Applying Rational Framework of Decision Making to Revise Corporate Strategy
A case study of a startup technology company

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Abstract — this study aims to apply rational framework of decision making in a real case. It involves changing the corporate strategy of a startup technology company called PT. Sejahtera (PTS). PTS’ business model involves generating profit from system integration and project arrangement in the IT and telecommunication domain. The change in PTS’ corporate strategy is required to optimize PTS’ positioning in the market and therefore optimizes the company pay off.

First, the study will perform situation and problem analysis (PA) to solve PTS’ corporate strategy challenges and propose a new corporate strategy. Second, the study uses Simple Multi Attribute Rating Technique (SMART) in the decision analysis (DA) to select better projects based on PTS’ new corporate strategy. Third, the study applied potential problem analysis (PPA) to the two distinct best course of action resulted from the DA. Finally, the study then gives recommendation on the company’s activities based on the perspective produced by the rational framework.

Using the rational framework, the study finds the following results: (a) the root cause of the problem was a miss prediction on the competitive dynamics and projects’ sustainability assumptions in the corporate strategy. The solution of the problem is to adjust corporate strategy by selecting better industrial sweet spot. The new industrial sweet spot includes initiating or arranging projects in renewable energy and sustainable transportation which gives better pay off and sustainability to PTS, (b) DA results in projects selection which are aligned with the new corporate strategy defined in PA, (c) PTS must anticipate challenges in the selected projects, the company must thoroughly investigate its industrial environment and perform external analysis to map risks and uncertainties that may come, (d) the rational framework should continue to be applied in the implementation and negotiation stage of the projects, for example when making decision about project financing stated in information memorandum, feasibility study or project definition statement documents.

The study concludes that rational framework is very useful in decision making of PTS. The rational framework helps to make better decisions in the implementation and negotiation stage of the projects and to guard the organization’s performance against cognitive biases and forces of irrationality.

Keywords: Corporate Strategy, Cognitive Bias, Irrationality, Rational Framework, Decision Making, Problem Analysis, SMART analysis and Potential Problem Analysis.
1. Introduction

The case focuses on the application of rational framework in revising strategy for a startup company called PT Sejahtera (PTS). Based on PTS’ background and situation, PTS needs to adjust its internal capability with industrial opportunities. However, this case will not elaborate the detail (financial, project management and marketing intelligence of a project) on each of the strategic choices. The case shall focus on strategic issues based on data in 1.1 Company Background and Situation.

1.1 Company Background and Situation

PT. Sejahtera (PTS) was a start-up technology company that has run for two years in Indonesia where IT Industry has said to be a very competitive business environment. In addition, low price is one of the main drivers of competitiveness. In these competitive conditions, IT solutions and services often produce not by a process of best practice and quality but by a direct extreme programming approach or an approach without software documentation and requirement engineering. However, the company intended to offer a lean design solution for its system integration services with quality product (Rahman, Mangkusubroto, & Sunitiyoso, 2012).

Initially, the company has a strategic vision as a world class IT system integrator who empowers companies in customer operation management with smart system Solutions such that explained in the study (Rahman, Mangkusubroto, & Sunitiyoso, 2012). The company has a mission to: (a) providing reliable and valuable IT consultancy and system integration services to companies in order to solve their operation management problems using smart system Solutions (b) providing cost efficient technology Solutions as well as fast and reliable services with predictable quality of deliverables (c) handling both technical and non-technical issues of a project to make sure that the project is successful.

Using access-based and need-based positioning (Rahman, Mangkusubroto, & Sunitiyoso, 2012), the company tried to approach its suitable and prospective market. In other words, the company will approach companies who potentially have problems in their operation management and who are still untouched or inaccessible to competitors in terms of relation or price. Most promising market segment were in the industry of transportation, oil and gas and manufacturing. The company was aiming at big clients and prestigious projects.

For a new player in this business, maintaining and selecting partnership will always be an integral part of the company’s activities to co-create innovative projects, and other opportunities. In addition, the company runs their business in a time of market uncertainty not in the time of bull market economy. Furthermore, the market uncertainties, internal negotiation dynamics and changing interests of business partners led the company to not being able to co-create such projects.

1.2 Business Issue

Company Strategy should give a sense of direction, legitimation, motivation (De Wit, Bob. and Ron Meyer, R., 1999), and most of all results. Once a strategy does not provide a result that it should give, and the company must change it in order to save an organization and its purpose to survive and grow. Leaving the strategy in astray or in a stage of deviation shall influence the financial and most of all motivational well being of its organizational member. Hence, this course of action shall halt the organization to have a competitive advantage.
In this case, the changes of internal capability and marketing opportunities will shape the strategy revision of the company. Rational framework (Fajar, Mangkusubroto, & Sunitiyoso, 2012) and strategic design (Rahman, Mangkusubroto, & Sunitiyoso, 2012) such that formulated in previous studies are practical and simple approaches that can be easily re-applied in this case.

