

# ANALYZING FACTORS INFLUENCING CUSTOMER SATISFACTION AND RETENTION IN THE FRUITS AND VEGETABLES MARKET: A CASE STUDY OF SHASHAMANE CITY WHOLESALERS, ETHIOPIA

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## Abstract

*This research delves into Customer satisfaction and retention determinants within Shashamane City's fruit and vegetable market. With a total sample size of 368 Customers, the study employs Path Analysis, a structural equation model applied to explore relationships among variables. The study rigorously assesses the model's fit through absolute and incremental fitness measures, confirming its effectiveness.*

*The gender distribution among sampled household heads is balanced. Cross-tabulation explores the link between gender and Customer marital status, offering insights into their distribution. An analysis of Customer income across education levels reveals significant variations, guiding effective market strategies.*

*The research underscores that Customer satisfaction is notably influenced by trust in traders, quick response times, and trader accessibility. Similarly, Customer retention, indicative of repeat purchases, is significantly influenced by Customer satisfaction, trust in traders, and perceptions of fair pricing. Satisfied customers, trusting traders, and perceiving fair pricing will likely become loyal, returning customers. The study confidently concludes that all these factors significantly contribute to Customer satisfaction and retention.*

*The research recommends prioritizing key factors such as trust, response time, accessibility, and price perceptions to enhance Customer satisfaction and retention in the fruit and vegetable market. Implementing these strategies is anticipated to result in improved market access, lower transaction costs, increased income, and an overall positive impact on satisfaction and retention. This study provides valuable insights for traders and businesses seeking to strengthen their market position and cultivate positive customer experiences.*

**Keywords:** Satisfaction, Retention, Market

## INTRODUCTION

According to Kotler et al. (2010), Customer satisfaction is a critical metric in the business world, reflecting the extent to which a customer's expectations are met or exceeded by a product or service. In marketing and economics research, understanding and enhancing customer satisfaction is pivotal for businesses seeking sustained success. Effective marketing strategies often involve identifying customer needs, preferences, and pain points. Businesses can tailor their products and services to align with customer expectations by conducting thorough research.

Economic researchers play a crucial role in exploring the ramifications of customer satisfaction on market dynamics. The propensity of satisfied customers to engage in repeat purchases contributes to increased revenue and can positively influence a company's market share. Satisfied customers often become brand advocates, readily recommending the product or service to others. To enhance customer satisfaction, businesses should employ innovative marketing techniques and leverage economic insights. This entails a thorough analysis of customer feedback, a keen examination of market trends, and a commitment to staying abreast of technological advancements that can elevate the overall customer experience (Kotler et al., 2010).

In conclusion, customer satisfaction is a multifaceted concept that intertwines marketing strategies with economic principles. Businesses can foster long-term success and resilience in dynamic market environments by prioritizing customer satisfaction. The research investigated the factors influencing Customer satisfaction and retention among fruit and vegetable Customers in Shashamane city.

## METHODOLOGY

The First-generation multivariate data analysis techniques, such as multiple regression, logistic regression, and analysis of variance, have been foundational in empirically testing hypothesized relationships between variables. Researchers across various scientific disciplines have extensively utilized these methods, contributing significantly to our current world understanding.

Path Analysis, a notable structural equation model, stands out for its application without latent variables. This model encompasses relationships among variables, acting as predictors within a single framework. The model's paths, depicted by squares and arrows, indicate causation, with the model predicting regression weights (Amir Alavifar et al., 2012).

However, Path Analysis must meet certain assumptions to yield valid and reliable results. These assumptions are the underlying conditions or expectations critical for the model's accuracy and dependability in capturing the relationships among variables.

