Perceptions Analysis on Service Delivery (SD) using ITIL version 3 framework in Ministerio Da Justica Ministry Dili Timor Leste

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Abstract

Service Delivery (SD) is a managerial of the processes that have a primary focus on the user of all Information System (IS) and Information Technology (IT) services, which ensures that IS and IT services can be used according as the function to support the activities in the public institutions. The purpose of this study was to determine the extent to which the strategic development of IS and IT services that have been implemented in accordance with the strategic plan towards the implementation of IT Governance. The results of this study indicate that significantly the Ministerio da Justiça Dili Timor Leste (MJTL) has implemented policies and standard operation procedures (SOP) relating to the framework of Information Technology Infrastructur Library (ITIL) version 3, although it is not maximized and extended throughout the unit, it is because lack of human resources, staffing and financial aspects.

Keywords: *SD, IS, IT, IT Governanc, MJTL, ITIL version 3.*

1. Introduction

Nowadays, many organizations are more dependent on Information System (IS) and Information Technology (IT) in order to achieve their strategic goals and fulfill their needs; which is why Information and Communication Technology (ICT) becomes important [1]. This dependency encourages the increasing needs of high-quality IS and IT service that matches the user's and organization's needs. High-quality IS and IT service means there are improvement on the usage of IT to fulfill the organization's needs. Moreover, providing high-quality IS and IT service also means that there should be country's utilization of IT because developing IT in public service is also a key of a development in a country.

Timor Leste is a new country that exists in a global enviroment and it makes Timor Leste's government must master IS and IT, which later can be implemented for the betterment of its own people. That's why Timor Leste government must be more open and perceptive to utilize the IS and IT development as a tool for increasing the ability of managing, channeling, and distributing information for public service, looking at the fact that the more developed the IS and IT sector in a country is, the more developed the country will be. That's also the reason why government must invest on IS and IT more. Government must also implement IS and IT in its work, and MJTL or Law Ministry Timor Leste is one of the government institutions that has implemented IS and IT in its work. MJTL is a government institution that serves public in law sector and the implementation of IS and IT in its body is able to integrate some divisions such as Public Ministry, the General Attorney, the National Court and the Detention Facilities [2]. MJTL has increased the infrastructure investment in ICT sector using national budget by upgrading the service quality using IT, increasing the internet and intranet connection quality, and expanding the network of MJTL in all Timor Leste's districts. According to the MJTL's strategic plan, the infrastructure needs of ICT are very crucial in order to increase the capacity in judicial operation. IT structure in MJTL is arranged using centralization technique where the expert staff who are responsible for giving service for IS and IT are centralized in National Division of Information Technology (NDIT) in MJTL. However, this structure also has obstruction and limitation such as: 1) the lack of centralized controlling for all IT assets in MJTL, including

software license, tools use, warehouse, etc.; 2) SOP that is not unified and not standard, where each division has its own rules and causes troubles in applying IT Governance generally; 3) the lack of specialization because of centralization (centralized IT professionals). Based on those problems, it's important to do a research in order to find out to what extent IS and IT service have been implemented.

The framework used in this research is ITIL (Information Technology Infrastructure Library) version 3. ITIL is a framework used to manage IS and IT service that is divided into process and function. There are two areas or models in ITIL, they are Service Support (SS), the one ensuring that there are IT services that can help business functions to work well, and Service Delivery (SD), the one focusing on what services needed by IT provider company so that it can give services to the user's business. So it can be seen that ITIL is an approach in IT Governance and IT service governance [3].

This research refers to some previous researches, the first one is a research entitled Analysis on IT Management Service using ITIL Framework: A Case Study in Faculty of Information Technology Satya Wacana Christian University [4]. From this research, it was found that the development of portfolio management was more focused on needs fulfillment without considering the business value. It also happened with the request management, where there was imbalance between the income and the expenses for IT investment. In the end, it was found that there wasn't any general integration in all IT services that Faculty of Information Technology Satya Wacana Christian University had. On the other side, the grand development of IT services management hasn't been found yet. That's why there needs to be an integration in services in order to fulfill the needs of IT services. The follow-up action of the grand design development can be started by integrating all IT services comprehensively.