1.3 Limitation and Constraints

The objective of this study is to analyze rational decision-making process on best alternatives of project selections. Consequently, the discussion will not focus on financial and project scheduling details aspects of every evaluated project.

The study also focuses on the interest and rationality of the company and not to the interest of industrial perspective. This shall also means that it focuses solely on rational framework regarding company strategic management decision. Hence, it will not try to elaborate the project management or risk management of each decision.

It is impossible to imply that by using a rational framework, the result and the process of decision-making shall become fully rational in a sense where decision makers were not limited in their ability to both gather and process information relevant to decision making as stated in a study of bounded rationality (Simon, 1991). In short, there is no pure rationality that uses perfect information (but always under constraints of limited time, knowledge, and computational capacities) to a decision, but there is only rationality in a form of simple heuristics that make a decision maker smarter (Gigerenzer & Todd, 2009).
2. Business Issue Exploration

Exploring the business issue, the discussion must first start with evaluating the projects that the company handled. The discussion must give the necessary detail of the company situation. Then the discussion can probe the strategy issue (section 1.2) with a combination of frameworks to find solutions to the deviated performance of the projects. In dealing with the strategy issue, the company must realize that there is internal change in the organization structure where, the organization has changed into a fully family owned company (Rahman, Mangkusubroto, & Sunitiyoso, 2012). Rational framework is considered beneficial to regulate rationality of the company based on the issue analysis provided in section 2.1 Evaluation of the projects. A conceptual solution must use rational framework to minimize cognitive bias and irrationality that may drive decision-making process away from an optimal solution. The framework shall be prescribed using methods from Kepner-Tregoe approach (Kepner & Tregoe, 1981) which is considered a popular rational thinking approach for problem solving (Morris, 2012) and decision making. The method has also been successfully implemented in many areas of applications (Kepner-Tregoe, Inc., 2013).

2.1 Evaluation of the projects

March 2012, Government of Indonesia has not decided whether to continue or not to continue the project as a solution for the subsidy crisis. Even if the project will be again tender in The Ministry of Energy, the company chance was being challenge by the user within the ministry. In that condition, the company needs to form partnership to do the project and distribute the workload efficiently. Therefore, in parallel the company takes an effort to do four other probable projects as shown in Figure 1.

Even though the company can claimed that it had implemented (Fajar, Mangkusubroto, & Sunitiyoso, 2012) a successful long-range RFID pilot project in Indonesian Energy Ministry in 2011, it does not mean that the next project was theirs. Moreover, central government shift the project to a government own company through different ministry (International Institute for Sustainable Development, 2012). However, after a year dwelling to strive in the four other projects, it seems that what they proposed for the other three sweet spot projects did not match the customer demand. In the other hand, they had invited to a slightly different project that they can handle but not in their previous strategic sweet spot as explained in section 1.1 Business Issue, and ending up with a success that leads to many opportunities.

As previous in previous study (Fajar, Mangkusubroto, & Sunitiyoso, 2012), PTS uses causal predictive rational approach to weight every project decisions to enter, execute and evaluate every of its aspect based on the governance of PTS strategy (Rahman, Mangkusubroto, & Sunitiyoso, 2012). With that decision-making governance, the company found that not all of the project that they attempted would bring them to profitability and sustainability of the company business. In parallel, when there was an internal change of management to a family own and managed company, PTS did not change the strategy directly, PTS waited until the all the project and effort completed for a year. PTS did not realized that the absence of internal technical oriented partner as stated in previous study (Rahman, Mangkusubroto, & Sunitiyoso, 2012) will give another dimension of opportunity to PTS. In that condition, PTS instantly and intuitively decided to be flexible in deciding to attempt such monorail feasibility study and ending up delivering the project successfully.

The three sweet spot projects like Cement Queuing System, Coal loading system and fertilizer traffic system was unsuccessful and taken over by another competitor based on
various reasons. The reasons and evaluation of every project shall be directly analyzing in section 4 problem analysis.

There five recorded project evaluations and four out of five of the projects were inline to consulting services and system integration previous strategic sweet spot. These projects were Public Transportation Control by Long Range RFID, Cement Queuing System, Automated Coal Loading System and Fertilizer Traffic Management that were projects that in the sweet zone project category of PTS. However, the company classified one project to be outside of the sweet spot of the company. It is because that the project was Monorail and Its business feasibility analysis project and it does not deals with engineering detail design but only a financial and policy decision making report based on economic benefit and cost analysis. In addition, this project can be said as an outside the box effort of PTS and ignoring the rules made by the previous strategic sweet spot project preference.

