Applying Supply Chain Management at Event Organizer Company with Zachman Framework

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ABSTRACT

The development of information systems now has experienced very rapid growth. This resulted in its emergence increasingly fierce competition in the business sector and between organizations. in its style sheet. This study aims to explained Enterprise Architecture implementation at PT XYZ that have several bussiness. For a research, the methodology used is really important to define a good result. The methodology that we used in this research is case study, to collect important data of PT. XYZ. Literature review is used as a means of supporting theories or hypotheses put forward in this study. Therefore, this research is intended to find out how to design enterprise architecture that can help company to define what strategies that suitable with its culture, and also can increase the potential use of information system, so that climate can continue to compete and survive with uncertain economic conditions in the era recently.

Key words: Enterprise Architecture, Information system

1.INTRODUCTION

In this digital era, the development of information systems now has experienced very rapid growth. This resulted in its emergence increasingly fierce competition in the business sector and between organizations therefore, many organizations have begun to utilize information systems and its technology by only paying attention to momentary needs and application of information systems that have not been well integrated its implementation of the use of information systems must be supported by a good and precise information system strategic planning goals and objectives expected by the company to achieve results optimal for both the short and long term. Planning Strategic information systems are needed to guarantee a success organization in meeting the needs for information systems and technology the most appropriate now and in the future. System making unplanned and well-managed information, will had a very detrimental impact on the company. That impact very dangerous is if there is a decrease in trust from the system information. Like PT XYZ which currently runs

in the service business sector for the event organizer, as an event organizer company, PT. XYZ really need the help of SI and IT so that it can run with effective and efficient, but for now it still encounters internal obstacles maintenance of ongoing events and finances that are often difficult tracked due to lack of use of information systems and technology information so that business processes cannot run optimally. With a mature and precise strategic information system planning, then will produce a flow of information that is good, precise, and appropriate with company needs. So that it will support every function business that is within the company organization to carry out its activities and place the company in a superior position within

existing business competition. Conditions of Information Systems Strategic Planning in Indonesia is still very underdeveloped. Many organizations in Indonesia which develops information systems without doing Information Systems Strategic Planning. The organization is developing Information systems only with the help of internal IT staff, as well as suppliers (external) directly. The result of this is the formation information system that is "patchy". The Role of Design Strategic Information Systems can be improved by providing awareness of the organization of the importance of a Master Plan before developing information systems. The SI Master Plan is an outcome from Information Systems Strategic Planning. SI Plan is a long-term planning in the development of SI and contains wishes from management, users and the changes that occur in inside and outside the organization. [1]

2.LITERATURE REVIEW

2.1.Integrated System

Information system, an integrated set of components for collecting, storing, and processing data and for providing information, knowledge, and digital products. Business firms and other organizations rely on information systems to carry out and manage their operations, interact with their customers and suppliers, and compete in the marketplace. Information systems are used to run interorganizational supply chains and electronic markets. For instance, corporations use information systems to process financial accounts, to manage their human resources, and to reach their potential customers with online promotions. Many

major companies are built entirely around information systems.

2.2.Enterprise Architecture

Enterprise architecture (EA) is the practice of analyzing, designing, planning and implementing enterprise analysis to successfully execute on business strategies. EA helps businesses structure IT projects and policies to achieve desired business results and to stay on top of industry trends and disruptions using architecture principles and practices, a process also known as enterprise architectural planning (EAP). The EA framework came as a response to the increase of business technology, especially in the 1980s when computer systems were just taking hold in the workplace. Companies soon realized they would need a plan and long-term strategy to support the rapid growth of technology and that remains true today.

Modern EA strategies now extend this philosophy to the entire business, not just IT, to ensure the business is aligned with digital transformation strategies and technological growth. EA is especially useful for large businesses going through digital transformation, because it focuses on bringing legacy processes and applications together to form a more seamless environment. According to Bernard [2], Enterprise Architecture (EA3) Cube Framework consists of EA Components which components are consists of goals, processes, standardization, and these resources can at any time change within a company or organization that has different segment.

