

Knowledge Management Approach to Support Strategic Planning of the Company

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ABSTRACT : *PT KLM Manufacturing Indonesia is one of spare parts manufacturing in the automotive industry in Indonesia. With advancement of electric vehicle in Indonesia, the spare parts market for automotive is facing a potential threat. Thus, the company has decided to focus on Industrial Chain business. The objective of this research is to develop Knowledge Management design for Industrial Chain business in the Company. Prior to the formulation of KM, the strategic planning has been defined using TOWS analysis to ensure that KM design is aligned with the company goals. Based on the analysis, there are 18 main activities that needed to execute in order to achieve the strategic planning. Further exploration has identified the implementation of those activities require 8 critical knowledges. The KM approach has been developed in order to accelerate the critical knowledge using PPT (People, Process, and Technology) framework. The proposed knowledge management design involves benchmarking, discussion, develop Standard Operational Procedures (SOP), document report control, regular review, sharing activities, management dashboard, intranet, meeting platform, and digital sharing folder.*

KEYWORDS - *Knowledge Management, Strategic Planning, TOWS analysis, PPT Framework, Industrial Chain Business.*

I. INTRODUCTION

Indonesia, as a developing country, boasts a numerous industrial landscape encompassing a range of sectors such as oil and gas, agriculture, mining, manufacturing, among others. At the moment, there are reports that the industrial business in Indonesia is keep expanding. According to the Ministry of Industry, the non-oil and gas industry experienced a growth rate of 4.83 percent during the third quarter of 2022, which is higher than the corresponding period in the previous year, which recorded a growth rate of 4.12 percent. The findings of a study conducted by S&P Global reported that the Indonesian Manufacturing Purchasing Managers' Index (PMI) rose by 0.4 points to 51.3 in the month of January 2023. The present accomplishment surpasses that of the December 2022 timeframe, which was recorded at a level of 50.9. As a result of this accomplishment, the manufacturing sector in Indonesia remained in the expansion zone for 17 consecutive months. In January 2023, Indonesia's manufacturing Purchasing Managers' Index (PMI) exceeded that of the Association of Southeast Asian Nations (ASEAN), which was recorded at 51.0. The continued growth of the industrial sector in Indonesia has resulted positive impact on the economic growth and the emergence of various business opportunities.

PT KLM Manufacturing Indonesia, as the original manufacturer of automotive spare parts, identified promising business opportunities that arise from the industrial sector growth circumstance. The company's initial operation as a chain producer was subsequently broadened to encompass the production of industrial chains, which were intended to provide support for numerous diverse business industries. In this context, the term "industrial chain" refers to a variety of chains that are utilized in industry to assist in the daily operations of the production process. The company produces industrial chains such as roller chain, conveyor chain, and power transmission chain in its operations.

In order to face the business challenge and increase profitability in this sector, KLM should establish strategic planning to improve its competitiveness, anticipate product substitution, and foster independence. Knowledge management plays crucial role to support the effectiveness of strategic planning. Nonaka (2000) believes that knowledge acquisition and application may assist the company promote competitiveness growth and continuous improvement, which are essential for the company to compete in the industry. Prior to formulating a knowledge management strategy, it is necessary to define the strategic plan of the company in order to ensure that the knowledge management approach is aligned with the goals of the company.

II. LITERATURE REVIEW

II.1 Theoretical Foundation

II.1.1 Strategic Planning

Strategic planning is a crucial activity in organizational management that involves prioritizing, utilizing energy and resources, enhancing operations, fostering alignment among employees and other stakeholders towards shared objectives, establishing alignment on intended outcomes, and evaluating and adapting the organization's direction in consideration of evolving situations (Maleka, 2014). According to Bryson et al. (2017), strategic planning is characterized as a purposeful and systematic endeavor aimed at generating pivotal determinations and activities that mold and direct an organization or any other entity's identity, operations, and rationale. The practice of strategic planning, as defined, has become a prevalent phenomenon in organizations worldwide.

Strategic planning is deeply interconnected with the entire framework of management which entails the seamless integration of planning and execution over a sustained period. The concept of strategic planning is under consideration that has the potential to be implemented in various settings, including organizations or their subunits, intra-organizational departments such as finance or human resources, inter-organizational networks or partnerships with a specific purpose, such as transportation, health, education, or emergency services (Bryson et al., 2017).

