

Trust and Consumer Satisfaction in Smart Food Delivery Applications: Examining the Role of Competence, Benevolence, and Integrity

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Abstract

Smart Food Delivery Applications (SFDAs) are fast becoming ubiquitous in the food space and have revolutionized the way food is accessed, offering consumers new convenience through technology. But in addition to their convenience, customer fulfilment could very much rely on how these platforms are perceived as trustworthy. This paper draws from McKnight's Trust Model, which focuses on three dimensions (perceived competence, perceived benevolence and perceived integrity) of the consumer's trust and then explores their impact on the consumer's satisfaction regarding SFDAs in Bangladesh. A quantitative, cross-sectional research design was used, and the data were obtained using a structured questionnaire and convenience sampling. There were 152 responses, of which 120 were usable and used. Established scales and five-point Likert scales were used to measure the constructs, and SPSS 27.0 was used for multiple regression analysis. The results show that perceived benevolence has the highest positive and significant correlation with consumer satisfaction ($\beta = 0.633$, $p < 0.001$), and perceived integrity has the next highest positive and significant correlation with consumer satisfaction ($\beta = 0.254$, $p = 0.006$). However, when perceived competence is tested, it does not have a significant influence on satisfaction ($\beta = -0.028$, $p = 0.659$). The variance in consumer satisfaction is accounted for by the three trust dimensions together to 67.9%. The results underpin the need for relational trust among SFDAs, specifically benevolence and integrity, to increase consumer satisfaction and offer some implications for digital food delivery services in Bangladesh.

Keywords: Smart Food Delivery Applications (SFDA); Consumer Satisfaction; Trust; McKnight's Trust Model; Bangladesh.

1. Introduction

The rapid expansion of digital platforms in the past decade has resulted in shaping consumers' search, purchase, and food service experiences online (Chakraborty, 2025; Tan et al., 2024). Smart Food Delivery Applications (SFDAs) have been a key part of this change as they combine restaurant discovery, digital ordering, online payment, delivery tracking and customer support in one application (Tokkozhina et al., 2024). The rise of these apps has made life easier and more flexible for consumers, but has also launched a fierce battle for the consumer's attention among service providers, as they strive to deliver the best service possible (Ramesh et al., 2023; Shayala, 2024). In this context, customer satisfaction serves as a crucial metric for the effectiveness and viability of food delivery services.

While some functional attributes like convenience, delivery speed, application usability, price and service quality have an impact on consumers' assessment of food delivery applications, satisfaction is not accounted for by these

technological and utilitarian aspects (Zaheer, Anwar, Iantovics, et al., 2024). App-based food delivery relies heavily on the app and other actors in the service, which differs from conventional food purchasing methods. Customers might not know how accurate restaurant information is, how the food is prepared, how the orders are handled, the payment process, how the orders are delivered and how service failures are resolved (Hong et al., 2025; Malik et al., 2025). This introduces some uncertainty and information asymmetry, which is important in consumers' assessment of digital food services. Trust was also found to be a key determinant related to satisfaction, perceived value, loyalty and future usage in prior studies on online food delivery (Chakraborty, 2025; Su et al., 2022).

In the emerging digital market like Bangladesh, the importance of trust becomes crucial. The rise of smartphones, online services, online payments and platform-based consumption has paved the way for the growth of online food delivery (Saad, 2020). But the value of such platforms is not only determined by their technical and operational features—it also relies on consumers' trust that the platform will act reliably and in their interest. Consumers' perception of the platform can be affected by various issues, including inaccurate information, hidden charges, delays in delivery, complaint management, service uniformity, and concerns about transactions. Hence, it is important to understand the psychological basis for satisfaction for the food delivery firms working in Bangladesh.

There is an increasing amount of literature about online food delivery, but most of the studies have been conducted on such variables as perceived usefulness, convenience, service quality, perceived value, performance expectation, and behavioural intentions. These factors offer good insights into consumer behaviour, but comparatively less focus has been on the dimensions of consumers' trusting beliefs that could affect their satisfaction. Looking at trust as a whole construct also masks the significant differences in consumer perceptions of a digital service provider. Technically, a platform could have the ability to serve customers, but it's perceived as being unconcerned about their needs, or it could be a platform that's good for their customers but is not technically competent. An analysis of the individual dimensions of trustworthiness may thus be helpful to provide a more fine-grained understanding of consumer satisfaction.

To fill this gap, the study presented here relies on the theoretical framework of McKnight's Trust Model, which helps understand trust in technology-mediated environments. The model is conceptualised as trust beliefs represented by three dimensions: ability/competence, benevolence, and integrity of a service provider. Perceived competence indicates how consumers feel the platform can perform the platform functions and has the knowledge or skills needed to do so effectively. Perceived benevolence is the degree to which the platform has consumers' interests and welfare in mind, whereas perceived integrity is the belief that the platform is honest, reliable, and works within acceptable standards. These dimensions can be used in the SFDA context to help go beyond the general assessment of trust and focus on which aspects of trust are most important to consumers' satisfaction.

