International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 1s, 2025
https://www.theaspd.com/ijes.php

IMPACT OF ECONOMIC VALUE FROM THE SERVICE MANAGEMENT SYSTEM (SMS) IMPLEMENTATION IN THE IT SECTOR: AN ENVIRONMENTAL SUSTAINABILITY PERSPECTIVE

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ABSTRACT: The study is concerned with the impact of value of th eeconomy from the Service Management System (SMS) proceedings with the IT sector utilizing ISO standards which come under the Descriptive Research category. A Purposive sampling technique is applied in this study for its sample design. Final sample size of 427 respondents is considered for this study. This study provides important information and investment factors for successful adaption and successful certification of ISO 20000 standard for Indian IT companies. It is inferred that the most reactions supported towards improvement on results of overall service management system due ISO 20000 implementation and certification.
Keywords: *Service Management System, ISO 20000, Standardization & Indian IT companies, sustainable development, environmental*

INTRODUCTION

While frameworks have been quickly adopted by organisations, standards have not been as enthusiastically adopted. The widespread use of service management frameworks by businesses may indicate that IT managers believe these frameworks may improve customer satisfaction and operational efficiency. The topic of why certification is not valued highly within the same organisations is raised by the restricted application of service management standards.

Organisations that adopt service management improvement programs have observed cost savings and provision with uniformity based on IT with services (Gacenga FN, Cater-Steel A. & Toleman M., 2010). Notwithstanding the allure and potential advantages, ISO 20000 certification is impacted by the necessary financial outlay as well as the challenge of proving and measuring the benefits and connecting them to customer-perceived value.

The results of the process, not the procedures they look at, are what give management standards their worth. According to Jenny Dugmore (2006), ISO 20000 standards are not about creating a bureaucratic overhead but rather about efficiency and "doing, not documenting." A successful SMS meets the needs of the customer, according to the chair of the ISO/IEC working group in charge of the ISO/IEC 20000 series. Entire goal of the service management system is to ensure that the company is doing, at the very least, what must be done for it to function effectively and efficiently. This includes ensuring that the company is controlling costs, lowering risk, and carrying out business objectives in a

way that ensures customer satisfaction and meets the needs of both internal and external customers. That is successful; the results are what matter, not the process itself (Casteel, 2013).

OBJECTIVES OF THE STUDY

1. The effect of ISO 20000 implementation on economic value in the IT sector.
2. To construct a model and analyse the factors related to ISO 20000 implementation in IT sector.

RESEARCH METHODOLOGY

To accomplish the study's goals, a descriptive research approach was used. The study is concerned with the impact of value of the economy SMS proceedings by IT sector with ISO standards which come under the Descriptive Research category. A Purposive sampling technique is applied in this study for its sample design. Final sample size of 427 respondents is considered for this study.

ANALYSIS AND INTREPRETATION

Table-1: Effectiveness of overall service management system

Effectiveness of overall service management system	Frequency	Percent	Mean	SD
Strongly disagree	00	0.00	3.98	2.03
Quite disagree	00	0.00		
Disagree	03	0.71		
Neutral	52	12.18		
Slightly agree	56	13.11		
Quite agree	151	35.36		
Strongly agree	165	38.64		
Total	427	100		

Source: Primary data computed.

Interpretation:

Table-1 explains the effectiveness of overall service management system. Opinion of respondents towards the effectiveness of overall service management system is measured in the seven-point scale.

Out of 427 respondents 38.64% reactions supports towards the results of overall service management system followed by 35.36% of the reactions quite supports towards the statement and 13.11% of the reactions slightly supports towards the statement results with overall service management system. 12.18% of the reactions were neutral towards the statement on results of overall service management system as well as 0.71% of the reactions disagree towards results of overall service management system.

While reviewing through the mean value (3.98) the respondent opinion is in the moderate level towards the statement effectiveness of overall service management system and the corresponding standard deviation value (2.03) indication that there is a very high variation in the group. It is inferred that the most of the reactions supports towards improvement on results with overall service management system due ISO 20000 implementation and certification.

Confirmatory Factor Analysis (CFA)

A CFA shows for identify whether the factor found using the EFA (Exploratory Factor Analysis) can be considered for Structural Equation Model (SEM).

