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**PERFORMANCE MANAGEMENT SYSTEM
FOR INFORMATION TECHNOLOGY PROJECT
(CASE STUDY: NEW ROAM SR PROJECT IN COCA-COLA AMATIL INDONESIA)**

Mohammad Wisaksono and Dermawan Wibisono
School of Business and Management
Institut Teknologi Bandung, Indonesia
mohammad@wisaksono.org

Abstract—*Information Technology is playing a big role integrating information flow. Information technology implementation is an investment with targeted to gain the efficiency of competitive edge over competitor for business. Ensuring the investment made in Information Technology project to reach the objective and provides value for the business is something that people are used to rely on triple constraint on time, on scope and on budget. Triple constraint only evaluate project fulfillment based on the project plan, on time, on scope and on budget but does not guarantee the final output is providing expected value for business, triple constraint is considered as short term goal which is easy to use for evaluating project but do not reflect the actual impact and benefit. A case study conducted in Coca-Cola Amatil Indonesia to design a performance management system to provide a comprehensive IT project key performance indicator based on PRISM approach to ensure all necessary strategy, process and capability in place to achieve project stakeholder satisfaction and contribution.*

Keywords: Analytical Hierarchy Process, PRISM, Information Technology Project

1. Introduction

Coca Cola Amatil Indonesia is a subsidiary of Coca-Cola Amatil with headquarters in Sydney Australia. The company itself actually divided into two separate entities Coca-Cola Bottling Indonesia (CCBI) and Coca-Cola Distribution Indonesia (CCDI). Both of this company is group under a single naming Coca-Cola Amatil Indonesia to leverage and identify that both of the company is subsidiary of Coca-Cola Amatil which is one of the largest manufacturers and distributors of Coca-Cola products in the world. Coca-Cola Amatil Indonesia made its first investment in Indonesia in 1992 and during those days there are around 10 of bottling company which hold a distribution license of Coca-Cola products. Starting in 1990 some of Coca-Cola bottling business started to merge and in January 2000 ten of Coca-Cola bottling business merges into Coca-Cola Bottling Indonesia.

Today Coca-Cola Amatil Indonesia manufactures and distributes millions of cases Coca-Cola products to over 400,000 outlets throughout Indonesia with more than 120 Sales Centers and approximately 9,000 employees. Coca-Cola journey start from Dr. John Stith Pemberton invention on May 8 1886, a local pharmacist produced the syrup for Coca-Cola, and carried a jug of the new product down the street to Jacobs' Pharmacy where it was sampled, pronounced "excellent" and placed on sale for five cents a glass as a soda fountain drink. Carbonated water was teamed with the new syrup to produce a drink that was at once "Delicious and Refreshing" a theme that continues to echo today wherever Coca-Cola is enjoyed.

Dr. Pemberton never realized the potential of the beverage he created. He gradually sold portions of his business to various partners and, just prior to his death in 1888, sold his remaining interest in Coca-Cola to Asa G. Candler. An Atlantan with great business acumen, Mr. Candler proceeded to buy additional rights and acquire complete control.

The Coca-Cola Company is the world's largest beverage company, refreshing consumers with more than 500 sparkling and still brands. Led by Coca-Cola, the world's most valuable brand, the Company's portfolio features 14 billion dollar brands including Diet Coke, Fanta, Sprite, Coca-Cola Zero, vitamin water, Powerade, Minute Maid, Simply and Georgia. Globally, we are the No. 1 provider of sparkling beverages, juices and juice drinks and ready-to-drink teas and coffees. Through the world's largest beverage distribution system, consumers in more than 200 countries enjoy the Company's beverages at a rate of 1.7 billion servings a day. With an enduring commitment to building sustainable communities, our Company is focused on initiatives that reduce our environmental footprint, support active, healthy living, create a safe, inclusive work environment for our associates, and enhance the economic development of the communities where we operate.

CCAI operation area covering overall Indonesia region from Sabang until Merauke which creating a specific challenge in sales and distribution of Coca-Cola product. The challenge is not only in selling and distributing a physical product but also in term of business process required to control and monitor sales and distribution process throughout Indonesia.

To get business information activity on time to support business decision in order to win the customer and competition CCAI rely on Information Technology system and infrastructure. Information technology is become irreplaceable component in CCAI doing business in order to get integrated information and insight what is happening in field throughout Indonesia region.