Based on this, the primary objective of this study is to explore the impact of consumers' trusting beliefs on their satisfaction with the Smart Food Delivery Applications in Bangladesh. Specifically, the research focuses on how consumer satisfaction is affected by three constructs: perceived competence, perceived benevolence, and perceived integrity. The study aims to help advance the research on digital consumer behaviour by providing greater insight into the relative importance of the various dimensions of trust in the post-use evaluation of food delivery applications. The study also offers practical advice for SFDA providers who want to further enhance consumer satisfaction based on reliable, transparent, and consumer-friendly digital service practices.

The study's rationale relates to growing trust in digital consumption and a need to identify whether varying trustworthiness components are equally effective in satisfying consumers. Technical competence can make an application work, but the consumer might also be entitled to an application that acts in an honest and caring manner toward the consumer. The relative influence of these dimensions can thus be helpful in theory and management, especially in the food delivery market in developing countries like Bangladesh.

2. Review of Literature and Development of Hypotheses

Trust has evolved as an important construct in consumer behaviour in digitally mediated service settings (Kitsios et al., 2022; Pathak & Bansal, 2024). Compared to traditional service encounters, online food delivery requires limited direct contact between consumers and restaurant, delivery, and platform providers (Goyal et al., 2023; Raza et al., 2023). Consumers have to trust the platform to give them accurate information, process transactions securely, order products as promised and act in case of issues. This dependence results in consumer uncertainty and the relevance of trust, especially in their post-use evaluations and satisfaction. Past studies on online food delivery have found that trust is linked to perceived value, satisfaction, loyalty, and future usage of the online platform (Hong et al., 2023; Mai & Nguyen, 2025). But treating trust as one construct may miss out on the varying beliefs that are used to assess the trustworthiness of a platform.

The concept of trust is an appropriate theoretical basis for dealing with this challenge and comes from McKnight's Trust Model (Harrison McKnight & Chervany, 2001). Important dimensions of trusting beliefs, such as competence, benevolence, and integrity, are distinguished. Competence is the belief that the service provider has the ability and knowledge to carry out the service provided effectively; Benevolence is the belief that the service provider is genuinely interested in the consumer's interests; and Integrity is the perception that the service provider is honest, dependable, and committed to the acceptance of accepted principles. These dimensions, in the context of SFDA, are various aspects that a consumer might consider when evaluating the trustworthiness of the platform, and thus the overall experience he/she has with the service.

2.1 Perceived Competence and Consumer Satisfaction

Perceived competence is the belief of the consumers that an SFDA has adequate technology, operation and service capacities to deliver effective services (Shah et al., 2026). The definition of competence in a food delivery context could include correct order taking, smooth payment mechanisms, accurate tracking of deliveries, providing the right restaurant details, effective communication with delivery staff, and resolving issues associated with food delivery services (Anita et al., 2021; Li et al., 2020). If they see a platform as capable, consumers will be less uncertain about the successful completion of their transactions.

This is because competence is directly related to satisfaction, which is driven by the expectation that consumers assess digital services on their capacity to provide the promised outcome (De Grip et al., 2009; Delcourt et al., 2013). A technically capable platform will offer a better service experience, in terms of smoothness and predictability, which will lead to less frustration and greater positive ratings. Studies of online food delivery have also demonstrated that technological performance, convenience, efficiency, and service reliability are key drivers of consumers' food delivery choices (M. Wu et al., 2024). Research on trust in digital food platforms also indicates that trust in a platform's ability can positively influence consumers' inclination to interact with and trust the platform.

Competence is important from the trust point of view, as it is important for the consumer to trust that the platform can deal with the various aspects of the delivery process (Hasbiah & Hasdiansa, 2025). Reliability issues, if common, may lead consumers to believe that there is more risk and/or lower service quality. Technical problems, inaccurate information or ineffective order coordination may raise consumers' perceived risk and service quality. On the other hand, the assurance that the platform can do its part can help to create a more predictable service experience and, in turn, help to boost satisfaction. Therefore, the following hypothesis is proposed:

H1: Perceived competence has a positive and significant effect on consumer satisfaction towards Smart Food Delivery Applications.

2.2 Perceived Benevolence and Customer Satisfaction

Perceived benevolence is the extent to which consumers think that their interests and welfare are genuinely at the forefront of the SFDA rather than just transactional or commercial aspects (Beveridge & Höllerer, 2023; Chernev & Blair, 2015). In a food delivery app, benevolence can manifest as complaint handling that is oriented towards the customer, treating people fairly when things go wrong, making sure to offer proper compensation and/or

reimbursement, tailoring their services to the individual and protecting consumers from bad service (ER et al., 2022; Pham et al., 2026).