Various frameworks and methodologies exist for strategic planning and management. According to Maleka (2014), it is important to note that there is no definitive set of rules regarding the optimal framework to employ. Nonetheless, most frameworks follow similar patterns and share common attributes. In general, the initial stage of a framework cycle begins with an analysis or assessment, which aims to establish an understanding of the current internal and external environment.

II.1.2 TOWS Analysis

The SWOT analysis method has gained significant popularity as one of strategic planning and analysis tool in recent years. It is commonly employed to assess an organization's strengths, weaknesses, opportunities, and threats. The SWOT analysis acts as a fundamental framework for the formulation of strategic plans through the utilization of the TOWS matrix analysis. By utilizing the TOWS matrix analysis, an organization can develop its strategic planning by leveraging its strengths to capitalize on opportunities, while simultaneously addressing its weaknesses to take advantage of opportunities (Wehrich, 1982).

The TOWS Matrix provides a conceptual formulation of four distinct alternative strategies, with the possibility that some of those strategies will overlap or be pursued simultaneously. Those strategies are (1) The WT Strategy (mini-mini) is to mitigate the negative impact of both internal weaknesses and external threats. Such actions are taken with the objective of mitigating the identified issues. Despite of the chosen strategy, the position of WT is one that any companies will endeavor to avoid. (2) The WO Strategy (mini-maxi) aims to mitigate weaknesses and optimize the opportunities. A company has the potential to recognize opportunities in the external environment, however, it may face internal weaknesses that hinder its ability to capitalize on market demands. In these kinds of situations, it is necessary for a company to come up with a strategic plan to overcome its weaknesses and capitalize on potential opportunities. (3) The ST Strategy (maxi-mini) is founded upon the internal strength of the organization to effectively manage and mitigate external threats within its environment. The objective is to optimize the inherent capabilities while eliminating the external risks. (4) The SO Strategy (maxi-maxi) aspires to optimize their strengths and capitalize on opportunities. The company has the potential to capitalize on its strengths and leverage current resources to exploit the market demand.

II.1.3 Knowledge Management

The practice of knowledge management involves the methodical management process of an organization's knowledge as intangible assets with the aim of generating value and fulfilling both tactical and strategic objectives (Liebowitz, 1999). This encompasses a range of activities, including initiatives, processes, strategies, and systems that support and improve the storage, assessment, sharing, refinement, and creation of knowledge (Dalkir, 2005). According to Becerra-Fernandez et al. (2018), knowledge has emerged as a crucial resource in current business environments. The implementation of knowledge management practices can provide several advantages to the organization, such as the utilization of core business competencies, advancing innovation, enhancing production cycle time, improving decision-making, reinforcing organizational commitment, and establishing sustainable competitive advantages. Bailey & Clarke (2000) emphasized organizations that effectively leverage their knowledge assets through effective knowledge management strategies and practices will be better positioned to achieve their goals and remain competitive in today's rapidly changing business environment.

Numerous studies have utilized the two primary types of knowledge as identified by Polanyi (1966). There exists a classification of knowledge into two distinct categories, which is explicit knowledge and tacit

knowledge. The term "explicit knowledge" refers to knowledge in the form of tangible assets that can be easily expressed, systematized, and communicated through documents, records, databases, and other forms of media. As opposed to explicit knowledge, which can be transferred or codified through concrete media, "tacit knowledge" is more implicit that deeply rooted in an individual's experiences, abilities, and expertise (Dalkir, 2005).

II.1.4 People, Process, and Technology Framework

The People, Process, and Technology frameworks are recognized as an additional approach for the development of a knowledge management strategy. The study conducted by Hosseini et al. (2014) revealed that the triad of people, process, and technology shows significant impacts on knowledge management, particularly within the Aviation industry. It emphasizes the importance of people, process, and technology in managing knowledge effectively. The framework highlights the need for organizations to develop a culture of knowledge sharing, establish clear processes for managing knowledge, and invest in technology that supports knowledge management.