A. SWOT Analysis

SWOT analysis is the systematic identification of various factors to formulate a corporate strategy. This analysis is done on logic which can maximize strengths and opportunities (Opportunities), but can simultaneously minimize weaknesses (Weakness) and threats (Threats). So, analysis SWOT compares the external factors of opportunity and threat with internal factors of strength and weakness. According to Bernard [2], one step which must be made first in doing the development of strategic planning that is paying attention SWOT analysis (Strength, Weakness, Opportunities, and Threads). This analysis shows internal factors and also external factors which must be to determine the area The company must focus on improving survivability and success, as well as the areas that must be avoided, or reduced.

B. Porter

Analysis of Porter's five competitive forces is competitive strategies that analyze business competition based on five main aspects, The purpose of a competitive strategy for an internal business unit an industry is finding a position in the industry where the company can protect itself as well as possible against competitive pressures or can affect the pressure positively. [3]

C. PEST

PEST Analysis (political, economic, social and technological) is a management method whereby an organization can assess major external factors that influence its operation in order to become more competitive in the market. As described by the acronym, those four areas are central to this model. PEST Analysis can assist an organization in recognizing and thereby capitalizing on opportunities offered by existing conditions in the business environment. It can also be used for identifying current or possible future challenges, allowing for effective planning of how to best manage these challenges. PEST Analysis can also be applied in assessing the in-house structure of an organization in order to identify strengths and weaknesses in its internal politics, economic outlook, social climate, and technology base. The results of this analysis can facilitate changes or improvements in areas identified as subpar. PEST Analysis can be used in conjunction with other forms of strategic business analysis, such as the SWOT (strengths, weaknesses, opportunities, and threats) model, for an even more comprehensive result. Conducting a comparison between these completed analyses can provide a very solid basis for informed decision-making. [3]

3.RESEARCH AND METHODOLOGY

The methodology used in this study, namely, first, through the study of literature from previous studies from trusted journals on the design of Enterprise Architecture using the EA3 Cube Framework method. Second, through a case study on EO company PT. XYZ Data collection methods in this study were conducted by interviewing relevant parties as well as direct observation of the ongoing business processes. The following is a frame of mind that exists in this study:

3.1.Company Overview

A little bit overview from PT. XYZ, PT. XYZ is a company that offers Event Planner and Organizer services. But in the long run they also receive offers that cover more broadly towards branding and marketing because of that they are divided into 2 divisions at this time, namely creative agency & party planner. And now at the moment, is in the process of separating this division into 2 different companies.

A.1 Company Vision

Become a trusted and professional creative agent that provides integrated event creation services, from planning, organizing, consulting, production to the implementation stage

Become a creative agent committed to uniqueness and humble service that always presents an elegant style and an attractive atmosphere in every project

A.2 Company Mission

- Providing the best service for our clients through the values and principles that we have carried out so far

- Provide a positive and comfortable workplace for all employees

- Make every imagination come true and be felt by clients

- Provide satisfying service to create the best results

3.2.Porter Analysis

This Porter Analysis conducted by a business unit in an industry is finding a position in the industry where the company can protect itself well against competitive pressures or can positively influence these pressures. [4]

Rivalry Among Existing Competitors

Positive :

- Have enough human resources to outsource employees so as to improve field performance mobility

- As a service company that can meet, adjust and analyze customer needs so that the level of customer satisfaction can be further increased

Negative :

- Still classified as a new company whose system still uses manual, thereby reducing the efficiency and effectiveness of the company's business processes

- There is still a shortage of permanent workers, thereby reducing competitiveness of similar companies, this is because the company is still relatively new

Bargaining Power of Supplier

Positive :

- Have many permanent suppliers that are responsive in delivering the goods needed by the company

- Have a good relationship with permanent suppliers

Negative :

- Does not have a tender system so it cannot control the price of the goods the supplier offers

- The relationship between companies and suppliers is still based on trust

Bargaining Power of Customer

Positive :

