



# **Confirmatory Factor Analysis for Employee Rewards & Empowerment and Service Recovery Performance: Mediation of Organizational Commitment in Private Health Sector**

**M. B. M. Ismail**

Senior Lecturer in Management,  
Department of Management,  
Faculty of Management and Commerce,  
South Eastern University of Sri Lanka,

## **Abstract**

At present organizations, organizational commitment, employee rewards, empowerment, service recovery performance and organizational commitment are the most important factors. Thus, studies are needed in these aspects. On this ground, this study attempts to know about confirmatory factor analysis for testing employee rewards & empowerment and service recovery performance with the mediation of organizational commitment in Private Health Sector. Reviews of literatures are done and conceptual model is derived by researcher. Geographical scope of the study is composed of the geographical scope of Ampara Coastal Belt (ACB) from Maruthamunai to Pottuvil. Researcher considered 260 private health sector employees as sample size of this study for collecting data from questionnaire for collecting data. In this study, collected data were analyzed using SPSS, Excel and AMOS. In this study, the preliminary check-up, reliability and validity checked for items, variables and constructs in this model are satisfactory. As per the result of main hypothesis, there is relationship between management commitment to service quality and organizational commitment. Similarly, results of sub hypotheses revealed that there are relationships between management commitment to service quality and employee rewards and empowerment. In addition to these results, result of another main hypothesis disclosed that there is relationship between organizational commitment and service recovery performance. Model fitness was known from satisfactory and acceptable statistical measures such as chi square, CMIN/ DF, RMSEA, TLI, CFI, NFI, GF and AGFI. Results of all these values are satisfactory and acceptable. It can be concluded that confirmatory factor analysis can be conducted for testing employee rewards & empowerment and service recovery performance with the mediation of organizational commitment in Private Health Sector.

**Keywords:** Confirmatory Factor Analysis, Employee Rewards, Empowerment, Mediation, Organizational Commitment, Service Recovery Performance.



## Introduction

It has been accepted that organizational commitment and employee productivity as the most important organizational analyses. Employee rewards, empowerment, service recovery performance and organizational commitment are emerging as the most critical work force management challenges during the past years, at present and in future. There are previous empirical studies with respect to employee rewards, empowerment, organizational culture and service recover performance. These studies have been studied separately. Previous studies have denoted that very little attention has been given to compare managerial practices for improving frontline employee service recovery efforts in a public and private healthcare context. Michel and Nicholas (2010) investigated a model of management commitment to service quality (MCSQ) and service recovery performance in the context of public and private hospitals in New Zealand. Igbaekemen and Idowu (2014) studied about the impact of organizational commitment on employees' productivity that was a case study of Nigeria brewery. There are studies on service recovery that have been dominated by the investigation on customer's perceived value after service recovery in the past. Tan (2014) studied about antecedents that affect employee service recovery performance in five star Malaysia luxury hotels. These previous studies have been carried out using different methodologies. This study is undertaken on a confirmatory factor analysis for testing employee rewards & empowerment and service recovery performance with the mediation of organizational commitment in Private Health Sector.

## Statement of the problem

Researcher states the research problem on the basis of previous empirical research findings. Isaack and Dinah (2016) studied about the effect of reward management on employees' commitment in the Universities in Nakuru County-Kenya. The study found that financial reward management practices collectively have significant effect on organizational commitment. Tan (2014) studied about antecedents that affect employee service recovery performance in five star hotel. The finding showed that rewarding system and pre-judgment towards complaints has positive influences on employees' service recovery performance. Michel, Janet and Nicholas (2006) studied about antecedents and outcomes of service recovery performance that was insights from an organisation post-corporatisation and post-deregulation. Data obtained from the organisation were analysed using the SEM-based Partial Least Squares (PLS) methodology. Analyses of the data identified a number of significant relationships between perceived managerial attitudes, work environment perceptions, service recovery performance and outcomes variables. The study makes an important contribution by advancing understanding of frontline service recovery performance in a corporatised and deregulated public sector service setting and the findings indicate that managers can take actions on a number of fronts to assist progress toward the achievement of frontline service recovery excellence. Previous studies were carried out using different methodologies such as descriptive statistics, exploratory factor analysis, correlation and regression. Realising this research gap, a study is undertaken on a confirmatory factor analysis for testing employee rewards & empowerment and service recovery performance with the mediation of



organizational commitment in Private Health Sector.

