Original Article

Implementing Challenges Of Iso/Iec 20000 Standard In It Service Sector - A Descriptive Study

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Abstract

This study has been used as a descriptive research method to examine the challenges in the implementation of ISO/IEC 20000 standard (ISO 20K) in the IT Service Sector in Chennai. Challenges in the implementation of ISO 20K are called the main variable of the present study. The researcher used a purposive sampling technique. Finally, a 358-respondent survey is used for this study. After collecting the data, the study used SPSS and MS Excel for analysis purposes. It is found that best practices and belief in the benefits, Top Management needs to be well aware of the benefits, Project and IT Managers are well aware of the implementation of ISO 20K, IT service management tools and development IT infrastructure, and teams worked together and responsibly in an IT Company.

Keywords: Challenges, ISO 20K, IT Service sector

INTRODUCTION

According to Ahmad Shuja, (2009) the extent of difficulties associated with implementing IT service management depends on upon the current state (baseline) maturity of the business enterprise and IT organizations. Sharifi et. al., for those that are at lower maturity levels, this may mean a fundamental shift in the ways in which business enterprises and IT organizations operate. ISO/IEC 20000-1: 2018, often referred to simply as ISO 2K, is the International IT Service Management standard that enables IT organizations (whether in-house, outsourced or external) to ensure that their IT service management processes are aligned both with the needs of the business and with international best practices. It helps organizations benchmark how they deliver managed services, measure service levels, and assess their performance. Cornelius, D., (2005) stated some key success factors of successful implementation of IT Service management systems and he also stated some implementation gaps as well as how they can be avoided in his book - Implementing IT Service Management.

OBJECTIVE OF THE STUDY

To find out the association between Challenges in the Implementation of ISO 20K based on IT Companies in Chennai, Tamil Nadu, India.

HYPOTHESIS OF THE STUDY

H_0: There is no association between Understanding industry best practices and believing in the benefits of IT Support team's base on IT Company.

H_0: There is no association between Top Management needs to be well aware of the benefits as well as a clear understanding of ISO 20K base on IT Company.

H_o: There is no association between Project and IT Managers are well aware of the implementation of ISO 20K base on IT Company.
H_o: There is no association between introducing IT service management tools and developing IT infrastructure based on IT Company.
H_o: There is no Association between teams who worked together and responsibility was shared by one another which created a positive vibe for the implementation project base on IT Company.

RESEARCH METHODOLOGY

This study has been used as a descriptive research method to examine the challenges in the implementation of ISO 20K in IT services in Chennai. Challenges in the implementation of ISO 20K are called the main variable of the present study. The researcher has completed the survey based on the sampling technique. The researcher has used a purposive sampling technique and 400 IT Employees are involved in this study. From the 400 samples, the researcher used 358 for further analysis because 358 respondents properly understand the theme of the work and answer all the questions properly and complaints samples. Finally, a 358 respondents survey is used for this study. After collecting the data, the study used SPSS and MS Excel for analysis purposes.

NEED / PROBLEM OF THE STUDY

Prioritization of incidents does not work, lack of service level agreements, information sharing on delayed incident resolutions, a high number of open incidents, poor transparency of the second-line support and the third-line support activities are found to be major challenges for the implementation of IT service management system. Establishing process ownership, defining the scope of the process, agreeing on process design, developing process metrics, designing a technical infrastructure process, deciding on process implementation, and planning and executing the process and associated infrastructure are mentioned as a solution to overcome these challenges, Keel, Orr, Hernandez, Patrocinio and Bouchard (2007). Cater-Steel, Tan and Toleman (2009) mentioned that senior management support, project championship, relationship with vendors, change in corporate culture, project governance and execution and realization of benefit are the challenges for implementing ISO 20K in IT Service organizations.

ANALYSIS AND INTERPRETATION

Table-1: Understanding industry best practices and believing in the benefits by IT Support teams base on IT Company's

	Understanding industry best practices and believing in the benefits by IT Support teams							Total	Pearson Chi-Square	P-value
	Lowest Importance	Low Importance	Slightly Importance	Average Importance	Low High Importance	Medium High Importance	Highest importance			
C1	5 29.4%	12 70.6%	0 0%	0 0%	0 0%	0 0%	0 0%	17 100.0%	2.369	0.001*
C2	5 14.7%	18 52.9%	6 17.6%	0 0%	0 0%	5 14.7%	0 0%	34 100.0%		
C3	1 1.7%	0 0%	13 22.4%	3 5.2%	1 1.7%	20 34.5%	20 34.5%	58 100.0%		
C4	10 6.3%	1 0.6%	7 4.4%	4 2.5%	5 3.1%	81 50.9%	51 32.1%	159 100.0%		
C5	4 4.4%	3 3.3%	8 8.9%	1 1.1%	0 0%	44 48.9%	30 33.3%	90 100.0%		
Total	25 7.0%	34 9.5%	34 9.5%	8 2.2%	6 1.7%	150 41.9%	101 28.2%	358 100.0%		

Source: Primary data computed, *-Sig @ 1% Level.

