Information Technology – Continuous Service Improvement

Preethi Sethuragunathan

A20387943

Illinois Institute of Technology

Abstract

The indispensable phases of information management architecture is incomplete without the intricate role played by the continuous service improvement (CSI).The objective of the phase is as simple as the name of the phase implies. However, it becomes essential to become familiar with the core, and concept of the phase to understand its roles and responsibilities played by CSI in the big picture of infrastructure library(IL) . Hence this paper attempts to present a detailed overview elucidating the need of CSI through which the learner /reader will develop a profound understanding of the topic. To achieve this, the paper discusses real time examples and some of the published articles to simplify the understanding .

The scope of the CSI , its perspective are discussed by simple illustrations and an outline of steps ,process and activities are explained . Papers supporting the benefits of successful implementation of CSI are cited and discussed that emphasis the important of the phase .Different IT Management methodologies are also discussed that comprises the adoptive nature of CSI and its process .

Keywords : CSI , Information Technology architecture ,ITIL , Measures ,Metrics ,Service Improvement .

What is Continuous Service Improvement?

Imagine an employee who drafts an SLA (Service Level Agreement) for a corporate company under the supervision of IT analyst, business analyst and legal advisor. Whenever he adds a new content from external resource, after addition or modification he saves the draft. And finally he reviews the document carefully and send the reviewed document to his supervisor which is then returned to him for further modification and the process continues until a well-documented SLA is produced as desired by the corporate with respect to its organizational plans and policies.

In the above example, SLA went through a continuous process of review and improvement (modification) until it meet the requirements as per the expected standards

This process of reviewing contents/services offered based on their business needs and improving according to the current trends that are in line with the goals of the organization is called Continuous phase improvement .

Sometimes, there might be no need in the organization for an improvisation but there is a need to compare and review the results of a service or an activity which in turn will improve the quality of the service or simply give an idea about the reflection of quality methods that were primarily used in the service, and in such cases one can use CSI to measure and monitor the results achieved along with the reviewing.

The below figure1 summarizes the objective of CSI.

Review — How things are done so far?
- All the actvities of the previous phases including objectives ,activities,process and service involved are put into a review .

Realign — Are things on right track ?
- Identifying factors for improvement and re aligning the process according to the business needs.

Measure — Compare and analysze results
- Current trends and technologies are analysed and applied accoridngly given that they are in complainace with above steps .
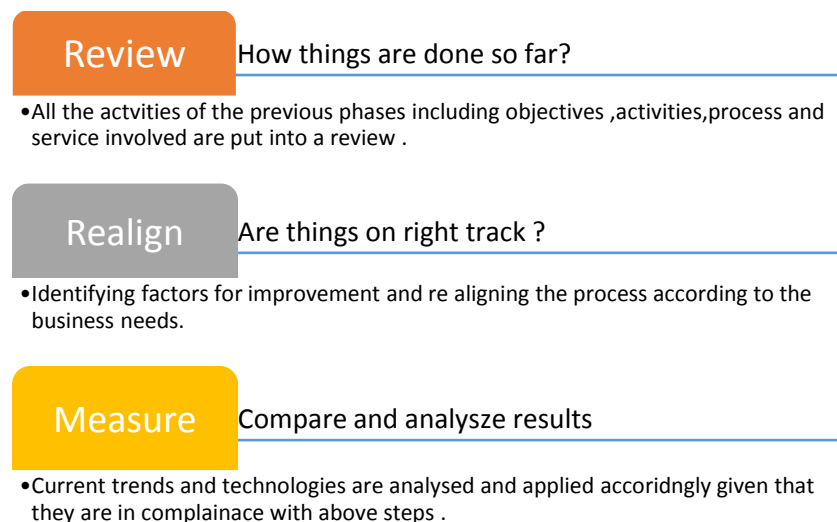
Figure1: Objective of CSI

Why there is a need to improve?