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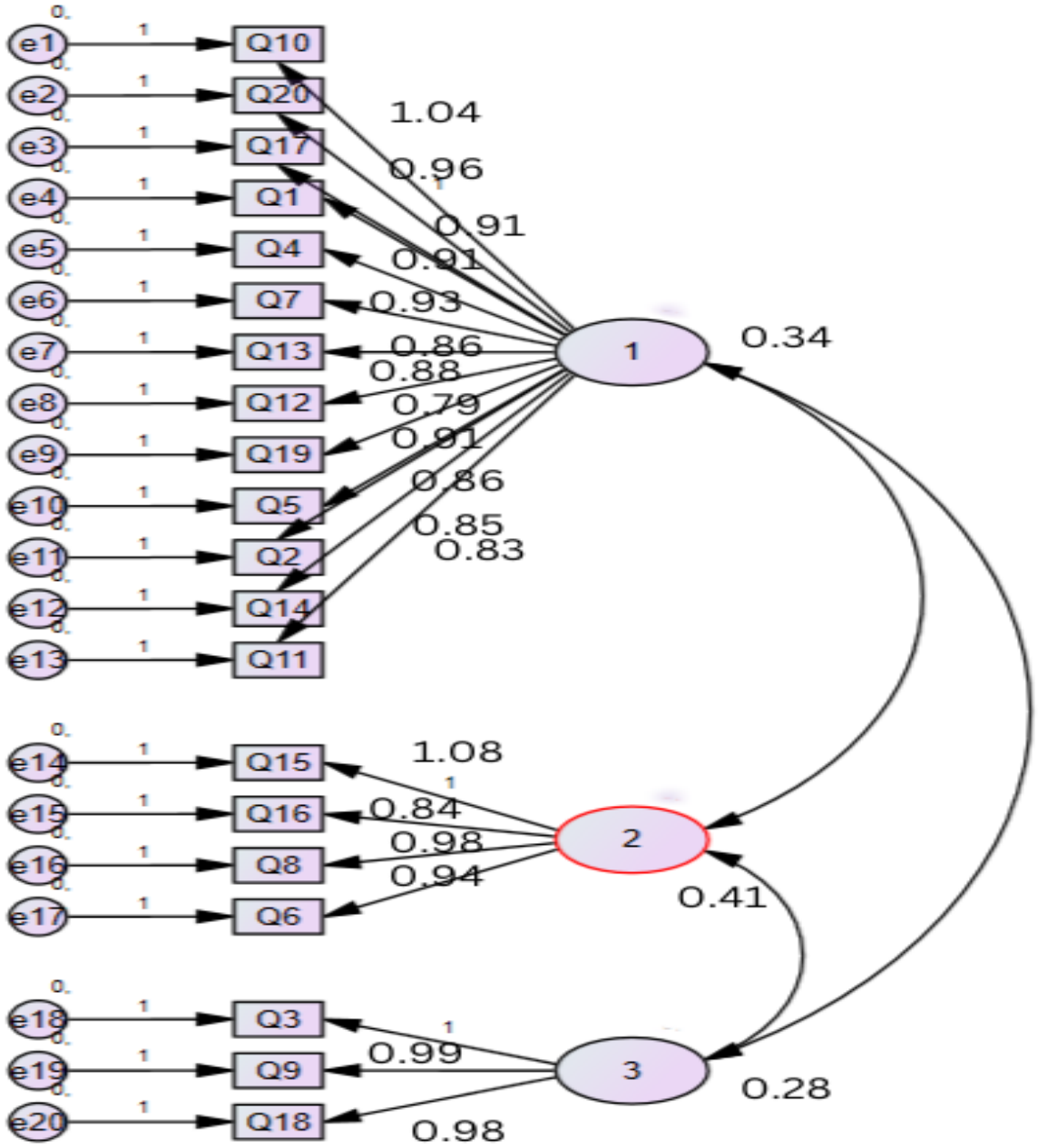
Table-2: Master Validity Test

	CR	AVE	MSV	MaxR(H)	SQOC	MSRA	CA
SQOC	0.749	0.6	0.334	0.761	**0.775**		
MSRA	0.925	0.716	0.003	0.975	0.05	**0.846**	
CA	0.961	0.859	0.334	0.961	0.578	0.035	**0.927**

Source: Primary data computed.