The second is a research entitled Risk Management in Information Technology for Public Service Sustainability using ITIL version 3 framework [5]. From this research, it could be seen that the advancement of ICT and the spreading of global information infrastructure development had changed the pattern and the activity in organizations, in institutions, in industries, as well in government. Doing Risk Management in IT and having some strategies for the sustainability of IT services must be done systematically and there had to be continuous practices to improve and repair the IT services process. ITIL version 3 framework was used as a guidance in arranging operational steps so that the sustainability of IT services could be created.

What differentiates my research with the previous researches is that my research will only focus on perception analysis on service delivery in National Division of Information Technology (NDIT) in MJTL using ITIL

version 3 framework with the domain of Service Strategy (SS) and the sub domains of Service Portfolio Management (SPM), Demand Management (DM), and Financial Management (FM).

2. Literature Review

Service Delivery is a group of managerial process that has the main focus on user of all IT services, which ensures that those IT services can be used according to their function to help business activities. Like an Internet user, it always cares for access quality, bandwidth-related issues, availability and easiness to access the Internet anytime and anywhere, the access price, and other facilities that someone can get in Internet Service Provider [6]. Service Delivery consists of:

- Service Level Management: it has the main purpose to balance the demand and supply in IT services by knowing the business needs and the capability of IT in business organizations or companies.
- Financial Management: it is the main mechanism in managing the financial resources in a company. This mechanism will support a company in planning and executing all of its business goals. It also needs a consistent and integrated application in all parts of company in order to create a maximum consistency.
- Capacity Management: it is a process that is responsible for ensuring the process or computation and storage capacity the IT has according to the business needs, which keeps on evolving, of course using effective budget and sustainable planning.
- IT Services Continuity Management or Disaster Recovery Plan (DRP): In other words, ITIL uses IT Services Continuity Management (ITSCM) for all processes that are related to IT services recovery after problems that make IT services unavailable arise
- Availability Management: it is a process used for answering the dependency of business toward IT. The main purpose of the existence of Availability Management is optimizing IT infrastructure capability and services, as well as the organizations involved in it, so that the availability in the whole IT services used in business can be ensured.

Based on the definitions above, it can be concluded that Service Delivery is one of the important components in ITIL, that describes best practice's processes in facing and interacting with the business customer of IT services.

2.1. Information Technology Service Management (ITSM)

ITSM is a management that is able to give values to the customers in the form of services and it aims to increase

IJCSI International Journal of Computer Science Issues, Vol. 9, Issue 6, No 1, November 2012
ISSN (Online): 1694-0814
www.IJCSI.org

152

the effectiveness and efficiency in giving services to the customers [7]. The advantages of ITSM are:
- the increasing quality of service provider
- the justification about fees for service quality
- services that match the business and user's demand
- more centralized business process
- everyone's knowing about their roles and responsibilities in service providing
- the ability to learn from previous experiences.
- the proven performance indicator

There are four perspectives or attributes to explain the concept of ITSM, they are [8]:
- Partners or Suppliers Perspective: it considers the importance of relationship between external sides, partner, and supplier and the way they contribute in service delivery.
- People Perspective: it focuses on softer area than IT staff, customer, shareholder, etc., for example whether staff has already had ability and knowledge to carry out their roles.
- Products / Technology Perspective: it considers the roles of technology, hardware, software, and even budgeting.
- Process Perspective: it has an end-to-end relationship of service delivery based on the ongoing process.

2.2. It Governance

Basically, IT Governance is seen as a way to utilize IT to achieve organization's goal. That's why the role of IT Governance is put on the framework of IT management to achieve organization's goal. IT Governance can also be seen as a process that can control a decision making and problem solving by emphasizing on integrated and systematic values.

IT Governance specifically focuses on IT system, performance, and risk management. The main purpose of IT Governance is to ensure that investment in IT results in business value and the decrease of IT-related risks. It can be done by applying a good organization structure that has roles for information responsibility, business process, application process, and infrastructure process. IT Governance is needed to ensure that investment will be successful, will decrease IT-related risks, and will avoid failure when IT is designed for making changes in an organization [9].

