Development System Yellow Pages'sEmployees : Knowledge Management System in WVI

Win Ce, AnderesGui, Cecilia Sabrina
Bina Nusantara University
e-mail: wn@binus.edu, anderesgui@binus.edu

Abstrak

Tujuandaripenelitianiniadalahuntukmengidentifikasipermasalahan yang terjadididalamperusahaan dan membangunsarana yang mendukungtransparansiatas knowledge untukmemudahkan proses daripencarian knowledge yang terdapatdidalamperusahaan yang dibutuhkanolehkaryawan dan manager perusahaan. Metodologi yang digunakandibagimenjadiduametodologiutamayaitumetodeanalisis dan metodeperancangan.Metodeanalisis yang digunakanadalahmetodeanalisis Value Network dan SWOT denganmenggunakan matrix IFE, EFE, IE, dan QSPM. Sedangkanuntukmetodeperancanganakanmenggunakanmetode Object Oriented dengan class diagram, use case, sequence , dan user interface diagram. Hasildaripenelitianiniberupatemuan-temuan dan usulanrekomendasiatasmasalah yang terjadididalamperusahaan, dan hasildarianalisis yang dibagimenjadiduaaktifitas, aktifitasutama (Network Promotion, Contract Management, Service Positioning, and Infrastructure Operation) dan aktifitaspendukung (Firm Infrastructure, HR/OD, Technology Development, dan procurement). Adapulaperancanganaplikasi Knowledge Management yang didasarkanpada matrix Knowledge Goal dan Knowledge Identification.Kesimpulandaripenelitian yang dilakukan.Kesimpulan yang didapatkansecarakeseluruhanatas internal perusahaanuntuk tacit dan explicit knowledge belumdidokumentasisertamasihterdapatkekuranganatastransparansikualifikasi knowledge dari tacit knowledge dan didalamperusahaanmembutuhkansistem yellow pages terhadap employee yang dapatmembantuuntukmengatur dan mengelola knowledge yang adadidalamperusahaan.

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Kata kunci:*Knowledge Management, Value Network Analysis, SWOT*

Abstract

The purpose of this research is to identify the problem happened in company to develop the tools to support the transperancy of knowledge to simplify searching process of knowledge in the company which is needed by the employee and managers. Research methods used were divided into two main methods, analysis method and design method. For analysis method, it would be Value Network analysis and SWOT analysis using IFE, EFE, IE, and QSPM matrix. Then for design method, it would be using an Object Oriented method such as class diagram, use case, sequence diagram , and user interface.The result from this research inform of any findings and recommendation from the problem happened in the company, and from analysis result it will divided into two activities, such as main activities (Network Promotion, Contract Management, Service Positioning, and Infrastructure Operation) and Support activities (Firm Infrastructure, HR/OD, Technology Development, dan procurement). Then for application design will be based on Knowledge Goal and Knowledge Identification matrix. Conclusion from this research are: Overall from the internal company, for tacit and explicit knowledge haven't been documented and there's any lack of qualification transperancy knowledge from tacit and explicit knowledges, and the company needs any yellow pages system through the employee that can help to manage and maintain all the knowledge component in the company.

Keywords*: Knowledge Management, Value Network Analysis, SWOT*

1. Introduction

Predominance organization didn't come just from the resource based only, but it also came from knowledge that have been develop in the company to support the whole operational activity in improving the planning goals. Knowledge Management is important for business environment and it examines as a critical variable through the capability and business strategy and it have a positive result in association with the knowledge management. It is even more important than the financial and physical asset in the company, but in implementation the knowledge management, it needs to aligned with the business strategy and also needs to identify the gaps happened.[2][5][6] Knowledge Management also being adopted by many Multinational company and it is used to be an ideas and practices of the company.This Knowledge management have two contributions, first it provide an integration view of management ideas and prove the helpful device of the amount of data, and Knowledge Management also allowed a multiplicity analysis of the consumption process.[4] Knowledge Management can improve an individual performance and influence the value derived from using Knowledge Management.It also give a positive impact also benefit over the time, and provide an efficient, awareness,feedback, and support with regards group performance and collaboration. [1][3]

