

# Enhancing Customer Satisfaction in Fast Food: A Novel Approach Integrating SEM and ANN for Relationship Marketing Analysis

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[Submitted on: 10.6.23; Revised on: 5.11.23]

**DoI:** 10.23862/kiit-parikalpana/2023/v19/i2/223471

## Abstract

The current study presents the integrated model that explores how the relationship marketing tool constructed on the bases of trust, commitment, and communication helps achieving customer satisfaction in fast food industry. The underpinning theories of this study are relationship marketing theories, trust-commitment theory on key mediating variables and confirmation/disconfirmation theory for satisfaction. A Two Staged Structural Equation Modelling – Artificial Neural Network Approach is used to validate the findings of the research. The findings reveal that Trust has the highest impact on customer satisfaction, followed by Commitment and Communication. Both the Smart PLS and ANN analyses support this result, validating its significance. The finding highlights the importance for the fast-food industry to prioritize quality, service, and relationship marketing strategies as key factors for long-term success and sustained customer engagement.

**Keywords:** Trust, Commitment, Communication, Relationship marketing, Customer satisfaction, Artificial Neural Network

## 1. Introduction

In the 21st century companies, opt for new age technology driven businesses. However, despite of changing paradigm in the socio-political and economic strata of demography, cut-throat competition in the market and intangibilities associated with the services in the service sector, marketers still pursue the relationship marketing to gain their foothold in the market. This augurs well in the turbulent space of shifting from product to service oriented businesses (Amoako et al., 2019) to cater the needs of the customers. Indian fast-food sector also took a plunge in relationship marketing to move from customer acquisition to customer retention.

Since the coinage of the term in 1950s, relationship marketing evolved as a subject of interest in industrial marketing, service marketing and off late in online marketing as a social and economic process focusing on long-term engagement, interaction, and customer loyalty (Christopher et al., 2013; Vargo & Lusch, 2004). It is a common belief that a satisfied customer tends to become a loyal customer and eventually is retained by the organization in future business deals. Relationship marketing or customer relationship management helps in raising customer satisfaction.

Berry (1983) for the first time in the services literature defined relationship marketing as attracting, maintaining, and enhancing customer relationships. He recommended a long-term relation between the organizations and their customers. Berry & Parasuraman

(1991) again supported this theory in their subsequent work. Relationship marketing objectively builds long-term mutually beneficial and satisfying relations with producers, distributors, suppliers, and customers in hopes to earn and retain their long-term choice preference and business (Grönroos, 1994; Kotler, 2000).

Relationship marketing is defined as a marketing device to establish, develop and maintain the relational exchange between the organization and the customer (Morgan & Hunt, 1994) which helps the organization to gain sustainable competitive advantage over its competitors (O'malley & Prothero, 2004) and is widely accepted in today's market driven economy (Gummesson, 2002). Relationship marketing emphasizes direct involvement with the customer to build long term relationships rather than relying on a lone individual transaction (Godfred Koi-Akrofi, 2013). Sheth (2017) postulated relationship marketing as a joint venture between the company and the customer focusing on winning the customer's heart than just making money out of customer. Grönroos (2000) emphasized moving from customer acquisition to customer retention by improving relationships with the customer.

Relationship marketing strongly appeals to customers and they personally want to be dealt by the organization (Bennett & Barkensjo, 2005). Payne (2000) considers relationship marketing as any other marketing tool which encompasses canvassing, advertising, events, and public relations. Jones et al., (2015)

did extensive research on relationship marketing from a consumer's point of view and found that consumers tend to participate in company's reward program; read company communications; develop personal relationships; seek preferential treatment and customized products.

Even in small retail businesses companies try to understand the customer's needs and preferences, exhibit friendly attitude towards customers and offer credit facilities and discounts to establish relationships with the customers (Khare, 2014). Some companies go to the extent of using their Corporate Social Responsibility (CSR) activities in promoting personal relation and social proximity (Montalbo, 2015). Companies use relationship marketing in building strong customer link (Taleghani et al., 2011).

In between the phenomenon of moving from customer acquisition to customer retention, much emphasis is given to customer satisfaction. Customer satisfaction plays a pivotal role in converting an acquired customer to be a retained customer in all likely scenarios. Customer satisfaction is a vital node in the journey of a business process from acquisition to retention of a customer. From the above postulates of Sheth (2017) and Grönroos (2000) it becomes evident that relationship marketing helps in achieving customer satisfaction or significantly impacting customer satisfaction from product to service, and from hotel to fast-food.