People are a critical component of KM, as they are the ones who create, use, and share knowledge. The PPT framework emphasizes the importance of human resources in KM, as they are the driving force behind knowledge creation and sharing. Bailey & Clarke (2000) also emphasizes the critical role of managers in facilitating the success of knowledge management initiatives within organizations. In order to effectively manage knowledge, organizations need to focus on attracting, developing, and retaining employees with the necessary knowledge, skills, and attitudes. This involves creating a culture of knowledge sharing, providing training and development opportunities, and rewarding employees for sharing their knowledge.

The process component of the PPT framework focuses on the procedures, methods, and techniques used to manage knowledge. It includes activities such as knowledge acquisition, creation, storage, retrieval, and dissemination. Effective processes are necessary for managing knowledge systematically and efficiently (Bell DeTienne & Jackson, 2001). The PPT framework highlights the need for organizations to establish clear processes for knowledge management, including guidelines for creating and sharing knowledge, tools for organizing and storing knowledge, and protocols for accessing and using knowledge (Bhatt, 2000).

Technology is a critical enabler of KM, as it provides the infrastructure and tools necessary to manage knowledge effectively. The PPT framework highlights the need for organizations to invest in technology that supports knowledge management, such as knowledge management systems (KMS), intranets, and collaboration tools. Technology can help organizations to capture and store knowledge, make it easily accessible, and facilitate collaboration and knowledge sharing.

II.2 Conceptual Framework

The conceptual framework illustrates the methodology by which the research problem is going to be investigated in order to attain the research's objectives. The conceptual framework of this research begins by examining the business issue and conducting a situation analysis. This involves performing an internal analysis utilizing SWOT analysis and an external analysis utilizing Porter's Five Forces analysis. Those analyses will be support the assessment of strategic planning that has been executed within the organization through the utilization of TOWS Analysis. The process of strategic planning will be segmented into main activities that are essential for the attainment of the company's strategy. The ongoing analysis pertains to the identification of critical knowledge required to facilitate the execution of the main activities. The following step involves creating a knowledge management strategy that is aligned with the critical knowledge that the company aims to acquire, with the purpose of executing the established strategic plan. The development of knowledge management strategy in this research will be using People, Process, and Technology (PPT) Frameworks as business solution to support the strategic planning of the company. Presented below is the diagram that represents the conceptual framework utilized as a guiding principle for the execution of this research.



Figure II.1 Conceptual Framework of the Research (Source: Author, 2023)

III. RESEARCH METHODOLOGY

III.1 Research Design

The research being conducted utilizes a qualitative research design. The utilization of the qualitative research methodology appears appropriate for the present study that seeks to investigate the design of knowledge management in attaining strategic planning within the company. The research methodology that was selected is considered suitable for the present study as it facilitates a comprehensive investigation and in-depth examination of the strategic planning and knowledge management within the company.

III.2 Data Collection Method

The data collection methods for this research will utilize primary and secondary data. The primary data will be collected by semi-structured interviews and observation, and for secondary data will be collected by company’s document and related news. Below is the overview of data gathering design that conducted in this research.

Table III.1 Data Collection Method Design (Source: Author, 2023)

| No | Research Question | Required Data | Data Collection Methods | Source of Data | Expected Findings |
|----|---|--------------------|-------------------------|--|---------------------------------|
| 1 | What is the strategic planning that implemented in PT KLM Manufacturing Indonesia? | Strategic Planning | Secondary Data | Company Document | Understand the Company Strategy |
| 2 | What is the Knowledge Management design to support the strategic planning implementation? | Main activity | Primary Data | Interview with participants Observation | Understand the main activity |
| | | Required knowledge | Secondary Data | Company Document | Determine critical knowledge |
| | | PPT Assessment | Primary Data | Interview with participants Observation | |

III.2.1 Semi Structured Interview

Interview will be conducted with the participants to explore their experiences and perspectives on knowledge management. For sampling technique, this research is using purposive sampling where the participants were selected based on their relevancy to the research question and goals and meet the qualification that important to the study. The aim of using purposive sampling is to focus on gaining in-depth insight into particular topics, in this case, the topic is knowledge management. Therefore, the participant of this sampling is from Business Development of Industrial Chain Department who are specifically become the scope of this research. The chosen participants of this research are Department Head, Section Head, and staff from Business Development of Industrial Chain Department. Those 3 participants were chosen by considering the coverage of the unit, thus complementing each other based on their specialized experiences and knowledge perspective.

