

Practical Methodology to control QCD of Information systems in super upper stream

-- How to enable IT to contribute to achieve business goals --

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Abstract: More than 70% of IT project was recognized as failure project. Major cause of failure is analyzed as low quality of planning phase which is called super upper stream. Quality of IT project plan is depending on human skills in current processes. The methodology to control the quality which can summarize and streamline all stake holders' initiatives is created to improve QCD of planning. The methodology have been applied many projects and got excellent results.

1. Problems of Japanese IT projects

Purpose of Information system deployment in enterprise organization is business improvement in certain area, however, few IT project is recognized as enabler of business contribution. Main issues are existed in IT project planning phase.

Currently, procedures of IT project planning is not clearly defined and automated, even lower stream processes are clearly defined. Some famous guideline for planning activities indicate only What to do, however, they do not describe How to do them. As a result, Quality of IT project plan is depending on human skills

More than 70% of IT projects were recognized as failure project shown as fig 1.

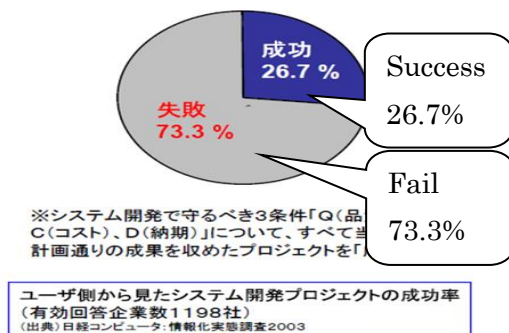


Fig. 1 Project success ratio. User recognizes that 73.3% is Failure, and 26.7% is Success. [Nikkei Computer, Fact-Finding of IT projects, 2003.]

The 2013 Cisco Global IT Impact Survey shows that business leaders and other non-IT teams roll out new applications without engaging IT (76 percent) and that IT professionals are brought into the planning and deployment process late (38 percent), which indicates that the importance of IT introduction planning is not considered equivalent to that of business planning even now shown as fig.2.

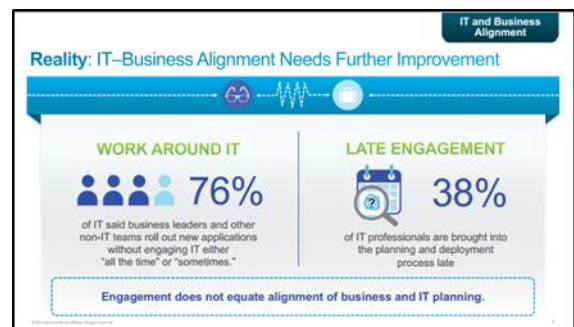


Fig.2 2013 Cisco Global IT Impact Survey/IT and Business Alignment

It is very important to coordinate every stake holders' requirements with company strategies which are created by management. The system which fused with a company strategy and the business processes must be required to build efficient system.

If direction of system is not match stake holders mind in planning, the gap grows big whenever a process advances. As a result, it may happen that a project to be never completed or the system which are not used by end users.

The 19th Corporate IT Trend Survey, 2012, which is issued by Japan Users Association of Information Systems, indicates that among the primary tips for successful business innovation are close communication between the IT department and management or other head office divisions and understanding of the business process across relevant divisions to reach total optimization for the organization.

Currently, that very important planning procedure is not clearly defined; therefore, quality of the project plan is depends on human skill sets.

Fig.3 shows 45% of features of information system are never used. Only 20% of features are always and often used. It obviously issue came from bad planning.

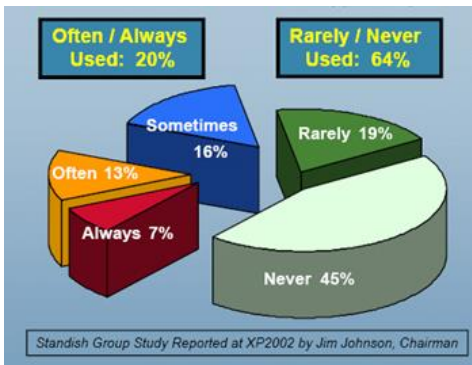


Fig. 3 Standash group study report at XP2002 by Jim Johnson, Chairman

In conclusion, helpful methodology and tools are required to help project planner in planning phase.

2. Effective methodology for IT project planning

I developed total planning methodology to support planning which is called SUSD.

SUSD consists of two main parts.