Since fast food has limited menu prepared with production line technique

(Bender, 2018) in quick time, consumed immediately either inside or (mostly takeaway or home delivery) outside the premise (Yeo, 2010), limits the study in this research on SERVQUAL Model of Parasuraman et al. (1985) which purely works in service quality measurement. The SERVQUAL Model based on its five elements viz., reliability, assurance, tangibility, empathy and responsiveness could all be the antecedents of relationship marketing in a regular fine dining restaurants where guests enjoy their meal with proper service-escapes (Bitner, 1992). However, the five gaps viz., knowledge, standards, delivery, communication, and satisfaction found in the SERVQUAL Model make it more complex in fast food industry to completely rely on this model due to fast food industry's own nature. Hence, relationship marketers generally aver SERVQUAL Model in their marketing pursuit.

Similarly, DINESERV Model (Stevens et al., 1995), another tool for measuring service quality in restaurants having variables like consistent quality, personal relationship, friendly service, reasonable price and consistent communication (Vanniarajan & Meharajan, 2012) does not augur well in fast food industry for the same reasons (less point of contact and time spent).

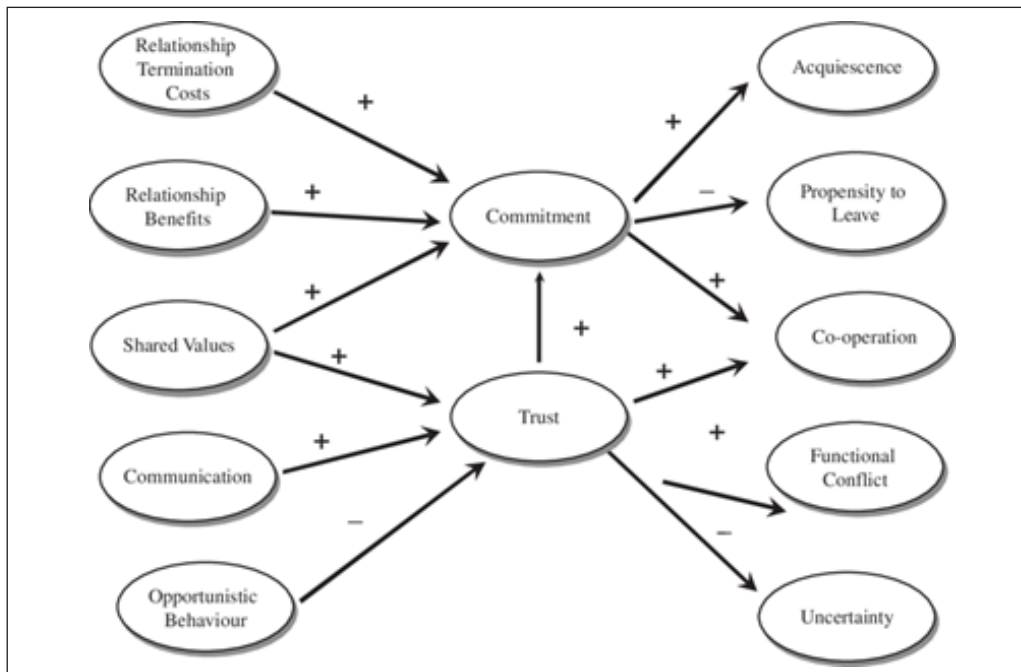
Taking nature of fast-food industry into consideration, authors took liberty to omit most coveted service quality models like SERVQUAL Model and DINESERV Model from their study and decided to pursue relationship marketing theories only.

With increasing competition and changing consumer preferences, building, and maintaining strong relationships with customers in fast food industry has become crucial. Trust, commitment, and communication are the key constructs of relationship marketing that contribute to customer satisfaction. By fostering trust, fast food establishments can establish a sense of reliability and credibility, creating loyal customers who are more likely to return. Commitment involves demonstrating a long-term dedication to meeting customer needs and going beyond mere transactions. Effective communication allows fast food companies to understand customer preferences, resolve issues promptly, and provide personalized experiences. Recognizing

the significance of these constructs, the current study aims to predict the impact of relationship marketing on customer satisfaction, highlighting its importance as a strategic approach in the fast-food industry.

## 2. Review of Literature

Berry, (1983) pioneered in relationship marketing theory. He highlighted the importance of keeping customers at the base of any service organization. According to him relationship marketing strategies revolve around core service marketing (need oriented, specific services), relationship customization (tailor service for individual customer), service augmentation (genuine extras to differentiate), relationship pricing (price incentive to encourage relationship) and



**Fig.1** KMV Model of Relationship Marketing

Source: *KMV Model of Relationship Marketing*, (Morgan & Hunt, 1994)

internal marketing (skilled, satisfied employees to create organizational culture and give right service). He accentuated that the main objective of relationship marketing is to emphasize customer retention, while also aiming to attract new customers as a secondary goal.