Based on strategic group mapping of the company (Rahman, Mangkusubroto, & Sunitiyoso, 2012), there are five big projects evaluation of PTS that can be put into analysis such as described in Figure 1. The projects were group in strategic positioning such as need-based strategy and access based strategy. In Figure 1, classification of product and services as shown are categorized to general contractor and hardware suppliers, design service and implementation service in the scope of general engineering, power electronics and transportation, and IT Operational management and telecommunication.

Different from other result, Monorail and Business Analyst project achievement has made them done and capable in outside of their previous sweet spot. Consequently, these findings have raised a question to the internal team of the company regarding its strategy. It is not just only that the customer has invited them to a better prospect of next projects, this type of consulting did not bring risks of high cost in asset and human resources. As a financing and business consultant and project initiator arranger, there are minimum risks and effort in this aspects and the customer gave more appreciation and respect to such effort and task completions.

![Figure 1 Projects Evaluation of PTS with classification of business model and strategic mapping](image-url)
Even though PTS might successfully operate as a team and deliver a project to a particular customer, it does not mean that it will repeat it success in the next opportunity. In competitive environment, internal and external forces may change and result another effectual control. Therefore, PTS must do another predictive causal effort to determine the next step of the organization in parallel effectual control and actions should be taken parallel to the causal decision making.

Solving this complex decision-making cannot be intuitively expressed such as described in Figure 2 because it deals with multiple concerns and the judgment that must consider based on the project evaluation, best next position of PTS and future anticipation. Evidently, it required a rational framework so that it can explicitly shared and communicated openly without hidden agenda of each decision makers so that the organization can conclude the new direction.

2.2 Irrational forces

To generalize the condition and situation of this case, this is the case where a young CEO in deciding a business strategy for a start-up family owned company as stated in 1.2 Business Issue. In many decision-making studies stated by Dan Ariely (Coursera Video Lecture 1.6, 0:19) that intuition fails in many cases especially those that the decision maker lack in experience and deals a lot with emotion. One case where intuition cannot be fully trusted is when the young CEO and his wife want to decide the direction of the family owned company that is funded by the CEO's father in law. In this case, there is a special condition, that the CEO's father has an unfulfilled achievement in his private sector career but has many industrial expertise compared to the father in law side who just want to retire from his successful career in government. In this condition, at least there are irrational forces from the father of the CEO where also in this case are the Chairman of the company. It is because that he has his own interest and ideas of what the business should be like, a descriptive issue (Coursera Video Lectures, Week 1 Office Hours, 2:34) as well as frequently ignoring the formal method of decision making, a prescriptive issue because of the family relationship. On the contrary, the father in law, which is the majority Shareholder and Company Benefactor, can be said to be more neutral.

This case has a very high degree of irrationality because there is a high chance that the father over power his son with his appeal to emotion to win his interest. In this case, the father as The Chairman has his own plan that would shape the business culture and approach of the
organization. He implicitly proposed that the family should take the business as traders that can withstand a high market uncertainty and maintain sustainability of his financial position, which is not a wrong if according to his own interest. However, the CEO has a naive intention to grow the organization so that in the future of the company is able to have a competitive product and good brand power while his product is not yet ready. With the premise that the company benefactor has limited resources, the Chairman is in direct competition with his son in terms of proposing business to the CEO's father in law. Also with the assumption that each decision maker knows their counter part for a relative long time, emotion can play a part in an unprofessional manner and thus this situation shall deviates their intuition.

The rule of thumb to formulate a strategic direction of a company is to consider the 'two analysis' which are internal and external business analysis as equivalently done by previous study (Rahman, Mangkusubroto, & Sunitiyoso, 2012). So the 'rational way' to solve this problem is the directors, boards and the chairman have to sit together and decide what is best for them and the organization in terms of what they have done, what they can do and what best for the future based on the results of the two analysis of the organization in a formal way. However, finding what is best for the organization may not go in that rational manner because the formality in decision-making is often avoided.

By assuming that (Coursera Video Lecture 1.6, 0:19) people are myopic, full of deceit, easily confused, not always be able to compute all the option intuitively and always heavily influenced by emotion. So, the alternatives in solving this descriptive and prescriptive issue are that the CEO must truly take actions based on an assumption that a person is always restricted with decision biases, does not have good intuition and must rely on empirical evidence to minimize his emotional influences.