In developing solution, IT Business Solution Group become the lead and interface between business function and IT department. Business Solution Manager is played a central role as a project manager managing multiple project initiative. Business Solution Manager will lead the coordination with other IT function areas such as technical team, Infrastructure team and Operation team in delivering solution. Project performance evaluation for business solution group is become a central driver in evaluate business solution team performance; a comprehensive performance evaluation is required to categorize a project is as a fail project or success. Today evaluating project performance is based on triple constraint which is on time, on scope and on budget.

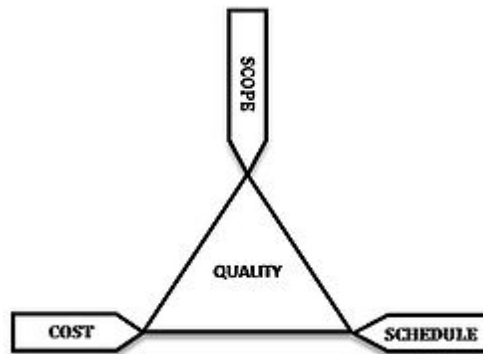


Figure 1. Triple Constraint

Source: http://en.wikipedia.org/wiki/Project_management_triangle

The actual evaluation success or failure of a project is it just based on these criteria? If only based on these criteria then why there are some projects which meet the criteria but still evaluated as a fail projects. The key point is about alignment with project stakeholder and objective. Project performance evaluation is critical tools to ensure all stakeholders requirement are met and not just focusing on these constraint or business financial performance but also considering all stakeholders requirement.

Creating a comprehensive project performance evaluation is a critical point in order ensures all stakeholders requirement are met and this journal is focus in designing a project performance evaluation system to address the gap in performance management evaluation of project manager

and project team. As a case study in developing project performance evaluation will used NEW ROAM SR project. The study is limited on performance management system design for NEW ROAM SR project and investor stakeholder will not be included and already represent by management team.

2. Business Issue Exploration

A. Conceptual Framework

Every Project within a company will has its own stakeholders who could include employee, investor, customer and government if necessary. Project initiated with intention to increase company value especially in term of revenue, profitability competitiveness and operational effectiveness. A lot of project which not meeting their time, exceed budget is considered as a success project due to their ability to provide the value for the organization and stakeholder. In opposite there are a lot of project which managed in timely manner, meet budget, yet they did not bring much value to the organization. The perspective of successful project is no longer valid only by evaluate on budget, on time and able to meet requirement but there are a lot more than this criteria to evaluate a project as a successful project. Project required providing value to company or stakeholder in the larger scope.

An approach to evaluate a project success based on stakeholder point of view by using Performance Prism methodology as a framework. Performance Prism is a performance measurement methodology with focus on the stakeholder by evaluating all stakeholder contribution, requirement and correlates it into strategy, process and capability required to define measurement required for a project. Performance Prism design to be a highly flexible so that it can provide both a broad and narrow focus as required. If only partial aspect of performance management is required, such as a single stakeholder focus or a particular business process agenda, then the performance prism can be applied to designing measurement system and appropriate measures that address the context. Conversely, if broad corporate or business unit performance management improvement initiative is required, then the Performance Prism is equally capable of supporting that too **(The performance Prism, Andy Neely)**

Performance Prism is a holistic in orientation. It does not assume that the only stakeholders who matter are the shareholders and customers. It does not assume that financial measures should be supplemented with a few non-financial ones. Instead Performance Prism encourages executive to focus on the critical question **(The performance Prism, Andy Neely)**. Critical question start from “Who is our stakeholder? What do they want and need?” Then continued to what strategy required delivering value to stakeholders? What the process need in place and what capabilities required to underpin this process.



Figure 2. Conceptual Framework

Step 0 Basic Principle foundation of Performance Management and Step 1 is about business background of Caoca-Cola Amatil and NEW ROAM SR. Step 2 which consist of process design of NEW ROAM SR Performance Management based on Performance PRISM framework. Performance

Management System design for NEW ROAM SR using Performance PRISM in detail defined in 4 stages process illustrated figure 3 below

