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Chapter 8

Mediating Role of Customer Satisfaction in the Relationship between Service Quality and Customer Loyalty of the Kerala Gramin Bank

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8.1 Introduction

The present chapter explains the fifth research objective of the study to examine the mediating role of customer satisfaction in the relationship between service quality and customer loyalty of Kerala Gramin Bank. The Baron and Kenny (1986) method using IBM SPSS AMOS 21 software package used to analyze the mediation hypothesis of this chapter.

8.2 Objective of the chapter

Objective V: To examine the mediating role of customer satisfaction in the relationship between service quality and customer loyalty.

8.3 The Baron and Kenny (1986) method for Mediation

The Baron and Kenny (1986) method is an analysis strategy for testing mediation hypotheses. In this mediation method, there are two paths to the dependent variable. The independent variable must predict the dependent variable, and the independent variable must predict the mediator. Mediation is tested through three regressions:

1. Independent variable predicting the dependent variable
2. Independent variable predicting the mediator
3. Independent variable and mediator predicting the dependent variable

The following conditions must be met in the results to support mediation:

- (1) The independent variable is shown to meaningfully influence the dependent variable in the first regression equation.
- (2) Independent variable is shown to expressively influence the mediator in the second regression equation.
- (3) The mediator must significantly influence the dependent variable in the third equation. Here, the independent variable and mediator are entered as predictors.

8.4 Results of Mediation

Complete mediation exists when the independent variable no longer impacts the dependent variable after the mediator has been controlled, and all the above situations are met. *Partial mediation* occurs when the independent variable's impact on the dependent variable is reduced after the mediator is controlled. *No mediation* is present when the independent variable still has

substantial effects on the dependent variable after the mediator has been introduced, and all of the above conditions are met.

8.5 Sobel's Test for measuring the significance of Mediation

Sobel's test (Kaufman et al., 2004) is performed to see if the relationship between the independent variable and dependent variable has been expressively reduced after insertion of the mediator variable. In other words, this test assesses whether a mediation outcome is substantial. It examines the relationship between the independent variable and the dependent variable compared to the relationship between the independent variable and dependent variable, including the mediation factor. The Sobel test is more precise than the Baron and Kenny steps explained above; however, it does have low statistical power. As such, large sample sizes are required to have a satisfactory influence to detect noteworthy effects.

8.6 Mediating role of customer satisfaction in the relationship between service quality and customer loyalty of Kerala Gramin Bank

MED.H.8.1: Customer satisfaction has a mediating role in the relationship between service quality and customer loyalty of Kerala Gramin Bank

8.6.1 Model 1: Relationship between service quality and customer loyalty

In this model, the relationship between service quality and customer loyalty is being examined. Service quality is the exogenous variable, and customer loyalty is the endogenous variable. Figure 8.1 shows the details of the relationship between the two

Figure 8.1: Model 1- Relationship between service quality and customer loyalty

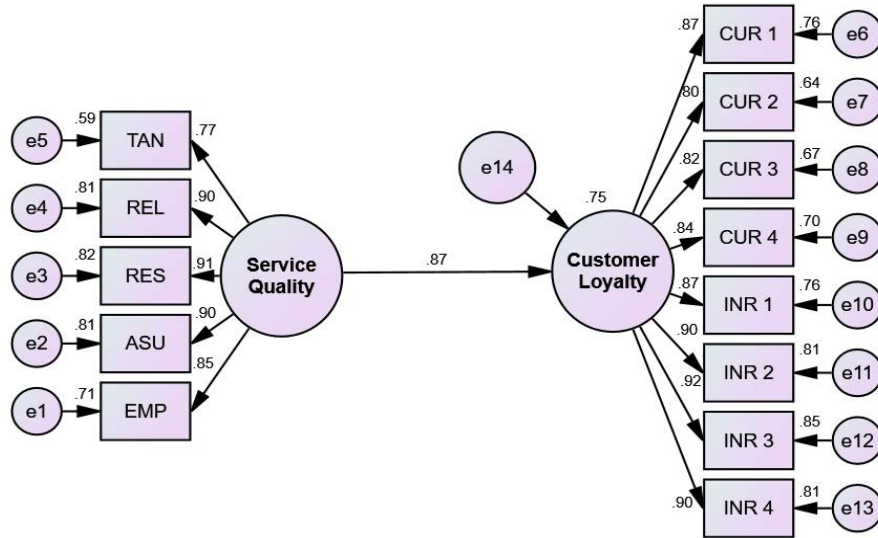


Figure 8.1 depicts the direct relationship between service quality and customer loyalty. It can be observed that service quality has a positive and significant effect on the customer loyalty factor with a path value of 0.87 (Figure 9.1). The path values associated with standardized regression coefficients, which represent the amount of change in the dependent variable given a standard deviation unit change in the independent variable.