There are two alternative in solving this problem, one way is to not continue to this business scheme if emotions, psychology of money and competitive nature of an individual consume and damage the relationship of the family. However, the second solution is to find a common interest of the CEO and the Chairman, descriptive solution. As long as there is common direction based on their background, situation and business skills, they can synergized into a good team in the organization. Once they are in common ground, they must do the test and produce a presentable simple report, prescriptive solution. One test that can be done is to evaluate company projects that can be done based on their background and project that they have done. Moreover, the report must be evaluated in a recorded board annual meeting as an opt out decision-making process (Coursera Video Lecture 1.2, 9:44). In other words, if one participant does not attend he or she shall accept the decision of the meeting. In addition to that, in the beginning of the meeting and in the introduction of the report there should be a reminder of their common interest and vision and mission of the organization in a form of a passage to regulate the fudge factor of the meeting attendees (Coursera Video Lecture 3.2, 2:55). Consequently, these methods will induce them to make a rational decision such that it will force them to maximize the use of reasoning and minimizing the use of intuition and perception, as that point out in an academic paper about maps of bounded rationality (Kahneman, 2003).

### 2.3 Applying Rational Decision Making Process

After knowing the reason behind the purpose of having rational framework, there are five sequenced stages of stages decision making process to be implemented with every bias to be addressed and negates as following points:

- Knowing and analyzing the situation is the first point to be analysis. In this stage the process must negates biases that arises from conflict of interests and must optimize
the rationality towards the common interest of PTS. This analysis shall investigate in this section 3.

- Next point is how to evaluate project experience by a systematic approach of evaluation. This effort must induce the decision maker to accept empirical result and reasoning rather than intuition. This analysis shall take place in section 4.
- Third point is to decision analysis by using evaluation of multiple related attributes versus alternatives solution of project based on previous problem analysis solution. This analysis intends to negate biases of self-pride and is produced in section 5.
- Anticipating PTS future action based on the result of decision analysis result must empower self-control and focus in the project selection. This analysis is synthesized in section 6.
- Last point was recommend on how to implement Rational Process that has been selected to the management decision making and business analytical process so that future activities and process is better also serving the best interest of the company with respect to their competitive dynamics and motive of strategic internal and external alliance shall be investigated in section 7.

2.4 Conceptual Framework

Conceptual frameworks is structured in four blocks of a processing analysis. This systematic approach uses input, process, and feedback to produce output result for maintaining organizational performance with analytical process shown in following figure.

![Conceptual Framework](image)

*Figure 3 Conceptual Framework of Investigation (Fajar, Mangkusubroto, & Sunitiyoso, 2012), SA, PA, DA and PPA are rational framework based on methodologies from Kepner Tregoe (Kepner & Tregoe, 1981)*

Rational decision-making concept which is based on a concept of choosing a maximum payoff or self-interest maximization or rational choice theory (Sen, 2008) shall be the system input. Company Strategies shall also be an input for the system alongside of the project issues and situation, which was not in the course of the targeted vision and mission.

The inputs shall be process by previous study, previous results and current issue, which is situational analysis or SA, problem analysis or PA, simple multi-attribute rating technique or SMART analysis and potential problem analysis or PPA. SMART analysis also has to be in combination with concepts of partner selection and combining them with communications so that it shall produce a PPA on future project. These processes shall be feedback framework of
competitive dynamics concept which bring an analysis that every processes shall be in the realm of competitions between company to win a project and have competitive advantage among rival firms. The processes shall also be feedback with motive of strategic alliance concepts that always evaluating status of partnership for the purpose of the company’s best interest of PTS and their partner’s best interest.

2.4.1. Kepner-Trogoe Analytical Process

Kepner and Trogoe claimed that (Kepner & Tregoe, 1981) the four basic patterns of thinking have not altered substantially since emergence of the human race. They also state that the patterns are universal and universally applicable to any situation.

![Kepner-Trogoe Analytical Process Diagram](image)

Figure 4: Kepner Trogoe Process 4 of thinking pattern.

