

# Strategic Information System and Interorganization Planning

Putu Widiadnyana<sup>[1]</sup>, Ari Putra Wijaya<sup>[2]</sup>, Ida Bagus Manuaba<sup>[3]</sup>

[1][2] Department of Electrical and Computer Engineering, Post Graduate Program, Udayana University,  
Email: kherias@gmail.com

[3] Department of Electrical and Computer Engineering, Udayana University

**Abstract—** In the business development within an organization can't be separated from the role of information systems and also support from other organizations. It needs a strategic plan to support the vision, mission and company objectives. Strategy that developed need to be supported with information that can support organization system which helps in the enterprise information system. With the existence of strategic information system and system interorganizational the company is able to build relationships with supplier and distributors to maximize product value and improve product competitiveness.

**Keywords—** Information Systems, Business, Interorganizational

## I. INTRODUCTION

Business competition in globalization era is tight as the impact of technological advances that eventually forced the company and business activities should use the proper strategy. Strategy that been used must be able to solve problems of companies then adapt to the changing environment and finally the company will be in a strategic position. The information that will be used as a strategy must be well managed with very specific techniques to create efficiency in work process, effectiveness in decision making, market products, plan ahead and expand the market.

XYZ company engaged in the handicrafts production made from silver is one of the companies that are still using traditional techniques (handmade) in process of the craft. They are still using offline promotions and participate in a particular event in marketing their products to the local market. In order to achieve the company vision, mission and goals then it need of strategic business plan that support achieving organizational goals as well as the cooperation among several companies to help each other to work together in the development and distribution process to delivery.

## II. STRATEGIC INFORMATION SYSTEMS

### A. Strategic Information Systems and Organization Inter System

IS / IT strategic planning is the process of identifying a portfolio of computer-based applications SI will support the organization in the implementation of business plans and realize business goals [1]. While Inter Organization System is a

combination of all related companies so that they function as a single system; they work together for the one achievement.

IS / IT strategic planning of study the effect of the IS / IT toward business performance and its contribution to the organization in selecting the strategic steps. In addition, the strategic planning of IS / IT also describes the various tools, techniques, and frameworks for management to straighten the IS / IT with business strategy, even though seeking new opportunities through the innovative application technologies

Benefits of strategic information systems, namely:

1. Improving the efficiency of working with perform various processes that will process this information automatically
2. Improving the effectiveness of the Management to satisfy the needs of the information system that will be useful for decision-making in an organization or company.
3. Fixing competitiveness or to increase the competitive advantage within the organization or within the company.

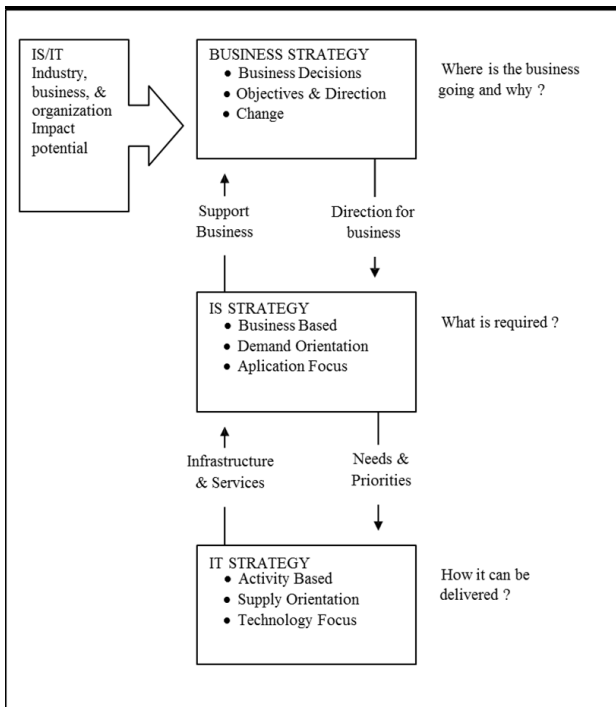
The benefits of the inter organizations system are divided into two categories: comparative efficiency and the bargaining power.

1. Comparative Efficiency: By joining the inter-organizational system, trading partners can provide their goods and services at a lower cost (real price) of their competitors
2. Bargaining Power: A company's ability to resolve disputes with suppliers and buyers that benefit themselves called 'bargaining power (bargaining power). That power comes from three basic methods by offering a unique product features, by reducing the costs associated with the search, and by increasing the cost of the transition.