Benevolence is especially salient in the context of satisfaction because digital service interactions can be ambiguous, and consumers rely on the digital service to be able to solve issues (Rai et al., 2026; Venkatesh et al., 2016). An incorrect order, delayed delivery, missing item, payment problem or misleading promotion, for instance, can have a negative impact on the consumer experience. Under these conditions, consumers not only may consider whether the issue is being addressed, but also whether it sounds like the platform cares about them. An environment that shows kindness and fairness can help maintain customer satisfaction in the event of a service error.

The previous studies of online food delivery focused on the role of trust and relational aspects in influencing satisfaction and loyalty (Louisa & Simbolon, 2023; Ly, 2025). Other dimensions of service that have been found in service-quality studies to be relevant to consumers' evaluation of food delivery service are empathy and assurance. The findings are in line with the conceptual definition of benevolence, which emphasizes understanding and meeting consumers' needs. Furthermore, if a consumer feels that the platform is doing something for him, he may feel more secure and appreciated, thus improving his overall assessment of the service.

As a result, the following hypothesis is suggested for testing:

H2: Perceived benevolence positively and significantly influences consumer satisfaction with Smart Food Delivery Applications.

2.3 Perceived Integrity and Consumer Satisfaction

Perceived integrity is consumers' trust that an SFDA will keep its promises and be honest, reliable and consistent (Sankar & Kant, 2025; W. Wang et al., 2024). Consumers are likely to make their purchasing decisions on information they are not able to independently verify, which is especially relevant in the digital food delivery context. Their needs involve information about restaurant availability, prices, delivery fees, discounts, delivery time, order cancellation, order cancelation and refunds provided by the platform. This can lead to consumer dissatisfaction and trust issues if there are discrepancies in the platform's offerings and performance (L. Wu et al., 2023).

Theoretical frameworks on trust indicate that integrity fosters trust because consumers rely on a trustworthy provider because they believe that it acts in a way that fits in with a set of principles and commitments (Nam et al., 2020). For SFDA, this could include the following: giving correct information, having transparent pricing, adhering to the promotional offers, having fair cancellation and refund policies, and communicating honestly when there is a disruption of a service. If these expectations are fulfilled, consumers will be more confident and feel better about the service.

Empirical studies in online and digital food-service settings also show a close relationship between trust and satisfaction and subsequent behaviour (Ahluwalia.B.Anupama, 2026; Chakraborty, 2019). When an online platform is trusted and reliable by consumers, they tend to form positive evaluations and associations with the service provider. Integrity, therefore, could be an essential way in which platforms can reduce perceived uncertainty and enhance satisfaction. This is especially true for online food delivery, where consumers are unable to directly observe many of the components of the service process, and therefore must rely on the online platform's representations and commitments.

The following hypothesis is proposed based on the theoretical importance of integrity and evidence that trustworthiness and reliable service practices are related to positive consumer evaluations:

H3: Perceived integrity positively and significantly influences consumer satisfaction with Smart Food Delivery Applications.

Hereby, the conceptual model to be tested in the study is as follows:

