (P6)	Create an online RKM monitoring and evaluation system so that it can be accessed anywhere and anytime.

- **Performance**

In accordance with the results of previous interviews, in the PIECES analysis the symbol P1 states that the performance of the current system is not optimal because recording still uses paper. This corresponds to the symbol F1 in the image in the fishbone diagram. The risk of collecting physical files is that they are prone to loss or damage and cause the data obtained is incomplete. This can result in an RKM evaluation that does not go well. The impact of this is that the RKM evaluation is disrupted. Plans for Community Needs that should or should not be held have become chaotic. In addition, Bappeda did not know for sure whether the contracts they handed down were appropriate or not and Bappeda's main activities in terms of monitoring and evaluation were not achieved properly.

- **Information**

The symbol P2 states that the information obtained by Bappeda from RT is not real-time and is relatively slow because it goes through a long process. This corresponds to the symbol F1 on the fishbone diagram. With the gradual collection process, there is a risk of street fraud. Although it is not certain how many, but it certainly will influence evaluation of the existing program if the contracts that are lowered are different from those reported. This can happen

if there are humans error, as indicated by the symbol F2. The number of RTs managed is more than a thousand.

- **Economics**

In symbol F1, reporting from RT still uses physical documents, which will certainly cause a waste of money because they have to buy paper again. Funds that could have been saved are used to buy paper that is only used once.

- **Control**

In addition to data prone to loss and human occurrence error at the time of data collection, controlling the physical report file is not easy. The data will be stored and archived. Stacking up a lot of paper if left unchecked will take up space and make the place look full. Maintenance of these files is not certain how long. If observed in symbol F4, reporting can be done at any time depending on the sub-district. This makes control over the collection of report files erratic and can happen at any time even without proper preparation.

- **Efficiency**

Analysis on symbol P5 is not much different from the factor symbolized by F3, where data collection is manual and goes through a long process as mentioned in the previous explanation. This is also related to the F2 symbol, where the RT data is more than a thousand and if it is done manually it will be inefficient.

- Service

To achieve ease of access to SIMASBAGIA, the system needs to be improved. This research is focused on improvement SIMASBAGIA in the RKM monitoring and evaluation section. Through improving the quality of this information system, Bappeda in running Rodanya Masbagia will be made available to the public in a convenient, efficient and transparent manner.

The optimization of the RKM monitoring and evaluation system will be directed at bridging communication between Bappeda and RTs. This information system is directed to support community empowerment in Magelang City, namely by:

- Monitor the approved RKM whether it is in accordance with what the RT has submitted.
- Monitoring the extent to which the progress of the RKM is being implemented.
- Evaluating RKM for future improvements to make it even better.

Some of the proposed information system proposals:

(1) Contract Features

This feature displays contracts approved by Bappeda. The RT can see on each device regarding the agreed contract.

(2) RKM check feature according to the contract

After the RT got the contract, it was followed by opening the RKM that was previously submitted. Then adjust the proposed RKM with the approved RKM. Check the same sections, then if it's advanced save the data. To avoid ticks, the Bappeda can validate it before the RKM is continued to be implemented.

(3) Monitoring feature

If Bappeda has validated the results of the RKM input by the RT, then the RT can then choose which activities to monitor over a quarterly period, quarter or per semester. After selecting the time, the RKM will be divided according to the selected time. If the number of RKM is 12 and is carried out quarterly, then reporting from January to April is 3 RKM. And so on. Every quarter they will report the extent of their activities and how the results. If during the quarter the activity has not been completed, the RT can select "continue" on the report menu. That way, Bappeda can get reports from RTs directly after the RKM is completed without having to go through a lengthy process.

(4) Ratings feature

The rating feature can be used when the activity has been completed and reports the final results obtained. Are the activities carried out correctly according to the contract and

As a result of the symbolized analysis from P1 to P5, Bappeda's services to RTs are not optimal.

is the RT satisfied with the contract? This was made to avoid fraud when Bappeda felt that it had provided sufficient funds for the RKM but when reporting, the results were inconsistent and this was proven by documentation. Then Bappeda will be able to easily find out which Pokmas are having problems. Because the funds disbursed cannot go directly to the RT, but through the Pokmas. So, if what is provided by Bappeda is not appropriate, it will be easy to track down which Pokmas are having problems. This feature will also be made computation also that in the future it can be used as a reference in evaluating the RKM that is already running.

(5) Documentation upload feature

To prove how compatible the contract from Bappeda is with the proposed RKM, at the end of the activity you are required to upload evidence or documentation. This is done to avoid cheating.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the research, it can be seen that SIMASBAGIA can be developed to be more effective and maximized and integrated in assisting the monitoring and evaluation of RKM using the Ward and Peppard Methods. The data from the interviews were analyzed using PIECES, Value Chain Analysis and Fishbone Diagram which provides a big picture of system problems in terms of various aspects. The business process in developing SIMASBAGIA using Ward and Peppard Methods can be done by following the steps described in this research.

The future suggestion for this research is to implement the results of the proposed system so that it can benefit the organization. In addition, research can also be carried out using different methods and analysis to obtain better and more accurate results.

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