### B. IS/IT Alignment Strategy and Business Strategy

To determine the IS / IT strategy that can support the vision and mission of the organization achievement, it is need understanding about organization's business strategy. The understanding includes an explanation of the following things: why is a business run, where are the purpose and direction of the business, when is that goal achieved, how to achieve the

objectives and are there any changes that should be made. Then in building a strategy SI / IT, the one became the central issue is the alignment (alignment) strategy IS / IT with the organization business strategy. Analogy strategic alignment can be seen in the picture below.



**Picture 1 Business Strategy Relations, SI and IT Strategy**

*C. Planning Strategic of Information Systems*

IS / IT strategic planning is the process of identifying a portfolio of computer-based applications SI will support the organization in the implementation of business plans and realize business goals. IS / IT strategic planning study the effect of the IS / IT on performance and contribution to the organization in selecting the strategic steps. In addition, the IS / IT strategic planning also describes the various tools, techniques, and frameworks for management to align the IS / IT strategy, even seeking for new opportunities through the application of innovative technologies.

*D. Value Chain Analysis*

The terms of the value chain (value chain) describes ways to look at the company as a chain of activities that transform inputs into outputs that value to the buyers. Value for the buyers comes from three basic sources: activities that differentiate products, activities that lower the cost of products and activities that can quickly meet buyer’s needs. Analysis of the value chain (value chain analysis-VCA) seeks to understand how a business creates value for buyers by examining the contribution of different activities in the business to the value [2].

This analysis aims to identify and classify the activities that take place in two parts: core activities and supporting activities. After that, these activities will be mapped and used as a basis for determining the solutions IS / IT in order to produce a competitive advantage for the company.

The main activities are divided into five parts, namely logistics incoming (inbound logistics), operations management (operations), logistics exit (outbound logistics), marketing and sales (marketing and sales), and services Supporting activities divided into four, namely infrastructure company (firm infrastructure), human resource management (human resource management), technology (technology), and procurement (procurement).



**Picture 2 Value Chain Analysis**

*E. Five Forces Models*

This analysis is used to see the competitions that exist in the company's business. This analysis will look at the extent of the influence of competition among existing competitors, new entrants, substitute products or services, the bargaining power of suppliers and the bargaining power of buyers on the sustainability of the company's business.



from "The Five Competitive Forces That Shape Strategy" by Michael E. Porter, *Harvard Business Review*, January 2008

**Picture 3 Five Forces Models**

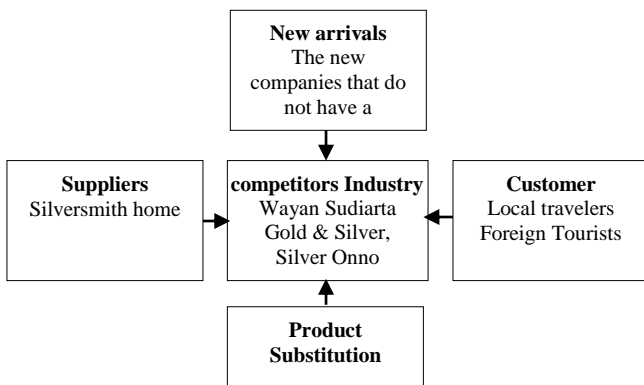
*F. SWOT Analysis*

SWOT analysis is comparing between the opportunities and threats of external factors with internal factors strengths and weaknesses. This analysis is divided into four basic components, namely: strength (strength) is the strength of the organization, weakness (weakness) is the weakness of the organization, opportunities (opportunities) is an opportunity outside the organization and provide an opportunity for organization to develop in the future and the threat (threat) is treat from the outside of organization and can threaten the existence of the organization in the future.

**III. DISCUSSION**

*A. Analysis of external companies*

Five Forces Model is used to mengalisa and view a map of the existing competition on the company's business strategy and then seek to win the competition. The competitive landscape of business in accordance with the Five Forces Model is shown in picture 4.