While change is constant and mandatory in a growth progress of any business plan, identifying room for improvement and implementing it only further assures the growth progress and is an essential part of transition that comes with it.

Hence the role of CSI is an integrated part of an ITM infrastructure as it reviews, validates and measure the results that were produced in the previous phases. A successful implementation of this phase will help an analyst to identify the factors that needs to be improved in the services that were originally targeted in the business plan and also lay him an outline of how far the results reflected are in compliance with the mission and what phase needs an immediate attention to counterpart the improvement in order to result in a success.

What to do in CSI:

CSI identifies and accomplishes distinct metric measures namely service, process and technology metrics. By using the result of the metrics, CSI would determine the scope of improvement in any phases / activities. Usually these metrics are rated on the basis of four important factors such as quality performance compliance and value respectively.

As in any phases, CSI comprises a flow of activities and process to be completed which are illustrated in the below diagram : figure2.

Review the offered services are in line with the mission of the organization

Review the applied trends produce desired results

Identifying the room for improvement

Reviewing analsysis and results to identify priorities

Bridge between the IT and the business team to evaluate /validate changes

Suggesting /recommending management in deciosn making that supports the analysis

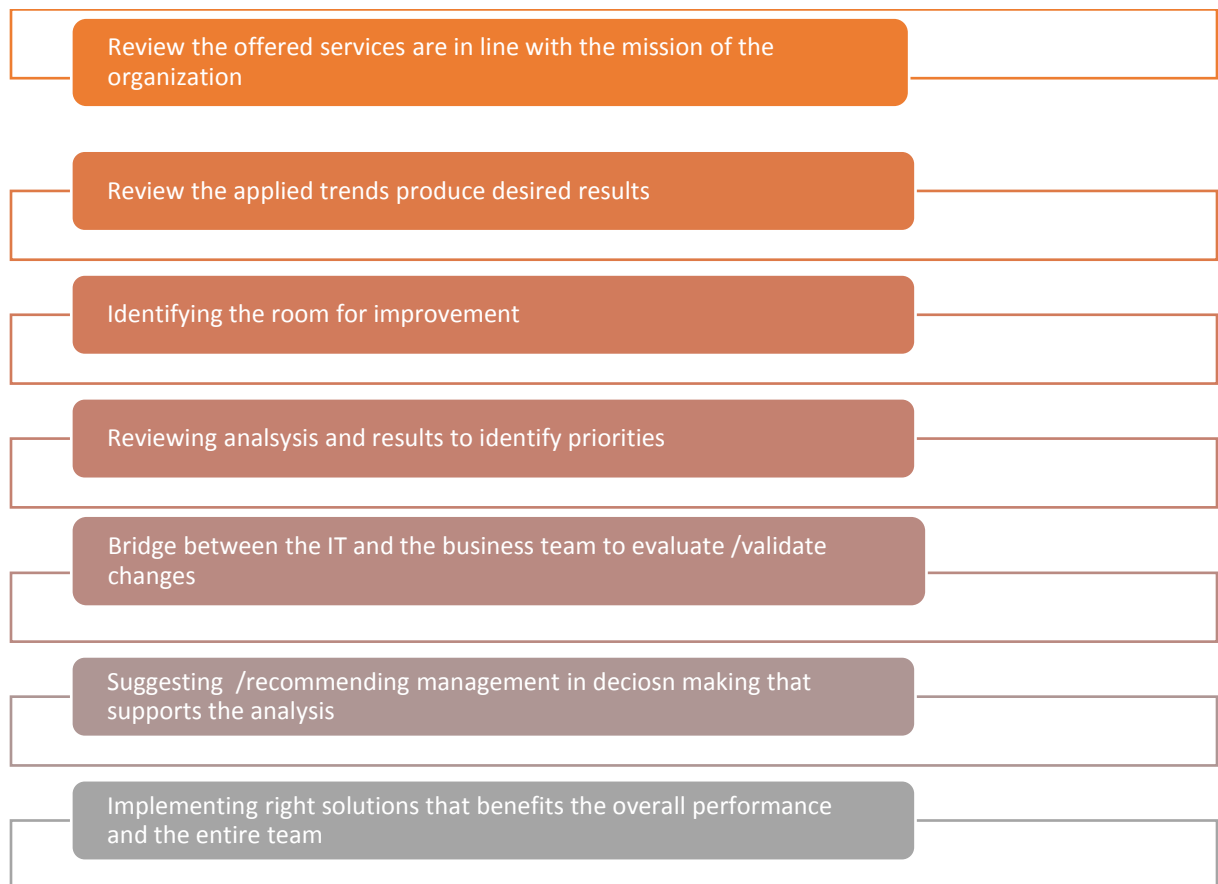Implementing right solutions that benefits the overall performance and the entire team

