

# BARON & KENNY APPROACH FOR TESTING MEDIATION EFFECT OF CUSTOMER SATISFACTION

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**Abstract:** *The present research paper provides and examines the moderating effect of customer satisfaction and provides valuable insights into the service provided by travel agents in Punjab. Baron and Kenny approach was used to test the mediation effect of customer satisfaction between RATER dimensions and behaviour intentions of the customers towards travel agents in Punjab. 1000 customers were surveyed from different travel agents in Punjab by using structured questionnaire as a primary data collection method. Research hypothesis were tested by using multiple regression model as explained by Barron and Kenny. Finding of the research paper suggested existence of mediation effect between RATER dimension and behaviour intentions.*

**Keywords:** *Mediation, Baron and Kenny, travel agents.*

## Introduction

Customer satisfaction is positively correlated with the service quality provided by the travel agents (Olorunniwo & Hsu, 2006). In a competitive world, customer satisfaction is considered to be an important strategy (Foster, 1997). Profitability of the firm hugely depends upon the customer satisfaction (Kouthouris, Alexandris, & Kouthouris, 2005). The measurement approach and mediation effect of customer satisfaction between RATER service quality dimensions and behaviour intentions are still unsettled in review of literature (Keating, Alpert, Kriz, & Quazi, 2011; Liu et al., 2015; Malik, 2012; Nguyen, 2013). In spite of ongoing arguments researchers have shown interest in investigating the mediation effect of customer satisfaction between RATER service quality dimensions and behaviour intentions of the customers (Aykan & Aksoylu, 2015; Bontis, Booker, & Serenko, 2007; Keating et al., 2011; Liu et al., 2015; Malik, 2012; Nguyen, 2013; Wirtz, Mattila, & Tan, 2000). This research paper aims to indentify the Mediation effect of customer satisfaction between RATER dimensions and behaviour intentions. (Malik, 2012) used descriptive and inferential methods to study the role of customer satisfaction as a mediating variable. Results suggest that customer's satisfaction as an important factor to retain old customers. (Liu et al., 2015) argues for the mediating role of customer satisfaction in the relationship between RATER dimensions and behavior intentions of the customers and posited that customer satisfaction as the primary mediator. (Shrout & Bolger, 2002) used causal effect to explain the term mediation in research studies. When causal effect of independent variable on the dependent variable was determined by some intervening variable, the mediation is said to be occurred.

## Review of Literature

Researchers also supported bootstrap methods to examine mediation role between independent and dependent variables. (Fiedler, Schott, & Meiser, 2011) used to examine the influence of middle variable between independent and dependent variables by using regression analysis. One conditional assumption was assumed that the middle variable acted as a mediator between other two variables as mentioned in the construct. Middle variable have partial or full mediator effect between the independent variables and dependent variables. (Srivastava & Rai, 2013) empirically investigated the mediating role of customer satisfaction by using multiple regression models. This study found that customer satisfaction established a partial mediation and directional influence between service quality provided by the service provider and customer loyalty. (Wahyuningsih, 2011) tested typology model to examine the relationship among three constructs service quality dimensions, customer satisfaction and customer behaviour intentions. (Joshua, 2015) examines the service satisfaction and suggested that satisfying customers increases the loyalty and retention rate of the customers. Among the RATER determinants, empathy played a pivotal role (Joshua, 2015). Research studies also suggested that sometimes quality dimensions behave significantly different across service sectors (Archakova, 2013). It was evident from the past research (Mackay, Mostert, & Petzer, 2015) that satisfaction of the customers towards service provider can be evaluate by using multidimensional construct of the RATER dimensions.

## Objective & Research hypothesis

To identify the mediation affect of customer satisfaction among RATER dimensions and behavior intentions of customers. Accordingly, the hypotheses were:

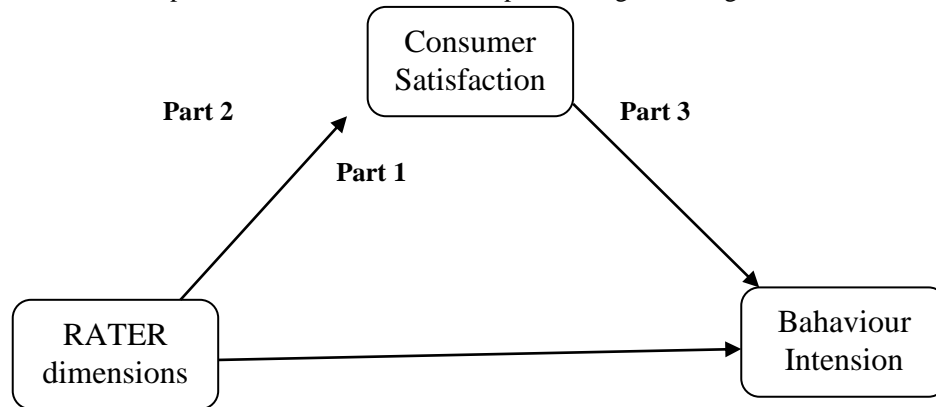
**H1a<sub>0</sub>:** There is no intermediate effect of customer satisfaction between RATER service quality dimension and behavior intentions.