The interview questions were arranged based on required data to answer the research question (shown on Table III.1). For PPT (People, Process, and Technology) Framework, the question developed according to 9 questions of People, Process, and Technology on Knowledge Management Planning by Jann Hidajat Tjakraatmadja (2020). Below is the list of interview questions.

Table III.2 List of Interview Questions (Source: Author, 2023)

| No | Required Data | List of Questions |
|----|---------------|--|
| 1 | Main Activity | What are the main activities that executed in order to achieve the strategic planning? |

| | | |
|---|--------------------|---|
| 2 | Critical Knowledge | What are the required knowledges that to operate the acitivity well? How that knowledge support the completion of the task? |
| 3 | People Aspect | Which job roles that needed specific critical knowledge? What roles that needed in the knowledge management program? Who are required to support the acquisition of the critical knowledge? Who are required to support the implementation of knowledge management? |
| 4 | Process Aspect | Are there any specific processes that exist in implementing knowledge management? Such as sharing, collaboration, documentation of the project activity, and so on What are the new processes that needed in order to support of the implementation of knowledge management? What are the policies that needed to encourage the employee in running the knowledge management? |
| 5 | Technology Aspect | Are there any existing tools that can be used in support of the knowledge management strategy? Such as internet, virtual meeting account, sharing folder, etc. What are the new tools that needed in order to support of the implementation of knowledge management? Is there any integration needed to simplify the knowledge management process? |

III.2.2 Observation

In order to complement the data gathered through the interview, this research will also conducted observation as a means of investigating the present situation of knowledge management within the company. The technique of observation is a commonly used as data gathering method in qualitative research, which enables the researcher to gain direct insight into the perspectives and conditions of the participants or population environment. The observation points in this research are also developed based on 9 questions of People, Process, and Technology on Knowledge Management Planning by Jann Hidajat Tjakraatmadja (2020), thus the lists are quite similar with the interview questions. Below is the list of observation points.

Table III.3 List of Observation Points (Source: Author, 2023)

| No | Required Data | List of Observation |
|----|--------------------|---|
| 1 | Main Activity | The main activities that executed in order to achieve the strategic planning |
| 2 | Critical Knowledge | The Knowledge that being used in practical activities. |
| 3 | People Aspect | The roles that needed specific critical knowledge. Type roles that needed in the implementation of knowledge management. |
| 4 | Process Aspect | Current processes that exist in supporting the knowledge management implementation. The new processes that needed in order to support the implementation of knowledge management. The policies that needed to encourage the employee in running the knowledge management. |
| 5 | Technology Aspect | Current existing tools that can be used in support of the knowledge management strategy. The new tools that needed in order to support of the implementation of knowledge management. The integration needed to simplify the knowledge management process. |

III.2.3 Secondary Data

Company document is one of secondary data that being used as data collection method in this research. Secondary data refers to information that has been collected from published sources, indicating that the data has already been gathered by a third party for a different purpose and can be utilized for various research objectives. The company document was selected based on required data to answer the research question (shown on Table 6). Below are the lists of company data that will be gathered in this research.

Table III.3 List of Company Document (Source: Author, 2023)

| No | Required Data | Source of Data | Expected Findings |
|----|--------------------|--|---------------------------------|
| 1 | Strategic Planning | Company document of Strategic Planning | Understand the Company Strategy |
| 2 | Main activity | Company Document of Department Activity Plan (KPI) Standard Operational Procedure (SOP) of Department | Understand the main activity |

IV. RESULT AND DISCUSSION

IV.1 Analysis

The company utilized TOWS Analysis in conceptualizing the company's strategic planning. Following is the strategic plan of the company, which has been formulated based on the data collected.