Kepner and Trogoe state (Kepner & Tregoe, 1981) that the first pattern is assessing and clarifying which an assessment of "what's going on" called Situational Analysis (SA). Second pattern is cause and effect which is assigning to what a person observed and what is been happening called Problem Analysis (PA). Third pattern is making choices which enable a person to make reasoned decisions called Decision Analysis (DA). The fourth and last basic pattern of thinking enables of KT Process enables a person to look into the future to see the good and bad it may hold called Potential Problem Analysis (PPA). The 4 logical and sequence framework shall be elaborated in

Kepner and Trogoe claimed (Kepner & Tregoe, 1981) that every person have the inherent capacity to think in terms of Situation Appraisal, Problem Analysis, Decision Analysis, and Potential Problem Analysis. Also, they argued that these processes are basic and natural like
shown in Figure 4: Kepner Trogoe Process 4 of thinking pattern. However, the challenges in that book are to apply their basic thinking patterns to management concerns. And more challenging part is for a team to learn to think together.
2.4.1.1. Logical Sequence of Situational Analysis

PA, DA and PPA consist of analytical techniques and their purpose is to resolve situations and issues. However, SA such as explain in figure 5, consists of evaluating techniques that lead to proper selection and use of those analytical techniques. SA enables managers to make best possible use of those techniques by showing a person where to begin, how to recognize situations that require action, how to break apart redundant and confusing issues, how to set priorities and how to manage a number of simultaneous activities efficiently such that require in the research question.
2.4.1.2. Logical Sequence of Problem Analysis

Problem Analysis provides the framework (showed in Figure 6) to increase level of quality and performance which is not being achieved. The framework breaks the information which is being used to identify a deviation. The deviation or may be deviations probably appear in the performance of people or the performance of systems, policies, or equipment. Structure of the deviation is as follows in Figure 7: Structure of a problem. The analysis then relates the effect that is observed to its probable cause. Only then can we be sure of taking appropriate corrective DA that can correct the problem and keep the organizational from happening again.
2.4.1.3. Logical Sequence of Decisions Analyses involving multiple objectives using SMART

There are steps to as in reasoning the logical sequence of decision analysis by using SMART (simple multi-attribute rating technique). SMART analysis has the same purpose as DA from Kepner and Tregoe. However, SMART is a simplified approach which utilizes simple utility relationships. Data normalization such as explained in step C5, and to define the SMART utility functions can be performed using any convenient scale to the decision maker. The SMART methodology allows for use of less of the scale range if the data do not discriminate adequately so that, for example, alternatives, which are not significantly different for a particular criterion, can be scored justly. The steps of SMART analysis are as describe bellow and figure 8:

- Step C1: Identify the objective and scope of the decision maker. In this final report, it shall be assume as the PT. Sejahtera CEO. Also, because of the multi Solution that the problem analysis (PA) could have then the decision maker also should be accounted with PA result.
- Step C2: Identify the alternative courses of action.
- Step C3: Identify the attributes which are relevant to the decision problem.
- Step C4: Determine a weight for each attribute. This step is a reflection how important the attribute is to the decision maker. In this problem, BOD, CTO and CMO shall also rate them.
- Step C5: For each attribute, assign values to measure the performance of the alternatives on that attribute.
- Step C6: For each alternative, take a weighted average of the values assigned to that alternative.
- Step C7: Make a provisional decision.
- Step C8: Perform sensitivity analysis to see how robust the decision is to changes in the figures supplied by the decision maker.
There 5 axioms as stated by Goodwin for doing SMART analysis, those are Decidability (able to be decided), Transitivity (ability to prefer clearly), Summation (clearly calculated), Solvability (ability to solve) and Finite bounds for upper and lower value in quantitative scoring.

Figure 8: Decision Analysis process with SMART (Goodwin & Wright, 2004)
2.4.1.4. **Logical Sequence of Potential Problem Analysis**

What is important when finding out what lies in the future is that what can go in the plan that is made in the Decision Analysis and what can a person anticipate them. Most people who are risk ignorant simply ignore the future and usually trap in the present activities. In anticipating the future framework, Kepner and Tregoe propose a rational process such in Figure 9.

![Figure 9: Phases of Potential Problem Analysis (Kepner & Tregoe, 1981)](image)

The system shall an output that produces tools to manage activities, engineering proposals and resource management as well as rational management which is the people who uses the tools and documentations for the company.
3. Situation Analysis

SA appraises as a starting point of current company situation, recognize its situations that require action, break apart redundant and confusing issues, set priorities and manage a number of simultaneous activities efficiently such that require in the investigation points and govern from conceptual framework based from the data of section 1.1 and 1.2. Consequently the arrange appraisal shall be tabulated as following figure 10.

**Figure 10 Situational Analysis Summary of Investigation**

After sorting out all the relevant issues with respect to the project evaluation, industrial selection and preparation SA can be tabulated. In figure 10 shows separate the problem with category such as urgency, extent of impact and trend of the problem resulting resolution planning of PA, DA and PPA. In DA Evaluating experience of previous project, selecting the next actions based on the best interest of the company and analyzing and preparing challenges that lies ahead in the options. Moreover, In PPA is the continuance of results from DA as done in previous study (Fajar, Mangkusubroto, & Sunitiyoso, 2012) and guided by rational framework promoted by Kepner-Tregoe (Kepner & Tregoe, 1981).