Table-1 elaborate the association between Understanding industry best practices and believing in the benefits by IT Support teams base on IT Company. C3 is given the Highest importance towards the best practices and believing in the benefits.

H_o: There is no association between Understanding industry best practices and believing in the benefits by IT Support teams base on IT Company.

In order to examine of above stated hypothesis, chi-square test has been applied. The calculated chi-square value is found to be 2.369 and P-value is 0.001, which is significant at the one percent level. Hence, the hypothesis is rejected. It is found that best practices and believing in the benefits is associated with IT Company.

Table-2: Top Management needs to be well aware of the benefits as well as clear understanding of ISO 20K base on IT Company's

	Top Management needs to be well aware of the benefits as well as clear understanding of ISO 20K							Total	Pearson Chi-Square	P-value
	Lowest Importance	Low Importance	Slightly Importance	Average Importance	Low High Importance	Medium High Importance	Highest importance			
C1	8	4	5	0	0	0	0	17	1.866	0.001*
	47.1%	23.5%	29.4%	0%	0%	0%	0%	100.0%		
C2	2	23	5	0	0	0	4	34		
	5.9%	67.6%	14.7%	0%	0%	0%	11.8%	100.0%		
C3	0	0	14	3	1	25	15	58		
	0%	0%	24.1%	5.2%	1.7%	43.1%	25.9%	100.0%		
C4	5	6	47	6	4	36	55	159		
	3.1%	3.8%	29.6%	3.8%	2.5%	22.6%	34.6%	100.0%		
C5	10	15	24	3	2	19	17	90		
	11.1%	16.7%	26.7%	3.3%	2.2%	21.1%	18.9%	100.0%		
Total	25	48	95	12	7	80	91	358		
	7.0%	13.4%	26.5%	3.4%	2.0%	22.3%	25.4%	100.0%		

Source: Primary data computed, *-Sig @ 1% Level.

Table-2 narrate the association between Top Management needs to be well aware of the benefits as well as clear understanding of ISO 20K base on IT Company. C4 is given the Highest importance towards the Top Management needs to be well aware of the benefits.

H_o: There is no association between Top Management needs to be well aware of the benefits as well as clear understanding of ISO 20K base on IT Company.
In order to examine of above stated hypothesis, chi-square test has been applied. The calculated chi-square value is found to be 1.866 and P-value is 0.001, which is significant at the one percent level. Hence, the hypothesis is rejected. Top Management needs to be well aware of the benefits is associated with IT Company.

Table-3: Project and IT Managers are well aware of the implementation of ISO 20K base on IT Company's

	Project and IT Managers are well aware of the implementation of ISO 20K							Total	Pearson Chi-Square	P-value
	Lowest Importance	Low Importance	Slightly Importance	Average Importance	Low High Importance	Medium High Importance	Highest importance			
C1	5	12	0	0	0	0	0	17		
	29.4%	70.6%	0%	0%	0%	0%	0%	100.0%		
C2	2	21	11	0	0	0	0	34		
	5.9%	61.8%	32.4%	0%	0%	0%	0%	100.0%		
C3	5	0	11	5	2	20	15	58		
	8.6%	0%	19.0%	8.6%	3.4%	34.5%	25.9%	100.0%	2.202	0.001*
C4	6	6	27	8	2	61	49	159		
	3.8%	3.8%	17.0%	5.0%	1.3%	38.4%	30.8%	100.0%		
C5	5	2	11	2	3	33	34	90		
	5.6%	2.2%	12.2%	2.2%	3.3%	36.7%	37.8%	100.0%		
Total	23	41	60	15	7	114	98	358		
	6.4%	11.5%	16.8%	4.2%	2.0%	31.8%	27.4%	100.0%		

Source: Primary data computed, *-Sig @ 1% Level.

Table-3 explains the association between Project and IT Managers are well aware of the implementation of ISO 20K base on IT Company. C5 is given the Highest importance towards the Project and IT Managers are well aware of the implementation of ISO 20K.

H_o: There is no association between Project and IT Managers are well aware of the implementation of ISO 20K base on IT Company.

In order to examine of above stated hypothesis, chi-square test has been applied. The calculated chi-square value is found to be 2.202 and P-value is 0.001, which is significant at the one percent level. Hence, the hypothesis is rejected. Project and IT Managers are well aware of the implementation of ISO 20K.