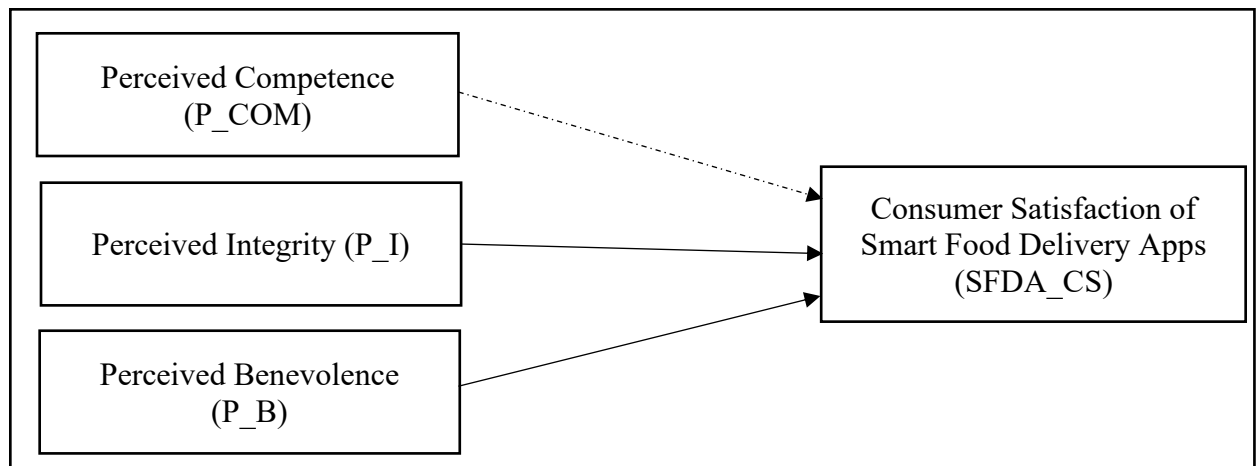


Figure 1. Conceptual Model

3. Materials and Methods

3.1 Research design

For this purpose, the present study was conducted with a quantitative, cross-sectional research design to find the factors influencing consumers' trust beliefs and satisfaction with smart food delivery applications (SFDA) in Dhaka, Bangladesh. The quantitative method was used because the study aimed to empirically examine the relationship between predefined constructs using standard measurement items and statistical analysis. The unit of analysis was the individual consumer, and the target population was those who have used SFDA in Dhaka.

Because of the lack of a detailed and public sampling frame of all SFDA users in Dhaka, a non-probability convenience sampling technique was used. This allowed the researchers to access an active audience of users of food delivery apps that were willing to participate in the study. Probability sampling offers higher generalizability for the population, but in technology- and consumer-behaviour research, when the target population is not easy to enumerate, or when there is no complete sampling frame, convenience sampling is often used.

A self-administered structured questionnaire was used to collect data, which was created with Google Forms. To ensure the reach and diversity of respondents, the survey link was sent out in several forms of electronic communication and social media. This questionnaire was sent to students, working professionals, personal and business networks and others who met the basic criterion of having experience with SFDA services. The participants were made aware of the academic goals of the research and were urged to volunteer.

Data collection took place for about a month. There were a total of 152 responses. These included 32 responses with no substantive information, which were not included in further analysis. A total of 120 usable responses were received, and the usable response rate was about 78.9% of the total responses received. Completed and usable questionnaires were kept for the next statistical analysis.

3.2 Instruments and Measurements

The items of the questionnaire were formulated from available scales from the literature, which were established and found to be valid through empirical research. Implementing existing measures facilitated conceptual consistency and helped to support reliability and validity of the constructs studied. The description of the items was contextualized when required as per the context of SFDA in the Bangladeshi context while keeping their conceptual meaning intact.

A five-point Likert-type scale was used for all constructs, ranging from 1 = strongly disagree to 5 = strongly agree. Adopting a common response format made it easy to compare constructs and to limit the burden on the respondents. The questionnaire also contained questions to obtain the necessary respondent characteristics and

usage information. Details about the constructs, items measured, and sources from which the items were adapted are outlined in Appendix A.

The answers collected were then checked for incompleteness and checked if the answers were suitable for statistical analysis before the main analysis. Responses that contained no substantive answers were removed, and a final sample size of 120 responses remained.

3.3 Data Analysis

Finalized data were coded and analysed with the software package IBM SPSS Statistics Version 27.0. The analysis was a step-by-step process to determine the quality of the measurement instrument and to examine the relationships of the constructs as proposed. Descriptive and measurement-level analyses were done first to learn about the sample and the distribution of responses.

Then, reliability and validity testing was performed to see if the items for each construct succeeded in representing that construct.

The hypotheses were tested with the suitable inferential statistical procedures as per the proposed research model. The significance level used was 5% ($p < 0.05$). The results were analyzed and interpreted, considering the theoretical framework and previous empirical studies, to see if the hypothesized relationships were supported statistically.

3.4 Validity and Reliability

Prior to testing hypothesized relationships, the reliability and validity of the measurement instrument were examined. For each construct, Indicator factor loadings and internal consistency reliability were reviewed. The factor loadings of the items were generally above the commonly recommended threshold of 0.70, showing that the indicators have a high degree of common variance with their respective latent constructs, according to the measurement results reported.

Table 1. Reliability and Validity of Constructs

Construct	Items	Loading	Cronbach's Alpha
Perceived Competence (P_COM)	Soc_In1	0.524	0.749
	Soc_In2	0.861	
	Soc_In3	0.844	
	Soc_In4	0.820	
Perceived Integrity (P_I)	HM1	0.862	0.851
	HM2	0.918	
	HM3	0.854	
Perceived Benevolence (P_B)	H1	0.875	0.890
	H2	0.926	
	H3	0.920	
Consumer Satisfaction (SFDA_CS)	SFDA_CE 1	0.889	0.885
	SFDA_CE 2	0.925	
	SFDA_CE 3	0.864	
	SFDA_CE 4	0.796	

The exception for the first item of the Perceived Competence construct was observed and had a loading below 0.70. It was kept, however, because its loading stayed within a potentially acceptable range for exploratory or developing research and because its deletion would impact the conceptual coverage of the construct.

(J. F. Hair et al., 2010) mention that for exploratory research and scale development, loadings in the range of 0.50-0.70 can be left if they are "meaningful to the construct" and the removal does not "clearly enhance the quality of the overall measurement". The decision to keep the item was not only based on the loading criterion, but also on the theoretical relevance of the indicator and the reliability of the construct.

