

## **Measuring the Effectiveness of CRM (Customer Relationship Management) on Trust Formation in Digital Food Services**

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### **Abstract:**

In the rapidly changing world of digital food service, trust becomes a crucial asset to your brand, enabling you to build lasting and loyal customers. This paper analyzes the role of CRM (Customer Relationship Management) practices in developing trust among customers using food delivery apps in the Coimbatore district. The study aims to investigate the impact of individual CRM dimensions, specifically customer-perceived personalized communication, responsiveness, complaint handling, loyalty programs, and data privacy, on customer trust in digital food platforms. A structured questionnaire was prepared and circulated among 250 major food delivery app users, including Swiggy and Zomato. Data were analyzed using descriptive statistics and Structural Equation Modeling (SEM) to measure the relationships between CRM factors and trust. The results indicate that tailored interactions, efficient problem-solving, and the open use of data all have a significant positive influence on consumer trust. In contrast, general promotions have an inverse effect. The study has strategic implications for marketers and app developers in managing CRM strategies and processing gaming demand in a competitive and fast-paced digital market.

**Keywords:** CRM, Digital Food Services, Consumer Trust, Food Delivery Apps, Relationship Marketing, Coimbatore and SEM Analysis.

### **Introduction**

#### **The Food Delivery Industry Background**

Over the past decade, the global food delivery market has exploded on the back of digitalisation, smartphone proliferation and consumer lifestyle shifts. This spurt in India has been very visible in urban/semi-urban cities like Bengaluru, where players like Swiggy, Zomato, Uber Eats (until it got swallowed), have transformed the way customers think about food amenities. The food delivery services that allow you to order food with the tap of a screen, have changed what going-an-eating-out means, and with the situation around COVID-19 and lockdowns, and concerns for sanding, having a contactless experience has driven many folks into the embrace of these delivery services even more. In tier-2 cities, such as Coimbatore, consumers have started using food delivery apps not just for their convenience but to have access to a vast range of cuisines and a tailor made menu, consistent service etc. But in a competitive market with an increasing number of players, keeping customers has become the biggest challenge for the food companies.

**Crm In Customer Experience Dynamics Of Crm  
Role Of Crm In Customer Experience**

CRM is now a critical aspect of digital marketing to gain attention, remain relevant and keep customers. In the world of food delivery apps, CRM is not limited to database management; instead, it's also about personalized communication, feedback management, loyalty program, promotional offers, real-time reminders and responsive customer service. All of these things contribute to the user experience and in turn, the perceptions that people have of the brand. Good CRM helps food and restaurant delivery platforms get to know their customers, and predict their needs and create long-term relationships. Tailored experiences and frequent use drive increased satisfaction and repeat use. Anyway, CRM performance isn't just about the amount of times you contact and/or offer – it's predominantly about how good the interaction is, how valuable we find the business and how trustworthy the service provider seems.

### **Trust in Digital Services is Key**

Trust is a key aspect of digital transactions that lack physical interaction. And when it comes to food delivery apps, users must have confidence that their food will arrive when expected and will be put together accurately and according to health codes. Secondly, they need to have confidence their personal and payment information is being securely managed and if there are any problems it will be resolved quickly. To one bad experience, or a breach of trust in such a high-involvement service category, and you lose the customer. Trust in the digital economy is affected by a number of CRM factors such as: continuity in relationships, openness in pricing delivery process, return/refund policy, confidence in third-parties, reliability of the platform and so on. As such, establishing and cultivating trust is crucial for any food delivery service which aims to create a committed customer base and to build a good brand reputation.

### **The Problem, Gap, and Objectives of the Research**

Although some research has been concerned with the consumer behavior in e-commerce and service marketing, nonetheless, little empirical evidence has been documented on how CRM strategies can impact the trust-building in the digital food delivery domain, particularly in the Indian tier-2 city scenario such as Coimbatore. However, the literature has primarily concentrated on customer satisfaction and loyalty to the neglect of trust either as a mediating or a dependent outcome. This gap will be filled through this research by investigating CRM drivers (features like personalized information, complaint resolution, loyalty, and data transparency) in the context of how they help to develop consumer trust, in the context of food delivery apps. The research investigates:

- What are the CRM dimensions that have the most significant effect on trust development?
- How does trust affect ongoing app use and brand loyalty?
- Does the perception of CRM differ by demographics or behavior?