Figure2: Activities of CSI

How to measure?

While it is essential to measure the metrics may it be service or business oriented, it is vital to deploy the right ways to implement it.IL put forth four reasons to measure such metrics.

Considering the same example as above and applying it in the measuring tactics of CSI, we can group the actions of CSI to :

Validate: Examining whether the current trends follow the primary objective .continuous monitoring is a part of this activity.

Direct: If, not what are all the effective methods to redirect the mission on its path?

Justify: What are all the current tools that needs to be implemented and if implementing such tools exceed the previous phase's financial allocation, then what are all the plausible justifications given to counteract the current tool to be deployed.

Intervene: If misleading or identifying erroneous practice, proper involvement Is required and the ways to execute it are properly followed.

An ideal scenario of CSI phase in an enterprise, it becomes important to address the following questions that were asked in the previous phases. It successfully blends all of the phases into one and combine its actions and analyze it. Refer the below diagram(figure3) that shows the overview of CSI objective :

Figure3:CSI overview

An ideal scenario of CSI addresses the following questions that focuses on the areas that have been successfully completed so far :

- What is our goal ?
- How short are we in achieving it ?
- What needs to be done?
- Where do we lag ?
- How to identify and counterpart it ?
- Are we in compliance with our goals so far ?

Each of the above questions cover the objective and key phase of the previous four phases which in turn ensures the careful review of the methods applied so far.

CSI steps :

After identifying what needs to be focused , the CSI approach gives us an ideal seven steps that upon following results in an cumulative benefit for successfully applying the ITM standards that matches the business goals. Figure7 illustrates the steps :

1.Identify the room for improvement

2. Construct the areas that needs monitoring and review

3.Construct how successfully those areas can be reviewed. Justify the results .

4. Collect the necessary data ,browse the tools available in the market, deploy the most apt tool that matches the enterprise scenario .

5.Filter the unstructured data to what you want so that it can be effectively used in our case.

6.Successfully avail the data into the approach and measure the metrics , validate and execute the results .

7.After Execution , review the whole process again and consistently monitor it .

Figure4:7 steps of CSI

The PDCA Process :

Invented and coined by the famous philosopher Edwards Deming ,the PDCA cycle is the traditional mantra for the CSI process.
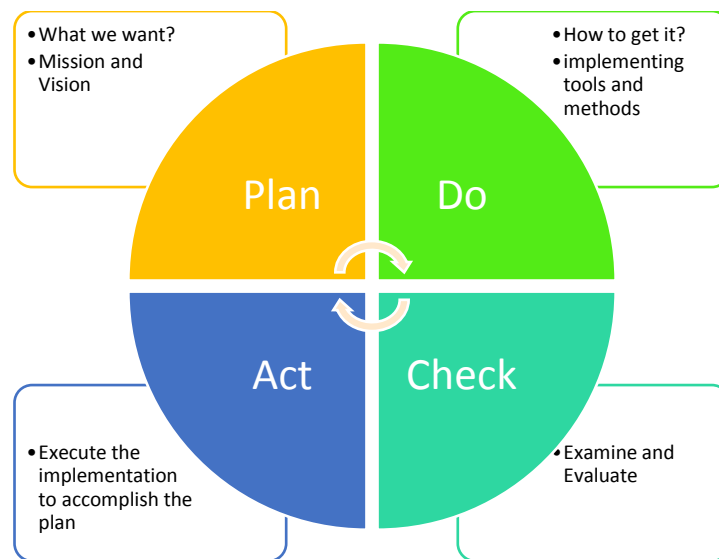