- Can meet the needs of customers who want and at the same time maintain the quality of the relationship between the customer and the company so that the level of customer satisfaction can increase

- By continuing to provide good service quality the company has a fairly good level of customer loyalty

Negative :

- Have requests that are sometimes very large and must be completed in a short amount of times

Threat of NewEntrants

The analysis we get is that there is no threat of new arrivals because the company is still relatively new

Threat of Substitute Product or Service

The analysis we get is that there is no threat from substitute products / substitute services

3.3 PEST Analysis

The PEST analysis in this study is used to analyze factors in the business environment which include politics, economics, social and technology. [5].

Politics

Positive :

- Service companies that obey the laws and regulations in force in the Republic of Indonesia

- Have collaborated with several state-owned companies, especially public sector such as Garuda and Pertamina

- Standard Operation Procedures or SOPs are always monitored by field supervisors to avoid violations of applicable regulations

Negative :

- Increase in UMR / UMP which always goes up every year which of course can reduce company profits

Economics

Positive :

- With the implementation of the 2015 MEA assist companies in improving the quality of employment which is expected to have a positive impact on company growth.

Negative :

- Frequent inflation can sometimes affect the prices of several suppliers who work with companies

Social

Positive :

- The company establishes good communication and relationships with workers as well as business partners

- The company's approach to its workers is more familial so workers feel comfortable working with PT. XYZ

Negative :

- Often there is a shortage of workers for large events because workers at PT. XYZ is more outsourcing, so there are often double jobs for one worker

Technology

Positive :

- With the internet thus increasing marketing of PT XYZ services to the community, while increasing the number of customers each year

Negative :

- Does not have an integrated system so that it slows down the company's performance especially the recording and logistics / supply department

- There are still many outsourcing workers who do not know about the technology used by the company

3.4. SWOT Analysis

SWOT Analysis is a way to identify both internal and external factors within the company. From internal factors, we can look at the Strength and Weakness section. From external factors, we can also look at the Opportunity and Threats section. [6]

Strength (S)

1. Already have a good SOP in operational activities carried out by PT XYZ

2. Having a variety of interesting and unique packages offered by PT XYZ as a company appeal to new clients

3. Having a good quality of service provided by PT XYZ to clients / prospective clients

Weakness (W)

1. Companies do not have an integrated system to help their business processes / are still manual

2. The company's business processes are still less effective and efficient because there is no application system that can help the company

3. The company does not have a database that can store client and transaction data, so there is still a lot of double and unrecorded data because it still uses manual recording

Opportunities (U)

1. Having many opportunities that can be obtained from clients who are loyal and loyal to the company, such as being able to provide information and also promote the company to other parties

2. Development of the system from the manual into an integrated system between divisions. This has a positive impact on the company

3. It is still rare for event organizers to specialize in corporate events at the national and multinational levels

Threats (T)

1. Have enough competitors / other companies that commit fraud / tricks in order to attract clients in the company PT XYZ

2. The increasing growth of companies engaged in event organizers continues to increase every year

3. Similar companies that have many loyal clients and existed before PT. XYZ stood up

Following are the SWOT factors with weight calculation:

Table 1: Calculation of EFAS & IFAS Weights

	SP				Calculation of EFAS & IFAS Weights		
	SP	K	* K	Weight	Weight	Score	Weight * Score
STRENGTH							
S1	4	4	16	16/40 = 0.4	0.4	4	1.6
S2	3	4	12	12/40 = 0.3	0.3	3	0.9
S3	3	4	12	12/40 = 0.3	0.3	3	0.9
Total			40				
WEAKNESS							
W1	3	4	12	12/40 = 0.3	0.3	3	0.9
W2	4	4	16	16/40 = 0.4	0.4	2	0.8
W3	3	4	12	12/40 = 0.3	0.3	3	0.9
Total			40				
OPPORTUNITIES							
O1	3	4	12	12/40 = 0.3	0.3	3	0.9
O2	3	4	12	12/40 = 0.4	0.3	2	0.6
O3	4	4	12	16/40 = 0.4	0.4	4	1.6
Total			40				
THREATS							
T1	3	4	12	12/40 = 0.3	0.3	3	0.9
T2	4	4	16	16/40 = 0.4	0.4	3	1.2
T3	3	4	12	12/40 = 0.3	0.3	3	0.9
Total			40				