Overall, Knowledge Management divided into two kind of knowledges, tacit (in people's head) and explicit (expressed the information into databases, document, etc) knowledges, but for these two knowledge will be influence to symphatized, conceptual, operational, and systematic knowledge. [6] To manage all the knowledge, a company will need a Knowledge Management application that can identified, processing, saving, maintain, and distribute all kind of information in the company to the corresponding in the best practices and also increase the competitive advantage of the company. But there's any problem in identified and upgrade the knowledge in the company specialty if it was a tacit knowledge. This research will take a place in WVI organization which is an organization who has a commitment to give a best service to Indonesian people to increase the life quality and help to find the best solution to future community.

2. Research Method

Methodology used in this research were divided into two basic methods: analysis method and design method. Analysis method used are value network analysis and SWOT. Value analysis to analyze all the component that came from internal and external company, then for reformulation of company's strategy were using EFE, IFE, SWOT, IE and QSPM matrix. Next for design method were using an object oriented approach with some adjustment as company's need, such as class diagram, use case diagram, sequence diagram, and user interface.

3. Results and Analysis

From the survey and analysis through the company, some problems have been notice inside the company that related to the knowledge management, such as: (1) there's no placed to save the knowledge and accommodate the idea that related to improve the strategic and service in the company, (2) there's no scheduled documentation for best practices from the success activites, so there's some error in responding a problem that has ever been happened in the company which should not happened again, (3)there's no knowledge to map the qualification of employee competency overall, (4) Haven't been centralized for the training data of the employee, (5) there's no place to save and manage all the knowledge that usable to the company.

The alternative solution for this study through the problem happened in the company is WVI organization need a Knowledge Management system based on internet/intranet that can support the collecting, saving, managing, and reusable of knowledge in one integrated system inside organization. By using this application, the WVI organization can gain great adavantegesin managing the knowledge, and could be re-use properly. Knowledge Management System application divided into four main parts from four different perspective,they are: (1) Corporate Wiki, an application which is use to capture organization's knowledge such as definition, information, and knowledge in the company, (2) Employee Yellow Pages, an application which help in documentation and distribute the competence and employee's data. (3) Lesson learned, system documented the lesson learned and best practices from company's

activities, (4) idea management, a place to manage, saving, and place to discuss the idea and implement it.

From the analyze result using Value Network analysis, company was focused on service through the customer by relying a network. There are three primary activities and four support activities that gave the value to the company. The three primary activities are network promotion and contract management, service provisioning, and infrastructure operation. Then, four support activities are Firm infrastructure, human resources, technology, and procurement. (table1)

Table 1. Result of Value Network Analysis

Primary Activities		Problem	Needs
Network Promotion	Promotion activities	High Promotion Cost	Cooperation in entertaining media
Contract Management	Signing contract activities	Difficult for tight selection for cooperation company because incomplete data	Complete information about the company who will be corporate with WVI
Service Positioning	Direct donation		
	Sponsorship		
	Gift in kind		
	Project Activity (LEAP)	1. Difficult to duplicate a successful project	there's any system who give any reference for ongoing project
		2. undeliverd idea from the practical team to head office	
	emergency response	information of any disaster not given properly	clearly information about disaster happened to improve the donation and service through customer and also decrease the effect from the disaster
	handling a complaint came and measure the satisfaction		
	Advocacy	hard to affect the government to change any policy	More action and idea to response the critic of government policy
Infrastructure Operation	Service activity in branch company	1. hard to coordination between head office and branch company about giving any support to service sector	Integration Knowledge Management System between the branch and head office to help operational activity
		2. There is no documentation for knowledge from branch company employee	
Support Activities			
Firm Infrastructure	Audit activity		
	Determination strategic and monitoring		
	Flow of fund activities from international company		
HR/OD	Recruitment		
	Development of knowledge and employee creativity	there is any Decentralized training	accurate information doccumentation and integration about training, knowledge, and competence that owned by the employee
	Payroll		
	Allocated	Competency maping and employee skill that haven't being on structure and centralized so its hard to determine which the right employee to be alocated	Data documentation for every employee in one place and centralized

