THE USAGE OF WARD AND PEPPARD METHOD IN IS/IT STRATEGIC PLAN COMPILATON IN DISHUBKOMINFO
EAST LAMPUNG

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ABSTRACT

Dishubkominfo in running the coordination task in Nexus, Communication and Informatics field must charged to work fast. Therefore, the support from the reliable information technology (IS/IT) is really needed. To make sure the usage of IS/IT actually support the purpose of government administering, with noticing the efficiency the usage of resources and the management of risk that related to it, it required strategic planning related to IS/IT, in this document called Strategic Planning IT/IS.

The methodology that used in preparation of document using reference that developed by Ward and Peppard. Analysis method that used includes SWOT analysis, CSF, Value Chain, McFarlan Strategic Grid, Balanced Scorecard. The result that achieved in this thesis is strategic plan framework that include system information strategy, information technology and IT/IS management integrated and portfolio and roadmap from 2015 until 2019.

KEYWORDS : Strategic Plan IT/IS, Planning, Ward and Peppard, Dishubkominfo

1. INTRODUCTION

1.1 Background

The role of information technology in supporting operational system and managerial in governmental agencies nowadays is increasingly important. Technology progress is placing information as one of the most important resource and need to be managed well and properly (BPPT, 2009).

Remembering the importance management data function and information, especially to support activities in the governmental agencies then it's reasonable if government attempted to place management data and information in the same place and as important as another management resources, such as human resources, financial resources, time resources and another resources.

Without good planning, sometimes information technology implementation will stuck into unoptimal completion with not appropriate result investation. IS strategy emphasize in determination of system information application that needed by organization. Essension of IS strategy is to answer question "what?", while IT strategy emphasize in technology election, infrastructure, and special skill that related to answer question "How?" (Earl, 1997)

Noticing every potential with future challenge that will faced by Dishubkominfo Communication field, Informatic and Public Information, the plan above is very relevant. This step also optimalisation of IS/IT that been developed and used all this time. In another side, the developed system also need to be developed in macro, such as implementation of good governance technology. Moreover, that will help to anticipate the developing of information technology in the future.

With the progress of information technology and every demand to support governance work, it must be a must for

Dishubkominfo Communication, Informatic and Public Information Field to apply and use it to support the performance to be better. Strategic planning concept directed to the maximal usage of information resource as the main capital in IS/IT strategic planning. IS/IT planning in Dishubkominfo Communication, Informatic and Public Information field, beside to increase the usage of owned information system, also excepted to increase public service and operational of governance management to be more effective and efficience. To answer the condition and problems in information technology field above, Communication, Informatic and Public Information Field need IS/IT Strategic planning as planning reference in developing e-Government and as follow-up of procedure and workspace developing in Dishubkominfo Communication, Informatic and Public Information field environment

1.2 Problems

The main problem that will discussed in this research is how to define and make information system strategic planning in Dishubkominfo Communication, Informatic and Public Information field.

1.3 Purpose and Benefit

The purpose of Strategic Planning IS/IT Dishubkominfo Communication, Informatic and Public Information field expected to be reference in investigation planning and IS/IT implementation so they can reach the vision, mission, purpose and target accurately and integrated

The benefit of IS/IT planning in Dishubkominfo Communication, Informatic and Public Information field are :

    a. Aligned the IS/IT planning with the strategic planning in Communication, Informatics and Public Information field

    b. Allocated the IS/IT resources efficencely and effective (optimalization of IS/IT resources)

    c. Make IS/IT strategic plan as basic for Dishubkominfo Communication, Informatic and Public Information field planning, so they will have a better planning

2. THEORETICAL

2.1 IS/IT Strategy Ward and Peppard Model

One of the model that can be used in information technology strategic planning is IS/IT strategy model by Ward and Peppard. In this methodology, consist of input stage and output stage (Ward & Peppard, 2002)

The input stage consist of :

1. Internal business environment analysis, includes business strategy aspect now, target, resources, process also cultural business organization values.

2. External business environment analysis, includes economy aspects, industry, and company climate competition.

3. Internal IS/IT environment analysis that includes the condition of IS/IT organization from business perspective, how's the maturity, how's the contribution to business, human resources skill, resources and technology infrastructure, also includes how IS/IT portofolio right now.

4. External IS/IT environment analysis that include technology trend and chance to take benefit from it, also the usage of IS/IT by competitior, consumer and suppliers.

2.2 SWOT Analysis

According to Rangkuti (2006), SWOT analysis is an identification of some factor systematically to formulate organization strategy. This analysis basicly from logic that can maximize Strengths and Opportunity, but in the same time can minimize the weakness and thread.