For the academic purpose of the research, Morgan & Hunt (1994) Model of Relationship Marketing is taken as a base for our study wherein, trust; commitment; communication; shared value and service quality considerably form the relationship marketing.

For authors' convenience in the present study, they have omitted shared value and service quality from their scope of study and pursued trust, commitment, and communication as formative constructs of relationship marketing. Authors have also excluded outcome variables in this paper for the ease of being focused on trust, commitment, and communication linkage with customer satisfaction.

## **2.1 Trust-Commitment-Communication-Satisfaction Linkage**

Dwyer et al., (1987) considered relationship marketing different from discrete transactions for its previous agreements, long duration, and continuing process. They argued that in a long-term relation relational parties start trusting each other and gradually increase commitment to fulfill each other's interests. Here it could be inferred that previous agreements are considered as commitment; long duration signifies trust; and continuing process is carried out through communication.

Commitment and trust together produce efficient, productive and effective outcomes (Morgan & Hunt, 1994).

Selnes (1998), in his research model proposed that communication and commitment drive satisfaction and at the same time communication and satisfaction drive trust. From the available literature it can be argued that trust and commitment are linked to relational exchanges.

Customer relationship management (CRM) when partially mediated by customer satisfaction, significantly impacts customer loyalty and builds deep trust among customers (Khan et al., 2020). Herman et al., (2020), Mang'unyi et al. (2018) and Palmer et al. (2000) have all found that relationship marketing or CRM is an important tool to achieve customer satisfaction in hospitality and tourism industry. Strong CRM practices reduce customer complaints, maximize customer satisfaction, extend relationship, and bring profit to the organization (Bukhari et al., 2019; Hyun & Perdue, 2017; Wahab & Khong, 2019).

### **2.1.1 Trust**

Moorman et al., (1993) defined trust as relational partner's willingness to rely confidently on the other partner in the relationship. Trust is a state of mind when a person relies on the exchange partner, considering other partner to be honest and reliable (Chellappa & Sin, 2005; Hamm et al., 2016) and mediates in relational exchange (Morgan & Hunt, 1994). Trust is the buyer's belief to rely on a service provider for his own long-

term interests (Crosby et al., 1990). It is built by the relationship partners over a period of time by keeping commitments, being honest and communicating well about the actions performed by them determining their future course of action (MacMillan et al., 2005).

It is evident from the study of Viktoria Rampl et al. (2012) new production process technologies, increased attention toward product ingredients, and obesity concerns have affected general levels of trust in food. Consequently, trust is an ever more decisive factor for success in food industry buyer-seller relationships and, hence, in the retail food market. Although considerable research has investigated trust in organizations, research in the food retailing industry needs further investigation. The aim of this paper is to identify variables related to consumer trust in food retailers. Only when consumer trust in food retailers is understood can retailers effectively apply corresponding strategies to secure long-term success. Based on an established model of trust in organizations, the authors developed a questionnaire to test drivers (ability, benevolence, integrity on food retail sector, that trust in an organization is important for risks associated in relationship with the organization and thus makes customer loyal to that organization. Achrol (1991) posited that trust determines commitment in relationships. Similarly, Sharma & Patterson (1999) conceptualized trust to be a mediating variable for both communication and commitment.

Rempel et al. (1985) conceptualized trust having sub constructs like reliability,

dependability, and faith which itself establishes linkage between trust and commitment. Izogo et al. (2016) in their relationship study in retail sector found that commitment is strongly influenced by trust. This finding supports the opinion of trust working as precursor of increased commitment in relationship (Vuuren et al., 2012). Trust makes a customer satisfied with the organization and accentuate the repurchase intention of the customer which in turn helps in retaining the customer and have long term relationships with the customer (Ginting et al., 2023)

Lack of trust is detrimental to organization's anticipated results (Eastlick et al., 2006; Tarhini et al., 2015). If trust is in doubt, so is the relationship. Trust reinforces relationship between the exchanging parties (Ikram & Mustapha, 2012). By developing trust an organization can earn the pole position in the service providers' list (Doyle & Roth, 1992). Hence, our first hypothesis is framed as under:

*H<sub>1</sub>: Trust has a significant and positive impact on Customer Satisfaction*

### **2.1.2 Commitment**

Commitment is one's wish of esteemed relationship maintained by parties at exchange (Alteren & Tudoran, 2016; T. Jones et al., 2010) based on feelings of mutuality and responsibilities (Yucel et al., 2014), customers' emotive connection (Hsiao et al., 2015), affinity, loyalty, and association (Sharma & Dhar, 2016) and projected switching cost (Jones et al., 2007). It helps in continuing the relationship between the exchange

partners both implicitly and explicitly (Dwyer et al., 1987). Commitment endures relational partners to continue their exchange for infinite times for its worthiness (Moorman et al., 1992; Morgan & Hunt, 1994).