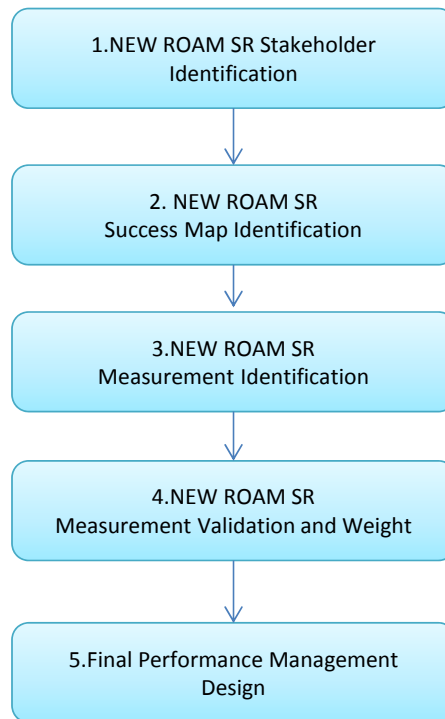


Figure 3. Performance Management Design stage

Performance management design start from identification of stakeholder then based on survey and interview. As a result of interview a success map for each of stakeholder will be develop and this success map will become a base of measurement identification.

B. Method of Data Collection and Analysis

Key question to be addressed in this study is what is Key Performance Indicator of NEW ROAM SR project and this identification is will used PERFORMANCE PRISM method.

In identification of this KPI will used survey, interview and discussion with related party to develop a success map for each stakeholder which will be used to define Key Performance Indicator.

List of identified KPI to able to use as a Performance Evaluation required a weight for each KPI and this process used AHP based on importance level survey of stakeholders and expert judgment.

C. Analysis of Business Situation

Project initiated with intention to increase company value especially in term of revenue, profitability competitiveness and operational effectiveness. A lot of project which not meeting their time, exceed budget is considered as a success project due to their ability to provide the value for the organization and stakeholder. In opposite there are a lot of project which managed in timely manner, meet budget, yet they did not bring much value to the organization. The perspective of successful project is no longer valid only by evaluate on budget, on time and able to meet requirement but there are a lot more than this criteria to evaluate a project as a successful project.

As a case Study NEW ROAM SR project is selected, short illustration of this project is as below:

Project Background:

CCAI operation widespread throughout Indonesia with geographical challenges required a mobile integrated sales and marketing tools that enable our sales representative do the ordering and sales monitoring activity on the go.

Project Profile

- Total Projected User : +/- 2100 Sales Representative Personnel
- Operation Area : All Operation Throughout Indonesia (10 operation)
- Projected Duration : 8 Month (Dec – July 2011)

Every Project within a company will has its own stakeholders who could include employee, investor, customer and government if necessary. For NEW ROAM SR has 5 main key stakeholders as below:

1. Sales Force
2. Management
3. IT Operation
4. IT Support
5. Project Team

NEW ROAM KPI will be develop based on key satisfaction and contribution from each of stakeholder identified

3. Business Solution

An initial survey is held for each of identified stakeholder and based on this survey a success map is developed for each of stakeholder. Success map is draw a correlation between key satisfaction, contribution and what kind of strategy, process and capability to fulfill each stakeholder satisfaction and contribution. As an example of Sales Force and Management success map is illustrated in figure 4 and figure 5.