According to Rangkuti (2006), in doing SWOT analysis there're five steps, consist of :

    1. Preparing SWOT Session

2. Identify the strength and weakness

3. Identify the opportunity and thread

4. Rank the strength and weakness.

5. Analyze the strength and weakness.

2.3 Critical Success Factor (CSF)

Critical Success Factor (CSF) analysis is a provision from organization and the environment that can affect the success or the failure. CSF can be determined if the organization objective is identificate. Purpose of CSF is to interpreted objective clearly to decide the activity that should be done and what information is needed. CSF role in strategic planning is as a connector between business strategy.
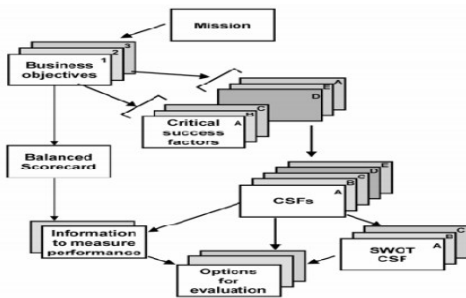

Figure 1 Critical Success Factors

2.4 Mc Farlan Strategic Grid

Mc Farlan strategic grid used for mapping IS application according to the contribution for organization. Mapping is done in four quadran (strategic, high potential, key operation and support.) From the mapping result, contribution description was given to IS application to the organization and for future development (*Ward and Griffith 1996).*

2.5. Balanced Scorecard

Balanced Scorecard was published for the first time by Robert S. Kaplan and David P. Norton on 1992 in an article titled "Balance Scorecard – Measures That Drive Performance". Balance Scorecard when first introduced is a scoring management system and fast, right and comprehensive control that can give explanation to a manager about business performance. Kaplan and Norton already introduced Balanced Scorecard in enterprise organization stage.

3. DATA COLLECTING METHOD

A research always use kinds of data that used in analysis. To get the right data, a method to collecting the data need to be applied. Business process, information flow, information type, input process and output, external entity influence, information system, infrastructure, organization structure of IT managers and IT management system. The collecting data process, the user can collect the secondary data, to add more accuracy and data completion, they can add primary data that collected from quisioner and interview. The collected data contains internal business condition data and internal IS/IT that gained from secondary and primary data at Dishubkominfo Communication, Informatic and Public Information. In other side, external business condition and external IS/IT data obtained from benchmark from other institution.

Methodology to prepare IS/IT strategic plan in Dishubkominfo Communication, Informatic and Public Information use the reference that developed by Ward and Peppard.

In preparation of strategic plan information system Dishubkominfo Communication, Informatic and Public Information use strategic plan analysis theory, information system, literature review, data collecting, IS/IT identification solution, information architecture plan and future system, IS/IT developing strategy Dishubkominfo Communication, Informatic and Public Information and the aspect.

3.1 RESEARCH RESULT AND DISCUSSION
3.1.1 Strength Analysis

• Understand the environment strategic condition.

- Dishubkominfo Communication, Informatic and Public Information achievement in network development fiber optic based as base capital to give opportunity to next development.
- Organizational structure, that organizational structure and task function already includes the implementation of regional autonomy Dishubkominfo Communication and Informatic Field

3.1.2 Weaknesses Analysis

- Quality and quantity of human resources still inadequate
- Sectoral egoism in veiled in head chief level and section chief.
- There's no local regulation that set the development of e-government
- Conflict of interest
- Management Information system and information technology of Diskominfo East Lampung still ineffective, so the coordination, integration, synchronization and simplification aspect between implementation and instrument in City/Regency, Province and the Central could not be embodied well.
- Budget constrains to support the activity implementation.

3.1.3 Opportunities Analysis

- Nation administration system that reflect the accountability aspect and community transparancy.
- Jokowi President government issue that want to apply e-government and commitment about Indonesia as maritime country.
- Information technology development is growing rapidly so the government indicted to use technology in government activity.

3.1.4 Threats Analysis

- Lack of understanding the reform, impacts to development compact that will be a boomerang.
- The public awareness is not balanced to the pace of technological development and facilities also public infrastructure
- Law abiding culture of the society still in low rate
- Nature condition that can affect the function of information technology devices runs with their respective function.
- The frequent of power outages can conduce the IT devices doesn't work optimally

Tabel 3.1 External Factors Strategic (EFAS)

