



## **SI/IT Strategic Planning Using Ward and Peppard Method on Secretariat of Salatiga City Regional People's Representative Council**

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### **Abstract**

Secretariat of Salatiga City Regional People's Representative Council is a regional apparatus that has the task of assisting the implementation of the functions and duties of the Regional Government. Secretariat of Salatiga City Regional People's Representative Council has also played an active role in implementing information systems in its business processes, but the use of existing information systems has not been maximized. Its cause performance has not run effectively and efficiently. Therefore, it is necessary to plan a good information system strategic planning. In this research using the Ward and Peppard method starting from conducting a SWOT analysis to find out the weaknesses and strengths of the organization eventually it can face threats from outside the organization, Value Chain Analysis, and business strategy recommendations. This research will produce an application portfolio in the form of a McFarlan Strategic Grid, which will describe the information system needs that will become an information system strategic planning that will be implemented within 3 years.

**Keywords:** Information System, Strategic Planning, Ward and Peppard, SWOT, Regional Secretariat

### **1. PENDAHULUAN**

Information technology is growing rapidly over time. With the advancement of information technology, it provides all parties with a very wide source of information and communication, it makes the parties who use it able to produce quality information, namely relevant, accurate and timely information [1]. However, along with the development of this information technology, companies or organizations are required to always carry out the development or construction of information systems. So that it can increase the value and competitiveness of the company.

The Secretariat of the Regional People's Representative Council (known as DPRD) of Salatiga City is a regional apparatus that is responsible to the Leader



of the Salatiga City DPRD. The Secretariat of the Regional People's Representative Council of Salatiga City has the task of organizing secretarial and financial administration, supporting the implementation of the duties and functions of the DPRD, and providing and coordinating the experts needed by the DPRD in carrying out its rights and functions in accordance with needs [2]. At the Secretariat of the Regional People's Representative Council of Salatiga City, the implementation of the existing information system and information technology is considered not optimal [3]. For example, the information system used by its use has not been maximized. The Secretariat of the Regional People's Representative Council of Salatiga City already has a website as a place for public information, but it is still rarely used. So that the existing information becomes less updated. As a regional apparatus that accommodates the aspirations of the community, the Secretariat of the Regional People's Representative Council of Salatiga City does not yet have an information system to accommodate the aspirations of the community. The lack of human resources in the IT field is also a factor in the lack of application of information systems.

Strategic Planning information systems in an organization is a long-term planning in which there are periodic changes in a certain period in response to increased needs and public services [4]. Therefore, in this study, strategic planning of information systems was carried out to optimize the information system and information technology in the Secretariat of the Regional People's Representative Council of Salatiga City. The output of this research will be in the form of a portfolio of information system cadets that are in accordance with the needs of the Secretariat of the Salatiga City Regional People's Representative Council.

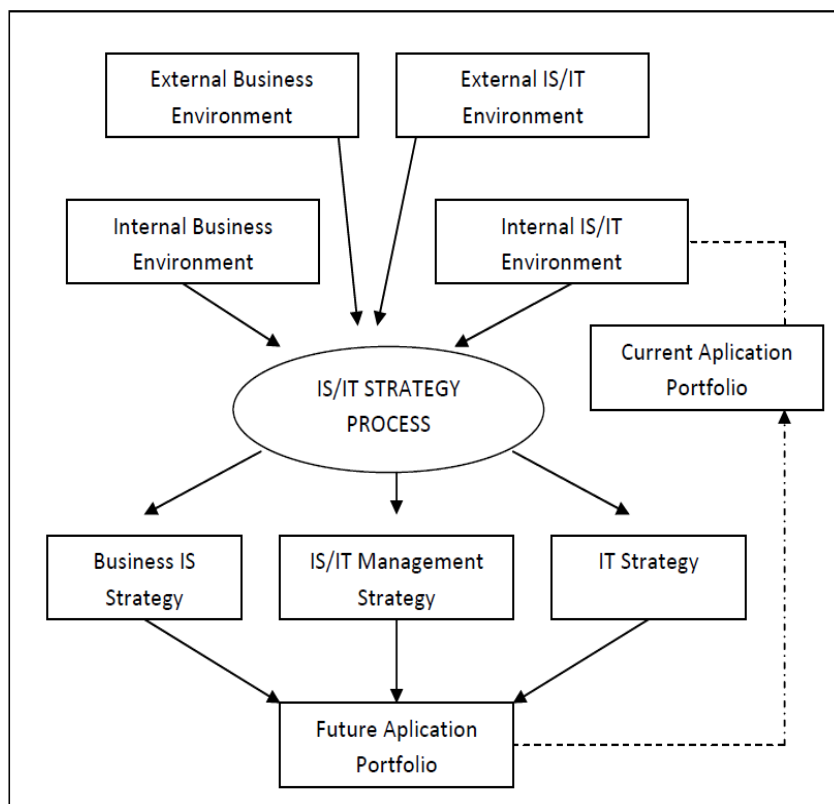
In the previous research conducted by Shania Arum Destyarini in 2021 concerning Strategic Planning of the Information System at DISPERINAKER Salatiga DISPERINSKER Salatiga in developing the process of optimal SI / IT performance [5]. Another study conducted by Monice Frensa Johannis on Strategic Planning of Information Systems using the Ward and Peppard method on CV. Grafika Mitra Ambon [6]. Another research conducted by Melisa Ervina on Strategic Planning of Information Systems at the Population and Civil Registration Service of Tomohon City. This research resulted in a strategic design of an information system at the Population and Civil Registration Service of Tomohon City that is in line with the goals and vision and mission of the organization in improving the quality of population administration services [7].