Figure 1: CFA



Interpretation

Convergent validity
Loading value more than .7
The average variance extracted .5

Discriminant validity
Insignificant loading with other constructs (less than .7)

Also, reliability of the composite, extracting the average variance maximum shared variance have met the standard criteria that is CR > AVE > MSV.

Hereby the above proposed model can be considered for Structural Equation.

Structured Equation Model (SEM)
Hypothesis

H_0: There is no significant direct effect Management Support with Resource Allocation on Service Quality and Operational Commitment.

H_0: There is no significant effect Management Support with Resource Allocation on Collaboration as well as Accountability.

H_0: There is no significant impact of Collaboration and Accountability on Service Quality and Operational Commitment.

H_0: There is no significant indirect impact of Management Support & Resource Allocation on Service Quality and Operational Commitment with Collaboration and Accountability as mediating role.

Figure-2: SEM

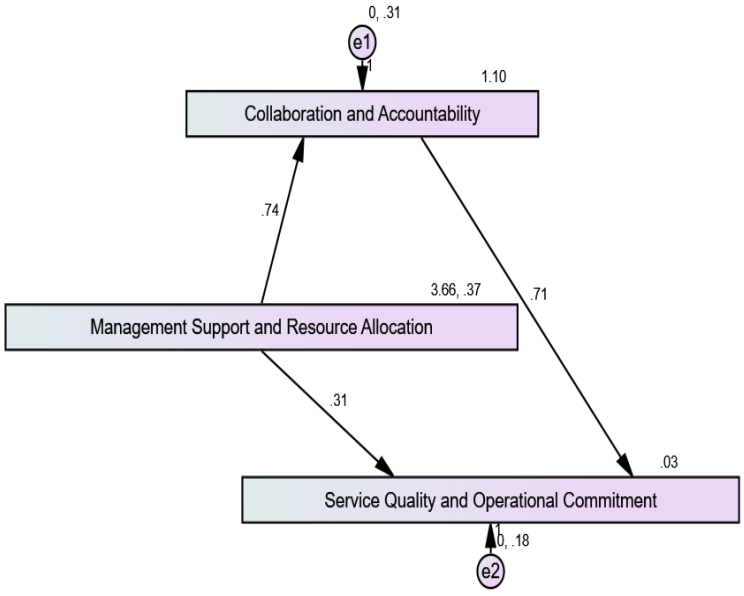


Table-3: SEM Model

Notes for Model (Default model)					
Computation of degrees of freedom (Default model)					
The number of distinct sample moments:					10
The number of distinct parameters to be estimated:					9
Degrees of freedom (10 - 9):					1
Result (Default model)					
Minimum was achieved					
Chi-square = .468					
Degrees of freedom = 1					
Probability level = .494					
Model Fit Summary					
CMIN					
Model	**NPAR**	**CMIN**	**DF**	**P**	**CMIN/DF**
Default model	9	0.468	1	0.494	0.468
Saturated model	10	0	0		
Independence model	4	186.826	6	0	31.138
RMR, GFI					
Model	**RMR**	**GFI**	**AGFI**	**PGFI**	
Default model	0.008	0.999	0.994	0.968	
Saturated model	0	1			
Independence model	0.189	0.827	0.711	0.496	
Baseline Comparisons					
Model	**NFI**	**RFI**	**IFI**	**TLI**	**CFI**
	Delta1	rho1	Delta2	rho2	
Default model	0.997	0.985	1.003	1.018	0.998
Saturated model	1		1		1
Independence model	0	0	0	0	0
Parsimony-Adjusted Measures					
Model	**PRATIO**	**PNFI**	**PCFI**		

Default model	0.167	0.166	0.167	
Saturated model	0	0	0	
Independence model	1	0	0	
NCP				
Model	**NCP**	**LO 90**	**HI 90**	
Default model	0	0	5.364	
Saturated model	0	0	0	
Independence model	180.826	139.873	229.202	
FMIN				
Model	**FMIN**	**F0**	**LO 90**	**HI 90**
Default model	0.001	0	0	0.014
Saturated model	0	0	0	0
Independence model	0.473	0.458	0.354	0.58
RMSEA				
Model	**RMSEA**	**LO 90**	**HI 90**	**PCLOSE**
Default model	0.002	0	0.117	0.668
Independence model	0.276	0.243	0.311	0
AIC				
Model	**AIC**	**BCC**	**BIC**	**CAIC**
Default model	18.468	18.699	54.301	63.301
Saturated model	20	20.256	59.814	69.814
Independence model	194.826	194.928	210.751	214.751
ECVI				
Model	**ECVI**	**LO 90**	**HI 90**	**MECVI**
Default model	0.047	0.048	0.062	0.047
Saturated model	0.051	0.051	0.051	0.051
Independence model	0.493	0.39	0.616	0.493