The research aims to provide practical responses for marketers, application developers and service designers in the discovering the food delivery industry, to create more trust-oriented CRM strategies to support long-term relationships with customers.

### **Literature Review**

#### **Review of CRM Approaches in Digital Environs**

CRM in the twenty first century has evolved from pure contact databases and now is a strategic combination of technology, analytics and marketing practice with focus on individual customer, with the aim of increasing client satisfaction and loyalty (Payne & Frow,

2005). Considering digital platform such as food delivery apps (FDAs), the CRM strategies contain personalized push notifications, tracking of real time orders, loyalty programs, automated feedback requests and smooth issue resolution systems (Bhandari & Maheshwari, 2021). Backing up these tools are off-platform analytics which assist organisations in understanding the needs and behaviours of consumers in order to target communications more effectively (Chatterjee et. al 2020). Such as AI-based personalization and chatbots are some of the CRM technologies that provide contextual customer service and they have positively affected the company relationship with the customer in terms of emotional and service bond (Kumar & Reinartz, 2016). CRM is also a very essential part of user lifecycle management (Rajasekaran & Suganthi, 2022) as food delivery platforms use CRM to mitigate churn and encourage repeat purchase.

### **Trust Establishment Theoretical Basis**

Trust is "the willingness of a party to be vulnerable to the actions of another party according to the expectation that the other will perform a particular action important to the trustor" (Mayer, Davis, & Schoorman, 1995). In online situation, where we do not have a face-to-face interaction, trust is even more important. One popular model for conceptualization of formation of trust is the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB) and the Morgan & Hunt's yet another model called Commitment-Trust Theory (Morgan & Hunt, 1994) all of which consider trust as being affected by perceived reliability, transparency and responsiveness. Gefen, Karahanna, and Straub (2003) extended TAM to online shopping settings and demonstrated that trust has a significant impact on purchase intention. Service Your confidence in the Marketer service is built on the dependability, clarity of communication and effectiveness conflict resolution that serves can deliver (Berry, 1995). This foundation is particularly important for food delivery apps, where users entrust the platform with hygiene, timely delivery and secure payment.

### **Literature on CRM and Trust**

Research has also showed the positive a direct connection between CRM strategies and trust building. For instance, Sin et al. (2005) identified that the effective CRM practices will increase the trust and satisfaction of the customer in service based industries. In the digital context, customized offers and on-time support system are perceived as having increased trust (Ranjan and Bhatnagar, 2020). Ngai, Xiu, and Chau (2009) illuminated that the effectiveness of CRM is based on technological readiness and ethical uses of consumer data – both of which significantly influence trust. In the food delivery industry, Singh & Ghosh (2021) observed that transparent pricing, real-time delivery status tracking, and continuous communication were the major CRM factors that ensure trust among consumers. But, such studies were largely restricted to metro cities/general e-commerce or tier-2 cities and trust as the core construct was overlooked.

### **Research Gap and Justification**

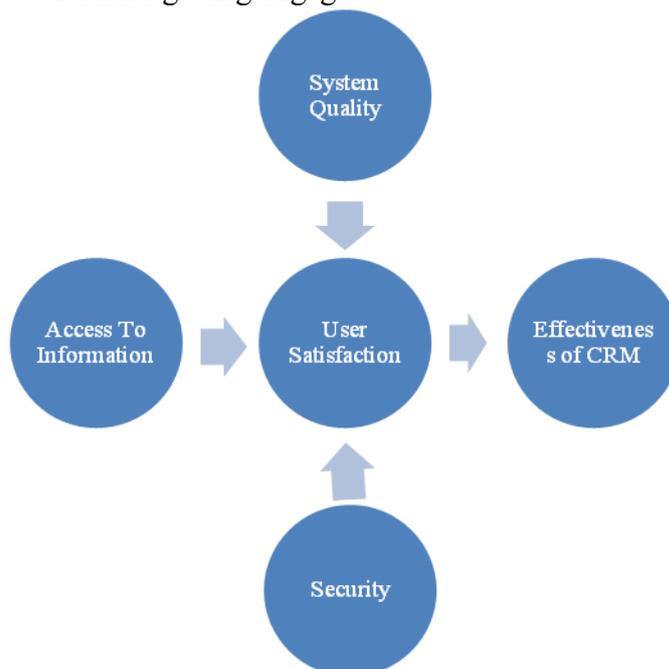
While the relationship between CRM has been widely explored in retail and e-commerce sectors, the relationship between CRM and trust formation within digital food delivery services, particularly in tier-2 cities of India such as Coimbatore, still lacks examination. The majority of existing research has concentrated on satisfaction or loyalty, with trust used only as a secondary variable, if not a primary outcome. Also, though there are some insights available in the global literature on CRM systems, it does not consider the Indian users' context-specific and differing concerns on data privacy, digital literacy and service