When evaluating the adequacy of a structural equation model, researchers commonly employ a set of fit measures categorized into absolute fit and incremental fit measures. Absolute fit measures assess how well the model aligns with the observed data. The criteria for these measures include:

Several fit indices are commonly used to assess the adequacy of a statistical model. CMIN/Df (Chi-square divided by degrees of freedom) indicates fit, with a value below five considered adequate. GFI (Goodness of Fit Index) exceeding 0.95 signals a satisfactory fit, reflecting a good match between the model and observed data. Similarly, AGFI (Adjusted Goodness of Fit Index) above 0.95 suggests an acceptable fit. RMSEA (Root Mean Square Error of Approximation) below 0.06 emphasizes a precise fit of the model to the population covariance matrix. Incremental fit measures evaluate improvement relative to a baseline model. NFI (Normed Fit Index) over 0.95 indicates an acceptable fit, while both CFI (Comparative Fit Index) and IFI (Incremental Fit Index) exceeding 0.95 signify a good fit. TLI (Tucker-Lewis Index) above 0.90 suggests an acceptable fit in this comprehensive assessment of model adequacy.

Adherence to these values within each category ensures a comprehensive evaluation of the structural equation model's validity and reliability. This gives researchers a detailed understanding of its fitness to the observed data and improvement over baseline models.

In quantitative studies, determining an optimal sample size is paramount, as highlighted by C.R. Kothari in 1998. To achieve a representative population sample, this study applied the formula proposed by Yamane in 1967. The formula considers a finite population size and targets a 95 percent confidence level

In the West Arsi zone, the sampling process deliberately chose Shashamane city out of 43 cities due to its high concentration of customers. A simple random sampling approach was utilized, resulting in a survey sample comprising 368 customers. This study mainly used primary data, with primary data collected through a self-administered questionnaire.

## RESULTS AND DISCUSSIONS

The researcher examined gender distribution among 368 sampled household heads, revealing 48.34% males and 51.66% females. A cross-tabulation analysis of gender and marital status indicated different proportions within each group. For males, none were single, 47.2% were married, 0.7% were divorced, and 0.4% were widowed. Among females, 2.6% were single, 48.0% were married, 1.1% were divorced, and none were widowed. Shashamane City's mean Customer income was 97,636, with a standard deviation 98,365. The one-way ANOVA test on Customer income across education levels showed a significant difference ( $F = 5.94, p = 0.002$ ). Post-hoc comparisons revealed differences between grade 9–12 and illiterate Customers and between certificate and above and illiterate Customers. Traders are advised to target Customers with education beyond grade 9 due to their higher mean income.

A Path Analysis was conducted using Amos software to evaluate the structural equation model assessing factors influencing Customer satisfaction and retention of fruits and vegetables. The model fit was scrutinized through various indexes on absolute and incremental fitness.

Regarding absolute fitness, the evaluation of key indicators revealed a robust fit for the model. The CHI/DF value, at 1.538, comfortably falls below the threshold of 5, indicating a commendable fit. Furthermore, the GFI value surpasses the recommended threshold of 0.95, attesting to a solid fit, and the AGFI value of 0.955 reinforces the model's adequacy. Notably, the RMSEA value 0.045, below the established threshold of 0.06, signifies a highly satisfactory fit. Additionally, the model's incremental fitness was evaluated using key indices. All these values—NFI (0.991), CFI (0.996), TLI (0.925), and IFI (0.997)—exceeded the recommended cutoffs of 0.90 for TLI and 0.95 for the others. These results indicate that the model demonstrates strong incremental fitness.

In summary, the model fit assessment suggests that the constructed model effectively captures the relationships between the factors influencing Customer satisfaction and retention of fruits and vegetables in the study area. Both absolute and incremental fitness indexes meet the required criteria, reinforcing the model's reliability and ability to represent the complex dynamics of the studied relationships.

## THE IMPACT OF TRUST ON CUSTOMER SATISFACTION (CTUSPR CUSSAT)

The data analysis underscores the significant influence of trust on Customer satisfaction, with a calculated coefficient ( $\beta$ ) of 0.142 indicating a positive correlation. The statistical test, reflected in a t-value of 2.4, confirms the relationship's statistical significance. Moreover, the low p-value of 0.016, below the commonly accepted threshold of 0.05, provides robust evidence supporting the alternative hypothesis. The study confidently

concludes that trust is crucial in determining Customer satisfaction levels, emphasizing its importance for businesses in establishing and maintaining fruitful Customer relationships.