Table VI.1 TOWS Matrix Analysis of the Company (Source: Author Analysis, 2023)

| | Strength | Weakness |
|---|---|---|
| | <ol style="list-style-type: none"> Utilizing the value chain of its parent company to capitalize market. Establishment of Brand Image as a reliable supplier of high-quality products and services that are competitively priced. Great partnership with a abroad manufacturer that lead to competitive advantage in terms of cost-effective acquisition of raw materials. Expertise in the areas of Scrapper Conveyor, Palm Oil, and Sugar Industry. | <ol style="list-style-type: none"> Need development for conveyor belt technology as company's core competency The number of suppliers is still limited. The knowledge in heavy-duty equipment requires further enhancement The limited capacity of in-house manufacturing lead to significant dependence on import from suppliers. |
| Opportunity | SO: "Maxi-Maxi" Strategy | WO: "Mini-Maxi" Strategy |
| <ol style="list-style-type: none"> Asignificant potential project from existing customer. A significant potential clients performing with State-Owned Enterprises (SOE). A prospective collaboration with a local manufacturer that may have contributed to cost-effectiveness. | <ol style="list-style-type: none"> A strategic partnership with a low-cost manufacturer as a subcontractor to support raw material procurement. The utilization of Brand Image reliability in delivering best Quality, Control and Delivery (QCD) of products for penetrating the industrial chain market of State-Owned Enterprises (SOE) and Value Chain of parent company. | <ol style="list-style-type: none"> Expansion to new market & new product through development and enhancement of internal competencies and knowledge in technical expertise. The strategic partnerships with domestic manufacturer to reduce company's dependency in product import. |
| Threat | ST: "Maxi-Mini" Strategy | WT: "Mini-Mini" Strategy |
| <ol style="list-style-type: none"> The competitor companies expected to possess a higher level of product inventory readiness due to in-house manufacturing process. Competitors seek to attain cost efficiency by carrying out their manufacturing processes to abroad. The rival companies possess specialized expertise in each of their product areas. | <ol style="list-style-type: none"> The utilization of expertise in the palm oil and sugar industries to capitalize on market opportunities across the entire supply chain, from upstream to downstream. Inventory readiness improvement through forecasting the expected amount of demand from projected. | <ol style="list-style-type: none"> Knowledge acquisition through establishing collaborative relationships with competitors that have distinguished technical expertise from the company A strategic partnership with other manufacturers for maintaining competitive pricing and product quality that distinguishes the company from its competitors. |

Following the developing upon the Company’s strategies, the next step is to identify the main activities that are executed in alignment with stated strategies. The main activity that has been identified as a result of the data collecting by employee activity plan data, interview with respondents, and observe the actual activities. The result of data gathering for this research can be found below.

Table VI.2 Main Activities of the Company (Source: Author Analysis, 2023)

| No | Strategy | Main Activity |
|----|--|---|
| 1 | A strategic partnership with a local low cost manufacturer as a subcontractor to support material manufacturing | 1. Initiating multisourcing suppliers for local low-cost manufacturer |
| 2 | The strategic partnerships with domestic manufacturer to reduce company’s dependency in product import | 2. Initiating multisourcing suppliers other than existing manufacturer |
| 3 | The strategic partnerships with other existing manufacturer partners to maintain competitive price | 3. Conducting vendor selection in determining partnership with third parties |
| | | 4. Conducting vendor development to maintain the best QCD of the products |
| | | 5. Calculating cost analysis in making partnership decision |
| 4 | The utilization of Astra Image in delivering best Quality, Cost and Delivery (QCD) of products for answer the industrial chain market (conveyor & bucket elevator) opportunity from previous customer of State-Owned Enterprises (SOE) | 1. Conducting vendor development to maintain the best QCD of the products |
| | | 2. Emphasizing the Astra Image in product portfolio to convince the potential customer |
| | | 3. Utilizing personal and professional connection to gain customer acquisition |
| 5 | Expansion to new market and new product through development and enhancement of internal competencies and knowledge in technical expertise | 1. Knowledge acquisition through benchmarking with similar business or industry |
| | | 2. Talent development through training and learning in technical competencies |
| | | 3. Hiring expert talent to support the product development or advisor to enhancement the technical competencies |
| | | 4. Developing unique or differentiate product design and describe in product portfolio or catalog |
| 6 | Knowledge acquisition through establishing collaborative relationships with competitors that have distinguished technical expertise from the company | 1. Initiating multisourcing partnered company with distinguished technical expertise |
| | | 2. Knowledge acquisition through collaborating with partners or competitors |
| | | 3. Technical collaboration through JV or royalty and sharing profit |
| 7 | The utilization of expertise in the palm oil and sugar industries to capitalize on market opportunities across the entire supply chain, from upstream to downstream | 1. Utilizing personal and professional connection to gain customer acquisition |
| | | 2. Maintaining customer relationship to engage with customer |
| | | 3. Developing unique or differentiate product design and describe in product portfolio or catalog |
| | | 4. Mapping customer need in entire supply chain from upstream to downstream |
| 8 | Inventory readiness improvement through forecasting the expected amount of demand from projected. | 1. Conducting regular SNOP meeting to update customer demand |
| | | 2. Participating with customer through Material Requirement Planning (MRP) meeting |