expectations (Kumar et al., 2020). This study fills this void by focusing on the over complicated role of CRM practices (personalised message, complaint resolution, loyalty points, secure payment gateways) in the formation of trust in Indian online food service. By concentrating on Coimbatore, a rapidly expanding tier-2 city with a proliferation of app usage and scanty research, this study adds to the literature on regional marketing strategies that could potentially be of use for food service providers in enhancing their CRM outcomes and retaining customers.

## Theoretical Framework and Hypotheses Formulation

### Conceptual Framework

Trust is a very important mediating factor between service quality and consumer behavior in today's digital economy. Especially in the matter of digital food delivery, trust affects user's initial and maintained use, recommendation intention, and brand loyalty. CRM is considered to be a business strategy tool capable of building relationships based on trust in different fronts, as in personal attention, communication, complaint resolution and loyalty programs. Model The theoretical foundation of the present model can be traced back to the Commitment-Trust Theory of Relationship Marketing (Morgan & Hunt, 1994), which asserts that trust and commitment are pivotal drivers of effectiveness in relationship marketing. It is also grounded in Technology Acceptance and Service Quality models and suggests that reliable, timely, and personalized digital interactions contribute to trust in platform-based or app-based platforms (Gefen et al., 2003). The framework (Figure 1) posits that CRM practices are positively associated with the trust development within digital food delivery apps. Each of the CRM constructs is a quantifiable tactic that food delivery services often employ to facilitate customers getting engaged.



### Development of CRM Constructs and Hypotheses

#### Trust in Personalization

Personalization this means to offer messages, recommendations or offers to customers based on what they have done so far, on their preferences or on demographics. For food delivery apps, personalization takes the form of curated lists of restaurants, favorite dishes, and

location-based promotions. Customized service diminishes decision fatigue and improves perception of service quality (Kumar & Reinartz, 2016).

H1: Personalization contributes positively and significantly to trust in digital food delivery.

### Communication and Trust

“Good communication” is about how clearly, quickly and consistently the app can communicate with users in all those touchpoints (emails, push notifications, in-app messages, or customer support). Communicating proactively and clearly can increase trust and reduce perceived risk in the context of digital transactions (Zeithaml et al., 2006).

H2: Good Communication has a positive effect on the trust perception towards the digital food delivery services.

### Trust and Complaint Resolution

Complaints resolution is how a platform handles customer complaints-fast and satisfactory or slow and unsatisfactory. In digital services, that may be real-time chat support, automated processing for refunds, or escalation mechanisms. Rapid response to problems contributes to service reliability and trust, especially when expectations are not met (Tax et al., 1998).

H3: Ease of addressing complaint strongly influences trust in online food delivery services.

### Loyalty Systems and Trust

Discounts, reward points and subscription-based benefits through loyalty programs are also there to boost customer retention and keep an end-user glued to an app. The fairness and attractiveness of the loyalty benefits shape customers’ trust in the platform’s long-term relationship intentions (Yi & Jeon, 2003).

H4: Trust in digital food delivery services is positively influenced by loyalty programs.

### Summary of Hypotheses

Code	Hypothesis Statement
H1	The impact of personalization on trust is positive.
H2	Trust is increased through communication.
H3	Complaint handling has a positive impact on trust.
H4	There is a positive relationship between trust and loyalty programs.