**1. The Impact of the Customer's response time perception on Customer satisfaction (Crestipr→Cussat)**

The analysis indicates a positive and significant impact of the Customer's perception of response time on satisfaction, with a calculated coefficient ( $\beta$ ) of 0.131. This suggests that satisfaction levels increase as the perception of response time improves. The statistical test reveals a t-value of 2.108, signifying the relationship's statistical significance, supported by a p-value of 0.035, below the 0.05 significance level. In conclusion, the researcher confidently asserts that Customer's perception of response time significantly influences satisfaction, highlighting the importance of efficiently managing response times to meet expectations and enhance overall satisfaction.

**2. The Impact of the Accessibility of Traders on Customer Satisfaction (Accessibility →Cussat)**

The analysis indicates a positive and significant impact of trader's accessibility on Customer satisfaction, with a calculated coefficient ( $\beta$ ) of 0.202, suggesting an improved relationship between the two variables. The statistical test shows a t-value of 3.4, signifying the relationship's statistical significance, supported by a p-value of 0.000, well below the 0.05 significance level. In conclusion, the researcher confidently asserts that the accessibility of traders significantly influences Customer satisfaction, emphasizing its crucial role in shaping satisfaction levels. This highlights the importance of ensuring easy and convenient access to traders for Customers to enhance satisfaction and build lasting relationships.

**3. The Impact of Customer Satisfaction on Customer Retention (Cussat→Cusret)**

The analysis reveals a positive and significant impact of Customer satisfaction on Customer retention, with a calculated coefficient ( $\beta$ ) of 0.224, indicating a favorable relationship between the two variables. As Customer satisfaction increases, the likelihood of retention also tends to rise. The statistical test yields a t-value of 3.917, demonstrating the statistical significance of the relationship, supported by a p-value of 0.000, well below the 0.05 significance level. In conclusion, the researcher confidently asserts that Customer satisfaction significantly influences retention, underscoring its crucial role. This emphasizes prioritizing initiatives to enhance Customer satisfaction for improved loyalty and long-term retention.

**4. The Impact of Customer Trust on Customer Retention (Ctuspr→Cusret)**

The analysis reveals a positive and significant impact of Customer Trust on Customer retention, with a calculated coefficient ( $\beta$ ) of 0.256, indicating a favorable relationship. As Customer trust increases, the likelihood of retention also tends to rise. The statistical test shows a t-value of 4.61, signifying the statistical significance of the relationship, supported by a p-value of 0.000, well below the 0.05 significance level. In conclusion, the researcher confidently concludes that Customer trust significantly influences retention, highlighting its critical role. This underscores the importance of building and maintaining Customer trust to nurture long-term relationships and enhance retention rates.

**5. The Impact of Customer Price Perceptions on Customer Retention (Freenv→Cusret)**

The analysis reveals a positive and significant impact of Customer price perceptions on Customer retention, with a calculated coefficient ( $\beta$ ) of 0.166, indicating a favorable relationship. As Customer price perceptions improve, the likelihood of retention also tends to increase. The statistical test shows a t-value of 3.024, signifying the statistical significance of the relationship, supported by a p-value of 0.002, well below the 0.05 significance level. In conclusion, the researcher confidently concludes that Customer price perceptions substantially influence retention, emphasizing their significant role. This highlights the importance of managing Customer price perceptions and implementing competitive pricing strategies to enhance satisfaction and improve retention rates.