## 2. METHODS

In this study, the author used a qualitative method consisting of interviews and direct observations. Qualitative method is a method that uses an analytical approach to describe the situation that occurred at the time the study was carried

out [8]. Before conducting an interview, the author first enriches the material related to the profile of the organization. So that later this material is used as a reference in making interview questions. This interview aims to get more detailed information. In addition, direct observation is also carried out to find out the conditions of the business environment. In this study, the author chose a qualitative method because he felt that the information, he got was more accurate. In this qualitative method, the respondents interviewed were employees of the organization so that they knew the true condition of the organization.

In this study the authors used the Ward and Peppard methodology. This methodology was put forward by Ward and Peppard [9]. This methodology was chosen because of the mapping between information systems and information technology. This makes it easier for SI/IT strategies to be understandable. Where in this methodology, a portfolio of applications will be generated which will later be used by the organization to maximize performance in the future [10]. The following is a Ward and Peppard scheme:



Gambar 1. Skema Strategis SI/IT Ward and Peppard

The Ward and Peppard method are divided into 2 stages, namely the input and output stages. Here are the stages in the Ward and Peppard method:

1. Input Stages

At the input stage, there are 2 analyses carried out to identify the organizational environment, which are as follows:

- a. Analysis Internal/external business environment
- b. Internal/external SI Environment Analysis

2. Output Stages

At the output stage, there are several analyses carried out to make strategies that can overcome problems at the input stage, namely as follows:

- a. SI business strategy
- b. SI management strategy
- c. IT Strategy

As for the stages of the research carried out, it is as follows:

1. Problem Identification

It is the initial stage that is carried out. At this stage, the author makes an overview of the problems and needs that are being experienced by the Secretariat of the Salatiga City Regional People's Representative Council. This problem was obtained from the results of interviews with related parties.

2. Literature Studies

This stage conducts a study of books related to research, previous research, and relevant articles. So that it can enrich the author's reading resources for reference materials in this study.

3. Data Collection

This stage the author first asked the Kesbangpol for research permission to carry out data collection. After obtaining permission, the author conducts interviews and observations directly. Interviews were conducted with 1 Staff in the field of Computer Institutions and 1 Staff in the general field.

4. Data Analysis

This stage the author performs an analysis of the data set that has been generated from the interview and observation process that has been carried out. The existing data is then processed into useful information with SWOT and Value Chain analysis, so that it can be used as a source for preparing Strategic Planning.

5. Preparation

This stage begins to compile strategic planning from the data that has been processed. At this stage there are several analyses carried out to produce documents from this study, namely the application portfolio. In the creation of the portfolio the author used the analysis of McFarlan Strategic Grid.

### 3. RESULT AND DISCUSSION

The following are the stages of preparing the strategic planning of the information system at the Secretariat of the Regional People's Representative Council of Salatiga City.

#### 3.1 Analysis Internal/external business environment

Analysis of the internal and external business environment is the first step taken to make strategic planning. In the analysis of the internal and external business environment, swot methods (Strength, Weakness, Opportunity, Threats) are used.

A SWOT analysis is carried out to find out 4 important factors that the organization has. The first is to know the strengths possessed by the organization, so that it can overcome threats from outside. Secondly, to find out the weaknesses that the organization has, so that it can be corrected for the better. Third, to find out the opportunities possessed, to determine strategies to increase competitiveness [11]. Fourth, to find out the threat from the outside, so that it can be avoided.