Based on the two guidelines, structured situational appraisal is constructed to have three main issues. First is strategy evaluation based on the project, which is the main problem in project evaluation and shall be the main concern of industrial selection regarding project.
Second is project and partnership selection concern, which shall be based on root cause recommendation. Final issue shall be risk analysis, challenges and preparation for the three best selection of the selected course of action.

As describe in figure 10, has been selected the first task to be analyzed because of the importance shown by the three situational category which is urgency, impact extent and possible growth of problem. Project and Partnership selection shall be the second in concern, as possible growth category rank qualitatively to be a medium. Next project risk and strategic roadmap evaluation shall be the last importance as it has only one high category.

Comparing figure 2 and figure 10, it can be seen that rational framework offer sequence and structured analysis which shall be easier to understand and make solution planning to be interconnected and concise recommendation with respect to rationality and interest of the company or common interest of company decision makers.
4. Problem Analysis

Problem Analysis provides the framework to increase level of quality and performance which is not being achieved based on the data of 2.1. It shall constitute sequential task such as problem structure, PA specification, generating plausible causes and verifications. The problem structure breaks the information which is being used to identify a deviation as shown in figure 11. The analysis then relates the effect that is observed to its probable cause. Only then can we be sure of taking appropriate corrective DA that can correct the problem and keep the organizational from happening again.

![Figure 11 Problem Structure of Investigation](image)

Again comparing to figure 2 and figure 11 structured rational framework offers a better understanding and communication to isolate a problem and identify impact as well as continue the analysis to find root cause and validate them. These sequence steps is done in figure 12 to figure 14 sequentially. Although this distinct rational solution can be used as a concise alternative, it is only one of many rational methods or any other customized framework. One that is used in this paper is a combination of rational framework (Fajar, Mangkusubroto, & Sunitiyoso, 2012) with a strategic management framework that was used in a porters strategy principals (Rahman, Mangkusubroto, & Sunitiyoso, 2012).
PA specification focuses on the analysis to match the plausible deviation to the problem. The analysis identifies with what, where, when and extent specification. It then found that previous strategic perspective and sweet spot selection led to changes of the problem as shown in figure 6. This was proven by a project that was not on the sweet spot has resulted a better position of the organization by giving the organization less risks and effort to produce sustainability.

**Figure 12 Problem Analysis Specification of Investigation**

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<th>Distinction</th>
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<td>Pay-off Result of non-sweet spot of the</td>
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<td>Where</td>
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<td>sustainable business probability in the future</td>
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<td>Future Projects</td>
<td>Projects countered and attempted by PTS in 2011-2012</td>
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<td>Extent</td>
<td>the Gap between Effort and return (tangible and on tangible) was imbalance. Resulting unsustainable Business Model</td>
<td>business operation, huge and risky project etc.</td>
<td>Sustainability and Significant Growth of PTS</td>
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After knowing a plausible cause from PA specification, then it must be tested through a number of causes with respect to every project. Possible causes were viewed in three aspects. These aspects are (1) Technical and Networking Capability; (2) Competitive Dynamics and Market Challenges; (3) Sustainability and Business Model Calculations.

These three aspects are elements to the sustainability and always interconnected, but one of them has shown to be the root cause as it is tested in figure 13. In figure 14 the root causes is declared and synthesize a recommendation for a better decision for future project and business of organization.
This shows that industry and sweet spot selection of PTS has to change in order to get better sustainability, competitive dynamics and still suites PTS technical competence. Moreover the solution of the problem are based on systematic reasoning and not solely based on decision maker intuitions which satisfy the second stage of decision process.
5. Decision Analysis

There are steps to as in reasoning the logical sequence of decision analysis by using SMART (simple multi-attribute rating technique) based on the solution of Problem Analysis a new formulation of strategy (Rahman, Mangkusubroto, & Sunitiyoso, 2012). SMART analysis has the same purpose as DA from Kepner-Tregoe. However, SMART is a simplified approach, which utilizes simple utility relationship based on section 2.4.1.3.