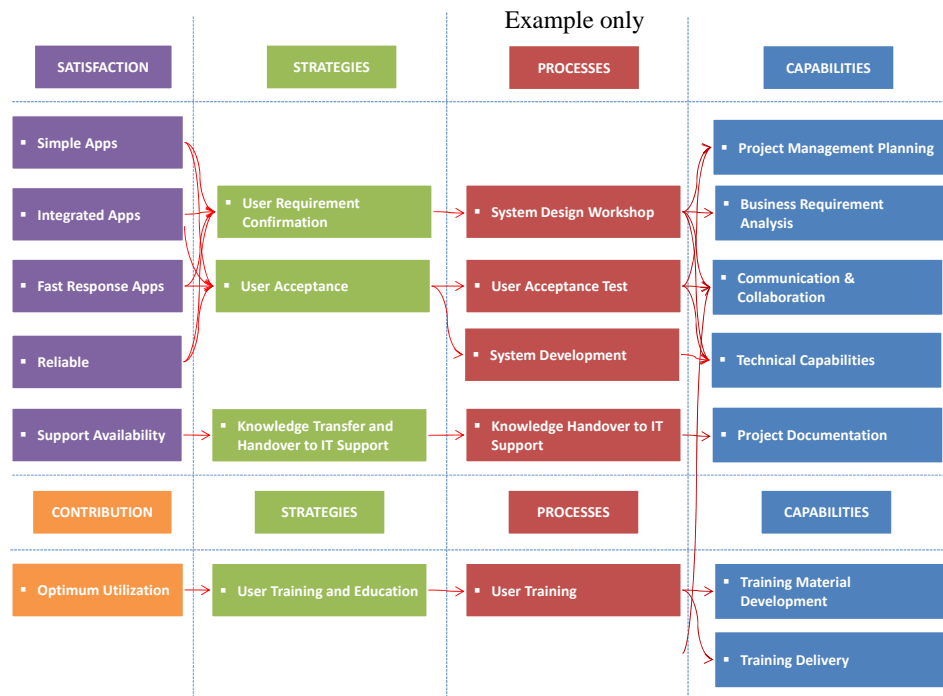


Figure 4. Sales Force Success Map

Sales Force is the end user of NEW ROAM SR project output which in form of mobile solution to support their daily sales activity. The key satisfaction from this stakeholder group is a fast response and reliable application which simple enough to be operated in and also integrate all the daily sales activity. In return the organization expects optimum utilization of this NEW ROAM SR which will provide organization with full control of sales activity and also improve sales force productivity by removing manual order entry activity in Sales Office. Below success map is the complete performance prism identification from sales force.

Sales Force success map indicate to achieve key satisfaction and contribution from Sales Force required 4 main key strategies such as User Requirement Confirmation, Final User Acceptance, User training and education and knowledge transfer to IT support to ensure buy in and conformance NEW ROAM SR feature in supporting Sales Force daily activity which will drive optimum utilization and ensure the expected contribution required from Sales Force.

Management Stakeholder as a representation of investor for NEW ROAM SR project. The key satisfaction of NEW ROAM SR projects from management side is to provide them with daily order tracking visibility and also improve control and monitoring in Sales Representative activity. On top of this Management also expect the key user adoption. Below success map is the complete performance prism identification from Management.

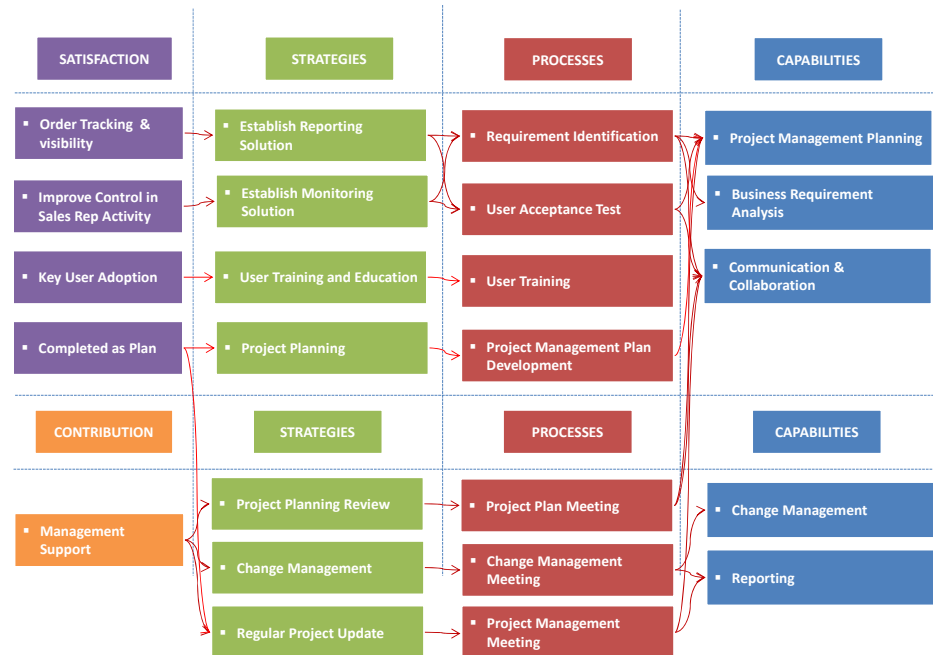


Figure 5. Management Success Map

There are 7 key strategies to achieve the stakeholder satisfaction and ensure contribution from management in supporting NEW ROAM SR project. One of the key satisfactions is project completion as plan and to fulfill this required a comprehensive project planning which include cost calculation, timeline and regular project update to management in resolving any issues as early as possible. Key measurement identified from all success map is compiled in figure 6 with total 74 Key measurement for all stakeholder with 68 of them is unique.