The next essential step in developing Knowledge Management is by mapping the Critical Knowledge that is required to achieve the company’s strategy. This identification of Critical Knowledge step can be facilitated by the main activities that support its implementation which have previously been presented on the Table VI.2 above. The following is a list of the Critical Knowledge that was determined throughout the process of data collection.

Table VI.3 Main Activities of the Company (Source: Author Analysis, 2023)

| No | Main Activity | Critical Knowledge |
|----|--|---|
| 1 | Initiating multisourcing suppliers for local low-cost manufacturer | Vendor Management Feasibility Study |
| 2 | Initiating multisourcing suppliers other than existing manufacturer | |
| 3 | Initiating multisourcing partnered company with distinguished technical expertise | |
| 4 | Conducting vendor selection in determining partnership with third parties | |
| 5 | Conducting vendor development to maintain the best QCD of the products | |
| 6 | Calculating cost analysis in making partnership decision | |
| 7 | Emphasizing the Astra Image in product portfolio to convince the potential customer | Customer Analysis CRM Framework |
| 8 | Utilizing personal and professional connection to gain customer acquisition | |
| 9 | Maintaining customer relationship to engage with customer | |
| 10 | Mapping customer need in entire supply chain from upstream to downstream | Knowledge Management Talent Management |
| 11 | Knowledge acquisition through benchmarking with similar business or industry | |
| 12 | Knowledge acquisition through collaborating with partners or competitors | |
| 13 | Talent development through training and learning in technical competencies | |
| 14 | Hiring expert talent to support the product development or advisor to enhancement the technical competencies | Product Knowledge Feasibility Study |
| 15 | Technical collaboration through Joint Venture or royalty and sharing profit | |
| 16 | Developing unique or differentiate product design and describe in product portfolio or catalog | Inventory Management |
| 17 | Participating with customer through Material Requirement Planning (MRP) meeting | |
| 18 | Conducting regular SNOP meeting to update customer demand | |

IV.2 Business Solution

The identification of critical knowledge obtained through the analysis serves as a foundation for developing a knowledge management strategy that aligns with the strategic planning of the company. The key objective of KM design is to promote the utilization of critical knowledge, which enhances the performance of main activities. The critical knowledge that has been identified will be applied in the development of the objective for Knowledge Management. The following is Knowledge Management objectives develop based on the critical knowledge.

Table IV.4 Knowledge Management Objectives (Source: Author Analysis, 2023)

| No | Critical Knowledge | KM Objectives |
|----|----------------------------------|--|
| 1 | Vendor Management | To ensure the implementation vendor management in conducting strategic partnership with third parties |
| 2 | Feasibility Study | To promote complete analysis consideration in determining the viability of new product or customer project idea |
| 3 | Customer Analysis | To support the customer analysis implementation in understanding customer behavior and preferences |
| 4 | Customer Relationship Management | To maintain customer relation in assisting customer retention and driving sales growth |
| 5 | Knowledge Management | To capture valuable knowledge, manage the knowledge storage and support the knowledge sharing in improving talent competencies |
| 6 | Talent Management | To improve the talent competencies through learning and development |

| | | |
|---|----------------------|--|
| 7 | Product Knowledge | To encourage the innovation through understanding the products |
| 8 | Inventory Management | To manage the product inventory readiness in fulfilling customer order |

After the KM objective has been established, it is essential to design KM activities that will effectively attain the set objectives. The KM activities are developed through the process of summarizing the data collection obtained from the research. An evaluation of the current process in the company in relation to the ideal condition suggests the importance of implementing an improvement program for knowledge management activities. The categorization of KM activities into the People, Process, and Technology (PPT) framework will be undertaken to facilitate their identification and implementation in accordance with the concepts of Knowledge Management.