Explanation of weight rating points:

0 – 0.1 = Not too Important

>0.1 – 0.2 = Quite Important

>0.2 – 0.3 = Important

>0.3 – 0.4 = Very Important

Explanation of the value obtained :

1 = No Impact

2 = Quite an Impact

3 = Impact

4 = Very Impactful

D. SWOT Matrix

After calculating the weights, the SWOT Matrix is made :
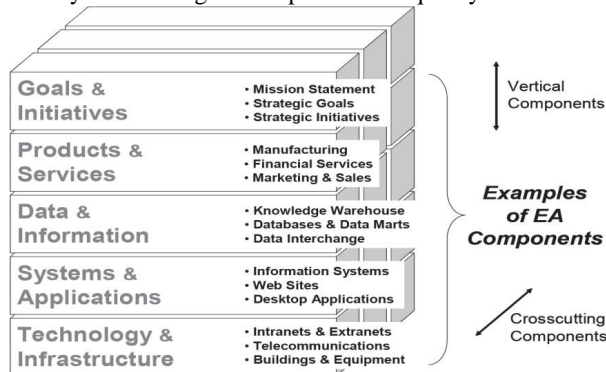
- Strategy Objective 1 (S3 dan O1)

By improving the quality of service provided by PT XYZ, the company can maintain client loyalty while increasing the number of new clients

- Strategy Objective 2 (W1 dan O2)

By changing the system from manual to an integrated system can help the company's business processes because it can connect between one division and another division

- Strategy Objective 3 (S3 dan T2)

By continuing to improve the quality of services

provided by the company to clients, it can increase client loyalty which has an impact on increasing the competitiveness of PT XYZ towards similar companies

- Strategy Objective 4 (W2 dan T3)

Companies must implement systems that can help the company's business processes be more effective and efficient so that customers can feel the impact directly while attracting the attention of new clients

3.5. EA3 Cube Framework

Enterprise Architecture (EA3) Cube Framework consists of EA Components where components consisting of goals, processes, standardization, and resources can be changed at any time in a company or organization that has a segment that is different. [2]

Figure 1: Architecture of EA3 Cube Framework

4.FINDING AND DISCUSSION

After the research methods proposed in this study, then next, enter the analysis and discussion stages on the topic of Enterprise Architecture using the EA3 Cube Framework in a case study at PT XYZ
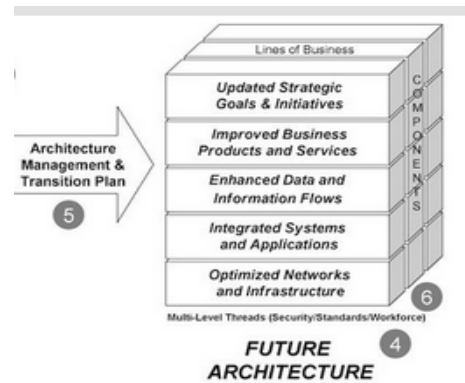

Figure 2: Future Architecture of EA3 Cube Framework

4.1. Updated Strategic Goals and Initiatives

A.1 Company Vision

Become a trusted and professional creative agent that provides integrated event creation services, from planning, organizing, consulting, production to the implementation stage

Become a creative agent committed to uniqueness and humble service that always presents an elegant style and an attractive atmosphere in every project

A.2 Company Mission

- Providing the best service for our clients through the values and principles that we have carried out so far
- Provide a positive and comfortable workplace for all employees
- Make every imagination come true and be felt by clients
- Provide satisfying service to create the best results
A.3 The Stated Strategy

From the results of the analysis of external factors and internal company, the writer will do a business process re-structuring to make it more orderly and orderly at PT. XYZ, in addition, the writer will create a web-based system based on supply chain management to support operational activities at PT. XYZ and provide training on the new system to employees so that the use can be done optimally.

