

# The Impact of Expectancy Disconfirmation Factors on Customer Satisfaction and Word of Mouth in Logistics Industry

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**Abstract**—This study examines the expectancy disconfirmation model and its impact on customers' behavioural intention such as Word of Mouth (WOM) communication. Survey method was adopted with self-administered questionnaire, convenience sampling method was employed to collect data from customers who get services from logistics companies. The empirical results indicate that customer expectation and perceived performance have significant impact on their satisfaction level. Furthermore customer satisfaction certainly influences their behavioural intuition such as WOM communication. Structural equation modelling was employed to ascertain the hypothetical relationship.

**Keywords:** Customer satisfaction, expectancy disconfirmation, word of mouth, services marketing, logistics services.

## 1. INTRODUCTION

In business environment customer satisfaction is one among the most predominant area where many studies have devoted to explore the factors, because it has direct impact on organizational performance [23]. Satisfying and retaining customers are most imperative task for every organisation since existing customers contribute to more profit than new customers [6]. This is the reason why companies have always been accepting customer is always right and giving more priority to customer satisfaction [9]. Customers' behaviour has been influenced by their satisfaction level [35], dissatisfied customers express negative word of mouth communication that eventually affect companies' profitability [3] and [15]. Customers share level of satisfaction to nine people if they not satisfied enough [14]. The customers are more likely to re purchase if they are satisfied with the service [12]. So the importance of customer satisfaction has been extensively recognised in services industry.

Customers' expectation and satisfaction level have been varying from time to time [17], because of technological development. Customers are now started demanding more personal and customised services, even they are not willing to accept service failure and service delay. A 'customer centric'

view has replaced the earlier 'product centric view' [32]. So customer satisfaction has become an interesting and dynamic concept for researchers. Most of the prior studies have ascertained the customer satisfaction relationship with its antecedents as well as consequences, yet paucity of evidence witnessed the studies that analyse relationship among customer satisfaction variables are still paucity. Given the dearth of existing studies in logistics in Indian context, this study has been conducted to examine the relationship among the customer satisfaction variables in logistics industry.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

An extensive literature review ascertained that researchers have been showing greatest interest to do research on customer satisfaction. Furthermore it's been major outcome of any marketing activity and considered to be prime objective of all business organisation [16], as it is affirmed to have direct impact on organisation's financial performance [22]. Customer satisfaction found to have a significant impact on customer's purchase intention [7], [5] and [8]. Customer satisfaction resulting on customer intention to share and recommend to others [11], and it leads to customer loyalty. In the span of ten years between 1992 to 2011 totally 2235 studies related to customer satisfaction have got published in the field of business, economics, and management [1]. Among 2235 studies, 1088 studies have dealt with customer satisfaction and service quality furthermore 315 articles were analysed service quality and customer satisfaction relationship. It ascertained the significance of service quality and its relationship with customer satisfaction in the field of business, economics, and management [1].

The growing importance of quality in various industries have also generated a proliferation of research, with more than 15,000 articles having been published on the topic of customer satisfaction between 1970 to 1990 in academic and trade related literature [31]. Customer satisfaction is depending

upon quality of services provided by the firms [21]. Several authors conducted study on service quality and customer satisfaction relationship, and identified the significant influence of former construct on later construct [21], [33], [20], [4] and [24]. Among them SERVQUAL measurement instrument have been used predominantly to examine the service quality across industries, yet neither used all of the variables of SERVQUAL nor did use SERVQUAL at all. [20].

Customer satisfaction is a psychological concept that includes the feeling of well-being and pleasure that results from obtaining what one hopes for and expects from an appealing product and/or service (WTO, 1985). Despite variety of approaches proposed to justify customer satisfaction/dissatisfaction, the concept proposed by Richard Oliver called the expectancy disconfirmation theory has been most widely accepted and used by numerous researchers, several authors have tested and confirmed this theory [28] and [34].

### 2.1. Expectation disconfirmation

Pre-purchase expectation is deemed to be an extensively studied antecedent of satisfaction [26]. As per disconfirmation paradigm, estimative expectation is the definition for expectation, which is considered to have direct influence on customer satisfaction [27]. The perception of the actual product or service performance is high so does the expectation. It increases the disconfirmation as well. An individual's expectations are:

- a) Positively disconfirmed when performance exceeds experiences;
- b) Negatively disconfirmed when performance is less than expectations; and
- c) Confirmed when performance is approximately equal to experiences.

H1a: The customers' expectation affects the expectation–disconfirmation.

H1b: The higher the expectation, the higher the consumer satisfaction.

For evaluate the actual performance of any service, customers have always been compared the perceived performance with expectations [30]. Customer satisfaction has been indirectly affected by perceived performance through disconfirmation. Customer explains his/her satisfaction level by how good the service performed. Thus performance is identified as one of the determinant of satisfaction.

H2a: Perceived product or service performance affects the expectation–disconfirmation.

H2b: Perceived product or service performance affects the customer satisfaction.

Disconfirmation is a consequence of comparison between expectation and performance, thus it can be

plausible that performance beyond expectations can be the reason for pleasure and a lack in performance can cause displeasure [25]. Disconfirmation factor found to have a direct and positive impact on pleasure, which in turn, have impact on satisfaction.

H3: Disconfirmation has direct relationship with satisfaction.

In logistics services customers play significant roles in organisational growth and progress. Organisations always target to build customer relationship by providing superior value to target customers [18]. Providing quality service to target customers leads to achieve greater levels of customer satisfaction [19]. It has been proven that quality resulting customer satisfaction and organisations focus to improve product quality [18]. But it has also been ascertained that quality of services which the organisations provide to customers resulting greater satisfaction which in turn provides retention and recommendation.