External strategic factors	Weight	Rating	Weight Scoring (Weight x Rating)
Opportunity/O			
• Nation administration system that reflect the accountability aspect and community transparancy	0.15	2.00	0.30
• Jokowi President government issue that want to apply e-government and commitment about Indonesia as maritime country.	0.17	2.17	0.36
• Information technology development is growing rapidly so the government indicted to use technology in government activity.	0.17	2.08	0.36
Total O	0.49		1.02
Threat / T			
• Lack of	0.14	-2.00	-0.28

understanding the reform, impacts to development compact that will be a boomerang.			
• The public awareness is not balanced to the pace of technological development and facilities also public infrastructure	0.20	-2.92	-0.58
• Nature condition that can affect the function of information technology devices runs with their respective function.	0.17	-2.00	-0.34
Total T	0.51		-1.21
Total	1		-0.19

Table 3.2 Internal Factor Strategic (IFAS)

Internal Strategic Factor	Weight	Rating	Weight Scoring (Weight x Rating)
Strength /S			
• Understand the environment strategic condition.	0.18	2,33	0.41
• Organizational structure, that organizational structure and task function already includes the implementation of regional autonomy Dishubkominfo Communication and Informatic Field	0.16	3.00	0.47
• Dishubkominfo	0.16	3.33	0.54

Communication, Informatic and Public Information achievement in network development fiber optic based as base capital to give opportunity to next development.			
Total S	0.50		1.42
Weakness/W			
• Sectoral egoism in veiled in head chief level and section chief.	0.18	-1.75	-0.31
• There's no local regulation that set the development of e-government	0.18	-1.42	-0.25
•Management Information system and information technology of Diskominfo East Lampung still ineffective, so the coordination, integration, synchronization and simplification aspect between implementation and instrument in City/Regency, Province and the Central could not be embodied well.	0.15	-2.00	-0.31
Total W	0.50		-0.86
Total	1		0.56

SWOT analysis result against strategic external and strategic internal factor show the position of by Dishubkominfo Communication field, Informatic and Public Information position is in quadran 2 that is external factor giving -0.19 point from 4 scale and internal factor giving 0.56 point from 4 scale. Position in quandran 2, eventhough facing much threats, by Dishubkominfo Communication field, Informatic and Public Information still has strength from internal section. The mapping of SWOT analysis can be seen in the figure 1
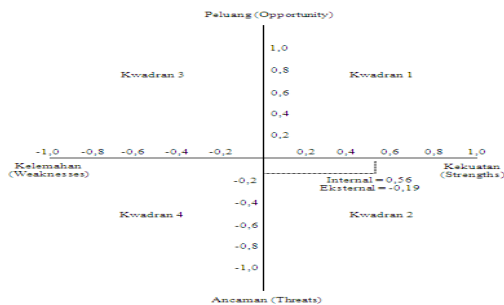

Figure 1. Dishubkominfo SWOT Analysis Result

3.1.5 Information and Technology System Strategy

IS strategy is one of result/output from the IS/IT strategy plan, this strategy will explain how system and information technologycan be used in supporting every business organization activity that related to achieving the organization vision and mission, also adjusted to the business strategy that owned by the organization.

Table 3.3 Dishubkominfo IS Strategy

Area Fungsional	Fungsi Bisnis	Proses Bisnis	Peranan SI TI yang Dapat Digunakan
Bidang Komunikasi	Seksi Pos dan Telekomunikasi	Rekomendasi Perijinan	Office Automation
			SI Rekomendasi Perijinan
		Pengkajian Bahan Kebijakan	Office Automation
		Pelaksanaan Pengkajian Bahan Kebijakan	Office Automation, LPSE, SI Surat Elektronik, SMS Gateway
		Koordinasi	SMS Gateway, SI Surat Elektronik
			OLAP, EIS, KMS
		Fasilitasi	Office Automation
			SI Inventory
		Pelaporan	Office Automation, LPSE
			OLAP, EIS, SI Inventory, SI Rekomendasi Perijinan
		Evaluasi	Office Automation, SIPPDA
			OLAP, EIS, SI Pengaduan Masyarakat
		Kerja sama	Office Automation, SI Surat Elektronik
		Penyusunan Standar, Proses, Prosedur, Aturan	Office Automation
		Monitoring	Office Automation, LPSE
			OLAP, EIS
	Seksi Sandi	Pengkajian Bahan Kebijakan	Office Automation
		Pelaksanaan Pengkajian Bahan Kebijakan	Office Automation, LPSE, SI Surat Elektronik, SMS Gateway
		Koordinasi	SMS Gateway, SI Surat Elektronik
			OLAP, EIS, KMS
		Fasilitasi	Office Automation
			SI Inventory
		Distribusi	Office Automation
			SI Inventory
		Pelaporan	Office Automation, LPSE
			OLAP, EIS, SI Inventory, SI Rekomendasi Perijinan
		Penyusunan Standar, Proses, Prosedur, Aturan	Office Automation

4. CONCLUSION

The conclusion from the making of IS/IT strategic plan in Dishubkominfo Communication, Informatic and Public Information field are :

1. SWOT analysis result against the external strategic factor and internal strategic factor displayed that Dishubkominfo Communication, Informatic and Public Information field position is in quadran 2, external factor giving -0.19 point from 4 scale and internal factor giving 0.56 point from 4 scale. Position in quandran 2, eventhough facing much threats, by Dishubkominfo Communication field, Informatic and Public Information still has strength from internal section. The strategy that should be applied is using the strength to use the long term chance with diversification strategy.