Table 8.1: Model fitness for the relationship between service quality and customer loyalty

| Model | CMIN/DF | P-Value | GFI | AGFI | CFI | RMSEA |
|-------------------|--------------------|-------------------|------------------|------------------|------------------|----------------|
| Study Model | 1.128 | 0.000 | 0.989 | 0.961 | 0.995 | 0.040 |
| Recommended Value | Acceptable Fit 1-5 | Greater than 0.05 | Greater than 0.9 | Greater than 0.9 | Greater than 0.9 | Less than 0.08 |

The value of Chi-square to the degrees of freedom ratio for an acceptable model should be less than 5. In this case, the value is 1.128, which is very well within the suggested maximum value. The RMSEA score is 0.040, well below the accepted threshold score of 0.080. Moreover, the GFI and AGFI values are above 0.9 and CFI is also got above 0.9 for which 1.0 indicates exact fit. Thus the model is a good fit.

Table 8.2: Model summary of relationship between service quality and customer loyalty

| Path index | | Beta Estimate (Standardised) | P-value | Result |
|------------------|-------------------|------------------------------|----------|-------------|
| Customer loyalty | ← Service quality | 0.87 | <0.001** | Significant |

Source: Extracted from the model
 ** denotes significant @ 1% level

The summary of estimates in the table reveals that the relationship between service quality and customer loyalty is significant as indicated by p-value, which is less than 0.01. Thus, it can be concluded that service quality has a positive and direct effect on customer loyalty with a Beta Estimate of 0.87. From this model, it can be inferred that service quality is a significant cause for enhancing the customer loyalty of Kerala Gramin Bank.

8.6.2 Model 2: Relationship between service quality and customer satisfaction

This model examines the relationship between service quality and customer satisfaction. Service quality is the independent variable, and customer satisfaction is the dependent variable.

Figure 8.2 Relationship between service quality and customer satisfaction

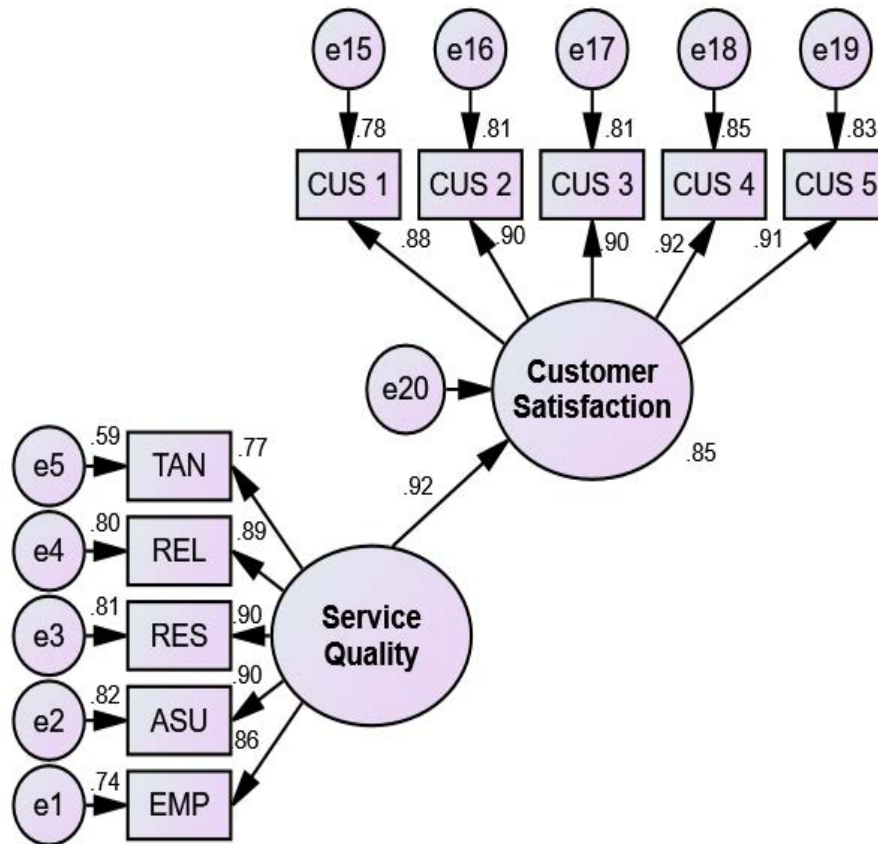


Figure 8.2 depicts the direct relationship between service quality and customer satisfaction. It can be observed that service quality has a positive and significant effect on customer satisfaction with a path value of 0.92. Table 9.3 gives a picture of the model fitness indices and the summary of estimates for the above model.