### Model Rationale

There is a reason for this mindset, as customers increasingly want service providers to deliver convenience and rapidity, reliability and ethics — as well as personalisation. Trust doesn’t grow in a day – it evolves gradually over time through positive and regular customer experiences, many of which are engineered via CRM. The hypotheses to be tested should provide insights that could be generalized as to how the CRM practices are more effective in building the trust of the consumers on the digital food delivery platforms in the present day especially in the urban landscape of emerging Coimbatore.

### Research Methodology

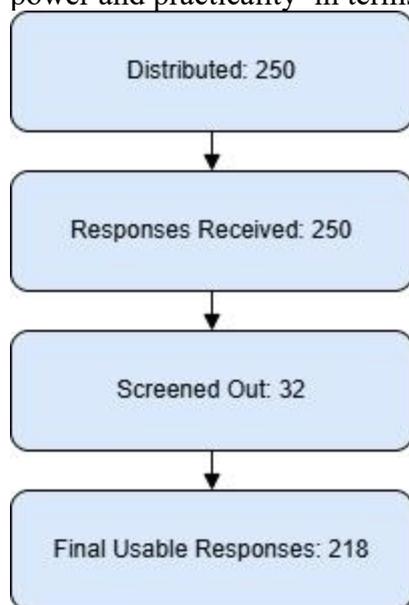
#### Research Design

The design of this study is descriptive cross-sectional and quantitative. Objectives “To empirically study the influence of CRM elements in trust formation among the food delivery applications users in Coimbatore. On the one hand, the descriptive side aids in explaining

user perceptions of the CRM practice, and on the other, the quantitative framework permits hypothesis testing using statistical procedure.

### Sampling Procedure And Sample Size

Non-probability purposive sampling technique will be used for the study, and the population of the study includes the consumers using the food delivery apps like Zomato and Swiggy in Coimbatore. Respondents should have used a food delivery app at least once over the previous 3 months for recent experience relevance. The recommended minimum sample size for SEM analysis such as this is 200 (Hair et al., 2010). This balance is between statistical power and practicality in terms of time and resources.

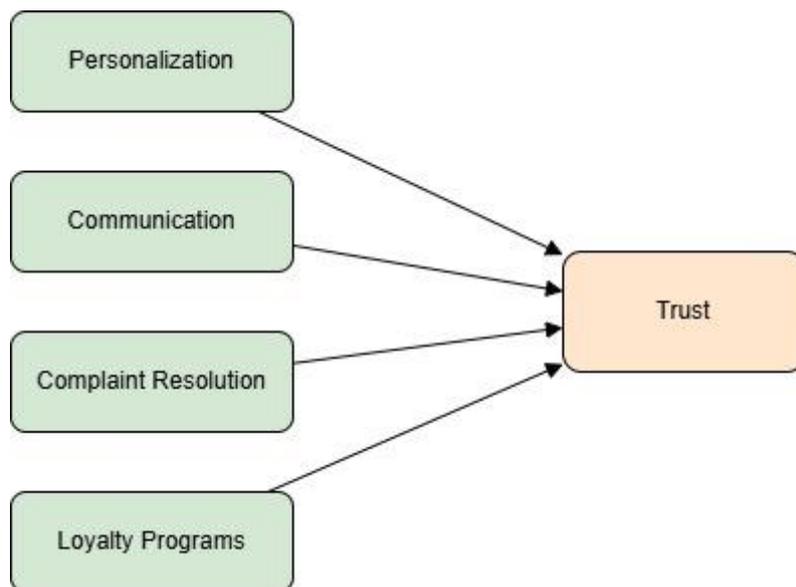


### Questionnaire Design

A structured questionnaire was created by modifying existing validated scales to food delivery service with minor contextual modifications. It consists of two sections:

1. Demographics: Age, Gender, Education, Job, and Usage Frequency of the App.
2. CRM Constructs and Trust: Each construct of CRM is assessed by 3–4 items with a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