H4: Satisfaction has direct impact on WOM communication.

## 3. RESEARCH DESIGN & DATA ANALYSIS

### 3.1. Data collection

This study examines the relationships among expectation, perceived performance, disconfirmation, satisfaction, and word of mouth communication based on logistics services companies in Chennai (India). After having received consent from companies, a self-administered questionnaire was distributed based on convenience sampling. A total of 266 questionnaires were thus attained over a month period. A total of 212 questionnaires retained for further analysis after the elimination of invalid and incomplete responses.

### 3.2. Measurement Instrument

To measure customer satisfaction the expectancy disconfirmation variables have been adopted. The questionnaire comprised with six expectancy disconfirmation variables, three satisfaction variables, and two WOM communication variables. Respondents are requested to mark their opinion on a five-point Likert scale, ranging from 1 (very poor) to 5 (very good).

### 3.3 Data Analysis

SPSS software was used to analyse the data. Confirmatory factor analysis was conducted to verify the psychometric properties and structural equation modelling was employed to examine the postulated relationship.

## 4. RESULTS

### 4.1. Measurement model

The measurement model was specified with five latent construct with their indicators. To assess reliability of the variables Cronbach's alpha was calculated. The value should

be greater than 0.7 to ensure construct reliability [13]. The Cronbach’s alpha of each construct is between 0.74 and 0.88. To examine convergent validity of each construct average variance extracted (AVE) was used. The AVE is the average of the variance explained by all the variables that converges to a specific latent factor. Values greater than 0.5 indicates that at least 50% of the variation in average among the variables is explained by the latent factors [10].

**Table 1**

	CR	AVE
Expectation	0.770	0.626
Satisfaction	0.858	0.669
Confirmation	0.851	0.746
Performance	0.744	0.574
WOM	0.887	0.797

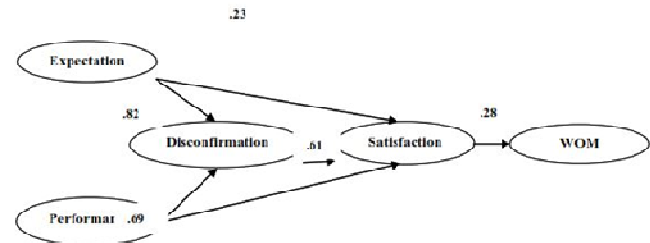
Results of the AVE listed in table 1, values fell between 0.5 and 0.7. The results surpassed the recommended value of 0.5 by Fornell and Larcker (1981). From the table 2, it is evident that all the AVE values are higher than the squared correlations both vertically and horizontally. This shows support for discriminant validity [13]. The measurement model was deemed to be good fit model whit the results of confirmatory factor analysis.  $\chi^2 = 78.888$ ;  $df = 34$ ;  $p < .01$ ; comparative fit index (CFI) = .911; goodness-of-fit index (GFI) = .910; Tucker-Lewis index (TLI) = .937; root-mean-square error of approximation (RMSEA) = .065; and standardized root-mean-square residual (SRMR) = .049.

**Table 2**

	Expectation	Satisfaction	Confirmation	Performance	WOM
Expectation	0.791				
Satisfaction	0.394	0.818			
Confirmation	0.456	0.333	0.864		
Performance	0.323	0.785	0.424	0.812	
WOM	0.244	0.278	0.390	0.221	0.893

**4.2. Structural model**

Psychometric properties of all variables and factors in this study were acceptable, and thus using a single measurement indicator is deemed to be viable as compared to multiple ones. Goodness-of-fit indices demonstrated the structural model fit the data reasonably ( $\chi^2(38) = 93.402$  ( $p < 0.001$ );  $\chi^2/38 = 2.458$ ; GFI = .94; NFI = .92; CFI = .91; RMR = .027). The structural model’s fit is consider to be adequate with reference to attained value [13], thus it gives good evidence to test the hypotheses.



**Figure 1**

**Table 3**

Hypothesis	Endogenous variable	Exogenous variable	Standardised Coefficient	P value	Result
H1a	Disconfirmation	Expectation	0.820	0.000	H1a Supported
H1b	Satisfaction	Expectation	0.234	0.001	H1a Supported
H2a	Disconfirmation	Performance	0.697	0.010	H1a Supported
H2b	Satisfaction	Performance	0.314	0.000	H1a Supported
H3	Satisfaction	Disconfirmation	0.617	0.000	H1a Supported

In the structural model, the path coefficients of hypothetical relationship between disconfirmation and satisfaction were statistically significant. It can be found that customer satisfaction has a significant relationship with word of mouth communication (see Table 3).

**5. DISCUSSION**

The results demonstrate the interaction of expectancy disconfirmation variables (expectation, performance, and disconfirmation), in addition to that its impact on satisfaction and WOM communication variables. The results correspond to prior studies that ascertained the positive relationship between satisfaction and WOM communication [27]. Expectation and perceived performance about the services certainly have a significant impact on customers’ satisfaction level. This was ascertained by statistical results in this study, which affirmed the prior studies [30] and [27]. As suggested in past studies [27], satisfaction of the customers ensures favourable behavioural intentions such as WOM communication.

### 5.1. Limitations and scope for future research

As with any research, this research also has certain limitations. First, data have been collected from logistics customers only, relatively small number of respondents. This study considers only logistics service industry, but future studies should consider other services industries as well. This study merely examines the one way impact on succeeding factors, future studies may examine the mediation or moderation effects on succeeding factor.

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