Table 8.3: Model fitness for relationship between service quality and customer satisfaction

| Model | CMIN/DF | P-Value | GFI | AGFI | CFI | RMSEA |
|-------------------|--------------------|-------------------|------------------|------------------|------------------|----------------|
| Study Model | 1.324 | 0.000 | 0.997 | 0.984 | 0.997 | 0.041 |
| Recommended Value | Acceptable Fit 1-5 | Greater than 0.05 | Greater than 0.9 | Greater than 0.9 | Greater than 0.9 | Less than 0.08 |

The value of Chi-square to the degrees of freedom ratio for an acceptable model should be less than 5. In this case, the value is 1.324, which is very well within the suggested maximum value. The RMSEA score is 0.041, well below the accepted threshold score of 0.080. Moreover, the GFI and AGFI values are above 0.9 and CFI is also got above 0.9 for which 1.0 indicates exact fit. Thus the model is a good fit.

Table 8.4 Model summary for the relationship between service quality and customer satisfaction

| Path index | | | Beta Estimate (Standardised) | P-value | Result |
|-----------------------|---|-----------------|------------------------------|----------|-------------|
| Customer satisfaction | ← | Service quality | 0.92 | <0.001** | Significant |

Source: Extracted from the model

** denotes significant @ 1% level

The summary of estimates in the table reveals that the relationship between service quality and customer satisfaction is significant as indicated by p-value, which is less than 0.01. Thus, it can be concluded that service quality has a positive and direct effect on customer satisfaction.

8.6.3 Model 3 – Relationship between service quality and customer loyalty with customer satisfaction as the mediating variable

This model helps to understand the relationship between service quality and customer loyalty with customer satisfaction as the mediating variable. To study the mediation effect in the relationship between two variables, it is assumed that the relationship between the independent variable and the dependent variable is influenced because of the presence of the third variable which is the mediator variable. Here, service quality taken as an independent variable, customer loyalty is considered as the dependent variable, and customer satisfaction is regarded as the mediator variable.

Figure 8.3: The relationship between service quality and customer loyalty with customer satisfaction as the mediating variable

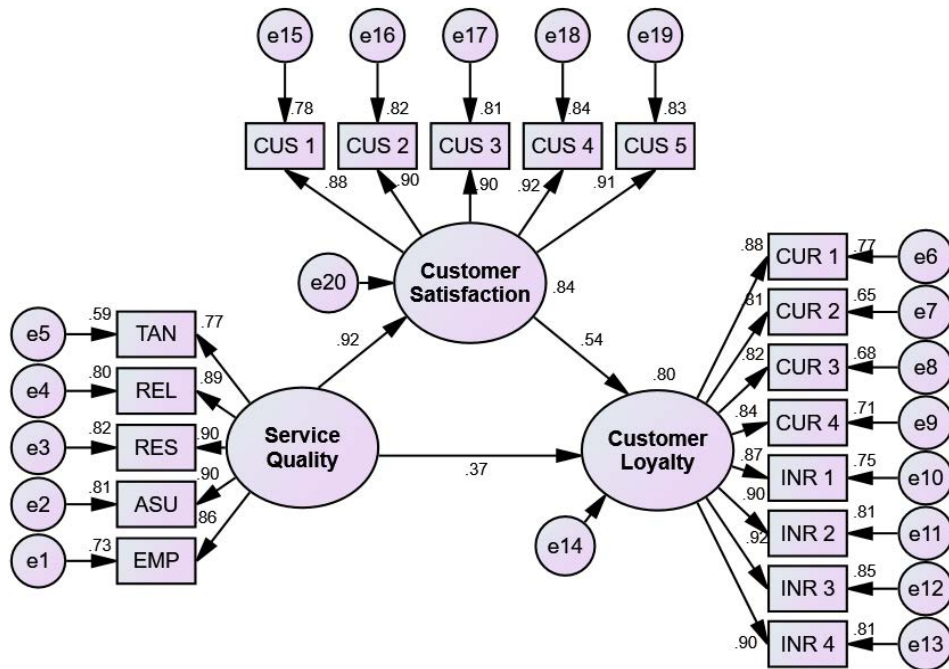


Table 8.5: Fit indices of the relationship between service quality and customer loyalty with customer satisfaction as the mediating variable

| Model | CMIN/DF | P-Value | GFI | AGFI | CFI | RMSEA |
|-------------------|--------------------|-------------------|------------------|------------------|------------------|----------------|
| Study Model | 2.384 | 0.000 | 0.989 | 0.957 | 0.994 | 0.053 |
| Recommended Value | Acceptable Fit 1-5 | Greater than 0.05 | Greater than 0.9 | Greater than 0.9 | Greater than 0.9 | Less than 0.08 |

The value of Chi-square to the degrees of freedom ratio for an acceptable model should be less than 5. In this case, the value is 2.384, which is very well within the suggested maximum value. The RMSEA score is 0.053, well below the accepted threshold score of 0.080. Moreover, the GFI and AGFI values are above 0.9 and CFI is also got above 0.9 for which 1.0 indicates exact fit. Thus the model is a good fit.