Part one is workshop which extracts information from stake holders regarding to the project such as strategy, business objects, and required abilities on their business. Required IT capability will be identified based on the information. Base number of ROI is also extracted in this workshop. The information are almost automatically identified through workshop by using the SUSD QFD tool. (Hereinafter SUSD QFD tool referred to as QFD tool.) The QFD tool is not only implements QFD logics, but also adds templates and issues/ROI analysis capability. All information through workshop are summarized, streamlined and contained in QFD tool, expect business process chart.

Part two is documentation work. Project plan is documented based on output from the workshop.

All the procedure to execute SUSD workshop and documentation work is predefined in QFD tool.

SUSD part one takes one week and part two takes one week, which is very fast planning work.

Overview of SUSD procedure is shown as Fig.4.

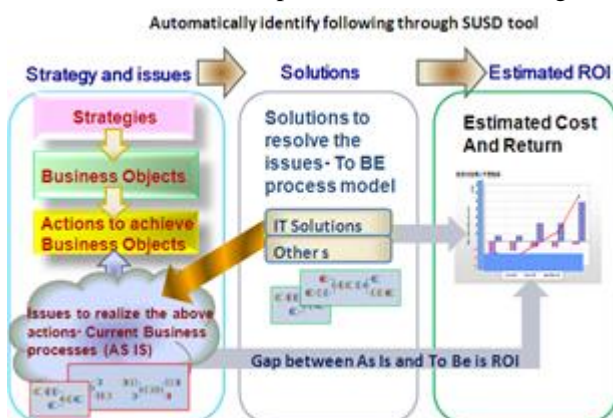


Fig. 4 Overview of SUSD concept, Dream IT Research LLC

SUSD promote collaborative discussion with stakeholders based on following three models to understand all stakeholders' intentions for the project:

1. Business model—Usually, each stakeholders has slightly different expectation for certain IT projects. It is necessary to correspond to their intention to achieve goals of IT project. Clear goal setting is the first step to success. Company goal is Breaks down to Strategies. Strategy breaks down to business objects which achieve strategies. Business object breaks down to abilities, as well. Strategies are differentiator from competitors. Business objects are internal objects to achieve strategies. Activities are Action or capability to achieve business objects. This model express what business initiatives are expected to be achieved.

2. Business process model—Organizations must define ideal business processes to achieve above business model. The ideal business process might be different form current business processes. We call “AS IS” for current business process, and “TO BE” for ideal business processes. Optimized business processes must be created from a goal-centric perspective as “TO BE”.

3. IT solution model—This is the ideal solution overview to support the ideal business process. The business process contains not only tasks that are executed manually, but also tasks that should be supported by an IT solution to obtain an effective result.

Overview is shown as Fig.5.

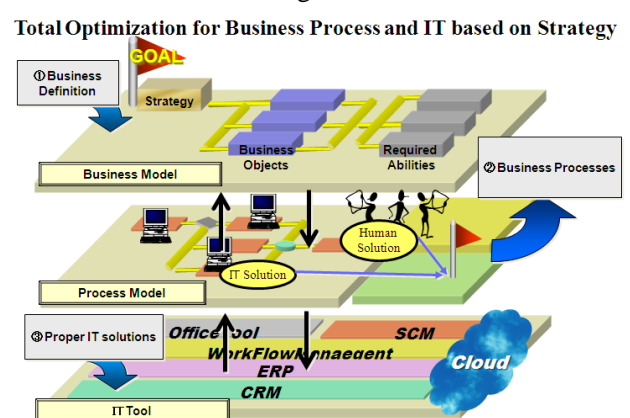


Fig.5 Relation of Business, Process and IT, Dream IT Research LLC

SUSD is designed to identify those matters.

Breakdown Picture of Business model is identified, like Fig.6. It is a kind of big picture of IT project to

guide all related people.

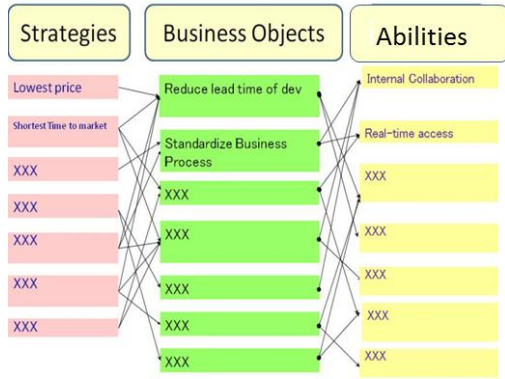


Fig. 6 Relation of Strategies, Business Objects and Abilities, Dream IT Research LLC

As next figure, we need to identify AS IS figure which include current business process and issues, and TO BE figure which include improved new business processes and solutions, like Fig.7. Also, Estimation of ROI (Return on Investment) and Setting of KPI, key performance indicator, is required to evaluate the project efficiency.