![Diagram](image)

*Figure 15 Generating Alternatives and DA Purpose from Diamond Strategy and its PA Analysis Recommendation*

To determine next business solution, several alternatives are developed to be then analyzed in determining one optimal solution for the Company’s business issue. It may not necessarily analyze the solution alternatives one by one, but he/she could directly focus on one business solution and then analyze the possibilities that the solution could address the issue that is being faced by the company. However in order to do that, a new strategy must be synthesized in order to give PTS purpose and direction. The Strategy must be a blend of technical capacity and capability that PTS have and newest project experience that PTS has succeed to complete such explain in figure 2. The strategy must also incorporate internal capability of individual of PTS that has proficiency in business administration, networking in Investment Banking and Project owner of Transportation and Sustainable Energy in Indonesia. Consequently, strategy of PTS has return back to project managing and arranging before the project of Subsidized Fuel Control with long range RFID for public transportation as described in figure 16.

Based on a study (Fredrickson, 2001) on a model which is point out to be proven (ProvenModels B.V., 2005) by a publisher, an organization that seek out an appropriate strategy which can complete the rational framework which about already planning. Strategy
choices are shown in the figure 9 which comprises of arena, vehicle, differentiation, staging and economic logic. The choices that strategy model offer shall direct the course and purpose of DA which is the whole 1 step of DA. This strategy diamond also direct and classify alternative to be in to groups, blue project group in figure 16 is classified as status quo project, a new sweet spot alternative project is grouped with the red color projects that resulted below the strategy diamond.

<table>
<thead>
<tr>
<th></th>
<th>Maintain IT Project and make partnership with small entities to have competitiveness</th>
<th>Maintain Architectural, Networking and Project Management Capability in IT Telco</th>
<th>Explore New Possibilities in Transportation and Business Consultancy</th>
<th>Explore New Possibilities in Infrastructure and Business Consultancy</th>
<th>Explore New Possibilities in Sustainable Energy and Business Consultancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sustainability</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2. Marketing Intelligence Power</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>3. Organizational Complexities</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4. Technical complexities</td>
<td>1.43</td>
<td>1.43</td>
<td>1.12</td>
<td>0.96</td>
<td>1.12</td>
</tr>
<tr>
<td>5. Brand Building</td>
<td>2.08</td>
<td>2.08</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
</tr>
<tr>
<td>6. Commercial Requirement</td>
<td>1.05</td>
<td>1.05</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>1.11</td>
<td>1.95</td>
<td>1.56</td>
<td>0.82</td>
<td>2.58</td>
</tr>
</tbody>
</table>

Figure 16 DA Results 1st and 3rd rank option to be a new sweet spot project and 2nd remain in the previous sweet spot project

By following the sequential step of DA, DA result shown in Figure 16 can synthesized with the alternative brought by Figure 9 and attributes which is still the same from that of previous study (Fajar, Mangkusubroto, & Sunitiyoso, 2012).

DA results in Figure 10 shows quantitative sum of qualitative judgments guide the satisfying course of action that are induced based on common interest of all PTS decision makers and negating self motivation. If in the case that the internal forces changes for example the chairman leave the company, then this template of decision making can quickly be applied, and resulted to select the IT project selection which in this case the second best decision.

An analysis that may or may not be an explanation is that the result of intuitive analysis shown in Figure 2 and DA result give the same result, which lead a revision in sweet spot for what ever reason because of its empirical result that shows a better Industry and opportunity await PTS. One thing that may be beneficial is rational sequential and structured method is one way to give second opinion and communication. However, strengthening networking option 2 still considered satisfying and can also be a solution which only needs a minimum PPA and Roadmap revision to strengthen Industrial networking.
6. Potential Problem Analysis

What is important when finding out what lies in the future is that what can go in the plan that is made in the Decision Analysis and what can a decision maker anticipate them. To avoid risk ignorance which simply ignore the future are usually trap in the present activities. In anticipating, the future framework shall be the as previous study (Fajar, Mangkusubroto, & Sunitiyoso, 2012) and tabulated as shown the following figure 17.