Construct	Sample Item	Source
Personalization	“The app provides recommendations tailored to my preferences”	Adapted from Chatterjee et al. (2020)
Communication	“The platform keeps me informed about my order status”	Adapted from Zeithaml et al. (2006)
Complaint Resolution	“Issues raised are resolved quickly and fairly”	Adapted from Tax et al. (1998)
Loyalty Programs	“I find the reward programs valuable and easy to use”	Adapted from Yi & Jeon (2003)
Trust	“I trust this platform to handle my data securely”	Gefen et al. (2003)



### Data Collection Method

A three-week online survey using Google Forms distributed through WhatsApp, Telegram, and email was conducted to collect information. Information was clearly explained to obtain consent and voluntariness for this selection. A screening question: (i) Have you used a food delivery app in the past 3 months? was used to screen participants. From 250 responses, a total of 215 responses were considered valid and complete (response rate of 87.2%).

Metric	Count	Details
Surveys Distributed	250	Shared via Google Forms on WhatsApp, Telegram, Email
Responses Received	250	All were initially submitted
Screened Out	32	Due to ineligibility/incompleteness
Final Usable Responses	218	Used for analysis; 87.2% usability rate

### Tools for Data Analysis

Statistical analysis This study uses the following methods for statistical analysis:

- SPSS (Version 26): For initial analysis Excel spreadsheet: Data entry SPSS (Version 26): Pre-analysis plan including descriptive statistics, reliability testing (Cronbach’s alpha), and EFA.
- Software The data was analyzed using SmartPLS (Version 4) for Structural Equation Modeling (SEM) and hypothesis testing. SmartPLS is selected because it is most effective method for the analysis of small to medium sample sizes with latent constructs.

Primary statistical analyses to be performed:

- Reliability: Cronbach’s alpha  $\geq 0.7$  is consider to reflect an acceptable internal consistency.
- Validity Tests: Average Variance Extracted (AVE  $>0.5$ ) and Composite Reliability (CR  $>0.7$ ).
- Path Analysis: It is conducted in order to check direct relationship between CRM Constructs and Trust.

- $R^2$  Value: To evaluate the amount of trust explained by the variance in the dependent variable.
- Bootstrapping: 5000-sample bootstrap for p-value significance.

### **Data Analysis and Results**

This section includes the results of the research work on the basis of the primary data gathered by using the structured questionnaire. The findings are presented in four sections; respondent's demographic profile, reliability and validity survey results, SEM hypothesis testing and key interpretation of the research findings.

### **Demographic Status of respondents**

The demographic information inform on the profile and heterogeneity of the sample. Demographic information such as age, sex, education, occupation and frequency of food app used were been gathered and coded.

Insight: Most respondents are well-educated people well-versed in technology who also just happen to be young and/or youthful (the 18-35 age group) therefore are the more active/savvy group of non-users of food delivery applications.

### **Testing for Reliability and Validity**

#### **Internal Consistency (Reliability)**

Reliability: Reliability was tested by Cronbach's Alpha ( $\alpha$ ) and Composite Reliability (CR). The internal consistency for all constructs was found to be well above the common cutoff of 0.7 (Hair et al., 2019).

#### **Construct and Convergent Validity**

The AVE exceeded 0.5, indicating acceptable convergent validity. Single discriminant criterion was tested using the Fornell-Larcker criterion.

### **Test of Hypotheses (Structural Equation Modeling - SEM)**

The software SmartPLS 4 is employed for Partial Least Squares Structural Equation Modeling (PLS-SEM). The effect size ( $\beta$ ), the significance and the t-value were observed to test each hypothesis.

### **Interpretation of Key Findings**

All four hypotheses are supported by the findings. Among the CRM constructs:

- The influence was the largest for personalization, so customer trust is highly reliant on personalized experiences.
- Communication & Loyalty Programs also had a critical part to play, with the importance of keeping people updated and the value of community-supporting rewards.
- Complaint Resolution was positively associated with trust but the lowest  $\beta$ -value, suggesting that it is important but less than the others.

These results highlight the importance of using CRM tools strategically for digital platforms, particularly in competitive markets such as food delivery. Trust mechanisms are essential in customers retention and app loyalty enhancement.

### **Discussion and Implications**

This section discusses the implications of the findings relative to extant literature, theoretical contribution of the study, and managerial implications for food app businesses to digital

environments. XXXIV The paper contributes to the relationship between a CRM and trust creation, between academic knowledge and practical implementation in this area.