**Picture 4 Five Force Model Analysis Results**

The strategy can be applied in accordance with the Five Force Model analysis results can be seen in Table 1 below

**Table 1 Strategy Porter's Five Force**

Model	Performer	Strategy
<b>Industry Competitive ness</b>	1. Wayan Sudiarta Gold & Silver Onno Silver	Improving product quality Improving service by utilizing the performance of human resources and the development of the iS / IT
<b>Threats new Arrivals (Threat of new entrants)</b>	company which has not had a reputation	Improving quality control management of goods and services, utilizing SI / IT appropriate to the needs of the company, Doing business innovation
<b>Strength Bargaining Suppliers (Bargaining Power of Suppliers)</b>	Custom silver	Develop facilities such as iS / IT to obtain important information about the data suppliers and data products purchased
<b>Strength Bargaining Customer (Bargaining Power of Customers)</b>	community middle and upper, Travelers Locally and Abroad	develop tools such as iS / IT in order to maintain long-term relationships with customers, such as providing information about the products offered, responding to criticism, suggestions and complaints that there was
		Knowing the estimated needs of customers

*B. Internal Analysis Company*

*1. Value Chain Analysis*

Value Chain Analysis SIEC used to conduct the company's internal analysis, the analysis was determining the extent -aktifitas what is included in the main and auxiliary activities. The results of the analysis can be seen in the following figure.

<b><u>Completeness Infrastructure</u></b> Management of the company's business, the availability of equipment ancillary equipment				
<b><u>Human Resources Management</u></b> Selection, recruitment, employee training to improve competency and the evaluation of employees				
<b><u>Technology Development</u></b> Developing systems and information technology necessary for the needs of companies				
<b><u>Procurement</u></b> Purchasing of goods held every month, goods in trying always available for sale				
<b><u>Logistics in</u></b> data storage customers, employees and goods / products	<b><u>Logistics in</u></b> data storage customers, employees and goods / products	<b><u>Logistics in</u></b> data storage customers, employees and goods / products	<b><u>Logistics in</u></b> data storage customers, employees and goods / products	<b><u>Logistics in</u></b> data storage customers, employees and goods / products

**Picture 5 Analysis Value Chain**

Strategies that can be applied in accordance with the results of Analysis Value Chain above can be seen in table 2 below.

**Table 2 Strategy Value Chain**

Model	Activities	Strategy
Activities supporting		
completeness Infrastructure	The management of the company's business processes, the availability of equipment ancillary equipment	companies need to develop new infrastructure in the form of a network architecture that includes covering application development and procurement of servers for accessing and integrating data more quickly
Management Resource Human	Selection, recruitment, employee training to improve competency and performance evaluation of employees	Activity selection, recruitment, and training of employees conducted by the Head
development technology	develop systems and information technology necessary for the needs of companies	companies must develop dynamic websites such as <i>Ecommerce</i> as a marketing medium takes applications to process transaction data, preparing reports for executive decision making and maintaining long-term relationships

		with customers
Procurement	Activities purchases of goods held each month, cultivated goods are always available for sale.	Requires an application that can manage purchases, so that executives can make decisions for the next procurement
<b>Main activities</b>		
Logistics In the	storage of customer data, employee data storage, storage of goods received from <i>suppliers</i>	Needed an information system to support logistics in order for the data that exist can be processed and integrated quickly and accurately to the continuation of the business activities
of Operation	Booking goods Checking goods Sales of goods payment from the customer	needed an information system to facilitate transaction data processing, so that the whole process operations can run more optimally
logistics exit	the exit of goods delivery of goods provision bill Returns to the supplier if damaged goods	needed an information system to support the activities of the logistics out, so that the transaction data processing exit of goods, delivery of goods and provision of the bill can be managed with better
Marketing	and Promotion advertising on the internet and brochures	company should be an interactive media as a means for marketing. <i>E-commerce</i> is the right solution to achieve because doing business <i>online</i> is the trend of current cutting-edge
Services	<i>Customer Satisfaction</i>	Required information system that can help companies maintain and establish good communication with customers for the long term ( <b>Customer relationship management</b> )

2. *Analysis SWOT*

Next stage before start plotting strategy is to identify the condition of PT. XYZ is now both internal and external. The current state can be known by looking for what the

strengths (Strengths), weaknesses (Weaknesses), opportunities (Opportunities) and threats (Threats) on PT. XYZ or better known as SWOT analysis. SWOT analysis can be seen in the following table.