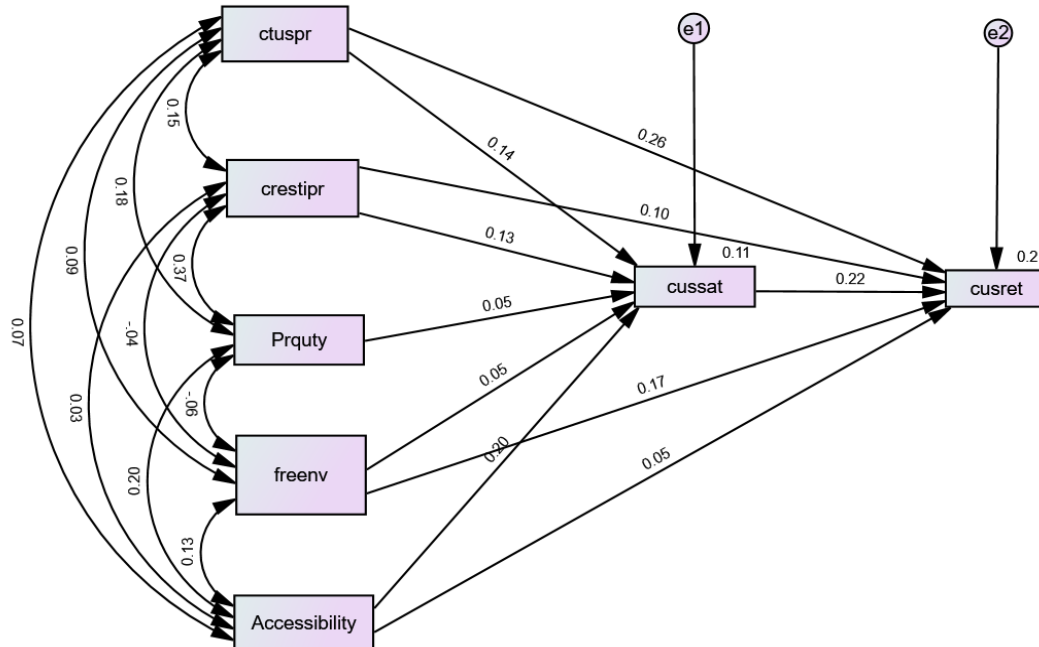
**Table 1.1 The result of Path Regression weights.**

R/Ship			Standardized Estimate	S.E.	C.R.	P	Label
Cussat	<---	Ctuspr	0.142( $\beta$ )	0.059	2.4	0.016**	Supported
Cussat	<---	Crestipr	0.131	0.064	2.108	0.035**	Supported
Cussat	<---	Prquty	0.048	0.067	0.749	0.454	Not supported
Cussat	<---	Freenv	0.047	0.059	0.807	0.42	Not supported
Cussat	<---	Accessibility	0.202	0.059	3.4	***	Supported
Cusret	<---	Cussat	0.224	0.061	3.917	***	Supported
Cusret	<---	Ctuspr	0.256	0.059	4.61	***	Supported
Cusret	<---	Crestipr	0.098	0.061	1.768	0.077	Not supported
Cusret	<---	Freenv	0.166	0.059	3.024	0.002**	Supported

Cusret	<---	Accessibility	0.049	0.059	0.876	0.381	Not supported
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Source: Amos output from own survey data (2022)

Figure 1.1 Structures of standardized estimates



Source: Amos output from own survey data (2022)

## SUMMARY

The comprehensive analysis of factors influencing Customer satisfaction and retention in the fruit and vegetable market reveals robust insights. Customer trust, response time perception, accessibility of traders, and Customer satisfaction all exhibit positive and statistically significant impacts on satisfaction and retention. The model's fit assessment demonstrates its reliability in capturing the complex dynamics of these relationships. Trust is a crucial determinant of Customer satisfaction, emphasizing its significance in establishing fruitful relationships. Efficiently managing response times and ensuring easy trader accessibility are essential for enhancing satisfaction. Moreover, the study underscores the critical roles of Customer satisfaction, trust, and price perceptions in shaping Customer retention, emphasizing the need for businesses to prioritize initiatives that enhance satisfaction and build and maintain trust to foster long-term relationships and improve retention rates.

## RECOMMENDATIONS

Prioritize factors influencing Customer satisfaction and retention, such as Customers' trust, response time perception, accessibility of traders, Customer satisfaction, and price perceptions. Implement strategies to improve these factors and enhance the overall Customer experience.

By implementing these recommendations, the vegetables and fruits marketing system in the study areas can be improved, leading to better market access for farmers, reduced transaction costs, improved income, and enhanced Customer satisfaction and retention.

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