### **Research question and objective**

Researcher raises “is it possible to do confirmatory factor analysis for testing employee rewards & empowerment and service recovery performance with the mediation of organizational commitment in Private Health Sector?” as a research question. This study attempts to know about confirmatory factor analysis for testing employee rewards & empowerment and service recovery performance with the mediation of organizational commitment in Private Health Sector.

### **Significance of the study**

This study is important for various reasons. Studies have proved that employee rewards mediates organizational commitment. *Soon, LaiKuan and Kamaruzaman* (2008) denoted that fringe benefits fully mediated mandatory benefits when predicting organizational commitment in Malaysia. Employee rewards have been studied in relation to employees’ commitment in different countries and in different context. *Isaack and Dinah* (2016) studied about the effect of reward management on employees’ commitment in the Universities in Nakuru County-Kenya. *Michel and Nicholas* (2010) investigated a model of management commitment to service quality (MCSQ) and service recovery performance in the context of public and private hospitals in New Zealand. Studies have been conducted exploratory factor analyses. This study gives a chance to know about confirmatory factor analysis for variables and constructs. Different methodology has been adopted in this model for analyzing variables and constructs. This study may be

helpful to make few recommendations that private health sector. This study may help to make recommendations that the top management in the private health sector should encourage its employees.

### **Literature Review**

*Soon, LaiKuan and Kamaruzaman* (2008) studied about the Influence of employee benefits towards organizational commitment. This study attempts to reveal whether employee benefits offered by the organization are important as antecedents to organizational commitment for employees in food-manufacturing industry in the state of Kedah, Malaysia. A total of 161 employees responded to the survey. The results of the study suggested that mandatory benefits and fringe benefits were positively influenced organizational commitment. *Isaack and Dinah* (2016) studied about the effect of financial and non-financial rewards on organisational commitment of employees in Universities in Nakuru County. The sample size of the study comprised 224 full-time lecturers working in 10 universities within Nakuru County. Data was collected using the questionnaire method. The data obtained was processed using the Statistical Package for Social Sciences (SPSS) and was analysed using both descriptive and inferential statistics. The analysed data was presented using graphs, charts and tables. Results indicated that there was a moderate significant positive relationship between financial rewards and affective commitment ( $r = 0.344, p < 0.000$ ) and a weak significant positive relationship between financial rewards and normative commitment ( $r = 0.249, p < 0.008$ ). The study found that financial reward management practices collectively have significant effect on organizational commitment.



Igbaekemen and Idowu (2014) studied about the impact of organizational commitment on employees' productivity that was a case study of Nigeria brewery. It was found that frontline manager, supervisions, a project leader, team captain or human resource manager is actually more powerful in an organization to reduce poor productivity. They drive employee satisfaction and commitment that are largely within the direct manager's control. Michel and Nicholas (2010) investigated a model of management commitment to service quality (MCSQ) and service recovery performance in the context of public and private hospitals in New Zealand. It was a cross-sectional survey grounded in Bagozzi's reformulation of attitude theory with frontline hospital employees who were asked about how MCSQ impacted on their service recovery performance in both the public and private sectors. The results of the study found that the relationship between MCSQ and service recovery performance is mediated by organizational commitment.

### **Conceptual Model**

Review of literature helped to derive the conceptual model that was based on employee rewards, empowerment, organizational commitment and service recovery performance. Conceptual model is depicted in Figure 1.

### **Hypotheses Development**

The following set of null and alternative hypotheses are set to test this model. Developed hypotheses are tabulated in Table 1.