Fullerton, (2005) came up with alternative theories in which affective commitment helps in building marketing relationships whereas continuance commitment erodes marketing relationships. The affective commitment somewhat mediates trust of the customers.

Commitment manifests response to customer needs in the market and thus leads to customer satisfaction (Kohli & Jaworski, 1990). Dagger et al., (2011) marked that commitment helps in maintaining the relationship between the relational partners.

Boateng & Narteh (2016), in their study on financial institutions found that dimensions like engagement and advocacy are directly affecting customer commitment whereas, personalization and collaboration are also affecting customer commitment mediated through trust. This forms the basis of our second hypothesis.

*H<sub>2</sub>: Commitment has a significant and positive impact on Customer Satisfaction*

### **2.1.3 Communication**

Communication is a two way process of informing and listening to the customers which helps in increasing customer loyalty by seeking their opinions and identifying their needs in the relationship (Sargeant, 2001). Morgan & Hunt,

(1994) postulated three sub constructs of communication as frequency, relevance, and timeliness of the communication from the organization to its customers. He also postulated that trust is directly influenced by communication and further commitment is indirectly influenced by communication mediated through trust.

Mac Millan et al. (2005) added responsive interaction from the organization as another sublevel of communication apart from informing and listening. Due to the involvement of several people in the communication process, it becomes a complex antecedent of trust. Communication majorly helps in building trust in marketing relationship by sharing relevant and timely information (Anderson & Narus, 1990; Moorman et al., 1993). It also helps in educating the customers about the benefits offered at hand, which make them trust the organization.

Sabel, (1993) found communication as a means to mature and preserve relationships and in turn preserve trust. Since, communication makes customers understand the performance outcomes of the organization, it also leads to customer satisfaction (Selnes, 1998). Proper communication with customers helps in organizational success (Schultz & Good, 2000). Communication when integrated with the marketing mix leads to customer satisfaction directly or indirectly (Othman et al., 2020).

Communication when treated as relationship advertising through responsive interaction helps building

a sense of intimacy and belongingness to the organization (Bhattacharya & Bolton, 2000) by progressing from acquaintance to build-up to continuation (Stern, 1997). It also involves extensive listening to the customers and shorting out on feedbacks they get (Duncan & Moriarty, 1998). In fact, communication induces the feelings of trust and commitment in customers (Bennett & Barkensjo, 2005). Good communication leads to organization’s profitability (Flood et al., 2000). Hence, our third hypothesis is framed as under:

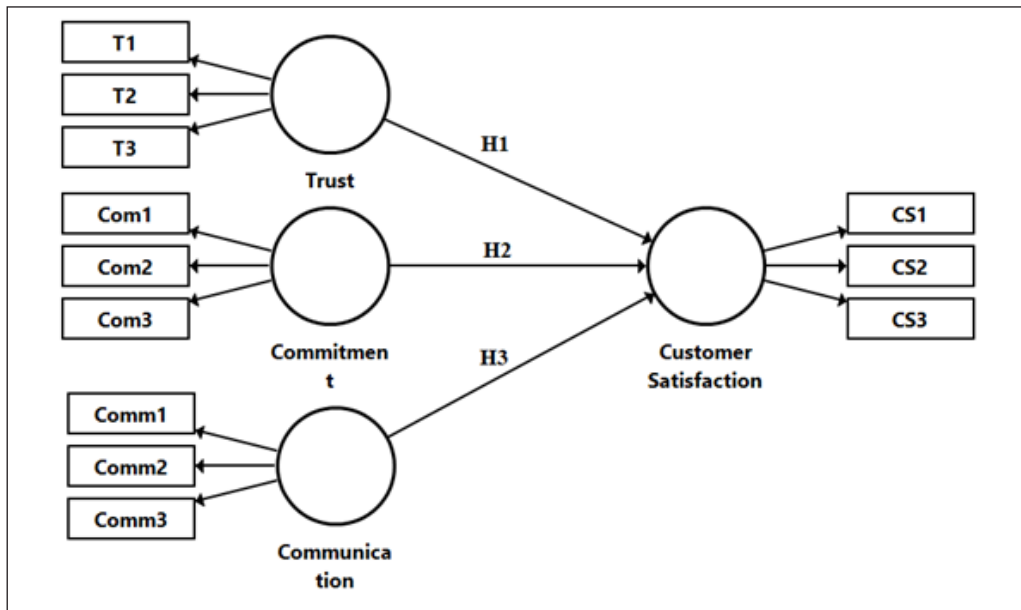
*H<sub>3</sub>: Communication has a significant and positive impact on Customer Satisfaction*