Technology Development	Developing and maintaining technology	high dependency of all the employee to IT division	Reduce any dependency from other division to IT division by provide the user guide
Procurement	goods support procurement and operational	1. Goods request from project that haven't available in the warehouse so it needs more time to order the goods 2. Hard to get a loyal distributor in emergency situation	1. making a project plan 2. improve the network through the distributor

For SWOT analysis, it will use the IFE, EFE, IE and QSPM matrix. From EFE matrix calculation , the result was 3.2552 which is mean that WVI organization have a good response to the opportunity and threats came from the industry, then the significant factor came from external such as a transformation climate-natural disaster 0.2526, and less accessibility 0.0558 became a treats for the company. Next from IFE matrix, the result would be 3.5841 and it show that company have a strong internal position, the factor which affect the company performance are a good accountability 0.2509 as a strength of company and decentralized employee data management 0.049 becoma a weakness of the company. After the result from IFE and EFE matrix, data will be process in IE matrix, and the result show that company stay in the first quadrant which it means company was growth and develop in high condition of internal and external. Last, after SWOT and IE matrix was develop, QSPM matrix also develop and got a result which the total interest of product development strategic is 6.8217 and market development strategic is 5.3488.

To design the application, it depends on the Knowledge goals matrix that came from the organizational strategic and knowledge identification in the organization and also from the value network analysis that thave been done. Feature mapping from knowledge goal and knowledge identification will be shown in the table (table2)

Table2. Feature Mapping of Knowledge Goals and Knowledge Identification

Knowledge Goals	Knowledge Identification		
	Structures 1. Job desc. 2. Employee profile 3. KPI 4. Policy	Functional 1. Experience 2. Data training 3. Employee Skills	Behavioral
Normative Goals 1. Increase the knowledge culture related to the competency and knowledge from the employee 2. maintain the knowledge to be related through the data from the missing employee	Feature: - Data Profile - Job desc - qualification	Feature: - Data profile - Qualification	
Strategic Goals 1. utilize all the employee's knowledge in the company and support the strategy in improving the vision and mission of organization 2. Consolidate all the employee with the best expert 3. Make a knowledge as a tools to support the improvement of performance	Feature: - Job Desc. - Qualification	Feature: - Data profile - Qualification - Potential -dislike - preference - find expert	
Operational Goals 1. Guidance on making a decision of employee allocated 2. Simplify the employee's searching when needed (for expertise) 3. Maintain and develop all the company asset that related to the employee	Feature: - Data profile - Job desc - Qualification - Profile Match Up - Find Expert	Feature: - Data profile - Qualification - Preference - Dislike - Potential - Profile Match Up - Find Expert	

Then, for the maping of value network analysis result also will show in the table (table 3)

Table3. Mapping of Value Network Analysis result

No.	Analysis Factor	Requirement	Features
		Value Network Analysis	
1	There's any data training that hasn't been centralized	Documentation of accurate and integration information about training that has been done by the employee	Data Profile
2	Competency maping and employee's skill haven't been structured and centralized yet, so I'ts difficult to decide which employee would be allocated.	a. Competency data documentation for every employee in one centralized place b. Simplify when looking for and allocated the employee	Profile match up, Find expert, and qualification
3	There's no documentation about knowledge from the branch employee	Documentation of employee's competency	Qualification

From the feature maping based on knowledge goals, knowledge identification, and value network analysis there's some similar feature from all the maping feature, and will be adjust in future with the design features development.

4. Conclusion

From analysis and development of Employee Yellow Pages in WVI organization, the conclusion overall are:

1.   In Internal environment of WVI organization, there're tacit and explicit knowledge but haven't been documented. Tacit knowledge shown in employee's skills that haven't been mapped and documented. Then for explicit knowledge, shown in employee's profile, certification data, and training.
2.   Lack of knowledge transperancy especially in employee competency qualification in tacit knowledge. From the expert feature find, qualification people, qualification position and profile match up that expected can help the company to sit in the position and introduce capability and competency of all the employees.
3.   Company Yellow pages is a part of the Knowledge Management system that can help the company to help the WVI organization to collect, save, and manage to distribute the knowledge which is tacit and explicit knowledge.

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