## Research Methodology

The 21 item modified SERVQUAL (Parasuraman, Zeithaml, & Berry, 1985) was used to measure the RATER dimensions of service quality and (Baron & Kenny, 1986) approach was used to investigating the mediation effect statistically. Three regression equations  $Y = i_1 + cX + e_1$ ,  $Y = i_2 + c'X + bM + e_2$  and  $M = i_3 + aX + e_3$  were used to interpretations of the results. Multiple regression model by using IBM SPSS 20 software was run to calculate the value of a, b, c, c' and interpretation of M. Descriptive research design and non probability Convenience sampling technique were used to collect data from 1000 customers of travel agents in different districts of Punjab.

**Results and Findings**

(Baron & Kenny, 1986) approach was used to test the statistical significance of hypothesis H1a<sub>0</sub> by using statistical package for the social sciences for window version 20. The conceptual framework for mediation process is given in figure 1.



**Figure: 1. Steps in mediation process (RATER – CS – BI)**

In first step of (Baron & Kenny, 1986) approach, multiple linear regression model was used to test the level of significance between RATER service quality dimension act as independent variable and the behaviour intension taken as a dependent variable.

**Table I. Regression analysis model b/w RATER & BI**

RATER Dimensions	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.820	.232		7.834	.000
Reliability	.144	.038	.134	3.826	.000
Assurance	.060	.026	.071	2.286	.022
Tangibles	.059	.037	.062	1.603	.109
Empathy	.203	.037	.213	5.477	.000
Responsiveness	.058	.036	.056	1.613	.107

Table I shows that RATER dimensions, reliability, assurance, tangibility, empathy and responsiveness enacted as an independent variables and customer behaviour intension enacted as the dependent variable. By looking at the “Sig.” values it was revealed that all the RATER dimensions other than assurance and responsiveness were statistically significant with  $p < .05$  &  $t$  value  $> 1.96$ . So by (Baron & Kenny, 1986) approach we will proceed to Step 2 as shown in table II, In this step the multiple regression analysis model is run between RATER and customer satisfaction.

**Table II. Regression analysis model b/w RATER & CS**

RATER Dimensions	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.253	.267		4.688	.000
Reliability	.129	.043	.103	2.966	.003
Assurance	.082	.030	.084	2.719	.007
Tangibles	.079	.043	.072	4.865	.002
Empathy	.204	.043	.185	1.774	.060
Responsiveness	.167	.041	.139	4.025	.000

Table II predicts the consumer satisfaction variables significantly well. By looking at the “Sig.” values it was revealed that all the RATER dimensions except empathy were statistically significant with  $p < .05$  &  $t$  value  $> 1.96$ . In this step number 3 as given by (Baron & Kenny, 1986), simple regression model was undertaken between mediating variable and dependent variable as shown in table number III.

**Table III. Regression analysis model b/w CS & BI**

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.218	.103		21.435	.000
Consumer Satisfaction	.480	.023	.556	21.107	.000

A "Sig." value was statistically significant with  $p < .05$  &  $t$  value  $> 1.96$ . So by (Baron & Kenny, 1986) approach we will proceed to Step 4 as shown in table IV,

In last step as given by (Baron & Kenny, 1986), multiple regression model was used to investigate the statistical significance of RATER dimensions and Behaviour intentions in the presence of moderate variable customer satisfaction. The results of the regression model are depicted in table number IV.

**Table IV. Regression analysis model b/w RATER & BI in presence of CS.**

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.279	.204		6.271	.000
Consumer Satisfaction	.432	.024	.500	18.038	.000
Reliability	.089	.033	.082	2.698	.007
Assurance	.024	.023	.029	1.074	.283
Tangibles	.025	.032	.026	.778	.437
Empathy	.115	.033	.121	3.536	.000
Responsiveness	-.014	.031	-.013	-.442	.659

By looking at the "Sig." column,  $t$  values for assurance and tangibles dimensions are  $< 1.96$ , and  $p$  values are  $> 0.05$ , and both are of same signs. Both these dimensions are not statistically significant to the given model. It was revealed that there exist full mediation of CS between these two dimensions and BI.

### Conclusion

The statistical tests were performed by using multiple regression models in IV steps and the hypothesis H1a<sub>0</sub> having no mediation effect of CS between RATER and BI was rejected for assurance and tangibles service quality dimensions towards service quality provided by travel agents in Punjab. Research outcomes strongly supported the mediation effect of CS among two service quality dimensions (assurance & tangibles) and BI. The research study strongly supported the intermediate effect of customer satisfaction between service quality dimensions and behavior intentions of customers in the case of service provided by travel agents in the state of Punjab.

### Managerial Implications

The research study provides important understandings of customer satisfaction. The moderating effect of customer satisfaction on relation between RATER dimensions and behaviour intentions was found significant in assurance and tangibles service quality dimensions only. From managerial point of view this study suggests strategies in terms of better promotional strategies, quality services and better customer relationships to enhance the customer satisfaction and behavior intentions of the customers. Review of literature suggested that customer satisfaction directly influence profitability of the service provider (Gounaris, 2005).

### Limitations

The research study used only five RATER service quality dimensions, other service quality dimensions could also be considered in further empirical research investigations. The data were collected from limited cities of Punjab only due to time and money constraint. This may limit the generability of the research study.

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