The survey done by IT Governance Institute (ITGI), which was included in the IT Governance Global Status Report published in 2008, said that 63% of respondents stated that IT is very important for their organizations, including organizations in Indonesia, because the survey was also done to the CIO (Chief Information Officer) and CEO (Chief Executive Officer) in Indonesia [10].

If seen from the comprehension sides, then IT Governance is seen as decisions taken to ensure the existence of allocation of IT uses in strategies in related organizations [11]. Based on the definition above, three questions that need answers are:
- What decisions must be taken in order to ensure the effectiveness and efficiency of IT management?
- Who are the ones that must take decisions related to the use of IT?
- How are those decisions taken and monitored?

Referring to the questions that have been asked before, Figure 1 below shows the process that can help in understanding, designing, communicating, and taking care of IT.
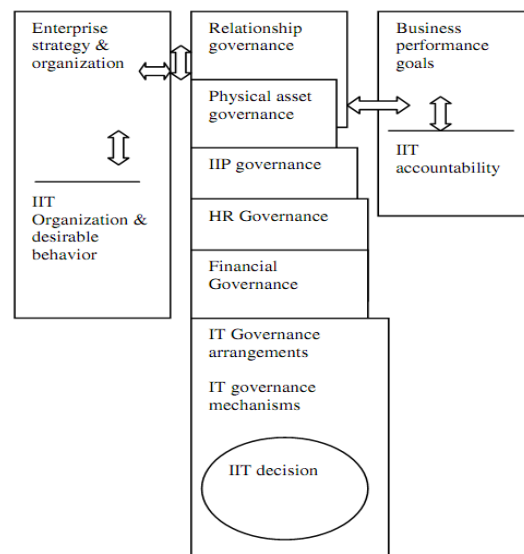

Figure 1. The Effective IT Governance

Based on Figure 1, developing an effective IT Governance needs:
- Better organization's strategy establishment.
- More concern on organizations behaviour and how IT is applied in the organization.
- Good management of six assets an organization has, such as: relationship between the Assets, physical asset, intellectual property asset, human relation asset, financial asset, and IT.
- Good organization's strategy creation regarding to the IT use in an organization.

2.3. Information Technology Infrastructure Library (ITIL)

ITIL is a methodology that gives best practice guidance for IT Service Management (SM) to connect IT with the business needs and vice versa. ITIL gives

IJCSI International Journal of Computer Science Issues, Vol. 9, Issue 6, No 1, November 2012
ISSN (Online): 1694-0814
www.IJCSI.org

153

influences to the management, including people and process management, technology effectiveness, and the efficiency and economy in giving business services with agreed service level in IT and business.

The fact that supported the application of this ITIL framework was noted by an organization called Pink Elephant. Based on that note, some consultant organizations or international surveys has surveyed business actors about the application of ITIL in their companies. Here are some of the survey results:

-   In Gartner Survey in 2004, the amount of the respondents that said that they used ITIL in their companies was 30% higher than the amount of the respondents who said so in 2003.

-   Based on the Oline Polling Week to 450 IT professionals about the use of ITIL, there were 50% of them who had passed the planning phase or were going to start this phase in six or twelve months, whereas 30% of them had implemented ITIL effectively.

Based on the survey result, it was proven that more organizations / companies started to apply ITIL framework to improve their performances and gain benefits.

The last version of ITIL is version 3. The basic change in this version is in how it sees the IT management; ITIL version 2 manages its service as a group of processes and functions, whereas ITIL version 3 manages its service as a lifecycle. From Figure 2, we can see a cycle that emphasizes on lifecycle. The Figure shows that the steps emphasize on needs analysis process in designing, delivering, and strengthening the service for customers [12].
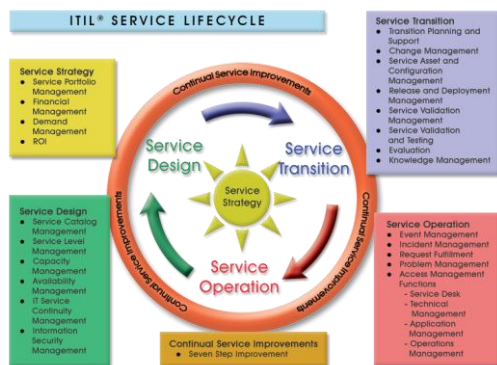