The internal consistency reliability was obtained through Cronbach's alpha (α). Cronbach's alpha was computed for all the study constructs, and all the items measuring each construct had an alpha coefficient greater than the generally accepted 0.70 threshold (J. Hair et al., 2006), indicating acceptable internal consistency of the items for each construct. The results suggest that the instrument used was a suitable and reliable instrument for further hypothesis testing.

In overall, the reliability and validity assessment showed that the measure items had acceptable psychometric properties and were suitable to study the consumers' trusting beliefs and satisfaction with smart food delivery applications in the Dhaka context.

4. Data Analysis and Interpretation

4.1 Demographic Profile of Respondents

Demographic characteristics of the 120 respondents are given in Table 2. The sample represents a wide range of demographics and socioeconomic consumers who use SFDAs in Bangladesh. Demographic analysis was conducted to establish the sample composition and to give some context to the results of the subsequent regression analysis.

Table 2. Demographic Characteristics of Respondents

<i>Demographic Variable</i>	<i>Category</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Gender	Male	72	60.0
	Female	48	40.0
Age	16–25 years	51	42.5
	26–35 years	35	29.2
	36–45 years	27	22.5
	>45 years	7	5.8
Education	High School	21	17.5
	Undergraduate	30	25.0
	Graduate/Master's	59	49.2
	PhD	10	8.3
Profession	Student	35	29.2
	Service	53	44.2
	Businessman	23	19.2
	Housewife	9	7.5

As shown in Table 2, 60.0% of the respondents were male ($n = 72$), while 40.0% were female ($n = 48$). While the sample is slightly skewed toward male respondents, the male and female respondents are still fairly represented to give variation within the sample. With respect to age, respondents aged 16–25 years constituted the largest group (42.5%, $n = 51$), followed by those aged 26–35 years (29.2%, $n = 35$) and 36–45 years (22.5%, $n = 27$). The respondents were mostly under the age of 45 years (5.8%, $n = 7$). Hence, the majority of the sample is mainly comprised of relatively young consumers, with about 71.7% of respondents being aged 35 and below. This distribution is relevant to the study as they are more likely to form an important user group of food delivery apps.

Based on the educational profile, the respondents had generally good educational qualifications. Almost half of the participants (49.2%, $n = 59$) had a graduate or master's degree, and 25.0% ($n = 30$) were undergraduates. A further 17.5% ($n = 21$) reported high-school-level education, and 8.3% ($n = 10$) possessed a PhD. The relatively high educational level of the respondents indicates that this respondent group might have been well informed about digital platforms and app-based services, and therefore be able to make informed assessments of SFDA.

When it came to occupation, the majority (44.2%, $n = 53$) were employed in the service sector, with the second largest group being students (29.2%, $n = 35$) and the third being businesspersons (19.2%, $n = 23$). The remainder, 7.5% ($n = 9$), were from households/housewives. Professional and personal involvement with digital food delivery services, therefore, varies in the sample as the occupational distribution suggests.

Overall, the demographic profile indicates that the sample is mainly composed of young, well-educated and working consumers. The use of convenience sampling and lack of a comprehensive population sampling frame, however, limit the extent to which the demographic make-up can be considered as being representative of the large user population of SFDA in Dhaka or Bangladesh. The results obtained should therefore be seen within the context of the respondents sampled and not be taken as representative of all SFDA consumers without due consideration.

4.2 Descriptive Statistics and Regression Analysis

Multiple linear regression analysis was used to see if there was a significant relationship between consumers' perceived competence, perceived integrity, perceived benevolence and Consumer Satisfaction with Smart Food Delivery Applications (SFDA-CS). The three dimensions denote key beliefs in the research model related to trust. The regression analysis takes into account the contribution of each of the predictors, taking into account the effects of the others.

The results of the regression analysis are shown in Table 3.

Table 3. Multiple Regression Results for Consumer Satisfaction

<i>Predictor</i>	β	<i>t-value</i>	<i>Sig.</i>	<i>Tolerance</i>	<i>VIF</i>
<i>Constant</i>	0.685	1.893	0.061	—	—
<i>Perceived Competence (P_COM)</i>	−0.028	−0.443	0.659	0.988	1.012
<i>Perceived Integrity (P_I)</i>	0.254	2.789	0.006	0.408	2.450
<i>Perceived Benevolence (P_B)</i>	0.633	7.709	<0.001	0.409	2.446

Note: Dependent variable = Consumer Satisfaction with SFDA (SFDA-CS); $R^2 = 0.679$; Durbin–Watson = 2.139; $n = 120$.