<table>
<thead>
<tr>
<th>Potential Problem</th>
<th>Consequence</th>
<th>Possible Course</th>
<th>Preventive Action</th>
<th>Contingent Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The project is organizational too complex to do</td>
<td>Unable cope with the costs while struggling to finish the scope of these kind projects</td>
<td>Did not investigate right perspective and mapping of market condition to support project preparation</td>
<td>Strengthening dynamics of strategic management to survive in this industry as consultants/consulting company that bring sustainability and project preparation</td>
<td>Hire a dedicated (or make partners with) team that capable and experts on non-technical problem in this area of business</td>
</tr>
<tr>
<td>2. The marketing unit unable to penetrate The new users</td>
<td>Unable to have good relation in completing of these kind Projects</td>
<td>Human factors and communication skills</td>
<td>Internal development, evaluation and trainings in communication decision making and negotiation making skills</td>
<td>Hire a dedicated team that capable and experts on non-technical problem in this area of business</td>
</tr>
<tr>
<td>3. Company unable to form a New solid partnership</td>
<td>Unable to complete the project with technical adequacy or fail to run the project in allocated budget</td>
<td>Outsourcing and Networking Management Complexity</td>
<td>Internal development, evaluation and trainings in communication decision making and negotiation making skills</td>
<td>Expand networking within this industry and updating dynamic competitive knowledge</td>
</tr>
<tr>
<td>4. The schedule of the deliverables / Project timeline changes</td>
<td>fail to run the project in allocated budget</td>
<td>Resource Management Complexity</td>
<td>Internal development so that Company have more key resources</td>
<td>Expand networking within this industry</td>
</tr>
<tr>
<td>5. The tender/Financial closing / PPA formation postponed</td>
<td>Invested products shall be unusable</td>
<td>Uncertainties in many aspects of the government</td>
<td>Make the right organizational approach</td>
<td>Not solely depend on the project</td>
</tr>
<tr>
<td>6. Company unable to complete deliverables</td>
<td>Black Listed</td>
<td>Failures in Technical expertise or focus in the project</td>
<td>Internal development in rational decision making skills</td>
<td>Not solely depend on the project</td>
</tr>
</tbody>
</table>

Figure 17 PPA for the 3 preferred options

Even though the company entering new sweet spot, the nature of business is still in the scope of project based activity. It is therefore will result a PPA that shall be the same as previous study (Fajar, Mangkusubroto, & Sunitiyoso, 2012) such that shown in Figure 17. As in previous study, the course of action option one two and three from the corresponding DA option shall be review to 6 statement of potential problem. However, there should a further exploration of industry such that done such as investigating geothermal industry that is to unlock huge Indonesia Geothermal Resources (Ardiansyah & Putri, 2013). The analysis shall also cover a new roadmap and its anticipated strategy plan that comprise of external internal analysis, sweet spot and activity map if required. In this method, the organization may cruise and self regulate based on the best future interest of the company.
7. Conclusion and Recommendation

Based on Theoretical frameworks in figure 3, this systematic approach uses previous study rational thinking and strategy as input, rational framework as process, and self interest or organizational interest rationality as feedback to produce output result for maintaining organizational performance with analytical process.

It has been found that rational framework gives a better understanding to a project problem identification and prioritization. In a structured analysis of SA, there is a better mapping of prioritization and separation of issues which was not shown in an intuitive interpretation of project. Furthermore, the separated issues that has been prioritized can then be planned a suitable analysis which can be solved accordingly. It is found that there are three separate issues that has to be further investigate which were solving corporate strategy, decide projects that give better pay off and map potential problem of selected project.

In applying Problem analysis through structuring the problem and giving problem specification, it can be found that sustainability is the main issue of PTS attempting or retreating from a project. It is also found that by testing sustainability issues of PTS efforts has high correlation with less profitability and longevity of that project. In other words the ability of that project to produce another project or open up new possibility of business or income, or it can be called the sustainability of that project to keep bringing business and stream of income to PTS. In addition to that, compare those failed projects to a successful business analyst and consulting project in Sustainable Transportation, this consulting project seems bringing more pay off to PTS rather than previous Industrial sweet spot. Hence the solution of this shall be to formulate new strategic management choices.

Before making a decision on future project, PTS must revise a new strategy. This strategy shall be used to govern new and agreed valuation of the decision. After having done the process of rational decision making through SMART analysis, it can be concluded is that decision makers in PTS still weight that previous strategy still wants to be implemented and satisfying. It is so even though empirical evidence and rational calculation shows that competitive industrial dynamics are hitting them hard on their sweet spot project. This is shown by having status quo project with a new strategy as number two result of DA even though rationally put by PA wanted a change in industrial sweet spot preference. However second and third option favor a search in new industry with a new strategic perspective.

It also can be concluded PTS must investigate the competitive dynamics environments so that PTS be able to compete in the new industrial sweet spot, PTS should also have better networking and marketing mapping in the new industry in order to have a complete view in the competition and better position to the selected project.

In this study, at least there can be three recommendations output to PTS. One is to be more prepared through further identifying new risks and challenges that were not done in PPA. Second is to have open mind in the business decision even though done rational thinking has a dynamic solution that can change if there is sudden change that can affect sustainability and growth of PTS. The rational framework that the organization has agreed such in this study should guide dynamic Organization structure and Intuitive approach of decision-making. This last option can be such tool as a project Information Memorandum that have sustainability calculation of a project or a negotiation point of a business model which can be a selling point of a project or Investment Banking Rational Decision Making. This Information memorandum document shall be beneficial in knowledge, negotiation and decision making of project financing.
8. References