A.4 CONOPS dan CONODS

The following are examples of scenarios that exist in the company:

1. The supplier carries out the registration process
2. Suppliers make sales forms
3. Suppliers input the list of items sold
4. Clients make order requests
5. Account Executives provide client order requests to the Production Director
6. Production Director selects suppliers according to the client's order request
7. Production Director makes purchase orders
8. Supplier confirm purchase order
9. Suppliers make invoices
10. Production Director receives invoice
11. Account Executive makes payments
12. Suppliers make shipping forms
13. Production Director makes the form of receipt of goods
14. Account Executive updates supplier activity status
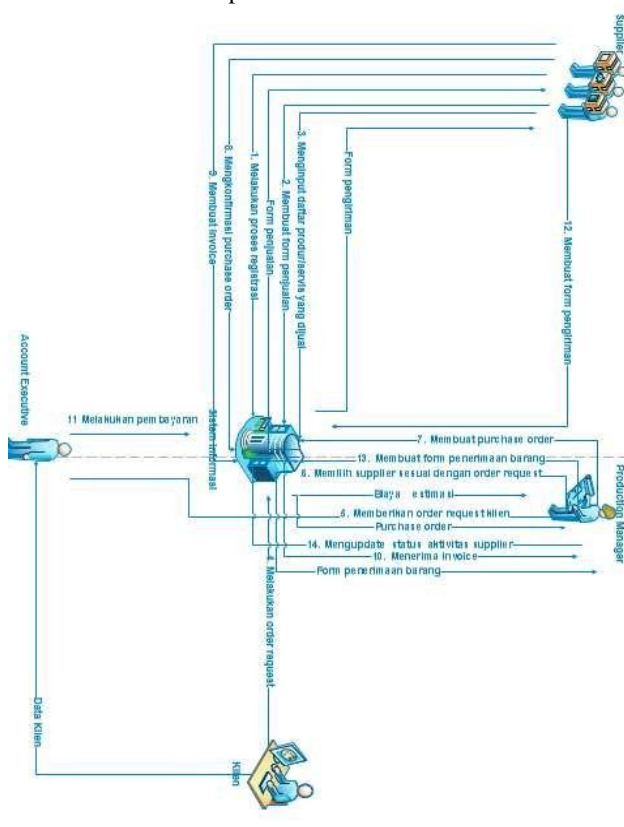
So that it can be represented as follows:

Figure 3: Concepts of Operation Diagram

4.2. Improved Business Products and Services

At this stage, it will be explained about the development of business products and services that will be run in order to help the company produce a strategy that can help the company's performance
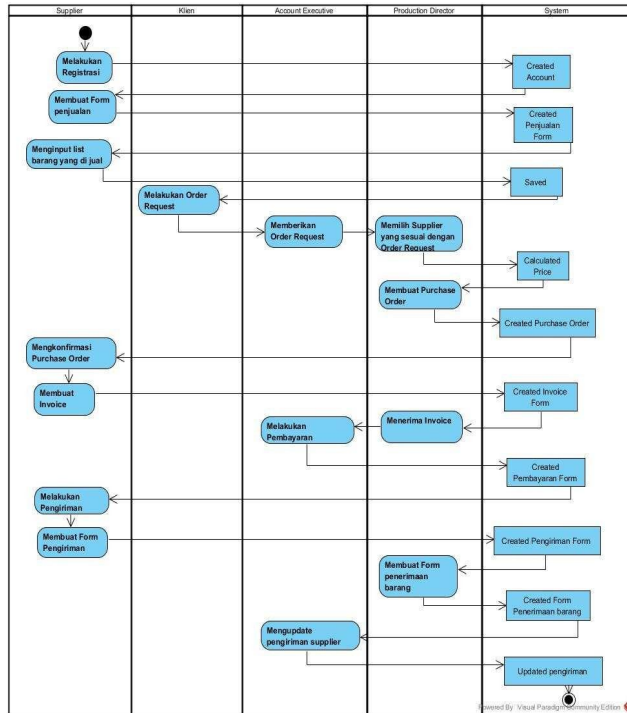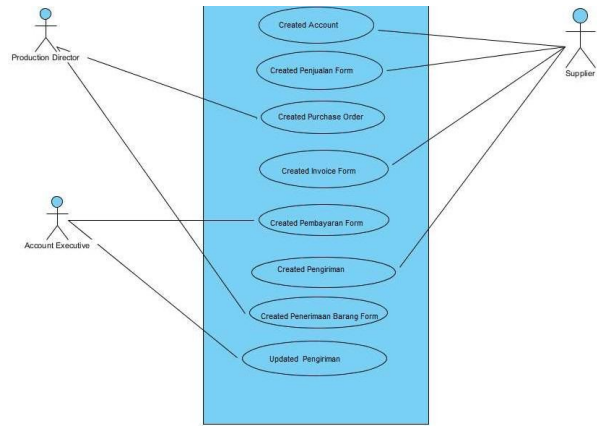