4.2.1 Explanatory Power of the Regression Model

The regression model obtained an R^2 of 0.679, which means that perceived competence, perceived integrity, and perceived benevolence explained the variance in consumer satisfaction with SFDA by 67.9%. This is a significant amount of explanatory power and indicates that trust-related beliefs are important correlates when it comes to satisfaction in the smart food delivery application context.

Concurrently, around 32.1% of the variance in consumer satisfaction is not accounted for by the three predictors in the model. This suggests that there are other factors that are not included in the current model which could also influence consumers' satisfaction with SFDA services. These can range from service quality, perceived usefulness, delivery reliability, price perceptions, app usability, food quality, privacy and security, to prior experience with the platform.

The present regression model did not cover these factors, however. This relatively high value of R^2 must therefore be understood as an explanation of the model's power of explanation in the sample data being studied, not as evidence that the three dimensions of trust completely explain consumer satisfaction.

4.3 Multicollinearity and Autocorrelation Diagnostics

The presence of multicollinearity was checked by variance inflation factors (VIFs) and tolerance values. Tolerances ranged between 0.408 and 0.988, and VIFs were between 1.012 and 2.450. None of the VIF values was significantly higher than the commonly used threshold of 5.0, suggesting that there was no problem with multicollinearity among the predictor variables (Hair et al., 2010). The VIF values for perceived integrity (2.450) and perceived benevolence (2.446) were relatively moderate, indicating that there might be some common variance among the two constructs, which are theoretically related, since both are representations of consumers' trust beliefs.

However, the values are still acceptable, and there is no level of overlap that would affect regression estimates. The Durbin–Watson statistic was 2.139, which is close to the theoretical value of 2.0. This does not mean that there is any indication of bad first-order autocorrelation of the residuals.

Thus, there was no clear violation of the assumption of independence of errors in the regression model. The results of the diagnostics together suggest no serious multicollinearity or residual autocorrelation among the predictor variables and suggest that these variables can be simultaneously entered into the regression model.

4.4 Effects of Trust Dimensions on Consumer Satisfaction

This section examines the impact of Trust Dimensions on Consumer Satisfaction. Assessment of the regression coefficients helps to understand the relative impact of perceived competence, perceived integrity and perceived benevolence on consumer satisfaction.

Perceived competence was found to be negatively associated with consumer satisfaction, but this was not statistically significant ($\beta = -0.028$, $t = -0.443$, $p = 0.659$). The perceived competence coefficient is very close to zero and suggests that the contribution of perceived competence to explaining the variations in consumer satisfaction was small after the inclusion of the other two variables (perceived integrity and perceived benevolence) in the regression model. The p-value (0.659) is much greater than the significance level (0.05). Thus, it may be said that there is not much statistical evidence to support the proposed positive relationship between perceived competence and consumer satisfaction. This means that H1 is not supported.

The finding is significant as competence would logically be expected to be a factor that increases consumers' trust in a digital service provider. In the case of SFDA's, however, consumers might view operational competence as a necessary or taken-for-granted attribute and not as something that can lead to satisfaction on its own. Consumers might think an SFDA can be technically able to process orders, do payments, monitor deliveries and organize restaurants and delivery people.

Thus, competence alone might not be enough to distinguish the service from others and improve satisfaction, if other dimensions of trust are taken into account.

The Relationship between Perceived Integrity and Consumer Satisfaction was positively and statistically significantly related to perceived integrity ($\beta = 0.254$, $t = 2.789$, $p = 0.006$). With all perceived competence and perceived benevolence factors being equal, the higher the perceived integrity of the application, the more satisfied the consumers are. The standardized regression coefficient is 0.254, which is a moderate positive coefficient compared to other variables in the model.

The p-value is less than 0.01, so the association is statistically significant at the 1% level. There is therefore another strong argument in support of H2. This finding indicates that honesty toward consumers, reliability, transparency, and conformance with promises in the smart food delivery application affect consumers' satisfaction. The digitally mediated service setting in which consumers have no direct control over transactions can increase uncertainty if they feel that the service lacks integrity, which decreases their level of confidence in the service. When consumers think that an application can give them genuine information, take a fair approach to transactions, keep its promises and act in a trustworthy way, they may be more inclined to respond positively.

Among the three dimensions of trust studied, perceived benevolence was the most significant predictor of consumer satisfaction. There was a positive correlation and highly statistically significant ($\beta = 0.633$, $t = 7.709$, $P < 0.001$). As a consequence, the belief that the platform is benevolent is strongly related to consumer satisfaction, above and beyond the perceived competence and perceived integrity. This standardized coefficient (0.633) is much higher than the coefficients for perceived integrity (0.254) and perceived competence (-0.028). This suggests that the relative contribution of perceived benevolence to consumer satisfaction in the proposed model is the greatest.

The finding gives empirical support to H3. The discovery indicates that consumers might appreciate an SFDA's concern for their interests more than simply a technically adequate transaction tool.

