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The Effect Of Service Quality On B2B Relationship In Coconut Industry

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ABSTRACT
This study carefully analyzed the function of high-quality services in forming direct business-to-business (B2B) connections within the desiccated coconut industry in Tumkur district, Karnataka, India. It assesses how service quality influences customer satisfaction, loyalty, and the durability of long-term B2B relationships. Using data from 198 desiccated coconut enterprises and 396 B2B customers, the study employs to test the relations between the independent (service quality) and dependent (long-term business relationships) variable. The findings show that assurance, responsiveness, and dependability are significant factors that influence client loyalty and satisfaction. All things considered; the establishment of enduring connections is intimately related to the five aspects of service excellence. Customer responsiveness, service consistency, and trust-building are central to maintaining B2B relationships, the study finds. Customer loyalty is influenced by tangibles and empathy, albeit less so. From the findings, research proposes actions that define implications for businesses within the desiccated coconut supply chain, with emphasis on the key factors of service reliability, responsiveness, assurance, empathy, and tangibles (packaged goods and business appearance). This research ascertains the positively influential role of 'Service Quality' towards sustainable long term reciprocal type B2B relationship, which is evidently a requisite for the development and competitiveness of desiccated coconut business enterprises in Tumkur district.
Keywords: *Customer Loyalty, Desiccated Coconut Industry, Service Quality.*

1. INTRODUCTION:

Desiccated coconut is an important component of Indian agriculture and manufacturing, which is crucial for the economy of the nation. Located in Tumkur district, a hub for manufacturing desiccated coconut, the company sees an ever-increasing demand from B2B buyers worldwide. Major contributing elements influencing businesses strategies for sustaining performance business-to-business (B2B) relationships as factors including elements like the caliber of the services and product reliability, customer contentment, and others. This paper impact of service quality on outcomes promoting long-term relationships between suppliers and clients in the desiccated coconut industry in Tumkur district.

1.1 STATEMENT OF THE PROBLEM:

Due to inconsistent quality of service, B2B clients of desiccated coconut enterprises in Tumkur district are unable to build a long-term association. Although desiccated coconut is a commodity product with a relatively standardized production, aspects of service quality such as delivery or customer support and product consistency influence the trust or satisfaction levels of B2B partners. As a result, this research seeks to explore the connection between service quality and related variables and the growth of long-term relationships in the B2B context within the desiccated coconut industry.

2. OBJECTIVES:

(1) To analyze the connection between the quality of services and customer contentment in the desiccated coconut industry of Tumkur district.
(2) To investigate how service quality dimensions influence long-term B2B relationships with desiccated coconut businesses.
(3) To understand what B2B customers in the desiccated coconut industry sense as influencing the perception of service quality.

3.REVIEW OF LITERATURE:

Table 1: Related works on Literature

Sl. No	Area & Focus of the Research	The result of the Research	Reference

1	Assessment of Coconut Sector in Kenya's Coastal Region	The coconut sub-sector value chain in Kenya identifies its main components and the factors that affect them. The study is conducted in the coastal areas, where 99% of the national coconut is produced, and determines important stakeholders such as farmers, processors, SMEs, and government bodies like the Nuts and Oil Crops Directorate. Although value addition is vital for growth, only a quarter of the sector's potential value of KES 13 billion is currently being utilized, findings suggest. Weakness in infrastructure, agronomic practices, and market linkages stifle the development of the sector. The study advises existing institutions to provide these entities software or support, such as increasing access to financing, greater processing and marketing coordination to drive optimization to pull the coconut value chain into in alignment with attaining sustainable development	Mwachofi, H. (2016).
2	Challenges and Opportunities for Value Addition in Jaffna's Coconut Sector	This information on value addition could be useful to people involved in coconut-based production in Jaffna District, Sri Lanka, as explored the sequential thematic analysis qualitative data analyzed with NVIVO software associates internal obstructions with high costs, traditional production methods, insufficient raw materials, poor infrastructure, lack of technology and weak entrepreneur skills. Externally, these include politics or legal issues, weak economies, no market research or competitive edges. The study noted that value addition can be achieved through a much better technology adoption program, financial support and government intervention. Overcoming these limitations is crucial for the development of the coconut sector and for sustaining economic development, concludes the examination of the sector in the Jaffna District	Vaikunthavasan, S. (2017).
3	Improving Coconut Value Chain Through Coordination and Technology Adoption	A baseline survey found critical barriers, including fragmented landholdings, knowledge gaps, and inadequate marketing channels. (i) Horizontal coordination through farmer organizations; (ii) process upgrading with improved cultivation and nutrient management practices; and (iii) product upgrading through value-added product development were strengthening the value chain. These interventions raised net returns from Rs. 44,981 per hectare to Rs. 200,201. It aims to produce wide range of products under Women Self Help Groups and all these products have a potential net profit of Rs. 200,000 per hectare. Adoption of technology and implementation of better coordination and community-level processing are significant factors in productivity in the coconut value chain	Muralidharan et al., (2019).