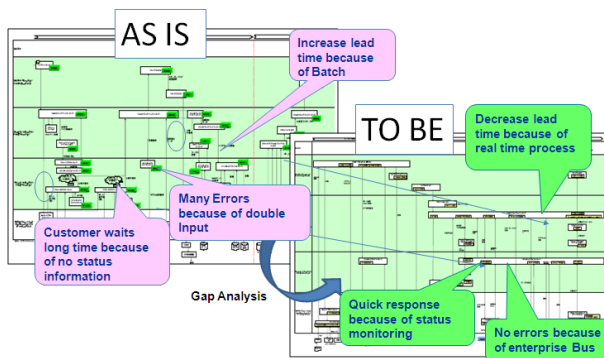


Fig.7 SUSD AS IS model and TO BE model, Dream IT Research LLC

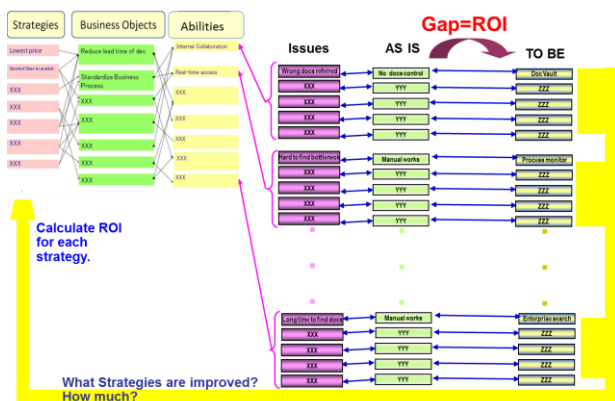


Fig. 8 SUSD ROI calculation, Dream IT Research LLC

The models express Business Processes and linked

IT solutions. The Gap between AS IS and TO BE is ROI.

Identified Ability is the item must achieve to realize Strategies and Business Objects. That means Activities have not been realized. So, some issues are existed to prevent realizing the activities. Important point of issue finding is that find issues directly give impact to strategies. We need to find out the each issues and AS IS and TO BE. Total sum of those gaps will be ROI. Concept of this ROI calculation is shown as Fig.8.

3. How SUSD works in real IT project planning

Following is the procedure of SUSD.

3.1 Define Scope

At first, we need to define scope to create IT project plan. If scope is not clear, nobody can identify anything. Scope must be very clear and agreed by stake holders.

3.2 Preparation for Workshop

Identify stake holders and select participants for SUSD workshop. Arrange room and schedule.

3.3 SUSD Workshop

Now, scope is very clear; however, every stake holder has different intention to improve their business. This is because they take different responsibilities in different environment; even they talk with every day. They do not know about business of other division.

We must find the directionality that all the members can make consensus.

SUSD workshop is consists of five part to clearly identify above matters by using QFD tool. Facilitator of workshop leads the activities and guides participants during workshop.

3.3.1 Identify Strategies in the scope

In this session, several managements participate in workshop as representative of scoped division. The participants must be MECE for scope. At first, we identify strategies in the project scope based on participants' input. And then, priority and importance of strategies will be defined by numeric by using QFD tool.

QFD tool is consists of 11 views which can select tab button on bottom line. #1 tab which is shown as Fig.9, allows us to identify Strategies.

Facilitator asks participants to provide several most important strategies. Participant can refer the template before provide own strategies. Template gives them idea and clear direction what they must provide as strategies. Provided strategies are input to QFD tool by facilitator. Facilitator promotes the discussion why other participant provides different strategies. To

understand each other's opinion and business process is important to make consensus of priority and importance of strategies.