2. Dishubkominfo Communication, Informatic and Public Information field orientated in service for public as one

of Critical Success Factors. The indicator that can be detailed such as, human resources, security quality, the speed of security facility provision. According to the indicators, the organization can get the operational picture and the implementation so it can be used as reference to increase the quality and performance.

3. Dishubkominfo Communication, Informatic and Public Information field value chain is already appropriate with organization function, those are : licence recommendation, material of assessment policy, the implementation of material of assessment policy, coordination, facilitation, distribution, documentation, report evaluation, control, supervision and examination, counseling, cooperation, standard preparation, process, procedure and rules, software and hardware developing, monitoring, electronic data and press processing, bandwith management and implementation of public consultation.

4. In quadrant I, application support that already there and used in supporting daily activity in Dishubkominfo Communication and Informatic field are SIPKD, SIPPDA, SI Electronic Letter, Dishubkominfo Website, Office Automation and LPSE. In the other side Knowledge Management System (KMS), e-klipping, and e-learning is not available and hope it will be new information system proposal in IT strategic plan.

5. For quadrant II – Key Operation that already there and used for the operational is SMS Gateway. The required information system in the future is public complaints information system and inventory information system.

6. Quadrant III – High Potential, there's no information system that been used. In hope it will create Telecommunication tower data information system, recommendation of post and communication business licencing IS, recommendation of fixed network licensing IS, special telecommunication licensing IS, the neat and orari licensing IS, celuller stall and telecommunication licensing IS, IMB of telecommunication tower licensing recommendation IS, Excavation of the cable communications licensing recommendation IS, recommendation and Entrusting control services IS, recommendation of telecommunication implementation licensing IS, recommendation of licensing disorder to install the lightning conductor and genset IS, recommendation of house/building cable installation licensing IS and recommendation of trading business of selling telecommunication device IS.

7. For quadrant IV – until now, strategic doesn't have the application, because the position is strategic quadrant, in hope can be filled by Executive Information System and Monitoring Online Analytical Processing (OLAP).

8. Seeing from the referrals, strategic plan and operation needs the development and construction of IT in Dishubkominfo leads to the quadrant IV (strategic).

9. According to the balance scorecard analysis result, stakeholder perspective have 94.25% performance, customer 96,67%, internal business process 96,00% and learning & growth 94.67% from the targeted performance. The result still under the expected performance. It because there are egosectoral that hamper the coordination of Dishubkominfo. IT soulution to increase the coordination performance is in developing Executive Information System (EIS) and Monitoring OLAP.

10. Applying the implementation strategy and roadmap to fulfill the referalls need and strategic plan also to complete the lack in another quadrans

5. SUGGESTION

Some suggestion can be submitted in writing the IS/IT strategic plan at Dishubkominfo Communication, Informatic and Public Information field in preparing, implementing and developing the information technology are :

1. The research is done in communication, information and public information field. For the next research, it suggested to expand the field and explain another field. This research explain the network infrastructure until SKPD network. For the next research, it suggested to explain about network infrastructure until the district.

2. IT human resource should have the skill update, so they can always follow the newest development in IT world and always do the benchmark to the best practice. They should have human resource that has skill to implemented and develop the information technology. This thing can be overcome by organizing trainings and socialization before the newest information technology are implemented.

3. Investation readiness should be watched rightly, because the investation for Information Technology result won't be affect directly for organization.

4. IS/IT strategic plan can be control tools and effective parameter to review the performance and the successful implementation of Information Technology in Dishubkominfo Communication, Informatic and Public Information field.

5. IS/IT strategic plan can be reference in investation planning and information technology implementation to reach the vision, mission, purpose and target for Dishubkominfo. For that, it need an adaptation to strategic plan continuously. Or continue improvement. This thing can be implemented in knowledge update and IT developer human resource competention, updating the tools and technology that used to support IT, hardware update according to the condition and technology trend.

6. IS/IT strategic plan can allocated the IS/IT resource efficiently and effectively (IT resource optimalization).

7. IS/IT strategic plan can identificate the kind of information technology that needed by Dishubkominfo, that is all of technology that has direct contribution to Dishubkominfo purpose.

8. IS/IT strategic plan can descrease risk that can be found in implementing IS/IT

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