**2.2 Customer Satisfaction**

Satisfaction is the confirmation of expected performance of any product or service by the customer comparing the

returns and price of purchase (Churchill & Surprenant, 1982). This theory does not distinguish between expectations from the service itself and the service providers. Customer satisfaction is the overall evaluation of the service performance of the company by the customers (Johnson & Fornell, 1991). Selnes, (1998) proposed satisfaction as a source for trust and ranked trust as a higher degree of emotion than satisfaction.

Tahir et al. (2016) have a different take on customer satisfaction and found that customer satisfaction influences CRM drivers like trust, commitment, and communication. Customer satisfaction at times is used as a catalyst to increase trust and commitment (Rather et al., 2019). To analyze the impact of trust, commitment and communication following conceptual model is poised:



**Fig 2: Conceptual Model**  
 Source: The authors' (2023)



## Methodology

To gather data from individuals who have been consuming fast food for the past 2 years, an online questionnaire was designed specifically for this purpose. The questionnaire included multiple items corresponding to different constructs which impact the respondent's satisfaction. These constructs were carefully selected and modified to ensure comprehensive coverage of the relevant aspects related to fast food consumption. The respondents were asked to provide their responses based on the given items, enabling the collection of valuable insights regarding their fast-food consumption habits and preferences.

A total of 350 responses were initially collected through the online questionnaire. However, upon thorough screening and analysis of the data, it was determined that only 238 of these data points were deemed useful and relevant for the current study. These responses have met the necessary criteria and can therefore be utilized in the analysis and interpretation of the study's findings.

## Result

PLS-SEM can handle complex models with many variables and complex relationships between them, while ANN can handle non-linear relationships that may be difficult to model with traditional statistical methods. PLS-SEM-ANN can handle data with missing values. PLS-SEM can handle missing data by estimating the missing values from the other available data, while ANN can impute missing values using a variety

of techniques. It can provide robust results. PLS-SEM can handle non-normal data and outliers, while ANN can provide robust results even in noisy or incomplete data. It can provide better predictive performance. ANN can improve the predictive performance of the model by learning complex patterns in the data, while PLS-SEM can provide accurate estimates of the relationships between the variables. Overall, PLS-SEM-ANN can be a useful modeling approach when dealing with complex data sets, where there may be missing data, non-linear relationships, and the need for robust results and accurate predictions.

## Measurement Model

A measurement model is a statistical approach that is employed in research to explore the connections between multiple observed variables and a collection of latent constructs. The aim of a measurement model is to evaluate the degree to which a set of observed variables can adequately measure or represent a particular construct or underlying dimension of significance.

Internal consistency is demonstrated through measures such as Cronbach's alpha and Composite Reliability, which assesses the degree to which items within a scale are interrelated. High levels of reliability are important because they indicate that the measurement model variables are consistently measuring the same construct and that any observed differences are likely due to true differences in the construct being measured. The score of Cronbach Alpha and Composite Reliability is in

line with the minimum requirement of 0.7 (Cronbach, 1951; Hair et al., 2012), providing for reliability.

Secondly, the measurement model variables show evidence of convergent validity, which is the extent to which different measures of the same construct are correlated with each other. Convergent validity is demonstrated through measures such as factor loadings, which assess the degree to which items within a scale are related to the overall construct being measured. Also, a value of Average Value Extracted ( $>0.5$ ) establishes Convergent Validity. High levels of convergent validity indicate that the measurement model variables are accurately measuring the construct of interest. The factor loading and AVE score as given in Table 2 and Table 3. All the factors load to their respective construct and the loading value is above 0.6. Further, the AVE score is found to be above 0.5, hence establishing Convergent Validity.