Figure 2. Lifecycle Service in ITIL version 3

Service Strategy gives guidance for those who implement ITSM about how to understand the concept of ITSM. It's not only organization's ability (in giving, managing, as well as operating IT services), but also company's strategic asset. Service strategy is more focused on skills development for service management, which enables this practice to be strategic asset of an

organization. This guidance is given in the form of basic principles of ITSM concept, references, and core processes that operate in ITIL Service Lifecycle steps [12].

Service Design: In order for IT services can give benefits to business organizations, first thing first, they have to be designed based on business' purpose from customers. Service Design gives guidance to IT organizations to design and develop IT services as well as to implement ITSM systematically [12]. Service design is a phase when the process of designing the infrastructure and supporting mechanism happens, which is needed to get the needs that the customers want. Service design phase emphasizes on wanted or needed IT services' design. Service Design contains design principles and methods to convert IT organizations' and business' strategic goals into IT services' portfolio / collection and service's assets like server, storage, etc.

Service Transition provides guidance to IT organizations to develop the skills used to change IT services' design as well as IT services whose specifications have been changed into operational environment [12]. This lifecycle step shows how a need, which is described in Service Strategy, is formed in Service Design to be realized later into Service Operation effectively.

Service Operation is a lifecycle step that covers all operational activities in IT services management. There is much guidance inside it about how to manage IT services efficiently and effectively and how to guarantee the performance's level so that it can satisfy the customers [12]. This guidance covers about how to maintain the operational stability of IT services and also design change management, scale, coverage, and IT services' performance target.

Continual Service Improvement (CSI) gives important guidance in arranging and maintaining the service quality of the design process, transition and its operational activities. CSI combines various principles and methods from quality management, for example Plan-Do-Check-Act (PDCA) or Deming Quality Cycle [12].

3. Research Methodology

The method used in this research is descriptive qualitative, using case study. Qualitative research is a research to understand the experiences experienced by research subject, such as the behavior, perception, motivation, and action, holistically. Using descriptive way means the research describes using words and languages in specific natural context and utilizes various natural methodologies.

Data Gathering:
- Observation
- Questionnaire distribution
- Literature Study

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Analysis based on the criteria of ITIL version 3

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Assessment based on Maturity Level in ITIL version 3 framework
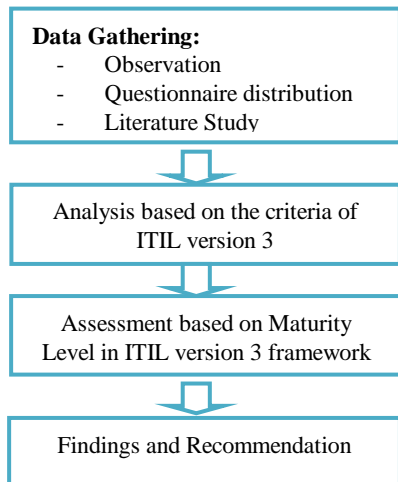
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Findings and Recommendation

Figure 3. Research Methodology

Questionnaire Distribution It was done in this research by distributing questionnaire or list of questions or statements to the respondents in order to get primary data according to the request using likert scale. There were 18 respondents in this research, they are: IT Manager, IT International Manager, International System Analyst, sys admin, database admin, help desk, network administrator, front office system, ICT trainer, and Administration Assistant.

4. Analysis Result of Maturity Level in NDIT in MJTL

4.1. Service Strategic Analysis Sub Domain Service Portfolio Management (SPM)

This process is one of the dynamic processes that develops continuously, including the methods used to achieve the long-term and short-term goal in NDIT about IS and IT which has been implemented in MJTL. The resources used was human resources and adequate technology to give service to the user.

