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Research Paper | Management

Role of Hard Core CSFs in Six Sigma Practices: A Case Study on Foreign Banks

Dr. Renu Pareek Associate Professor, ISBM, Suresh Gyan VIhar University, Jaipur.

ABSTRACT

Organizations are increasingly adopting Six Sigma in a bid to improve the quality of their processes and products, and thus achieve competitive advantage. Six Sigma is a disciplined approach for dramatically reducing defects and producing measurable financial results. It provides an organizational structure, in which improvement projects are led by employees who have been involved in the Six Sigma projects as so called Black Belts (BBs) and Green Belts (GBs), typically selected from middle management. However, despite the apparent popularity of Six Sigma, very little is known about the extent to which Six Sigma has actually been adopted by banking organizations in India, patterns of adoption across sectors that differentiate firms that heavily adopt Six Sigma from those that do not, the Hard Core Critical Success Factors which influences successful implementation of Six Sigma

In this vein, the paper aims to explore the possible relationship between the implementation of Six Sigma in foreign banks. The study also identifies hard core critical success factors in adoption of Six Sigma and it specifically focus gap between importance and practice of hard core factors of Six Sigma towards adoption and efficacy.

KEYWORDS : Six Sigma (SS), Black Belts (BBs), Green Belts (GBs), Hard Core Critical Success Factors (HCSFs)

Introduction

As Six Sigma is a comprehensive and flexible system for achieving, sustaining and maximizing business success. Six Sigma is uniquely driven by close understanding of customer needs, disciplined use of facts, data, and statistical analysis, and diligent attention to managing, improving, and reinventing business processes. Thus Six Sigma provides the foundation for the "business success" by achieving following benefits:

Objective of Research

The objectives of the study are:

- To Study Six Sigma practices in foreign banks in India
- To identify hard core critical success factors to success full implementation of Six Sigma in foreign banks.
- To analyze the gap between Importance and practice of hard core critical success factors of Six Sigma in foreign banks

Research Methodology

Research Types: Simple random sampling

Sample Size: 50 Employees (25 HSBC bank and 25 CITI Bank)

Data Collection:

A sample size of 50 bank employees from foreign banks were taken for the study. Primary data has been collected through personal interview (for hard core CSFs) and self-developed questioner (to analyze gap) and secondary data has been collected through various literature reviews. A total of 10 HCSFs who influence the success full implementation of Six Sigma in service sector have thus been identified and compiled through an extensive literature review which has been further considered to achieve objective three.

Tools of Data Analysis:

Frequency and Percentage for descriptive analysis and t- test for inferential analysis

Hypotheses: The hypothesis being tested is as follows

Ho: There is no difference between Importance (theoretical) & Practice(practical) implementation of hard core CSFs of Six Sigma in foreign banks.

H1: There is no difference between Importance (theoretical) & Practice(practical) implementation of hard core CSFs of Six Sigma in foreign banks.

Findings and Analysis

Section I:

Six Sigma practices in foreign banks in India

It can be interpreted from figure 1 that the primary operational departments of respondents in the survey were front office and back office. The majority of organizations implement Six Sigma in cheque collection followed by loans and account opening. This can be explained by the fact that Six Sigma is a resource intensive and customer oriented quality tool requiring significant attention on quality aspects.

Next question was about year of initiation of Six Sigma, as can be seen from the figure 2 , more than 25 banks started the Six Sigma program during or after 2002 and 50 % started it during 1996-1998. This supports the findings that indicates that Six Sigma is still a relevantly newer management approach being adopted by banking sector in India , as compared to ISO 9000, TQM, and BPR, which were adopted in early and mid 90s.

As shown in the figure, the most significant benefit achieved through Six Sigma in foreign banks was reduced cycle time followed by cost reduction and customer satisfaction. The next significant benefit attained is the defect/error reduction, which invariably is the core objective of Six Sigma Program. Other significant benefits achieved were reduced cycle time, and minimization of waste/non-value added activities.