Thirdly, the measurement model variables show evidence of discriminant validity, which is the extent to which measures of different constructs are not highly correlated with each other. Discriminant validity is demonstrated through measures such as average variance extracted (AVE), which assesses the degree to which the variance within a construct is greater than the variance shared with other constructs. High levels of discriminant validity indicate that the measurement model variables are measuring distinct constructs and are not being influenced by other variables. The Fornell & Larcker, (1981)

criterion states that the square root of the average variance extracted (AVE) of each construct should be greater than the correlations between that construct and other constructs in the study. Table 4 Support the criteria, hence establishing the Discriminant Validity.

In regression analysis, multi-collinearity occurs when two or more predictor variables are highly correlated with each other. This can lead to unstable and unreliable estimates of the regression coefficients, making it difficult to interpret the relationship between the predictor variables and the outcome variable. The VIF provides a measure of the degree of multi-collinearity between each predictor variable and the other predictor variables in the model. Table 5 provides the value of VIF. All the values are less than 3, indicating that multi-collinearity is not an issue (Hair et al., 2010).

R-squared (also known as the coefficient of determination) is a statistical measure that represents the proportion of the variance in the dependent variable ( $y$ ) that is explained by the independent variable(s) ( $x$ ) in a regression model. The value of R-squared ranges from 0 to 1, where 0 indicates that none of the variance in the dependent variable is explained by the independent variable(s) and 1 indicates that all the variance in the dependent variable is explained by the independent variable(s). The R<sup>2</sup> value for present study is provided in Table 6. The value of 0.83 indicates that 83% of variance in Customer Satisfaction can be explained by the identified independent variables.

The measurement model variables demonstrate high levels of reliability, convergent validity, and discriminant validity. These positive attributes suggest that the measurement model is a valid and reliable tool for operationalizing the theoretical constructs of interest and obtaining accurate measures of these constructs.

### Structural Model

After establishing a reliable measurement model, the subsequent stage involved analyzing the structural model to validate the theoretical paths and corroborate the proposed hypotheses using statistical methods. Smart PLS 3 was utilized to carry out a bootstrapping process consisting of 5000 sub-samples.

Based on the bootstrap analysis with 5000 sub-samples, Commitment, Communication, and Trust all have positive and significant effects on customer satisfaction, ( $t > 1.96$ ,  $p < 0.05$ ) With Trust having highest effect ( $\beta = 0.479$ ) followed by Commitment ( $\beta = 0.273$ ) and Communication ( $\beta = 0.267$ ). Finding suggests that there is a strong positive relationship between the independent variable and the dependent variable. These results provide strong evidence to support the proposed hypothesis and the validity of the structural model. The outcome is listed in Table 7.

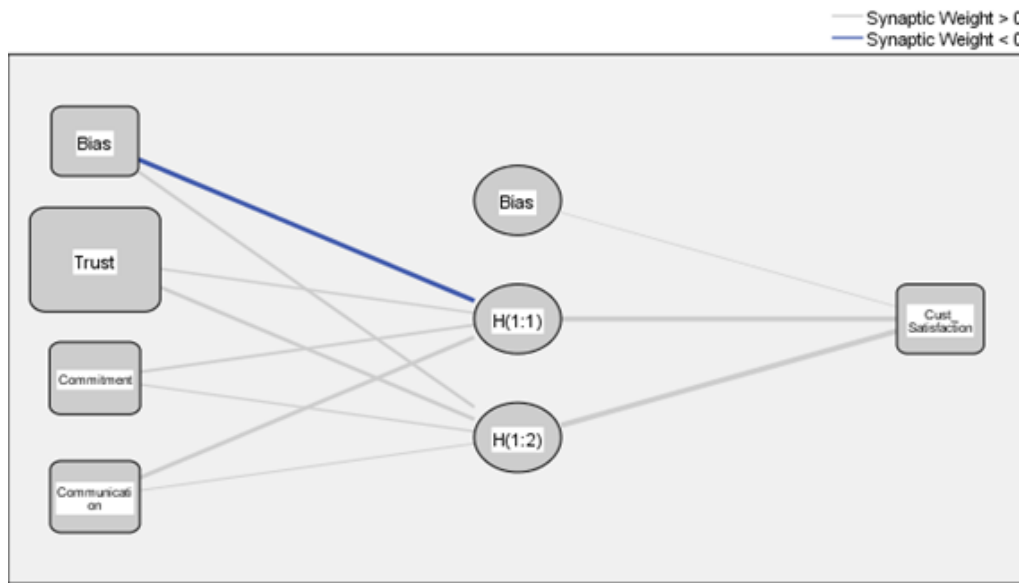
According to the results, it can be inferred that Trust ( $\beta = 0.479$ ) has the most substantial influence on Customer Satisfaction. The impact was found to be statistically significant ( $t > 1.96$ ;  $p < 0.05$ ). Moreover, Commitment ( $\beta = 0.273$ ) and Communication ( $\beta = 0.276$ ) were found

to have comparable impact on Customer satisfaction. Although Commitment slightly outperformed Communication in terms of influence, both constructs significantly contributed to Customer Satisfaction ( $t > 1.96$ ,  $p < 0.05$ ). Hence, the findings of the present study support all three formulated hypotheses.