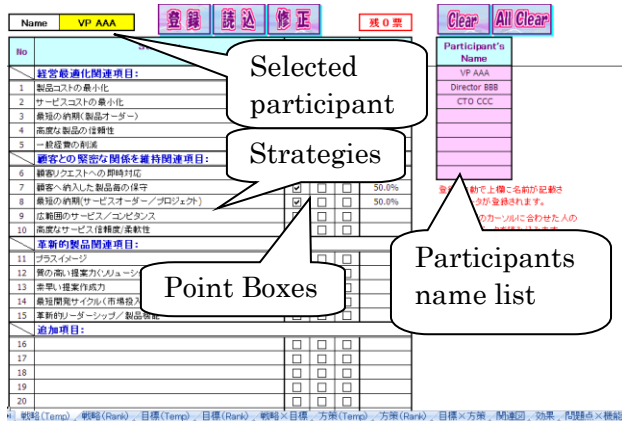


Fig.9 Initial view of QFD tool (#1 tab) , Dream IT Research LLC

After the discussion; each participant vote importance for each strategy, again. Facilitator check point box. Facilitator can select participant name from most right columns for inputting his points. Result of vote is automatically reflected and visualized on QFD tool #2 tab shown as Fig.10.

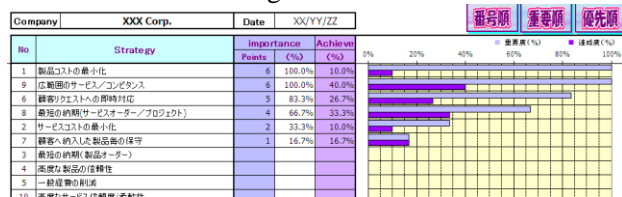


Fig. 10 Result of vote for Strategies (#2 tab), Dream IT Research LLC

Facilitator promotes participants to discuss based on result of their vote. Most important things in this session are to reach agreement about priority and importance of strategies with representatives.

Importance and priority of strategies are expressed by numeric and chart. Then, everybody can understand easily. Usually, it is very hard to make consensus by every management; however, this workshop provide environment to visually share information and efficient discussion to make consensus.

3.3.2 Identify Business Objects based on priority and importance of strategies

In this session, several middle managers participate. Business Objects to achieve the strategies are identified. Priority and importance of Business Objects will be defined by numeric.

Examples of Business Objects are contained as template on tab #3 which is shown Fig.11. Facilitator organize KJ method discussion to share wide variety

of information between participants. By End of discussion, several original Business Objects are found. Facilitator adds the Business Objects to QFD tool.

Each participants vote points for top 10 important Business Objects as next step. Facilitator collects them and reflects to QFD tool #3 tab.

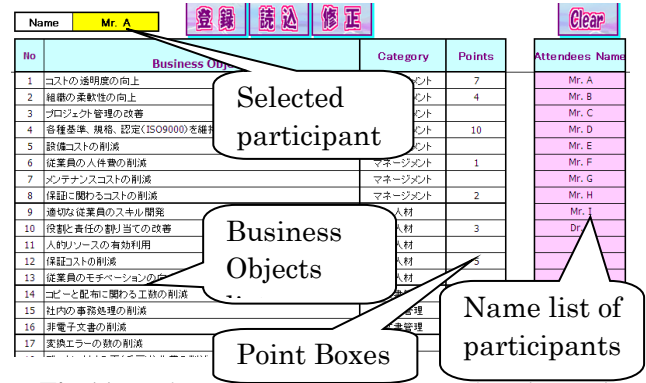


Fig.11 Business Objects template and voting point view (#3 tab) , Dream IT Research LLC

Each participant's point data is reflected to total sum of point's view which is #4 tab.

Usually, more than 20 Business Objects are voted. It is too many to forward to farther examination. Facilitator promotes discussion to select top 7-10 Business Objects. Participants can refer total points and rank on view of QFD tool #4 tab during discussion. It is very important to share other participants' opinion.

After the work, selected Business Objects are automatically reflected to next QFD tool tab. Selected Strategies are reflected, as well.