Section II : Perception on Success Factor

HCSF1 Customer satisfaction levels are measured and monitored: According to table HCSF1 which indicates that Mean, S.D and Std Error of (Importance) was 4.2±0.83& .11 and (Practice) was 3.62±0.90 & 0.12 and the mean difference of Importance and Practice of employee perception on success factor was (.58) and the t-ratio was statistically significant as the obtained value (3.34) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF2 A system to feedback customer concerns is established: According to table HCSF2, which indicates that Mean, S.D and Std Error of (Importance) was 4.04±1.21& .17 and (Practice) was 3.42±0.88 & 0.12 and mean difference of Importance and Practice of employee perception on success factor was (.62) and the t-ratio was statistically significant as the obtained value (2.92) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF 3 Measurement from critical processes is taken for improvement purpose. According to table HCSF 3, which indicates that Mean , S.D and Std Error of (Importance) was 4.28±0.85& .12 and (Practice) was 3.52±0.67 & 0.09. and mean difference of Importance and Practice of employee perception on success factor was (.76) and the t-ratio was statistically significant as the obtained value (4.91) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF 4 Systems and processes: According to Table. HCSF 4, which indicates that Mean , S.D and Std Error of (Importance) was 4.26±0.72& .10 and (Practice) was 2.96±1.10 & 0.56. and mean difference of Importance and Practice of employee perception on success factor was (1.3) and the t-ratio was statistically significant as the obtained value (6.97) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF 5 Information and data collected system established to monitor improvement activities: According to Table HCSF 5, which indicates that Mean , S.D and Std Error of (Importance) was 3.92±0.87& .12 and (Practice) was 3.36±0.66 & 0.09 and mean difference of Importance and Practice of employee perception on success factor was (.56) and the t-ratio was statistically significant as the obtained value (3.60) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF 6 Key business processes focused on meeting the needs of customers: According to Table HCSF 6, which indicates that Mean, S.D and Std Error of (Importance) was 4.08±0.63& .63 and (Practice) was 3.3±0.78 & 0.11 and mean difference of Importance and Practice of employee perception on success factor was (.73) and the t-ratio was statistically significant as the obtained value (5.45) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF 7 Sufficient financial resources provided to support improvement activities: According to Table HCSF 7, Mean, S.D and Std Error of (Importance) was 4.2 ±0.80 & .11 and (Practice) was 3.18 ±0.71 & 0.10 and mean difference of Importance and Practice of employee perception on success factor was (1.02) and the t-ratio was statistically significant as the obtained value (6.66) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF 8 Human resources availability considered in improvement activities: According to Table HCSF 8, Mean, S.D and Std Error of (Importance) was 3.82±0.56 & .07 and (Practice) was 3.18 ±1.02 & 0.14 and the mean difference of Importance and Practice of employee perception on success factor was (.64) and the t-ratio was statistically significant as the obtained value (3.87) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF 9 Investment decision based on sound resources consideration: According to
Table HCSF 9, Mean, S.D and Std Error of (Importance) was 3.84 ±0.76 & 0.10and (Practice) was 3.14 ±0.63 & 0.09 and mean difference of Importance and Practice of employee perception on success factor was (.7) and the t-ratio was statistically significant as the obtained value (4.92) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

HCSF 10 Technical resources (eg. software, equipment) are provided : According to table HCSF 10 , Mean, S.D and Std Error of (Importance) was 4.36±0.48& .06 and (Practice) was 3.44±0.86 & 0.12 and the mean difference of Importance and Practice of employee perception on success factor was (.92) and the t-ratio was statistically significant as the obtained value (6.58) was higher than the table (2.63) required for t-ratio to be significant at .01 level of confidence. Hence H0 is rejected and H1 is accepted.

Conclusion

Six Sigma cannot be treated as another isolated activity; therefore the link between Six Sigma project and business performance has to be obvious so that the result can be measured further it also illustrates that Six Sigma is a fully integrated philosophy into a business culture rather than just a usage of limited resources. This has to be demonstrated in monetary, human resources terms and how it can be used to strengthen the business strategy.

This can be explained by the fact that Six Sigma is a resource intensive and customer oriented quality tool requiring significant attention on quality aspects. Further the findings also supports that Six Sigma is still a relevantly newer management approach being adopted by banking sector in India , as compared to ISO 9000, TQM, and BPR.

The core theme of the project was to identify and analyze the difference between the theoretical (Importance) and practical (practice) of SCSFs for implementation of Six Sigma in banking sector. To analyze the gap 10 hard core SCFs identified. Surprisingly (as per table 1) there is gap between importance of HCSFs and actual practice of these factors in foreign banks. Which influence the successful implementation of Six Sigma in foreign banks?

Recommendations

As the result reveals from the study there was a gap between the suggested theory and the actual implementation process of Six Sigma in banking organizations.