Further, to confirm the finding of Smart PLS, authors have applied Artificial Neural Network. Using ANN to check the results of Smart PLS can provide researchers with additional insights, particularly in terms of predictive accuracy, handling missing data, and capturing non-linear relationships. It can serve as a complementary approach to validate and cross-validate the results obtained from Smart PLS, enhancing the robustness of the analysis, and contributing to a more comprehensive understanding of the underlying relationships in the data.

### ANN Analysis

Using the training dataset, an ANN model (Fig. 3) was developed to predict the values of dependent variables based on the independent variables identified in the Smart PLS model. The ANN model was trained using the training dataset (90%), and its performance was evaluated using various metrics, including root mean squared error (RMSE). The model was tested using the testing dataset (10%) to assess its generalization capability. The architecture of the ANN model consisted of one layer with three neurons in each layer. The activation functions and optimization algorithm used were Hyperbolic tangent and Identity respectively.



Hidden layer activation function: Hyperbolic tangent

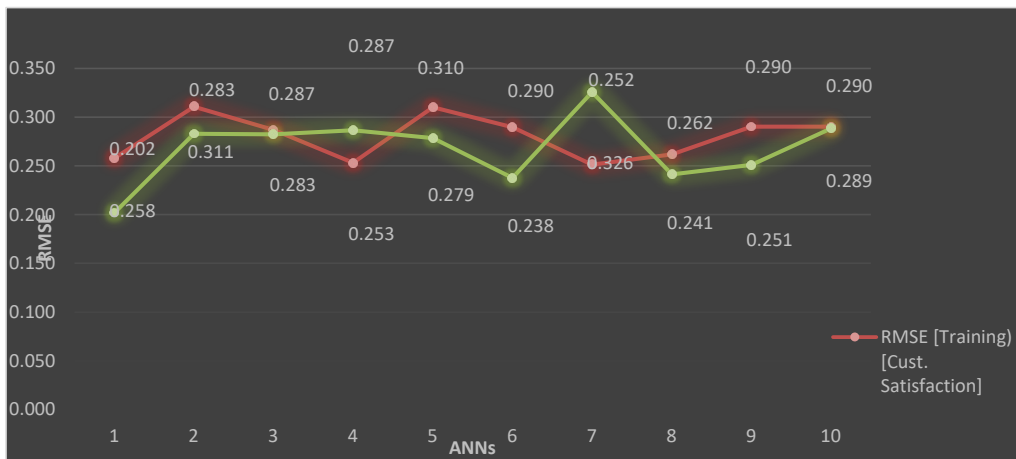
Output layer activation function: Identity

**Fig 3:** Artificial Neural Network (ANN) Diagram

Source: The authors' (2023)

Additionally, in Figure 4, it can be observed that the average root mean square error (RMSE) for both the training and testing samples is considerably low, with values of 0.278

and 0.268, respectively. These values fall within an acceptable range, indicating that the ANN model demonstrates minimal error.



**Fig. 4:** Root Mean Square of Error across ANN iteration

Source: The authors' (2023)

To mitigate overfitting, a tenfold cross-validation technique was employed. Table 8 presents the root mean square error (RMSE) values for both the training and testing samples, as well as the absolute difference between them.

To assess the predictive power of each input feature, a sensitivity analysis was conducted, and the results are presented in Table 9. The normalized importance of these features was obtained by calculating their relative importance divided by the maximum importance. The findings indicate that Trust is the most dominant feature, with a normalized importance of 100%. This is followed by Commitment with a normalized importance of 57% and Communication with a normalized importance of 55%.

The ANN model's predicted values were compared to the values obtained from the Smart PLS analysis to assess the reliability and validity of the Smart PLS results. The comparison revealed a strong similarity between the predicted and observed values. This similarity was further supported by the normalized importance scores, where Trust was assigned a 100% importance, indicating its highest impact on Customer Satisfaction. Communication and Commitment followed in importance, mirroring the findings of the Smart PLS analysis. Additionally, the impact of Commitment and Communication was comparable, with Commitment having a slight advantage over Communication. Thus, the results obtained from the ANN analysis align with the findings of the Smart PLS analysis, further reinforcing their coherence.