Table-4: IT service management tools and develop IT infrastructure based on IT Company's

	To introduce IT service management tools and develop IT infrastructure							Total	Pearson Chi-Square	P-value
	Lowest Importance	Low Importance	Slightly Importance	Average Importance	Low High Importance	Medium High Importance	Highest importance			
C1	8	9	0	0	0	0	0	17	3.338	0.001*
	47.1%	52.9%	0%	0%	0%	0%	0%	100.0%		
C2	8	21	5	0	0	0	0	34		
	23.5%	61.8%	14.7%	0%	0%	0%	0%	100.0%		
C3	0	0	16	6	1	5	30	58		
	0%	0%	27.6%	10.3%	1.7%	8.6%	51.7%	100.0%		
C4	20	0	23	7	3	75	31	159		
	12.6%	0%	14.5%	4.4%	1.9%	47.2%	19.5%	100.0%		
C5	5	0	1	5	0	60	19	90		
	5.6%	0%	1.1%	5.6%	0%	66.7%	21.1%	100.0%		
Total	41	30	45	18	4	140	80	358		
	11.5%	8.4%	12.6%	5.0%	1.1%	39.1%	22.3%	100.0%		

Source: Primary data computed, *-Sig @ 1% Level.

Table-4 shows the association between IT service management tools and develop IT infrastructure based on IT Company. C3 is given the Highest importance towards the IT service management tools and develop IT infrastructure.

H_o: There is no association between IT service management tools and develop IT infrastructure base on IT Company.

In order to examine of above stated hypothesis, chi-square test has been applied. The calculated chi-square value is found to be 3.338 and P-value is 0.001, which is significant at the one per cent level. Hence, the hypothesis is rejected. IT service management tools and develop IT infrastructure is associated with IT Company.

Table-5: Teams worked together and responsibility shared by one another which created a positive vibe for the implementation project based on IT Company's

	Teams who worked together and responsibility was shared by one another which created a positive vibe for the implementation project							Total	Pearson Chi-Square	P-value
	Lowest Importance	Low Importance	Slightly Importance	Average Importance	Low High Importance	Medium High Importance	Highest importance			
C1	17	0	0	0	0	0	0	17	4.556	0.001*
	100.0%	0%	0%	0%	0%	0%	0%	100.0%		
C2	0	34	0	0	0	0	0	34		
	.0%	100.0%	0%	0%	0%	0%	0%	100.0%		
C3	0	10	11	6	1	25	5	58		
	.0%	17.2%	19.0%	10.3%	1.7%	43.1%	8.6%	100.0%		
C4	5	10	19	5	6	69	45	159		
	3.1%	6.3%	11.9%	3.1%	3.8%	43.4%	28.3%	100.0%		
C5	5	4	0	1	4	50	26	90		
	5.6%	4.4%	0%	1.1%	4.4%	55.6%	28.9%	100.0%		
Total	27	58	30	12	11	144	76	358		
	7.5%	16.2%	8.4%	3.4%	3.1%	40.2%	21.2%	100.0%		

Table-5 highlights the association between teams worked together and responsibility based on IT Company's. C5 is given the Highest importance towards the worked together and responsibility.

H_o: There is no association between teams who worked together and responsibility base on IT Company

In order to examine of above stated hypothesis, chi-square test has been applied. The calculated chi-square value is found to be 4.556 and P-value is 0.001, which is significant at the one percent level. Hence, the hypothesis is rejected. It is found that the teams worked together and responsibility is associate with IT Company.

FINDINGS

- It is found that best practices and believing in the benefits are associated with IT Company.
- Top Management needs to be well aware of the benefits associated with IT Company.
- Project and IT Managers are well aware of the implementation of ISO 20K.
- IT service management tools and developing IT infrastructure is associated with IT Company.
- It is found that the teams worked together and responsibility is associated with IT Company.

CONCLUSION

This study has been used as a descriptive research method to examine Challenges in the Implementation of ISO 20K in IT Service Sector in Chennai. It is found that best practices and believing in the benefits, Top Management needs to be well aware of the benefits, Project and IT Managers are well aware of the implementation of ISO 20K, IT service management tools and development IT infrastructure, and teams worked together and responsibility is associate with IT Company. Some participants believed that successful implementation of ISO 20K would require focus, information, knowledge, and collaboration of different support teams. For efficient execution of processes, some participant believes that a temporary solution is not effective rather it is better to find out an acceptable permanent solution and, in these cases, all teams need some patience.

REFERENCES

1. Ahmad Shuja (2009). Implementing IT Service Management: A case study focusing on critical success factor, International Journal of IT Standards and Standardization Research, 5, 27-42.
2. Cater-Steel, A. P., & Toleman, M. (2009). Implementing IT Service Management: A case study focusing on critical success factor. International Journal of IT Standards and Standardization Research, 5, 27-42.
3. Cornelius, D., Implementing IT Service Management: A Guide to Success, http://www.slideshare.net/lovegod1/implementing-itsm
4. Keel, A. J., Orr, M. A., Hernandez, R.R., Patrocinio, E.A., & Bouchard, J. (2007). From a technology oriented to a service-orientated approach to IT management, IBM Systems Journal, 3, 549-564.
5. Shang, S., and Lin, S.F (2010). Barriers to Implementing ITIL-A Multi-Case Study on the Service-based Industry, Contemporary Management Research, 6, 53-70.
6. Sharifi, M., Ayat, M., Rahman, A.A., & Sahibudin, S (2008). Lessons Learned in ITIL Implementation Failure, Information Technology, IT Sim 1-4.