Perceived benevolence can include consumers' perceptions that the app is concerned with their well-being, reacts appropriately to their needs, tries to solve the problem fairly, and provides a positive service experience.

These perceptions can be especially relevant in influencing satisfaction in an environment where information is asymmetric, and there is little face-to-face contact.

Overall, the high level of perceived benevolence scores also suggest that relational dimensions of trust could be more important than functional dimensions of competence. That is, consumers aren't only assessing whether an app will be able to do what it advertises; they're also assessing whether a platform looks like it's going to do things that are good for consumers.

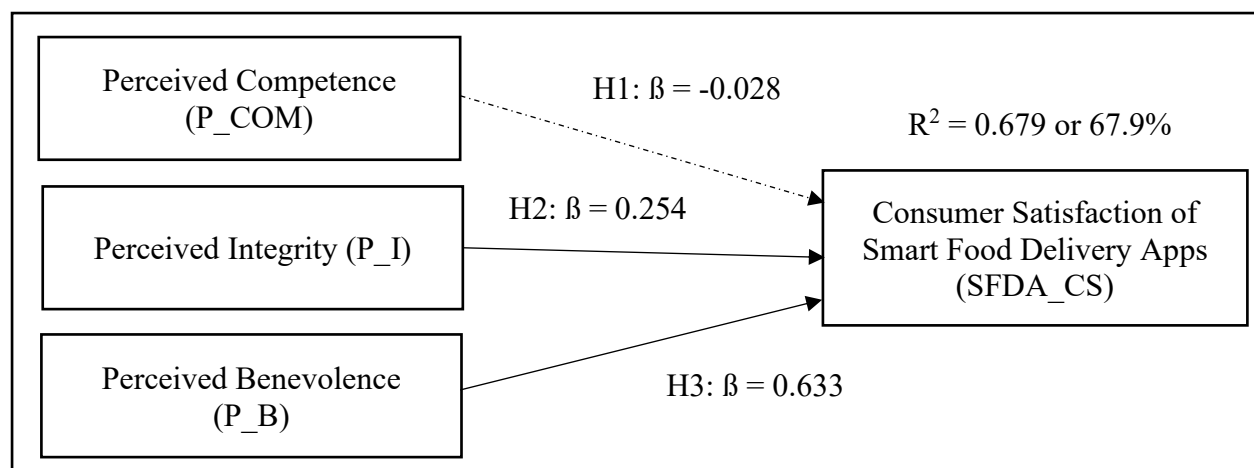


Figure 2. Final Regression Model

Table 4. Summary of Hypothesis Testing

Hypothesis	Relationship	β	<i>t</i> -value	<i>p</i> -value	Decision
H1	Perceived Competence → Consumer Satisfaction	-0.028	-0.443	0.659	Not Supported
H2	Perceived Integrity → Consumer Satisfaction	0.254	2.789	0.006	Supported
H3	Perceived Benevolence → Consumer Satisfaction	0.633	7.709	<0.001	Supported

A detailed discussion based on the results generated from the study is provided in the upcoming section.

5. Discussion

The results show that consumers' trust beliefs can significantly influence their satisfaction with SFDA; however, all three dimensions analyzed in this study do not necessarily affect satisfaction equally. The three constructs of perceived competence, integrity, and benevolence together account for 67.9% of the variance in consumer satisfaction in the model, suggesting that the three constructs have fair explanatory power. However, the perceived benevolence was the strongest predictor ($\beta = 0.633$, $p < 0.001$), followed by perceived integrity ($\beta = 0.254$, $p = 0.006$) and perceived competence did not predict ($\beta = -0.028$, $p = 0.659$).

These results build on previous studies of online food delivery that have identified the significance of trust, perceived value, service quality, convenience, and technology-related aspects in determining consumer outcomes (Gelibolu, 2025; Su et al., 2022). Another recent study by (X. Wang et al., 2022) also confirms that trust in online food delivery is a strong correlate of post-use usefulness, satisfaction, loyalty, and EWOM. The present study offers, however, a more complex understanding, as it shows that certain aspects of trustworthiness have varying implications for satisfaction.

It is interesting to see that perceived competence is not significant in this study, which differs from the traditional perspective that the knowledge and skills of the provider are key elements of trustworthiness. Competence might be a prerequisite to building confidence in an application's ability to process orders, receive payments, monitor deliveries and offer functional services, but as a result of the present findings, competence may now be part of the "standard" requirements for existing SFDA users. Once a minimum functional performance once it is achieved, consumers can be more concerned with how the platform acts towards them. This is in line with the latest online food delivery study that reveals that consumer assessments are not just based on the technology but also on factors such as trust, service, perceived value, and relational aspects (Hong et al., 2025; Zaheer, Anwar, Khan, et al., 2024).