Figure5:Deming Cycle -PDCA

 IT Service Improvement:

Published Paper analysis :

Although the csi methods and terms are transparent, there are real time difficulties in applying the practices to the business plan. The author of the paper, 'Framework for CSI : optimizing by dovetailing different systemic frameworks(2011)' discusses and incorporate salient methods such as PDCA , Policy Objective matrix and ISM (Interpretive Structure Model) and six sigma framework to design an csi framework to be used by the one of the renowned multinational company's service center .

The proposed framework comprises four key phases namely identify and formulate the improvement factors, prioritizing them , execute optimal solutions and managing solution results by monitoring them . Each key phase are implemented through each distinctive practice that are discussed above.

Finally , the author concludes that many advantages like Efficient improvement tracking , accurate metrics measuring with the help of PO matrix and learning the expected motto's from incident engineering processes etc. through this paper , we learn that proper deployment of CSI components ,coupled with mapping distinct methodologies into one single framework result in fruitful accomplishments

CSI in Information Technology Service Management :

Many companies and organizations today face the challenges in idealizing the IT governance and its management. Maturity factors, mapping financial constraints to the current trends that are to be deployed, resource management issues, incompliance with senior management and the employees are few of the important difficulties faced by the companies today. Referring this issue, author of the paper ,'Lean continuous improvement to IT service management implementation(2016)' propose a simple yet efficient practice of csi that result in more convenient and sophisticated approach that assures the two common yet challenging goals of many firms today : return on investment and consistent practice for the enterprise. The author explains the concepts of lean philosophy that focuses on increase in customer consumption that in turn increases the value of the business which provide the solid way on return on investment . Through this approach in the CSI phase of the firm, the client can effectively identify the customer attracting attributes in the services offered so that the client can now focus on improving them further resulting in achieving the targeted goal of the business. The author also suggests methods to improve CSF (critical success factor) by implementing ISM methodologies . On a bird's view this approach puts ITM framework methodologies and the IT service Management along with the Lean principles that gives a most efficient approach that incorporates CSI to its best of usage to achieve the expected results.

Finally , we can conclude that while the ITM first four phases concentrate on plan , design , changes and their necessary execution the fifth phase of the architecture CSI makes the result of the four phases into one picture and keeps the process go on at a successful pace. CSI helps the clients to constantly review , analyze , align and consistently monitor the enterprise for the best results , thus forming its key activities. It also suggests several tools and combination of methodologies that are discussed above , implies that concepts of CSI are much flexible and adoptive by itself.

References

A.Bose; A.Hetching ; S.Sahu (2008) K.Supriya .(2011) . Frameworks of model based Continuous Service Improvement of Global IT service delivery operations . *Services computing SCC'2008 IEEE International Conference.Volume 2.*Pages 197-204,doi:10.1109/ICQR.2008.160

W.Berraghl;R.Marghoubi (2016) .Lean Continuous Service Improvement to Information Technology Management Implementation :Projection of ITIL framework ..*International Conference on IT Organizations Development(IT4OD)* Pages1-6,doi:10.1109/IT4OD.2016.7479279.

K.Supriya .(2011) . Frameworks of Continuous Service Improvement : Optimizing by dovetailing different systematic frameworks.*Quality and Reliability(ICQR)IEEE International Conference.*Pages 307-311,doi:10.1109/ICQR.2011.6031731.