HOELTER					
Model		**HOELTER**	**HOELTER**		
		0.05	0.01		
Default model		3242	5599		
Independence model		27	36		
Regression Weights					
		Estimate	S.E.	C.R.	P
CA	MSRA	0.735	0.044	16.598	.000
SQOC	CA	0.715	0.037	19.486	.000
SQOC	MSRA	0.305	0.043	7.089	.000

Note:

SQOC – *Service Quality and Operational Commitment*

MSRA – *Management Support & Resource Allocation*

CA – *Collaboration and Accountability*

Source: Data primary computing.

Interpretation

The tables with depicted figures:

Goodness of fit statistics
Chi-square value (p [0.494] >.05) – Whose value is fulfilled
CMIN/DF > 3

Absolute fit measures
Goodness of fit index > .9
Root mean square error of approximation < .07
Root mean square residual < .08
Standardized root mean residual < .08
Normed chi-square < 3

Incremental fit indices
Normed fit index >. 9

Non-normed fit index
Comparative fit index > .9
Relative fit index > .9

Parsimony fit indices
Parsimony normed fit index > .9
Adjusted goodness of fit index > .9

The criteria is more than 8 fulfilled by the constructed models then it is considered a vaild model for futher observations.

To measure freedom degree is 1, positive; shows the method is overfitting.

Regression weights it can be changed that;

The table presents regression weights for a model assessing the relationships between Management Support & Resource Allocation (MSRA), Collaboration and Accountability (CA), and Service Quality and Operational Commitment (SQOC).

An interpretation of each path based on the values provided:

- Impact of Management Support & Resource Allocation (MSRA) on Collaboration and Accountability (CA)

Estimate: 0.735
Standard Error (S.E.): 0.044
Critical Ratio (C.R.): 16.598
P-Value: 0.000

- Interpretation: MSRA has a strong, positive impact on CA. An estimate of 0.735 indicates that as MSRA increases, CA also increases significantly. The large C.R. value (16.598) suggests that this effect is statistically significant.
- Impact of Collaboration and Accountability (CA) on Service Quality and Operational Commitment (SQOC)

Estimate: 0.715
Standard Error (S.E.): 0.037
Critical Ratio (C.R.): 19.486
P-Value: 0.000

- Interpretation: CA has a strong positive impact on SQOC, with an estimate of 0.715. This suggests that higher levels of CA are associated with better SQOC. The very high C.R. (19.486) also indicates statistical significance.
- Direct Impact of Management Support & Resource Allocation (MSRA) on Service Quality and Operational Commitment (SQOC)

Estimate: 0.305
Standard Error (S.E.): 0.043
Critical Ratio (C.R.): 7.089
P-Value: 0.000

- Interpretation: MSRA has a moderate but significant positive direct impact on SQOC. The estimate of 0.305 indicates that MSRA directly influences SQOC, though to a lesser extent than CA does. This path is statistically significant given the C.R. (7.089).
-

SUMMARY OF FINDINGS

- Direct and Indirect Relationships: MSRA influences SQOC both directly (estimate = 0.305) and indirectly through CA (estimate = 0.735 * 0.715 = 0.525), with CA acting as a mediator.
- Significance: All paths demonstrate statistically significant relationships, suggesting strong support for the management supported role with resource allocation, and collaborative practices in enhancing service quality and operational commitment.

CONCLUSION

This study inferred various significant factors within the organization for the successful implementation and certification of ISO 20000 certification. The study focuses on various parameters involved in the service management system certification investment. It has proved beyond doubt and statistically validated that Indian IT organizations have prospered organically and inorganically by successfully implementing ISO 20000 certification which has significantly contributed to their financial bottom-line and market share. It fulfills a much-needed direction for the Indian IT organizations targeting ISO 20000 certification for improving service quality and delivery to make an informed selection. Thus, the research study has contributed a significant milestone in the journey of service improvement and contributed to the advancement of knowledge and understanding the impact of economic value by implementing ISO 20000 in small and medium sized organization.

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