FACET	SALESFORCE	MANAGEMENT	IT OPERATION	IT SUPPORT	PROJECT TEAM
SATISFACTION	Sales force requirement fulfillment	System Monitoring requirement fulfillment	Deployment Functionality Fulfillment	Knowledge Handover Completion	Project Team Satisfaction Survey
	System support user satisfaction survey	On Budget Project Completion	Offline Functionality Fulfillment		
		On Time Project Completion	Minimum downtime		
CONTRIBUTION	% System Utilization	Project Charter Approval Document Sign Off	Initial User Deployment Completion	% User Reported Unresolve Issue	On Target project deliverables
		Project Closing Approval Document Sign Off	Handset Backup Availability	Average Issue Resolution Time	
		Project Deliverables Achievement	Application update success rate	% Issue escalated to 3rd level support	Communication with Stakeholder
STRATEGY	System Requirement Document Sign Off	Communication with Stakeholders	% System Utilization	Issue Resolution Service Level Conformance	% Training Fulfillment
	User Acceptance Document Sign Off		High Availability		Communication with Project Team
	% NEW ROAM SR Issue Escalated to 3rd level				Project Deliverables Achievement
PROCESS	Post Test User Training Result				
	System Requirement Document Completeness	% Design Progress	Deployment Design Document Sign Off	Transfer Knowledge Completion	Working Hour Tracking
	Testing Scenario Completeness Vs Requirement	% Development Progress	% Deployment Procedure compliance		% Communication Plan Fulfillment
	% Testing scenario passed test	% Testing Progress	Offline functionality Design Document Sign Off		Training Take Up
	Transfer Knowledge Completion	Project Planning Document Completion	Operational Knowledge Transfer Completion		Project Planning Document Completion
	End User Education Completion		Train the trainer post test result		Performance Management Plan Availability
CAPABILITY			System Architecture Document Sign Off		
	Subject Matter Expert Availability	Project Manager Skills	Hardware support availability	Support Personnel Capacity Availability	Performance Management Procedure Availability
	Project Resource Capacity availability	Subject Matter Expert Availability	System Architect Resource Availability	Support System and Procedure	IDP Procedure Availability
	Application Support Personnel Availability	Project Resource Capacity availability	User Guide Document availability	Resource availability for handover	Learning and Development Resource Availability
	Technical Guide Document Availability		Deployment Procedure Availability		Project Planning Development Resource Availability
					User Education Resource Availability

Figure 6. NEW ROAM SR Key Performance Indicator Measurement

74 totals KPI from all stakeholders to enable this implemented to evaluate NEW ROAM SR project required a classification based on weight of each KPI. The weight is defined based on level of importance of stakeholder and drill down to each KPI with the help of expert judgment. Level of importance stakeholder based on survey is illustrated as figure 7 below.

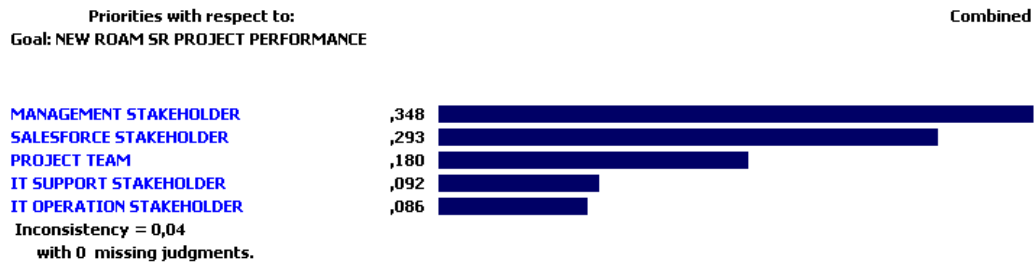


Figure 7. Stakeholder level of importance

The highest importance is management and followed by Sales force. The final weight of list measurement is showed the most importance with the highest weight is Project Charter Document Approval and followed by Project Planning Document Completion. Both of this KPI is a baseline of a project to be able to start. Without Approval of project charter there will be no project to execute. The top 10 Key Performance Indicator is listed in figure 8.