Figure 4: Swimlane Diagram

Figure 5: Usecase Diagram

4.3. Enhanced Data and Information Flows

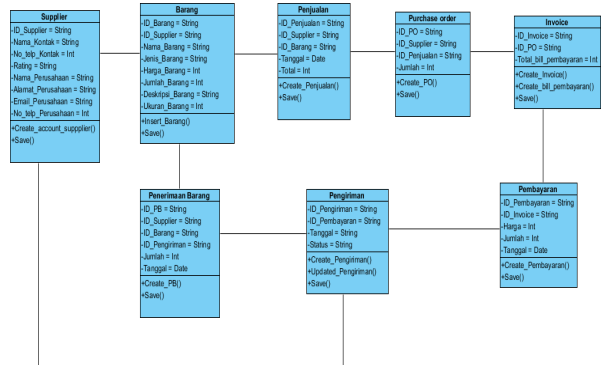Data and Information Flow can be seen from the following Class Diagram:

Figure 6: Class Diagram

4.4. Activity/Entity Matrix

Activity listing can be seen from the picture below and is used to develop a mapping of existing data entities in the company PT. XYZ
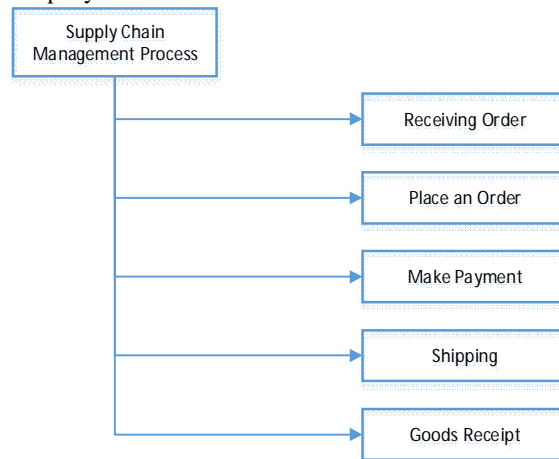

Figure 7: Activity Listing

4.5. CRUD Matrix

The CRUD Matrix is an excellent technique to identify the Tables in a Database which are used in any User interaction with a Web Site. CRUD means 'Create, Read, Update or Delete', and the CRUD Matrix identifies the Tables involved in any CRUD operation. [7]. CRUD Matrix here. CRUD matrix here is used to map the access requirements that exist in PT. XYZ

Following is the access granted which is illustrated via CRUD Matrix:

Table 2: CRUD Matrix

	Actors		
Use Case			
Receiving Order		C	R
Place an Order	R		C
Make Payment	R	CU	
Shipping	C		R
Goods Receipt		U	C