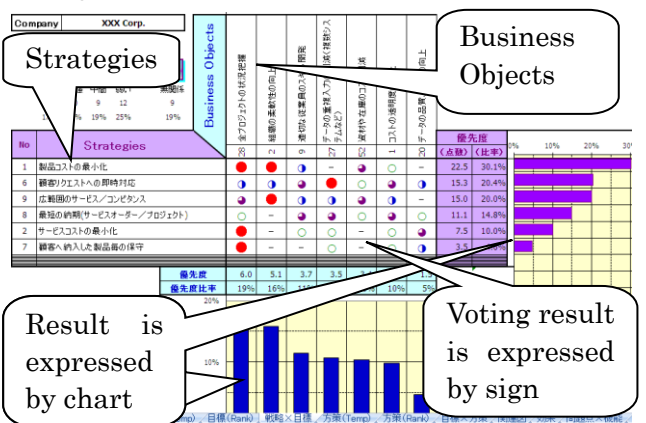


Fig. 12 Identify Priority of Business Objects (#5 tab), Dream IT Research LLC

QFD tool #5 tab which is shown as Fig.12 is now ready to evaluate importance and priority of Business Objects. It is typical QFD matrix. Strategies are already sorted by priority; and selected Business Objects are lined to identify priority. Facilitator

several phase to get early return. Most important solutions must put in first phase.

Create ROI chart for each project phases based on information of ROI matrix of QFD tool.

Finally, collect and unify them as IT project plan.

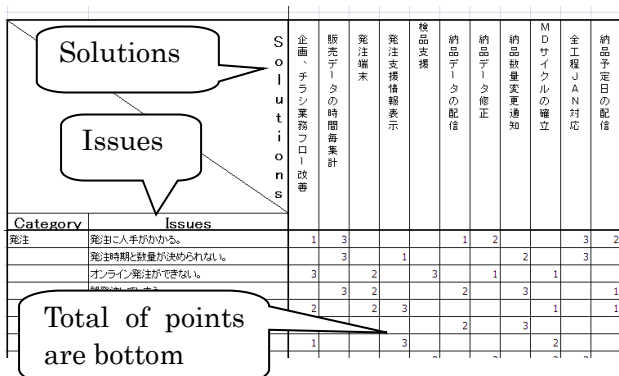


Fig. 14 Solutions/Issues Matrix, Dream IT Research LLC

4. Example of SUSD Workshop

SUSD effectiveness are proved by many projects, such as IT project planning for Automotive company, Heavy Industry company, Telecom company, Semiconductor equipment maker and so on. Following is the example deliverables for automotive maker.

One of the division of this maker had been straggling to create IT project for more than one year, and, they decided to apply SUSD in their project planning as methodology. The plan was completed in one month and approved by authorities to start the project.

This project achieved 3 main goals in certain duration, 1. Dev Period Reduction by 30%, 2. Dev Cost Reduction by 30%, 3. Equal quality of Global Production processes as target of plan which is created by SUSD.

Issues, causes, AS IS, TO BE and ROI is not permitted to show detail.

Usually, more than several thousands of issues are existed in the company, and, SUSD does not have to investigate all issues. SUSD can find only high priority issues to resolve to achieve strategies very easily. Member of the maker told me that they are not expected not only prioritize Activities and issues, but also estimate effects for each strategies by such a logical way.

Schedule is not permitted to show detail.

The member of this project told me that usually IT project is not complete by deadline, however, this SUSD applied project is easily completed by deadline because few change requests are submitted.

The members of the project were appreciate that

relation between Strategies, Business Objects, Activities, issues, cause, AS IS, TO BE and ROI is clearly linked by charts in logical way. They can evaluate effects of project at any milestones clearly.

Also, SUSD documentation format are applied for summarizing contents of many success case studies. Many summary of success cases are written in SUSD format in my written book.

5. Conclusion

SUSD is not only very effective to extract valued information from management through on-site people accurately in short time, but also useful to classify items in numbers. Lists, charts and pictures in SUSD allow smooth discussion to unify intentions and initiatives of participants. Big goal – small targets of IT project are identified by SUSD very clearly.

5. 1. Effects of SUSD methodology

Summary of SUSD benefits to keep up QCD of planning which extracted from customers are following.

1. Unify all stake holders' initiatives in shape.
2. Total optimization is realized. Because every targeted section sends participants for workshop as their representative.
3. Everybody who is related to the project can share clear view of IT project very easily, such as big picture, issues, milestones, expected effects. Because that information are expressed charts, picture by using real number extracted from stake holders.

References:

Fig. 1 Project success ratio. User recognizes that 73.3% is Failure, and 26.7% is Success. [Nikkei Computer, Fact-Finding of IT projects, 2003.]
 Fig.2 2013 Cisco Global IT Impact Survey/IT and Business Alignment
www.cisco.com/en/US/solutions/collateral/ns1015/Cisco_IT_Impact_Survey_Results_2013.pdf
 Fig.3 Standash group study report at XP2002 by Jim Johnson, Chairman,2002