### **Methodology**

#### **Geographical scope of the study**

Researcher conducts this study within the geographical scope of Ampara Coastal Belt (ACB) from Maruthamunai to Pottuvil.

#### **Population and Sample**

Population refers to all the private health sectors within the geographical scope of Ampara Coastal Belt (ACB) from Maruthamunai to Pottuvil. Researcher considered 260 private health sector employees as sample size of this study.

#### **Data Collection**

Researcher developed a questionnaire for collecting data. Instrument was scaled on a five- point Likert scale [Very disagreed (1), Disagreed (2), Agreed (3), Very agreed (4) and Very very agreed (5)].

#### **Data Analysis**

In this study, collected data were analysed using SPSS, Excell and AMOS.

### **Results and Findings**

#### **Reliability and validity**

Following the preliminary check-up, reliability and validity were checked for items, variables and constructs in this model. All the preliminary checks-up, reliability and validity for items, variables and constructs are satisfactory. Then, researcher continued the confirmatory factor analysis. .



### **Graphical presentation**

Graphically presentation of conceptual model is depicted in Figure 2.

### **Notes for Model Statistics**

In the model, Result (Default model), chi-square, degrees of freedom and probability level as tabulated in Table 2.

### **Testing hypotheses**

In this model, researcher wishes to test the hypotheses as tabulated in Table 1. Tested hypotheses, paths, types of hypotheses, null hypotheses, standardized regression weights, p values and their acceptance & rejection of null and alternative hypotheses are tabulated in Table 3.

### **Estimates**

Under estimate, unstandardized regression weights and standardised regression weights are tabulated in Table 4 and Table 5.

### **Model Fit Summary**

In this model, chi square, CMIN/ DF, RMSEA, TLI, CFI, NFI, GF and AGFI are used to know the model fitness. Value of chi-square equals 199.857 with 50 degrees of freedom along with significant value. CMIN/DF equals 2.197 which ranges between 3 to 5 and below 3. This refers to that model is considered acceptable.

### **Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI)**

Goodness of Fit Index as abbreviated as GFI less than or equal to 1 which refers to perfect fit of the model. Similarly, Adjusted Goodness of Fit Index abbreviated as AGFI is not bounded by 0 and 1 which also refers to perfect fit. GFI and AGFI are tabulated in Table 7.

### **Baseline Comparisons such as Normed Fitness Index (NFI), Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI)**

Normed Fitness Index abbreviated as NFI indicates the value ranges between 0 to 1 which refer to that model has a perfect fit. Value of Tucker-Lewis Index abbreviated as TLI is 0.968 that varies between 0 to 1 that explain that model is perfect. Similarly, Value of Comparative Fit Index abbreviated as CFI closes to 1 (0.975) that indicates the perfect model fit. Baseline Comparisons such as NFI, TLI and CFI are tabulated in Table 8.

### **Conclusion**

This study has a research objective that “to know about confirmatory factor analysis for testing employee rewards & empowerment and service recovery performance with the mediation of organizational commitment in Private Health Sector”. In this study, the preliminary check-up, reliability and validity checked for items, variables and constructs in this model are satisfactory. In the model, Result of (Default model) that is based on chi-square, degrees of freedom and probability level are 199.857, 50 and 0.000 respectively. Main null hypothesis is that there is no relationship between management



commitment to service quality and organisational commitment. P value is less than 0.05. Thus, this main null is rejected and alternative is accepted. This refers to that there is relationship between management commitment to service quality and organisational commitment. Under this main null hypothesis, there are two sub null hypotheses. They are (1) there is no relationship between management commitment to service quality and employee rewards and (2) there is no relationship between management commitment to service quality and empowerment. P values are less than 0.05. Thus, these two nulls are rejected and alternatives are accepted. This refers to that there are relationships between management commitment to service quality and employee rewards and empowerment. There is one more main null hypothesis that is there is no relationship between organisational commitment and service recovery performance. P value is less than 0.05. Thus, this null is also rejected and alternative is accepted. This refers to that there is relationship between organisational commitment and service recovery performance. Model fit is summarized on the basis of several statistical measures. In this model, chi square, CMIN/DF, RMSEA, TLI, CFI, NFI, GF and AGFI are used to know the model fitness. Results of all these values are satisfactory and acceptable. It can be concluded that confirmatory factor analysis can be conducted for testing employee rewards & empowerment and service recovery performance with the mediation of organizational commitment in Private Health Sector.