Perceived integrity showed a significant positive correlation with satisfaction ($\beta = 0.254$, $p = 0.006$), and thus was confirmed in support of H2. The discovery justifies the notion that a consumer is more satisfied when he or she thinks that an SFDA is credible, transparent, reliable, and keeps its promises. In digital transactions where information is asymmetric, consumers rely on the online platform's representations regarding price, promotions, delivery time, money-back warranties, order status and service policies. Trust and reliable service practices have also been found to be significant factors in predicting satisfaction and loyalty in online food ordering, as in past studies (Hoyos Vallejo & Chinelato, 2025; Koay et al., 2022). Thus, the present results corroborate the relevance of integrity as an important dimension of trustworthiness in the post-adoption assessment of digital food services.

The most significant result is related to perceived benevolence. It is significantly and highly positively correlated with consumers' satisfaction ($\beta = 0.633$, $p < 0.001$), suggesting that consumers' satisfaction is especially related to how much the platform cares about their interests and welfare. This discovery aligns with previous studies that highlighted service quality, empathy, assurance and trust as influential factors in customers' satisfaction with online food delivery (Arli et al., 2024). It also adds to this body of literature by proposing that consumer-oriented intentions might be more important than technical competence in their effect on perception. Consumers are likely to react positively when platforms are concerned by taking appropriate action as a result of their complaints, by offering a fair refund policy, by acknowledging their service failures and offering some compensation, by responding to their queries with a personal touch, and by communicating proactively. Additionally, the impact of benevolence over integrity implies that simply keeping promises isn't enough – users may appreciate proof that the platform would like to ensure and enhance their experience.

5.1 Theoretical Contributions

There are three significant points that the study brings to the literature. First, it builds on trust-based explanations of SFDA satisfaction by analyzing competence, integrity, and benevolence as subscales of trustworthiness, instead of considering trust as a monolithic construct. Second, the findings indicate that the dimensions of trust work differently: benevolence is the most important, integrity is significant but less so, and competence is not significant. This offers a more nuanced understanding of post-adoption trust in digital food services. Third, the

results are an extension of the evidence from online food delivery research to the Bangladeshi context, where empirical evidence of how the psychological aspects of SFDA satisfaction develop is limited. The findings indicate that there is a need to consider relational trust dimensions in future models of digital food delivery satisfaction together with traditional technology acceptance and service quality dimensions.

5.2 Managerial Implications

The results indicate that SFDA providers need to shift from a technology-focussed approach to a service practice and trust-building approach. Perceived benevolence was the strongest predictor, so managers should show concern for customers by addressing them appropriately when they have a problem, offer fair refund or compensation policies, tailor services to fit customers and communicate with them proactively when a customer has a problem. Meanwhile, integrity can be enhanced by clear pricing, honest delivery time promises, steady promotion policies, timely order status updates, and respecting stated policies. Technological and operational reliability is still a basic requirement of a service, although competence was not a significant predictor. In general, the results indicate that competitive advantage could be driven more by consumer perceptions of a platform as honest, reliable, fair and genuinely interested in the consumer than by the actual efficiency of its operations. This is especially crucial in an increasingly saturated food delivery space for keeping current customers and increasing customer satisfaction over the long haul.

6. Conclusion

This study investigated how consumers' trust in the SFDA (perceived competence, perceived integrity, and perceived benevolence) affects their satisfaction with the application. The results suggest that trustworthiness is a significant factor in customers' satisfaction; it can be explained by the three dimensions, which together account for 67.9% of the variance in trustworthiness. Their effects were, however, quite different for each of them. Perceived benevolence proved to be the most important and powerful predictor, with perceived integrity being the next, and perceived competence showing no significant effect. The results indicate that in addition to the functional ability of food delivery apps, consumers' satisfaction is also affected by their perception of food delivery platforms' honesty, reliability and consumer-oriented attitude. The study thus underscores the significance of relational trust as a way of enhancing consumer satisfaction in the fast-growing digital food delivery industry in Bangladesh.

The limitations and future research directions are outlined below.

There are a number of limitations that should be noted with regard to the study. The findings are only applicable to a subset of SFDA users as the sample size was small (n=120) and was selected via convenience sampling. Secondly, the study was conducted on consumers in Bangladesh in a Dhaka setting, so the results may not be the same in other geographical and cultural settings. Thirdly, the cross-sectional design is only measuring consumer perceptions at one time and so does not allow for causal relationships.

More future studies should be done using samples of a larger size (probability-based sample) in various cities and regions to generalise the findings of the study in Bangladesh. Countries might also consider comparative studies to investigate the differences in the relative importance of competence, integrity, and benevolence in different cultures and markets. Last but not least, future research could include additional variables such as perceived service quality, perceived value, privacy and security, satisfaction, loyalty and repurchase intention, and longitudinal or structural equation modelling would facilitate a better understanding of the process through which trust impacts consumer behaviour.

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