Explanation :
- S : Supplier
- AE : Account Executive
- PD : Production Director

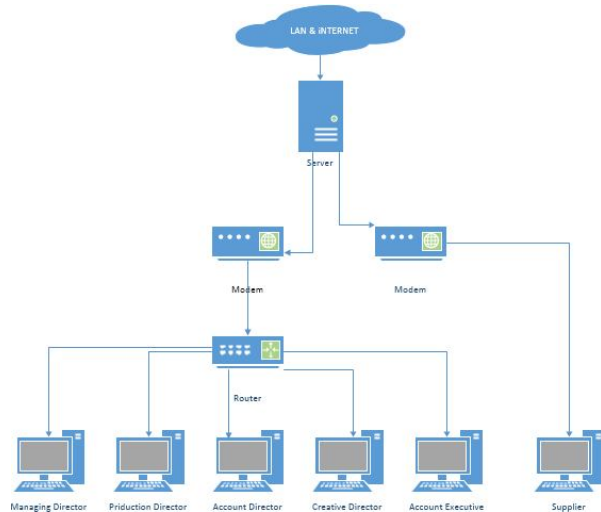### 4.6. Integrated System and Application

System Communication Diagram

Figure 8: System Communication Diagram

4.7. Optimize Network and Infrastructure
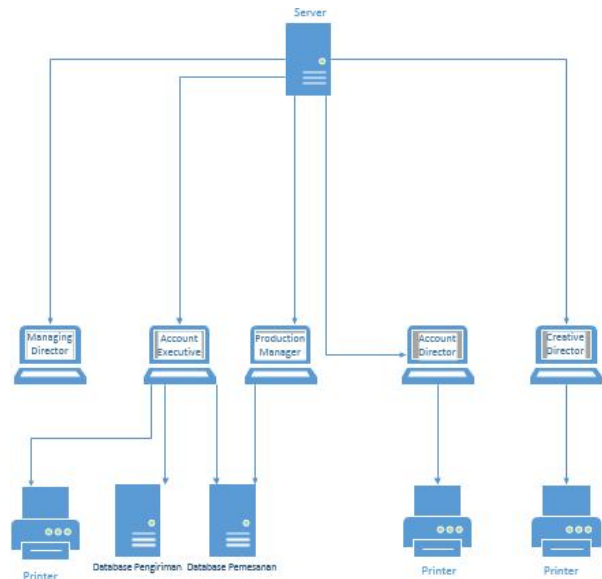
Network Connectivity Diagram

Figure 9: Network Connectivity Diagram

Security Plan
- Data Security
  To provide protection and safeguarding data, each employee is given a restriction on accessing company data to protect data from unauthorized parties
- Personnel Security
  Every employee is required to use an ID card that is owned by everyone for the introduction of activities carried out by employees and use an ID card to access space in accordance with his position
- Physical Security
  For now, security at PT. XYZ only uses 4 security people at the entrance of the building
- Operational Security
  Implement a Disasater Recovery Plan to minimize disasters that can occur at any time that can damage or eliminate company data. Disaster Recovery Plan can be used to backup damaged or lost data

5.CONCLUSION

The results of this study aim to determine design of Enterprise Architecture at PT. XYZ based on Supply Chain Management Process in this company. After doing this research, some conclusions were found :

- The system that runs or Current Architecture above is good in terms of analysis. Even the strengths and opportunities that are there are very large but not yet optimal because they still do not use Technology Information (IT) to the maximum.

- The system to be updated or Future Architecture will focus on the company's relationship with suppliers through the Supply Chain Management approach

- The Master Plan itself uses IT resources to support the company's strategic business processes

- In terms of business the new system Future Architecture makes it easy for companies and suppliers to deal with business online

The writer suggest to create a project team to analyze, implement and run the new Enterprise Architecture system and also counseling the workers in the company so that it can run the new system well. Also, buy or develop a web-based system application that is used for the new Enterprise Architecture system so that it can run as desired by the company whose main purpose is to support the process within the company in terms of security, application running and also maintenance

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