The questionnaire and interview result and data analysis is shown in the form of Likert Questionnaire, where the result for every question in service element is added and divided by 18 respondents. The result for every service element can be seen in the second column (Testing Result) in Table 1. All testing results can be added so that we get the Service Portfolio Management (SPM) average index score of 4.35, the round figures is 4.00. Based on the range of 1-5 according to the guidelines of ITIL version 3 in domain Service Strategic (SS), sub domain Service Portfolio Management (SPM), the position in MJTL is at 4: Managed.

Ad-Hoc 1.00   Repeatable 2.00   Defined 3.00   Managed 4.00   Optimized 5.00
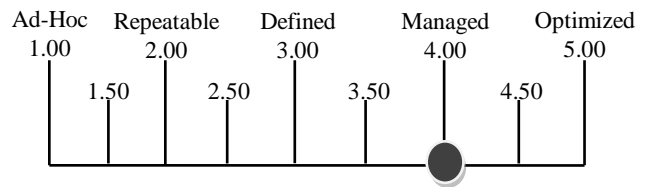
1.50   2.50   3.50   4.50

Figure 4. Maturity Level in Sub Domain Service Portfolio Management (SPM) in MJTL

From the analysis on Figure 4, it can be concluded that although NDIT in MJTL hadn't implemented the service standard using ITIL framework to the user, NDIT had implemented the methodologies in sub domain Service Portfolio Management (SPM) in developing short-term and long-term strategies toward IS and IT services which had been included in Standard Operation Procedure (SOP) to achieve the goals and vision and mission of NDIT in MJTL.

According to the manager of NDIT in MJTL, that strategy hadn't been spread to all units because of the minimum number of human and financial resources that were used to invest in IS and IT infrastructure development. If it was connected to the real condition in MJTL, a finding showed that the service implemented in NDIT in MJTL was a report about IS and IT services which was produced and reported periodically. Besides that, all staffs that were responsible to give the service to IS and IT activities had been trained although their academic knowledge needed to be improved. The result from every service element and Maturity Level can be seen in Table 1 and Figure 5.

Table 1. Maturity Level Analysis in Sub Domain Service Portfolio Management

Service Element	Testing Result	Maturity Level
Pre-requisites	4.25	Managed
Management Intent	4.44	Managed
Process Capability	4.44	Managed
Internal Integration	4.08	Managed
Products/Output	4.58	Optimized
Quality Control	4.51	Optimized
Management Information	4.33	Managed
External Integration	4.17	Managed
Customer Interface	4.40	Managed
Average Index of Service Portfolio Management (SPM)	**4.35**	**Managed**

IJCSI International Journal of Computer Science Issues, Vol. 9, Issue 6, No 1, November 2012
ISSN (Online): 1694-0814
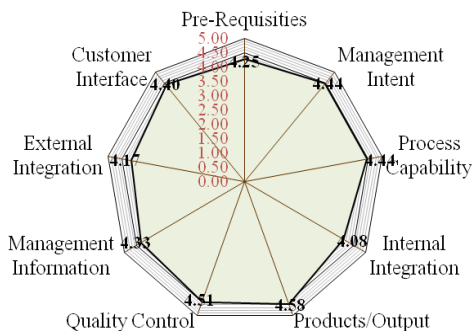www.IJCSI.org

155

Figure 5. Representative of Analysis Result in Sub Domain Service Portfolio Management (SPM)

4.2. Service Strategic (SS) Analysis in Sub Domain Demand Management (DM)

This process is a strategy done by NDIT in MJTL by arranging the mechanism to give service to users about IS and IT that have been implemented. The questionnaire and interview result and data analysis is shown in the form of Likert Questionnaire, where the result for every question in service element is added and divided by 18 respondents. The result for every service element can be seen in the second column (Testing Result) in Table 2. All testing results can be added so that we get the Demand Management (DM) average index score of 4.29, the round figures is 4.00. Based on the range of 1-5 according to the guidelines of ITIL version 3 in domain Service Strategic (SS), sub domain Demand Management (DM), the position in MJTL is at 4: Managed.
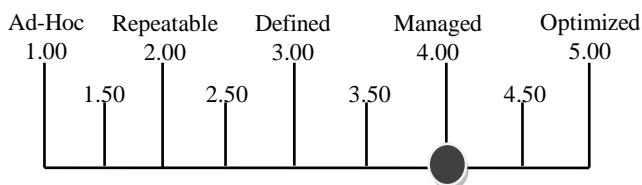