## Conclusion

The study's findings reveal that Trust has the highest impact on customer satisfaction within the fast-food industry. This finding is further supported by the importance given to Trust in both the Smart PLS and ANN analyses. For instance, in the Smart PLS analysis, Trust was found to have a significant positive relationship with customer satisfaction, with a beta coefficient of 0.479. Similarly, in the ANN analysis, Trust was identified as the most dominant feature, having a normalized importance of 100%. These results indicate that customers' trust in fast food establishments plays a crucial role in determining their overall satisfaction. Furthermore, the study also highlights the significance of Commitment and Communication, which follow Trust in terms of importance. This emphasizes the importance of establishing a committed relationship with customers and ensuring effective communication channels to enhance customer satisfaction in the fast-food industry.

## Theoretical Implications

The theoretical implications of the findings are significant for the field of customer satisfaction research in the fast-food industry. The identification of Trust as the primary driver of customer satisfaction highlights the importance of establishing and maintaining trust-based relationships with customers. This finding aligns with theories such as social exchange theory, which emphasize the significance of trust in fostering positive customer experiences and loyalty.

Furthermore, the study's confirmation of the impact of Commitment and Communication on customer satisfaction provides additional theoretical insights. Commitment signifies the dedication and loyalty of fast-food establishments towards their customers, which can enhance overall satisfaction. Effective communication channels enable clear and timely information exchange, fostering better understanding and meeting customer expectations.

These findings contribute to the existing body of knowledge by affirming the relevance of these constructs in the fast-food industry specifically. The study adds empirical evidence to support theoretical frameworks and models that emphasize the importance of Trust, Commitment, and Communication in shaping customer satisfaction.

Moreover, the use of both Smart PLS and ANN in this study reinforces the robustness and validity of the findings. The integration of these two analytical approaches provides a comprehensive understanding of the relationships between variables and validates the results through different methodologies. This demonstrates the value of utilizing multiple methods to strengthen theoretical explanations and enhance the reliability of research findings.

Overall, the theoretical implications of this study shed light on the underlying mechanisms that drive customer satisfaction in the fast-food industry. These insights can guide practitioners in developing strategies and initiatives aimed at building trust, fostering commitment, and improving

communication to enhance customer satisfaction and loyalty.

### **Managerial Implications**

The managerial implications of the findings are crucial for managers and decision-makers in the fast-food industry. The insights from the study can guide them in developing effective strategies and making informed decisions to improve customer satisfaction and drive business success.

Managers should prioritize initiatives that build and maintain trust with customers. This includes ensuring product quality, providing transparent information about ingredients and sourcing, and delivering on promises made in marketing and advertising materials. By focusing on building trust, managers can foster long-term customer loyalty and positive brand perception.

Managers should invest in comprehensive training programs to equip employees with the necessary skills and knowledge to provide exceptional customer service. Employees should be trained in effective communication, conflict resolution, and problem-solving to handle customer inquiries and complaints professionally. Engaging employees through incentives, recognition, and empowerment can also contribute to positive customer interactions.

Managers should prioritize enhancing communication channels to ensure timely and accurate information delivery to customers. This includes optimizing online platforms, social media channels, and mobile apps for seamless and efficient communication.

Regularly updating customers about promotions, new offerings, and responding promptly to their queries and feedback can significantly improve customer satisfaction.

### **Limitation**

Despite the valuable insights gained from this study, it is important to acknowledge its limitations. Firstly, the study has been conducted on a limited sample size, which could affect the generalizability of the findings. The results might be specific to the selected participants or context, and caution should be exercised when applying the findings to a broader population. Next, the study focused on fast food industry, which might limit the generalizability of the findings to other industries or sectors. Factors unique to the fast-food industry might have influenced the results. Lastly, the study relied on self-

reported data from online questionnaire, which can be subject to response biases and social desirability effects.

Despite its limitations, this study serves as a catalyst for future research on customer satisfaction in the fast-food industry, uncovering several promising avenues for further investigation. Future studies can explore the inclusion of additional variables that may impact customer satisfaction, such as service quality, price perception, menu variety, and convenience. Investigating the interplay of these variables can provide a more comprehensive understanding of the drivers of customer satisfaction. Also, conducting a comparative analysis across different fast-food chains or brands can offer valuable insights into the factors that differentiate customer satisfaction levels among various establishments.

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