Table 8.6: Relationship between service quality and customer loyalty with customer satisfaction as the mediating variable (direct and indirect effects)-Summary of estimates

| Variables | Path | Variables | Beta Estimate | P value | Result |
|-----------------------|------|-----------------------|---------------|----------|-------------|
| Customer loyalty | ← | Service quality | 0.37 | <0.001** | Significant |
| Customer satisfaction | ← | Service quality | 0.92 | <0.001** | Significant |
| Customer loyalty | ← | Customer satisfaction | 0.54 | <0.001** | Significant |

Source: Extracted from the model

** indicates significant at 1% level

From the figure 8.3 it can be seen that when the mediating variable, customer satisfaction, is included in the model, the direct effect between service quality and customer loyalty remains significant. However, the direct effect of service quality on customer loyalty has reduced to 0.37 from the earlier direct effect of 0.87 due to the introduction of the mediator variable that customer satisfaction. The direct effect of service quality on customer satisfaction is 0.92 and the direct effect of customer satisfaction on customer loyalty is 0.54. The indirect effect of service quality on customer loyalty can now be calculated by multiplying the two direct effects of service quality on customer satisfaction i.e. $0.92 \times 0.54 = 0.50$. The same effect can be further confirmed by the summary of estimates given below.

Summary of Estimates

Table 8.7: Before mediator variable entered in to the model – Direct Effect

| Dependent variable | Path | Independent variable | Beta Estimate | P value | Result |
|--------------------|------|----------------------|---------------|----------|-------------|
| Customer loyalty | ← | Service quality | 0.87 | <0.001** | Significant |

Source: Extracted from the model

** indicates significant at 1% level

Table 8.8: After mediator variable customer satisfaction entered in to the model– Indirect Effect

| Constructs | Path | Variables | Beta Estimate | P value | Result |
|-----------------------|------|-----------------------|---------------|----------|-------------|
| Customer loyalty | ← | Service quality | 0.37 | <0.001** | Significant |
| Customer satisfaction | ← | Service quality | 0.92 | <0.001** | Significant |
| Customer loyalty | ← | Customer satisfaction | 0.54 | <0.001** | Significant |

Source: Extracted from the model

** indicates significant at 1% level

Tables 8.7 and 8.8 reveal that the mediation effect of customer satisfaction between service quality and customer loyalty is partial as the direct effect between them gets reduced but remains significant. The mediation effect is further confirmed with the Sobel's test calculation.

8.7 Sobel's Test calculation for the significance of Mediation

Table 8.9 reveals the results of the Sobel's, test calculation to find out the significance of the mediation effect in the above model.

Table 8.9: Sobel's Test calculation for the Significance of Mediation

| Path | Path Value (unstandardized) | Standard Error | Significance of Mediation effect | | Result of hypothesis testing |
|-------|--------------------------------|----------------|----------------------------------|----------|------------------------------|
| | | | Sobel's Test | | |
| | | | Test value | Sig. | |
| SQ-CL | 0.37 | 0.071 | 7.85 | <0.001** | MED.H 8.1 Supported |
| SQ-CS | 0.92 | 0.038 | | | |
| CS-CL | 0.54 | 0.065 | | | |

Source: Extracted from the model

** indicates significant at 1% level

The result of the test shows that the relationship between service quality and customer loyalty via the mediation variable, customer satisfaction is significant at 1 percent level of significance which means that there is a mediation effect between service quality and customer loyalty of the KGB customers which is influenced by customer satisfaction. However, the direct effect remains significant even after the introduction of the mediator variable, customer satisfaction, which indicates that the mediation effect is partial.

This shows that there is an indirect effect of service quality on customer loyalty. Therefore, it can be concluded that customer satisfaction plays important role in the relationship between service quality and customer loyalty of the KGB. To obtain higher loyalty among the bank customer towards the Kerala Gramin Bank, considerable amount of their satisfaction is to be attained.

The findings have suggested that it is important to achieve customer satisfactions to obtain customer loyalty (intention to retain with bank and positive word of mouth referral) of the bank customers. Otherwise, development efforts invested by the Kerala Gramin Bank to attract the customers will not be more effective. Thus, KGB should focus on exhibiting uniqueness in the service quality that would meet customer satisfaction.

8.8 Conclusion

The present chapter covered the fifth objective of the research to examine the mediating role of customer satisfaction in the relationship between service quality and customer loyalty of Kerala Gramin Bank. The Baron and Kenny (1986) method adopted for analyzing the mediation hypothesis of this chapter. The study shows that customer satisfaction plays an important role in the relationship between service quality and customer loyalty. Therefore, in order to improve the loyalty of the customers, a considerable amount of customer satisfaction is to be obtained.