- *Soon, Y. J, LaiKuan, Zaliha, H. H. and Kamaruzaman, J. (2008), "The Influence of Employee Benefits Towards Organizational Commitment", Asian Social Science, Vol. 4, No. 8.*
- *Isaack, K. and Dinah, K. (2016), "The Effect of Reward Management on Employees Commitment in the Universities in Nakuru County-Kenya", Journal of Human Resource Management. Vol. 4, No. 4, 2016, pp. 37-48.*
- *Igbaekemen, G. and Idowu, O. (2014), "The impact of organizational commitment on employees' productivity: a case study of Nigeria brewery", International Journal of Research in Business Management, Vol. 2, Iss. 9, pp. 107-122.*
- *Michel, R. and Nicholas, J. A. (2010) "Management commitment to service quality and service recovery performance: A study of frontline employees in public and private hospitals", International Journal of Pharmaceutical and Healthcare Marketing, Vol. 4 Iss: 1, pp.84 – 103*
- *Tan, A. L. (2014), "antecedents affecting employee service recovery performance in five star hotel", Australian Journal of Business, Economy and the Environment Volume, 1, No. 1, pp. 1-10.*
- *Michel, R., Janet, C. and Nicholas, J. A. (2006),*

## References

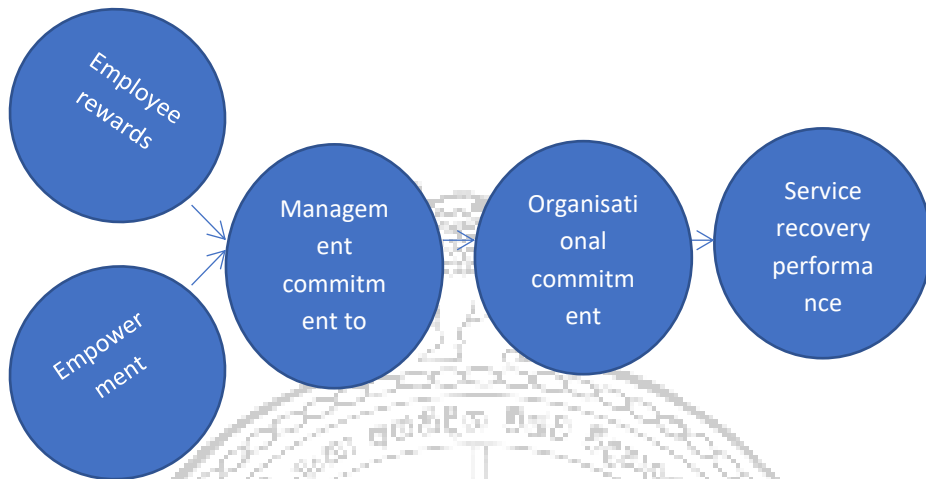


Figure 1: Conceptual Model  
Source: Review of Literature

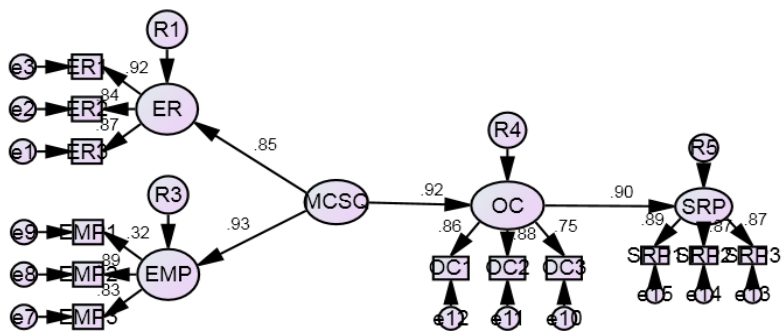


Figure 2: Graphical presentation of conceptual model



Table 1: Developed Hypotheses

Null Hypotheses	Alternative Hypotheses
There is no relationship between management commitment to service quality and organisational commitment	There is relationship between management commitment to service quality and organisational commitment
There is no relationship between management commitment to service quality and employee rewards	There is relationship between management commitment to service quality and employee rewards
There is no relationship between management commitment to service quality and empowerment	There is relationship between management commitment to service quality and empowerment
There is no relationship between organisational commitment and service recovery performance	There is relationship between organisational commitment and service recovery performance

Table 2: Notes for Model Statistics

Items of Notes for Model	Items of Notes for Model Statistics
Chi-square	109.857
Degrees of freedom	50
Probability level	0.000