Table VI.5 PPT Framework of Knowledge Management Design (Source: Author Analysis, 2023)

| No | KM Objectives | People | Process | Technology |
|----|--|--|---|--|
| 1 | To ensure the implementation vendor management in conducting strategic partnership with third parties | Business Development team, Procurement team, Quality Assurance team, Document Controller | Benchmarking with similar industry about vendor management implementation, Regular review about vendor management process, Vendor audit assessment, SOP vendor management implementation, Vendor assessment document report, document control | Intranet, meeting platform, vendor management system or dashboard, digital sharing folder |
| 2 | To promote complete analysis consideration in determining the viability of new product or customer project idea | Business Development team, All Dept Head, BoD, Document Controller | 1 on 1 Discussion, Focus Group Discussion, Case study analysis, On the job training, Discussion documentation report, Activity report, Document control | Intranet, meeting platform, digital sharing folder |
| 3 | To support the customer analysis implementation in understanding customer behavior and preferences | Business Development team, Marketing team, Document Controller | Market research, customer satisfaction survey, sharing session, Activity report, Document control | Internet, social media, digital questionnaire, digital sharing folder |
| 4 | To maintain customer relation in assisting customer retention and driving sales growth | Business Development team, Marketing team, Document Controller | Customer gathering, customer service improvement, sharing session, Activity report, Document control | Internet, social media, meeting platform, digital sharing folder |
| 5 | To capture valuable knowledge, manage the knowledge storage and support the knowledge sharing in improving talent competencies | HR Team, KM Accelerator, BoD, All Dept Head, Administrator, Document Controller | Organization structure for KM, structured KM program, Reward system for KM appreciation, integrated knowledge storage, regular sharing knowledge activity | Intranet, E-learning, Knowledge Management system or dashboard, online library, digital sharing folder |
| 6 | To improve the talent competencies through learning and development | HR team, Document Controller | Training, On the job training, job assignment, continuous improvement activity, Lesson learn report, training evaluation report | Intranet, E-learning, online library, digital sharing folder |
| 7 | To encourage the innovation through understanding of the | Business Development team, Engineering team, Production team, | Focus group discussion, sharing session, genba, innovation award, | Intranet, meeting platform, digital sharing folder |

| | | | | |
|---|--|---|--|--|
| | products | Document Controller | Discussion documentation report, Activity report, Document control | |
| 8 | To manage the product inventory readiness in fulfilling customer order | Business Development team, PPIC team, Document Controller | Benchmarking with similar industry about inventory management implementation, Regular review about inventory management process, inventory audit assessment, Material Requirement planning (MRP) with customer, SOP inventory management implementation, inventory assessment document report, MRP document report, document control | Intranet, meeting platform, inventory management system or dashboard, digital sharing folder |

According to the study performed above, there are a number of items that are similar to one another. Those things that are similar can be combined and carried out at the same time. As a result, the implementation of Knowledge Management will include a total of thirteen teams and roles for the people aspects, thirty activities for the process aspects, and ten tools for the technological aspects in order to provide support for the strategic planning of the company.

V. CONCLUSION

This study has identified eight strategic plans of the company through an analysis of strategic planning utilizing the TOWS Matrix. Strategic planning is utilized to figure out the main activities and critical knowledge required for a company to attain its objectives. The identification of main activities and critical knowledge is established by analyzing qualitative data gathered from employee interviews, observation of the current condition, and analysis of company documents. The analysis indicates that 8 critical knowledges are under examination in order to establish the objective of knowledge management. The critical knowledge includes vendor management, feasibility analysis, customer analysis, customer relationship management, knowledge management, talent management, product knowledge, and inventory management.

The aim of knowledge management design is to support the strategic planning of the company through the utilization of critical knowledge in execution of main activities. The People, Process, and Technology (PPT) Framework will be undertaken to conceptualize the knowledge management strategy. Among the knowledge management initiatives, the role of Business Development team, HRD team, and Document Controller will involve in most of the activities. The knowledge management activities will include benchmarking, any kind of discussion, learning and training, regular review, sharing session, activity report, development of Standard Operational Procedures (SOP) and so on. The implementation of knowledge management will also involve the support of technology such as internet, intranet, meeting platform, management dashboard, digital sharing folder, e-learning, and online library.

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