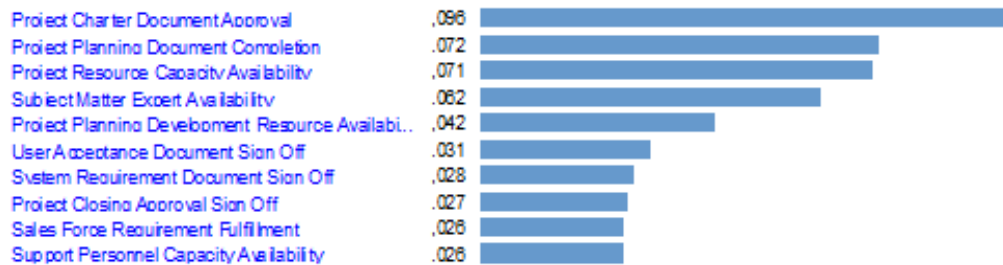


Figure 8. Top 10 KPI

In implementation of this KPI will following the category of each KPI as below:

- Project Planning : Key Performance Indicator measurement starts from the planning period until project officially kick off.
- Project Execution : Key Performance Indicator which the measurement period starts and used during project execution to ensure the project is running on the right direction.
- Project Review : Key Performance Indicator start and used post project implementation but not categorize as an operational KPI.
- Operational : Key Performance Indicator start and used post project implementation and used as a parameter to evaluate operational performance.

In project planning a Project Manager will focus on Key Performance Indicator categorize as project planning and during project execution there will be an additional set of KPI required to be a key focus to be achieved and continue until Project Review which going to measure performance of project post completion of project. Operational KPI is slightly different in the usage even though this set of KPI is also determine the level of stakeholder satisfaction but this KPI will be remain as long as the solution is still in operational and used by business. In performance evaluation of a project it is required a clear cut off period when this score of operational KPI will impact to total evaluation of a project. Cut off period between each project can be vary depend on the scope and operational implication of a project but in general the minimum period will be 3 months until 1 year for an IT projects.

Benchmarking

As a benchmarking NEW ROAM SR performance management design will contrast the developed design with the project management body of knowledge as best practice guidance in project management. According to the latest release PMBOK 5th edition in page 35 definition and criteria of project success is described in 3 sentences as below:

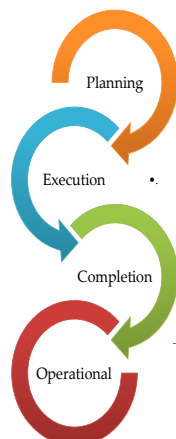
1. Since projects are temporary in nature, the success of the project should be measure in terms of completing the project within the constraint of scope, time, cost, quality, resources, and risk as approved between the project managers and senior management.
2. To ensure the realization of benefits for the undertaken project, a test period (such as soft launch in service) can be part of the total project time before handing it over to permanent operations.
3. Project success should be referred to the last baselines approved by the authorized stakeholders.

Based on PMBOK definition in principal the project success should be referred as an approval of the authorized stakeholders and this align with the NEW ROAM SR performance management design which the Key Performance Indicator is based solely on the stakeholder satisfaction and contribution. Period of evaluation is also noted in PMBOK should include a test period to be included within the overall project evaluation which in NEW ROAM SR performance design is identified as a period of live and operational.

4. Conclusion and Implementation Plan

Key Performance Indicator identified will change the way of project performance evaluation from existing parameter only focus in Project completion on time, on budget and on scope but with this new approach will required project manager and team to focus in other additional aspect of project and clearly measured through KPI. Comparison of current method and proposed method can be reviewed in table 1

Table 1 Current Project Performance Evaluation



	Proposed	Current
Planning	• 14 KPI Target Achievement	NA
Execution	• 22 KPI Target Achievement	NA
Completion	• 26 KPI Target Achievement	Project Scope Evaluation Project Budget Evaluation Project Timeline Evaluation
Operational	18 KPI Target Achievement	NA

Table 4.1 provides us with information using proposed KPI is covering bigger evaluation landscape compare to current KPI by put each KPI on every important milestone in project. Implementing Proposed KPI is helping project team, management to evaluate and oversee any issue and risk as early as possible.

In summary implementing new performance management system design providing company with benefit as below:

1. Improved project stakeholder perspective on how the project is performing during project planning, execution, and completion and operational.
2. Provide company with health check point to oversee risk and avoid failure of project by understanding the KPI achievement on each stage as an early warning system to minimize risk and solve potential issue.
3. Improve control and security of investment made to project.
4. Improve ownership of project stakeholder by addressing each stakeholder satisfaction and contribution.

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