Figure 6. Maturity Level in Sub Domain Demand Management (DM) in MJTL

From the analysis on Figure 6, it can be concluded that although NDIT in MJTL hadn't implemented the service standard using ITIL framework to the user, they had implemented the service methodology Demand Management (DM) in arranging the service capacity toward user's request. Figure 6 shows that the Maturity Level is at 4 (Managed). It means that the service arrangement had been documented and communicated in MJTL although it hadn't used its maximum effort in

applying the rules in SOP. That's why it's very important that MJTL, especially NDIT, improve the service capacity by improving the quality of human resources, for example through trainings, SOP socialization, review about internal rules that had been standardized and budget investment, and the application of methodologies based on ITIL standard so that IT Governance can be applied. The result from every service element and Maturity Level can be seen in Table 2 and Figure 7.

Table 2. Maturity Level Analysis in Sub Domain Demand Management (DM)

| Service Element	Testing Result	Maturity Level
Pre-requisites	4.35	Managed
Management Intent	4.17	Managed
Process Capability	4.56	Optimized
Internal Integration	4.24	Managed
Products/Output	4.27	Managed
Quality Control	4.42	Managed
Management Information	4.41	Managed
External Integration	3.89	Managed
Customer Interface	4.32	Managed
Average Index of Demand Management (DM)	**4.29**	**Managed**
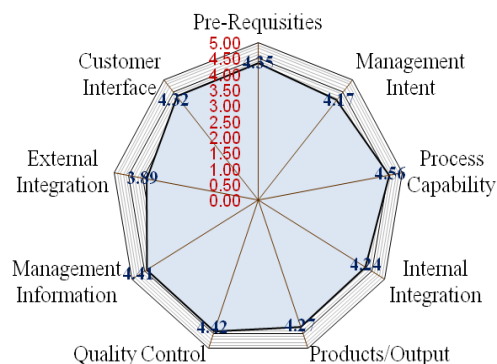
Figure 7. Representative of Analysis Result in Sub Domain Demand Management (DM)

4.3. Service Strategic (SS) Analysis in Sub Domain Financial Management (FM)

The questionnaire and interview result and data analysis is shown in the form of Likert Questionnaire, where the result for every question in service element is added and divided by 18 respondents. The result for every service element can be seen in the second column (Testing Result) in Table 3. All testing results can be added so that we get the Financial Management (FM) average index score of 3.50, the round figures is 3.00. Based on the range of 1-5 according to the guidelines of ITIL version 3 in domain Service Strategic (SS), sub domain Financial Management (FM), the position in MJTL is at 3: Defined.
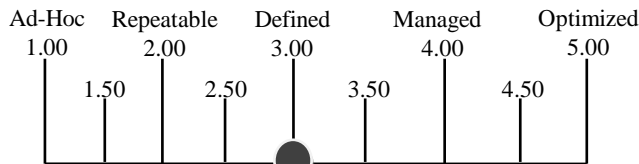

Figure 8. Maturity Level in Sub Domain Financial Management (FM) in MJTL

From the analysis on Figure 8, it can be concluded that NDIT in MJTL had implemented the methodology of Financial Management (FM) in giving financial service to IS and IT in MJTL. However, the service hadn't shown its maximum performance and it hadn't spread to all units in the ministry so the IT development in some units hadn't worked maximally. Figure 8 shows that the Maturity Level is at 3 (Defined). It means that the financial condition for service toward IS and IT infrastructure as well as the human resources development was not really good enough and hadn't spread to all units in MJTL. Besides that, MJTL, especially NDIT, hadn't had the clear procedure to provide IT facilities. Based on the analysis on the interview with NDIT manager, it was found that so far, the leader of the ministry hadn't invested special budget to improve the quality of the human resources in academic sector. Besides that, the budget allocation to develop IS and IT was still centralized that made the development processes in some units or divisions obstructed. That's why, it's very important that the leader of the ministry allocate special budget to improve the quality of human resources. Moreover, the budget has to be decentralized for each unit so that IS and IT service can be given and the best practices in ITIL version 3 can be implemented to achieve the IT Governance. The result from every service element and Maturity Level can be seen in Table 3 and Figure 9.

