AN APPROACH TO CONTINUAL SERIVE IMPROVEMENT IN IT

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**ABSTRACT**

Today many businesses rely on IT to provide them the competitive edge it needs in being leaders of their domains. This puts IT on an immense task of providing these business with exceptional service. This service can only be exceptional through step by step improvements. The ITIL Continual Service Improvement phase deals with this aspect of the service. In this paper we will explore a bit more on ITIL CSI process.

**Keywords:** ITIL, ITSM, Continual Service Improvement (CSI), IT Audits, Key Performance Indicator (KPI), Pareto Charts, Fishbone Diagram.

# INTRODUCTION

The ITIL Continual Service Improvement is the final aspect of ITIL IT Service Management. The aim of CSI is to identify areas of improvements in the previous phases and also in the changing market scenario and suggest them from time to time to organization.

This process needs to be done systematically to reap maximum benefits. Any careless doing in the improvement phase can have exponential effect on the organization.

# ITIL – IT CONTINUAL SERVICE IMPROVEMENT

Continual Service Improvement, as the name suggest involves taking improvement steps by an organization to its services, products and processes in order to provide the customers an outstanding experience.

The CSI process begins post usage of a service started by the customer. The customer provides feedback via appreciation, complaints and general remarks which acts as an input to the process. These inputs are analyzed, processed and an action plan is devised for the process or services and then implemented through the service transition phase. [1]

In this paper we will elaborate on Deming’s Plan-Do-Check-Act cycle, Real World scenarios and Some tools and functions that can be used for improvement.

## Deming’s Plan-Do-Check-Act cycle

Edward Deming created the Plan-Do-Check-Act cycle that illustrates a framework for carrying out the CSI process. Below is the figure for the same:

Fig 1. Deming’s PDCA cycle

Deming’s PDCA cycle can be described as follows:

1. Plan: Here, we identify the processes, services or products that need to be improved or enhanced. This involves creating a strategy for improvement mechanizations and metric definition to gather meaningful data via KPI, IT Audit etc. [2]
2. Do: Base on the strategy and the metrics defined we will gather the Data is the “Do” phase. The data is collected from the ticket tools, audit reports, monthly analysis reports etc. This data is then processed for further analysis. In this the data owners are responsible for providing accurate data so that accurate processing and further analysis can be done.
3. Check: Analyze the data collected and convert it into information. This information is then used to identify the area which needs improvement. Through this we can also gauge the outcome of the improvement and predict what could be result of the improvement activity.
4. Act: In this we will implement the proposed improvement. This implementation is a 3-step process. At first the changes are implemented in D system where the Key users test them, then it is transferred to Q system where the user community in general test them and then it is deployed to P where it is put in use.

Hence, the Plan-Do-Check-Act cycle covers all the aspects and also covers the 7-step process of continual service improvement. This cycle is taken as a standard by some organization for service improvement.

## Real World Scenarios on Continual Service Improvement

Continual Improvement process keeps on happening in the world and at times around us with the most common example being that of a phone.

Let’s take the iPhone for example, Steve jobs came up with the vision of a device that could be interactive with the human touch, could store songs and videos and play them on demand. This was a tremendous surge and improvement from the traditional phones that were available at the time. [3]

Similar is the case of personal computing, the improvements and innovations in PC world have turned a once mammoth machine to a comfortable, portable, and exponentially powerful device that can create wonders.

## Some Tools and Functions that can be used for Continual Service Improvement

ITIL is not the only framework that provides service improvement. There are other frameworks like, Six Sigma, Lean methodology, Agile framework that support the continual improvement process. The tools that are utilized for improvement are ticket tools, historical data, Analysis reports prepared in excel and the feedback portal where the customer receives the feedback.

Some of the functions that we can use are the pareto charts, the fishbone diagram and the failure mode effect analysis. These functions allow us to analyze the improvement areas and work on them. The fishbone diagram in particular helps in pinpointing the cause of an issue that occurred and allows for specific steps to be taken. [4]

# CONCLUSION

Improvement is a repetitive activity and needs to be performed time and again. The importance of this process is visible by the increase in the customer satisfaction levels and increase in sales of the organization. The thought of continual improvement can be incorporated in many of the activities that we carry out in day to day life right from something as simple as improving one’s fitness by working out daily to handling the complex problems of the world.[5]

# REFERENCES

1. S. Kummamuru, "Framework for Continuous Service Improvement(CSI): Optimizing by dovetailing different systemic frameworks," 2011 IEEE International Conference on Quality and Reliability, Bangkok, 2011, pp. 307-311.  
   doi: 10.1109/ICQR.2011.6031731
2. A. E. Soza, "Continuous improvements applied to the quality of the technical services in EJESA," CIRED 2005 - 18th International Conference and Exhibition on Electricity Distribution, Turin, Italy, 2005, pp. 1-6.  
   doi: 10.1049/cp:20051409
3. Durward K Sobel II & Art Smalley Understanding A3 Thinking: A Critical Component of Toyota's PDCA. Management System, CRC Press, Taylor & Franscis
4. W. Berrahal and R. Marghoubi, "Lean continuous improvement to information technology service management implementation: Projection of ITIL framwork," 2016 International Conference on Information Technology for Organizations Development (IT4OD), Fez, 2016, pp. 1-6.  
   doi: 10.1109/IT4OD.2016.7479279.
5. Ryuji Fukuda , Noriko Hosoyamada, , Building

Organizational Fitness: Management Methodology for

Transformation and Strategic Advantage, ISBN

1563271443 (1-56327-144-3)