**Table 3 Summary SWOT Analysis**

<b>Strengths / Strengths (S)</b> 1. Having Product Quality Good 2. Financial pretty good 3. distribution of satisfying customers Upscale and tourists	<b>Weaknesses / Weaknesses (W)</b> 1. 50% of goods are still produced by third parties 2. constrained by demand for goods and manybervariaasi
<b>opportunities/opportunities (O)</b> 1. broad market segment	<b>Threat / Treaths (T)</b> 1. low Power Buy 2.Munculnya competitors

From the analysis above, the strategies that can be applied include

1. sO strategy: Increase production , create a variety of new products and conducting aggressive marketing strategy WO: Building Information Systems precise and Additions competent human resources
  2. Strategy ST: Provide Discounts and Promo, Expanding marketing network, maintain the quality of products, following the exhibition event product
  3. strategy WT: Improve relations with suppliers and customer, understand the market demand, creating new variations and different products.
3. *Determination of Potential Applications and Features*

The potential applications and features required by PT.XYZ can be seen in the following table

**Table 4 Table of Potential Applications**

Application	Features
Accounting	Making Journals Cost Calculation Financial Statements Preparation Record Transaction Reports Analysis
Payroll	Payroll Calculation of Income Tax Expense Allocation of Bonus Calculation of Actual Work PerhitunganJam
Employee	Employee Data Calculation bonus Evaluation of Employee
Financial	Settlement Debt Settlement Accounts Receivable

	Debt Maturity Maturity Receivable Payment Statements of Cash
Knowledge Management	Processing and Analysis of Accounting Standards and Financial Allocation of Cost approach Cooperation
Consumer Services	Consumer Satisfaction Identification Services UsageService
ManagementInfrastructure	Capacity Maintenance Use Allocation Schedules Use Adoption Plan Conditions infrastructure
Warehouse	Position Stock Receiving Goods Storage Goods Goods Quality
Mapping	Distribution Channel Sales Pipeline Regional Marketing Potential
infrastructure Management	Capacity Maintenance Use Allocation Schedules Use Adoption Plan infrastructure Conditions
Warehouse	Position Stock Receiving Goods Storage Goods Goods Quality
Mapping	Distribution Channel Sales Pipeline Regional Marketing potential
Scheduling	Visits ScheduleSalesman Schedule Distribution
Training	Competency Training KebutuhanTraining Training Schedule EvaluationTraining

In determining the application portfolio used SI analyst Peppard ward and portfolio classification and the results of

the portfolio of Information Systems PT. XYZ will come the following.

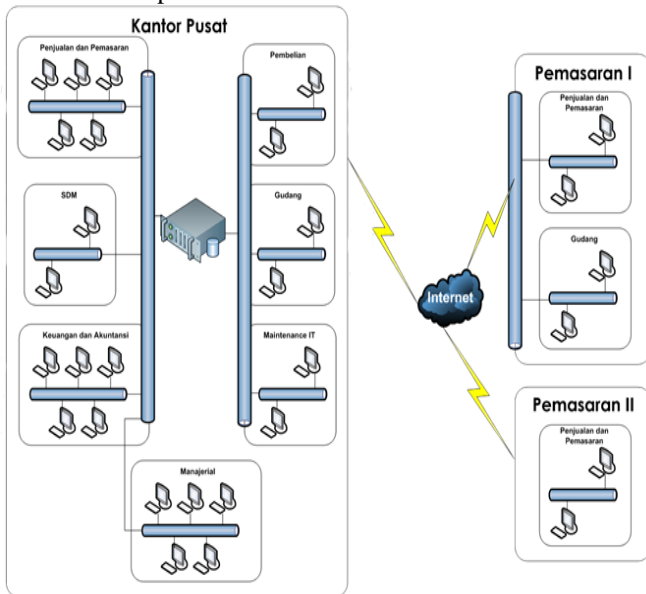
**Table 5 Portfolio Application**

Strategic	High Potential
Mapping Positioning	
Customer Service Purchasing Sales	Accounting  Payroll Financial Management Infrastructure Warehouse Scheduling Training
KeyOperational	Support

[2] R. B. R. John.A Pearce II, Strategic Management Formulation Implementation and Control, USA: Mc Graw-Hill International, 2009.  
 [3] Widarsono, Agus.Analisi Strategik Rantai Nilai: suatu pendekatan manajemen biaya. Bandung: Universitas Pendidikan Indonesia

4. Network Architecture

The network architecture design PT. XYZ can be seen in this picture



**Picture 6 The network architecture design PT. XYZ**

REFERENCES

[1] J. P. John Ward, Strategic Planning for Information System, Sydney, 2003.