Table 3. Maturity Level Analysis in Sub Domain Financial Management (FM)

| Service Element	Testing Result	Maturity Level
Pre-requisites	3.22	Defined
Management Intent	3.63	Managed
Process Capability	3.76	Managed
Internal Integration	3.33	Defined
Products/Output	3.56	Managed
Quality Control	3.33	Defined
Management Information	3.22	Defined
External Integration	3.33	Defined
Customer Interface	4.11	Managed
Average Index of Financial Management (FM)	**3.50**	**Defined**
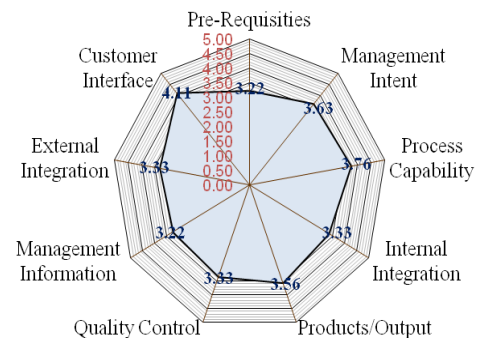
Figure 9. Representative of Analysis Result in Sub Domain Financial Management (FM)

4.4. Findings of IS and IT Services in NDIT in MJTL

Based on the analysis and evidence during the research on the service in NDIT in MJTL, there were some findings including both things that had been done appropriately based on ITIL version 3 and things that needed improvements. Facts that were appropriately done based on ITIL standard version 3 are listed in Table 4.

IJCSI International Journal of Computer Science Issues, Vol. 9, Issue 6, No 1, November 2012
ISSN (Online): 1694-0814
www.IJCSI.org

157

Table 4. Appropriateness of ITIL version 3 in MJTL

ITIL version 3	Findings	Activities
Service Portfolio Management (SPM)	There were training programs for user and IS & IT staff which were divided into two	- Training for all IS and IT staff from UNDIP in each unit and on field training about IT infrastructure, network, and free software usage. - Training for user about internet usage, usage of MS. Office (Word, Excel, and Power Point) and making web applications by using content management system (CMS).
	NDIT's routine meeting with IS and IT staff	- MJTL, NDIT manager in particular, did weekly meeting with all IS and IT staff to discuss and analyze the development of each activity done by user about the use of implemented application.
	There were standardized tools for data security.	- Firewall, to increase user's safety and system's safety. - Proxy Server, to protect access's privacy of all MJTL staff in accessing the internet and centered IS application. - DHCP Server, to provide IP service automatically for all users in MJTL in giving security while accessing the internet via defined IP range. The current IP address used in MJTL was 192.168.1.100 up to 192.168.50.700. It was aimed so that all connected computers in MJTL's network will give the designated IP address (100-700). - Anti-virus server: NDIT used centered antivirus server (Symantec Endpoint) that managed each computer in MJTL, which also functioned as anti-spyware firewall and external problems. After the antivirus was installed in client's computer, this server would automatically updates
		antivirus to increase computer and data security. - Backup Server Management: this service was responsible to manage backup of all data in MJTL. This server used software-software open source (Linux).
Demand Management	There were targets in problem solving on IS and IT integration in MJTL.	- User contacts NDIT staff of MJTL about IT problems both hardware or software problems via online application provided by NDIT in MJTL (http://wiki.intranet/live/admin/modul/os/suporte/) for 12 hours of working hour. After receiving demands from user, the demand was directly assigned to helpdesk team to do the reparation. Results from the reparation would be reported to administration department to be listed in the database entry.
	Reports for problem solving were produced regularly.	- Those reports consisted of reparation service from user's demands and reparation service on IS and IT infrastructure. Those reports were produced by NDIT administration department based on the IT manager's demand to be reported to the head of MJTL.
	One-server-centered data center.	- NDIT of MJTL's data was centered in one server and was using Linux operation system (OS). - Web Server and Database: NDIT had two servers, they were: web server and database that were functioning to support web hosting application service, where data from all MJTL sites provided in ministry were saved in database managed by NDIT. - Mail server, MJTL's e-mail and instant messaging (chat) service.