**Table 1.** SWOT Analysis

<b>Strength (S)</b>	<b>Weakness (W)</b>
<ol style="list-style-type: none"> <li>1. There is support from local governments</li> <li>2. The position of the Salatiga City DPRD office located in the city center is very strategic for the advancement of information systems.</li> <li>3. Employees already know their respective duties and authorities so that they can speed up decision making</li> </ol>	<ol style="list-style-type: none"> <li>1. The curator of state civil apparatus who an expert in handling information systems and information technology is</li> <li>2. The absence of an information system to deal with the aspirations of the community</li> </ol>
<b>Opportunity (O)</b>	<b>Threats (T)</b>
<ol style="list-style-type: none"> <li>1. The rapid development of Information Systems</li> <li>2. The existence of an information system can make it easier for people to convey their aspirations</li> </ol>	<ol style="list-style-type: none"> <li>1. People don't know how to convey aspirations</li> <li>2. Information not conveyed to the community</li> </ol>

The description for the SWOT analysis is as follows:

**Strength**

1. There is support from local governments to develop information systems in line with technological developments.
2. The position of the Salatiga City DPRD office located in the city center is very strategic for the advancement of information systems. Because information about technological developments is easy to obtain.
3. Employees already know their respective duties and authorities so that they can speed up decision making. Then operational performance will be more efficient.

**Opportunity:**

1. The rapid development of information systems.
2. The existence of an information system can make it easier for people to convey aspirations.

**Weakness:**

1. The founder of ASN is an expert in handling information systems and information technology. This can result in the non-maximum implementation of the information system.
2. There is no information system to deal with the aspirations of the community. So that people's aspirations cannot be conveyed.

**Threats:**

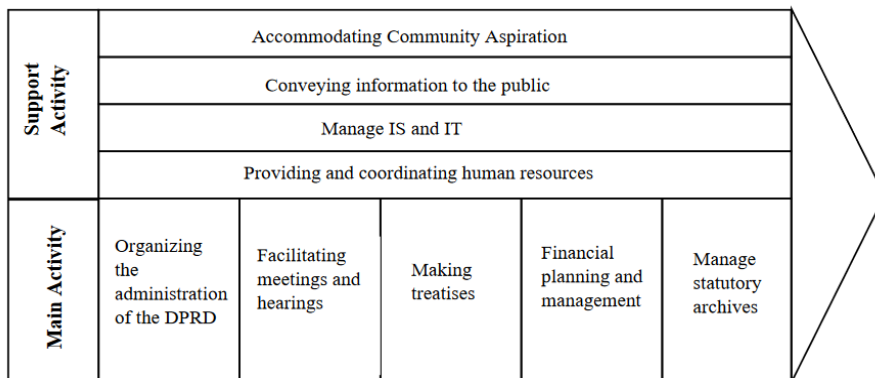
1. People don't know how to convey aspirations.
2. Information is not conveyed to the community.

Based on the results of the SWOT analysis that has been carried out, several strategies can be identified that can be applied to the Secretariat of the Salatiga City Regional People's Representative Council to overcome existing problems. The following are strategies that can be applied:

**Table 2.** SWOT Matrix

<b>Strategi SO</b>	<b>Strategi WO</b>
Utilizing the development of information systems to develop existing and non-existent information systems	Recruiting employees who have a background in the IT field, so that they can handle the development of information systems
<b>Strategi ST</b>	<b>Strategi WT</b>
Increase the responsibility of each employee and always update information on the social media of the Salatiga City DPRD, so that information can be conveyed to the public	Create an information system for the delivery of aspirations that can be accessed by the public.

Value Chain analysis is performed to map the activities that occur in the organization [12]. Value Chain analysis produces a picture of all the activities that occur in the organization. In this analysis, it is divided into 2 categories of activities, namely the main activity and supporting activities. The following are the results of the value chain analysis can be seen in figure 2.



**Figure 2.** Value Chain Analysis

After carrying out the process of analyzing the resulting chain value as figure 2 above, it can be identified as follows:

1. The main activity consists of:
  1. Organizing the administration of the DPRD
  2. Facilitating meetings and hearings
  3. Making treatises
  4. Financial planning and management
  5. Manage statutory archives
- A. Supporting Activities consist of:
  1. Accommodating people's aspirations
  2. Conveying information to the public
  3. Managing SI and IT
  4. Providing and coordinating human resources

### 3.2 Internal/external SI Environment Analysis

When identifying information systems at the Secretariat of the Regional People's Representative Council of Salatiga City, it is necessary to analyze the internal environment of the SI used at this time to find out the available information system resources and human resources in using the information system.