First banks should identified Hardcore factors based on their critically and then take measures accordingly such as system and process has been identified most critical factors. Just as important as the other quality tools Six Sigma also focuses on system and process in other words Six Sigma works upon "process oriented thinking". Obviously results will be improved in order to produce better results if proper system and process will be identified further financial resources has been ranked as second most critical hard core factor

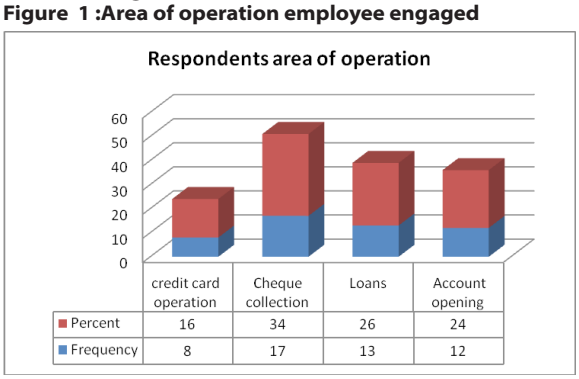
Most of the organizations and particularly banks try to concentrate more on reducing costs of their operations and services. However, this is not effective in Six Sigma implementation. The banks need to focus more on improving their organizational output. Banks should train their employees and try to minimize the time spent on different transactions and provision of services. This will also help banks in minimizing the overall time required for Six Sigma strategy implementation and gaining quality improvements objectives.

Recapitulation:

Since the Six Sigma is resource intensive methodology and the implementation of Six Sigma in banks is a very challenging task due to the characteristic of service , the banking organizations should put in place a hard core critical success factors also since these factors also has impact on internal efficiency and external effectiveness of the organization.

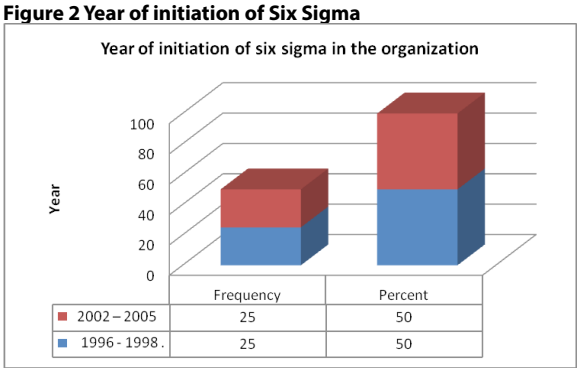
Tables and figures

Figure 1 :Area of operation employee engaged



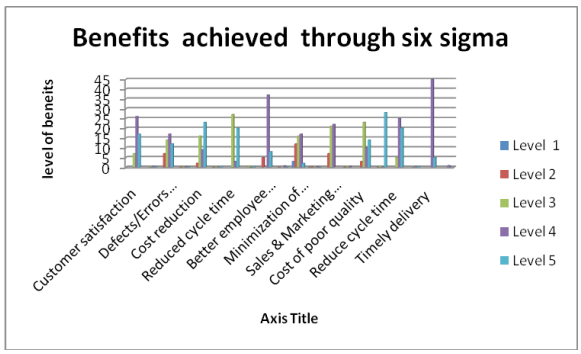
Source :Self Developed Questionnaire

Figure 2 Year of initiation of Six Sigma



Source :Self Developed Questionnaire

Figure 3 Benefits achieved through Six Sigma by foreign banks



Source : Self – Developed Questionnaire

Table 1: Hard Core Critical Success Factors (HCSF1 to HCSF12)

HCSF 1	Customer Satisfaction Levels are Measured	Importance	50	4.20	0.83	0.11	.58	3.34
		Practice	50	3.62	0.90	0.12		
HCSF 2	A System to Feedback Customer Concern Established	Importance	50	4.04	1.21	0.17	.62	2.92
		Practice	50	3.42	0.88	0.12		
HCSF 3	Measurement from Critical Processes is Taken for Improvement Purpose	Importance	50	4.28	0.85	0.12	.76	4.91
		Practice	50	3.52	.67	0.09		
HCSF 4	Systems and Procedures for Quality Assurance are Implemented	Importance	50	4.26	0.72	0.10	1.3	6.95
		Practice	50	2.96	1.10	0.15		
HCSF 5	Information and Data Collected System Established to Monitor Improvement Activities	Importance	50	3.92	0.87	0.12	.56	3.60
		Practice	50	3.36	0.66	0.09		
HCSF 6	Key Business Processes Focused on Meeting the Needs of Customers	Importance	50	4.08	0.63	0.63	.73	5.45
		Practice	50	3.36	0.78	0.11		
HCSF 7	Sufficient Financial Resources Provided to Support Improvement Activities	Importance	50	4.20	0.80	0.11	1.02	6.66
		Practice	50	3.18	0.71	0.10		
HCSF 8	Human resources availability considered in improvement activities	Importance	50	3.82	0.56	0.07	.64	3.87
		Practice	50	3.18	1.02	0.14		
HCSF 9	Investment Decision Based on Sound Resources Consideration	Importance	50	3.84	0.76	0.10	.70	4.92
		Practice	50	3.14	.63	0.09		
HCSF 10	Technical Resources are Provided	Importance	50	4.36	0.48	0.06	.92	6.58
		Practice	50	3.44	0.86	0.12		

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