IJCSI International Journal of Computer Science Issues, Vol. 9, Issue 6, No 1, November 2012
ISSN (Online): 1694-0814
www.IJCSI.org

158

This technical team was responsible to list new user and ensure server's security and secrecy, to create filters, to block spams and antivirus. - Monitoring server and network: this service was responsible to ensure that all systems, network equipment and other servers were running well. This server constantly collected statistics on network usage for all units in MJTL, projected real-time graph which was monitored on special monitor in NDIT helpdesk. With this, helpdesk team could detect network or server problems quickly and act fast to find the solution. - Virtual Private Network Server (VPN): this service was used as long distance internet usage which was used for court in Baucau, Suai, and Oeccuse district. - VoIP (Voice over Internet Protocol) Telephone Server: this server managed long distance communication via internet between all divisions and units in MJTL. - Windows Server Update Service (WSUS): this service was used by NDIT to do centralized update on all system changes in MJTL. - Server Virtualization, this service was used to divide server resource into numbers of virtual servers. Virtual servers had the ability to run operation system independently like a server. They were also able to reboot a server virtually apart (reboot without the main server).		
	There were information about reparation	- IT division gave information to users about reparation service via https://wikiintranet.mktl.tl

	service.	and via VoIP

Table 5. Findings on Facts that Needed to be Improved

ITIL version 3	Findings	Recommendations
Financial Management	Fund allocations for IS and IT infrastructure development and maintenance were still centralized in NDIT in MJTL.	- Fund allocation decentralization was needed for all units in MJTL ministry, they were: Public Ministry, General Attorney, National Courts, and Detention Facilities.
	IS and IT infrastructure development in detention facilities needed to be repaired.	- IS and IT infrastructure reparation was needed in detention facilities, by allocating special fund and addition of IS and IT specialists.
	There hadn't been any money investment to increase human resource (HR) in order to improve their skills in IS and IT.	- Special fund allocation was needed to develop the human resources in order to improve their skills in IS and IT, because up until now, the IS and IT infrastructure development process was still under international control (UNDP) and the academic level of all national staff were only on High school graduate, Professional Program graduate (DIII), and Graduate degree.
Demand Management (DM)	All IS and IT specialists were still centered in NDIT in MJTL. Thus it slowed down the IS and IT development in other units such as detention facilities.	- Experienced IS and IT staff decentralization would be needed to quicken the development of other units.
	There hadn't been any survey on users' satisfaction towards MJTL.	- Doing survey on users' satisfaction to know how far the service for IS and IT had been implemented.

5. Conclusion

Based on the analysis and research toward NDIT in MJTL, it can be concluded that:

- Research result from Strategic Service (SS) domain, Service Portfolio Management (SPM) sub domain scoring 4.36 (managed) shows that MJTL had implemented methods listed in Service Portfolio Management (SPM) in building short-term and long-term strategies toward IS and IT service which had been implemented in Standard Operation Procedure (SOP) to reach NDIT in MJTL's vision and mission. However, those strategies were not maximum yet due to the lack of quality in human resources and funds for IS and IT infrastructure development. Meanwhile in Demand Management (DM) sub domain, scoring 4.29 (managed), shows that MJTL had been organizing and maintaining capacity in giving services for users. However those services were still prioritized only in some units, not widely spread to all units in MJTL because of financial and human resource factors. In Financial Management (FM) sub domain, scoring 3.50, means that financial condition for IS and IT service and human resource development was not good enough and it was not spread evenly in MJTL.

- Significantly, development process of IS and IT service in MJTL had been documented and communicated into: short-term and long-term strategies to give services towards users. MJTL had also controlled the capacity in giving services for the users and had applied best practices in ITIL version 3 program in aiming for the application of IT Governance in NDIT in MJTL. In this research, the researcher was only using Service Strategic (SS) domain, so further researches using the other 4 domains that haven't been used here are needed.

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