The following is a list of information systems used in the Secretariat of the Regional People's Representative Council of Salatiga City:

**Table 3.** Information System of the Secretariat of the Regional People's Representative Council of Salatiga City

No	SI Name	User	Types of Applications
1.	Accounting Information System	Finance Section	Desktop
2.	SIMPEG	Personnel Subdivision	Web
3.	Information of Treatise Making System	Trial and Minutes Subdivision	Web
4.	Incoming Mail Information System	Employees of the Secretariat	Web
5.	JDIH	Trial & Legislation Section	Web

1. SI Accounting  
SI Accounting is an application for managing or processing desktop-based finances. This information system makes it easier for the DPRD Secretariat to make financial reports and record financial expenditures and income.
2. SIMPEG  
SIMPEG is a web-based staffing information system that functions to process all information related to staffing. So that it can simplify the employee administration process.
3. SI Treatise Making  
SI Minutes Making is a web-based information system that serves to create treatises that will be used during meetings and hearings. The way this system works will translate voice into text.
4. SI Incoming Mail  
SI Incoming Mail is a web-based information system that serves to manage incoming mail from both other agencies and individuals and outgoing mail.
5. JDIH  
JDIH is a web-based legal documentation and information network information system that serves to manage the resulting legal products.



### 3.3 Information System Proposals

Based on the identification results of the analysis process that has been carried out by reviewing the business environment and is environment both internally and externally, the author gives several application proposals that may be applicable to the Secretariat of the Salatiga City Regional People's Representative Council. To reduce the shortcomings conveyed during the discussion or based on the results of the analysis that has been carried out. In the table below are some of the information systems proposed by the author.

**Table 4.** Information System Proposals

No	SI Name	User
1.	Information System of Aspiration	Community
2.	Information System of Archive Data	DPRD employees
3.	Inventory Management Information System	General Section
4.	Information System of Library	General Section

### 3.4 App Portfolio

Bersumber pada hasil analisis yang telah dilakukan terhadap lingkungan bisnis dan lingkungan SI/IT Sekretariat Dewan Perwakilan Rakyat Daerah Kota Salatiga, maka akan dilakukan portofolio aplikasi. Pada portofolio aplikasi akan menggunakan analisis McFarlan Strategic Grid sebagai acuannya. Analisis ini digunakan untuk memetakan sistem informasi berdasarkan fungsinya. Analisis McFarlan akan memetakan sistem informasi ke dalam 4 kuadran, yaitu strategic, high potential, key operation, and support.

The McFarlan strategic Grid analysis used to map the existing information system in the Secretariat of the Salatiga City Regional House of Representatives can be seen in the table below:

**Table 5.** McFarlan Strategic Grid Analysis

Strategic	High Potensial
<ul style="list-style-type: none"> <li>- SI Accounting</li> <li>- JDIH</li> <li>- SI Aspirations (new)</li> </ul>	<ul style="list-style-type: none"> <li>1. SI Treatise Making</li> </ul>
<ul style="list-style-type: none"> <li>- SI Incoming Mail</li> <li>- SI Data Archive (new)</li> </ul>	<ul style="list-style-type: none"> <li>- SIMPEG</li> <li>- SI Library (new)</li> <li>- Inventory Management SI (new)</li> </ul>
Key Operation	Support

### 3.5 Implementation Plan

After making a proposal for an information system in table 4 and mapping the information system based on its function in table 5, then make an implementation plan that can assist the Secretariat of the Regional People's Representative Council of Salatiga City in the procurement of information systems. The implementation plan will be held within 3 years (2022-2024). Here is a table of planned implementation plans:

**Table 6.** Implementation Plan

SI Name	2022	2023	2024
SI Accounting JDIH SI Aspirations	<b>Strategic</b>		
SI Incoming Mail SI Data Archive		<b>Key Operation</b>	
SI Treatise Making		<b>High Potential</b>	
SIMPEG SI Library SI Management Inventory			<b>Support</b>

### 4. KESIMPULAN

Based on the results of observations that have been made, it is known that the Secretariat of the Regional People's Representative Council of Salatiga City has implemented an information system and has been integrated, but its implementation has not been carried out optimally. The analysis used in this study is the Ward and Peppard methodology. From the results of the SWOT analysis and Value Chain analysis, it can be known the conditions of the internal / external business environment of the organization. So that problems can be known to the organization. From the existing problems, a start-up planning solution was produced in the form of a portfolio of information system proposals using McFarlan Strategic Grid analysis. From the analysis of McFarlan Strategic Grid, it can be identified that the information system proposal is in accordance with the problems that exist in the Secretariat of the Salatiga City Regional People's Representative Council, including SI Aspiration, SI Inventory Management, SI Data Archives, and SI Library. The information system proposal can be implemented within 3 years. It is hoped that this application

proposal can maximize the application of the information system at the Secretariat of the Salatiga City Regional People's Representative Council.

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