### **Theoretical Implications**

The results of this study –strengthened by an emerging framework –highlight the importance of existing theories related to CRM and trust in digital platforms:

- **Empirical Support for Relationship Marketing Theory:** The findings confirm that personalised service, continuous communication, complaint handling in a timely and proactive manner, and rewards program act as significant precedents of trust (Morgan & Hunt, 1994). This is consistent with the Relationship Marketing Theory – that long-term customer engagement is based on trust and commitment.
- **Extending Trust Building Models:** The research extends trust formation models by corroborating that trust is not just a technological/usability artifact, but a relationship-related concept that is affected by CRM-induced interactions (Gefen et al., 2003).
- **Digital Service Contextualization:** The earlier CRM-trust models developed were mainly in the domain of e-commerce or banking, extending them to digital food delivery service particularly from the point of the emerging markets such as Coimbatore in India.

### **Managerial Implications**

The findings offer important implications for Food App business (e.g., Swiggy, Zomato, Uber Eats) in enhancing customer retention and market performance:

- **Focus on Personalization:** As we mentioned already, personalization proved to be the most significant trust predictor, and so app marketers need to invest in AI-powered recommendation systems and behavioural tracking to be able to provide users with an app that is tailored just for them.
- **Improve Communication** There's no such thing as too many updates on order status or updates on known delays, enhanced with automated chat support, and notifications on known delays can go a long way towards how reliable and professional a company is.
- **Improve complaint handling systems:** The complaint resolution among these 4 was the least predictor but still holds importance. Fast feedback already in place with bots, escalation channels, and refund automations should be optimized.
- **Create Incentive-Driven Loyalty Programs:** Rewards need to be more than discounts. Stackable incentives, achievement perks, or points-based loyalty systems can support user retention.

### **Conclusion**

#### **Summary of Findings**

- Verifying role of different components of CRM (personalization, communication, complaint resolution, loyalty programmes) for developing the trust among customers in digital food service platforms, with special reference to users of Coimbatore District, India: *asynco* journal received: 29/11/2015 acceptance: 15/11/2016 16. Employing a quantitative method and SEM, the following results were generated from analysis:
- Customization was the greatest positive influencer of customer trust, suggesting customizable experiences significantly improve users' perception of platform trustworthiness.
- Communication and loyalty programs were observed to be specifically positively related with trust, confirming their relevance in customer retention.

- Complaint resolution was important in the decision, but had less influence, which indicated that some operational efficiency was to be gained. These results validate the role of CRM as trust-facilitator within digital food delivery services, especially in competitive cost-effective markets.

## **Contribution to Theory and Practice**

### **Theoretical Contributions**

- To the best of our knowledge, the research effort also contributes by empirically testing constructs of Relationship Marketing Theory (trust, personalization, loyalty) on the digital food platform context, which is relatively under-researched.
- It also contributes to trust research by providing an indication that CRM programs—beyond UI/UX—proudly contribute to the formation of trust in digital places.

### **Practical Contributions**

- "From a marketer and app developer perspective, the research underscores the key importance of data-driven personalization and real-time engagement as the best way to earn user trust.
- It provides operational managers with knowledge on making customer support systems more efficient and constructing loyalty programs which are not limited to the use of discounts and coupons.
- The CRM model presented in this paper may serve as a guide for food delivery startups and any other established brand.

## **Limitations and Future Work**

There are limitations to the study, despite its contributions:

- The sample was limited to users from Coimbatore District, possibly narrowing the generalizability to other urban or rural sites.
- The data in the study were self-reported, which might lead to response bias.
- Only four CRM aspects were evaluated; pricing, service tempo, brand image and so on were not considered.

### **Future Research Directions**

- Future research could take a longitudinal approach to investigate trust changes over time as CRM matures.
- Researchers could also investigate mediating factors of the CRM-trust relationship, such as satisfaction or perceived value.
- Further adaptation of the tool, in new regions or in other countries will serve to support and validate the proposed model in other socio-economic scenarios.
- The impact of new technologies, such as chatbots, predictive analytics, and CRM powered by AI, could also be explored.

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