Table 3: Acceptance & rejection of null and alternative hypotheses

Paths			Type of Hypothesis	Null Hypotheses	Standardised Regression Weights	P value	Reject Null Hypothesis	Accept Alternative Hypothesis
OC	<---	MCS Q	Main	There is no relationship between management commitment to service quality and organisational commitment	.920	0.000	Reject	Accept
ER	<---	MCS Q	Sub	There is no relationship between management commitment to service quality and employee rewards	.851	0.000	Reject	Accept
EM P	<---	MCS Q	Sub	There is no relationship between management commitment to service quality and empowerment	.926	0.000	Reject	Accept
SR P	<---	OC	Main	There is no relationship between organisational commitment and service recovery performance	.901	0.000	Reject	Accept





Table 4: Regression Weights: (Group number 1 - Default model)

Paths			Estimate	S.E.	C.R.	P	Label
OC	<---	MCSQ	.917	.083	11.010	***	par_8
ER	<---	MCSQ	.940	.078	11.987	***	par_5
EMP	<---	MCSQ	1.000				
SRP	<---	OC	1.324	.101	13.103	***	par_11
ER3	<---	ER	1.000				
ER2	<---	ER	1.001	.057	17.531	***	par_1
ER1	<---	ER	1.104	.054	20.326	***	par_2
EMP3	<---	EMP	1.000				
EMP2	<---	EMP	.995	.061	16.330	***	par_3
EMP1	<---	EMP	.361	.072	5.051	***	par_4
OC3	<---	OC	1.000				
OC2	<---	OC	1.332	.090	14.737	***	par_6
OC1	<---	OC	1.126	.078	14.362	***	par_7
SRP3	<---	SRP	1.000				
SRP2	<---	SRP	1.208	.064	18.814	***	par_9
SRP1	<---	SRP	1.126	.057	19.716	***	par_10

Table 5: Standardized Regression Weights: (Group number 1 - Default model)

Paths			Estimate
OC	<---	MCSQ	.920
ER	<---	MCSQ	.851
EMP	<---	MCSQ	.926
SRP	<---	OC	.901
ER3	<---	ER	.865
ER2	<---	ER	.843
ER1	<---	ER	.924
EMP3	<---	EMP	.829
EMP2	<---	EMP	.892
EMP1	<---	EMP	.323
OC3	<---	OC	.748
OC2	<---	OC	.883
OC1	<---	OC	.863
SRP3	<---	SRP	.875
SRP2	<---	SRP	.867
SRP1	<---	SRP	.890



Table 6: CMIN and CMIN/ DF

Model	NPART	CMIN	DF	P	CMIN/DF
Default model	28	109.857	50	.000	2.197
Saturated model	78	.000	0		
Independence model	12	2497.357	66	.000	37.839

Table 7: Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI)

Model	RMR	GFI	AGFI	PGFI
Default model	.033	.933	.895	.598
Saturated model	.000	1.000		
Independence model	.520	.210	.067	.178

Table 8: Baseline Comparisons such as NFI, TLI and CFI

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.956	.942	.976	.968	.975
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000