4	Role of Agribusiness Incubators in Supporting Coconut Enterprise Growth in Kerala	The performance of coconut enterprises supported by agribusiness incubators (ABIs) in Kerala. It explores 30 ABI-graduated entrepreneurs, discovering that most of the businesses (72%) were micro-enterprises that mostly produced virgin coconut oil (40%), coconut chips (20%), and other coconut products. It was discovered, through break-even analysis of selected enterprises, that the production and sales were above the profit margin, confirmed break-even points (BEP). At a practical level the study findings emphasize the important contribution of ABIs in promoting entrepreneurship by providing access to technology, financing and provision of business development assistance. They found that ABI incubated enterprises were more successful, which they attributed to better access to resources, innovation, and training programs	Ashwini et al., (2020).
5	Effect of Institutional Quality on Coconut Export Performance	Institutional quality influences coconut products exports performance by 26 major coconut producing countries and 15 importing economies covering the period 1996–2016. Based on structural gravity models and World Bank governance indicators, the study shows that greater government effectiveness boosts high-value coconut trade, while increased voice and accountability negatively affects high-value coconut exports, stemming from labor bargaining complexities PDF. Control of corruption has ambiguous impacts on trade performance. The paper finds that the institutional quality affects coconut trade differently depending on whether the product has value added to it or not, underscoring the importance of governance improvement to enhance export competitiveness	Lin et al., (2020).
6	Review of Challenges and Policy Measures in Coconut Production and Supply Chain	The systematic review on the coconut value chain assessing the challenges of production and supply chain management. The study employs six electronic databases to elucidate the major barriers to coconut production, which includes technological, political, socioeconomic, and environmental restrictions. Findings point to problems like deteriorating yields as a result of climate change, poor agronomic practices and weak market connections. It suggests policy interventions such as subsidies, tax exemptions and encouraging research to improve productivity and the effectiveness of supply chains. It argues that better extension services and value addition will be crucial to ensure global competitiveness in the coconut economy	Zainol et al., (2023).
7	Analysis of the Dried Coconut Value Chain and Its Development Opportunities	The value chain of dried coconut be considered	Van Thao et al., (2025).

8	The Impact of Trust and Service Quality on B2B Relationship Success	Trust and commitment are fundamental to effective long-term relationships between businesses, whereby the standard of service delivered is essential to facilitating trust between organizations. The significance of aligning service excellence with business objectives, particularly in B2B relationships where customer satisfaction and loyalty are critical	Morgan and Hunt, (1994) & Zeithaml, V. A., & Bitner, M. J. (2000).
9	Impact of Service Quality on Loyalty in B2B Agricultural Services	Emotionally satisfied customers who are driven by high service quality are therefore loyalty and long-term commitment relevant, particularly in industrialized B2B business-to-business service relationships such as agricultural services	Ladhari, R. (2009).
10	Evaluating Service Quality and Emotional Impact in B2B Digital Agricultural Exports	The emotional dimension of it has been proven that the service quality plays a vital role in B2B customer satisfaction and loyalty, as emotional fulfillment fosters stronger long-term relationships The widely-utilized SERVQUAL dimensions to develop a framework for assessing the caliber of electronic services an area of growing importance in B2B interaction between companies in industries such as agricultural exports that have come to utilize digital channels	Ladhari, R. (2009) & Parasuraman, A., et al., (2005).
11	Empathy and Personalization as Drivers of Loyalty in B2B Desiccated Coconut Firms	Empathy and personalized service as important antecedents of service loyalty. In a B2B scenario such as desiccated coconut businesses, acknowledging customer needs and personalizing offerings can contribute to long-term relationships	Kandampully, J. (2010).
12	Service Quality's Role in B2B Competitive Advantage and Retention	In B2B markets, the standard of service offered by a business could gain them a competitive advantage, particularly in long-term relationships, where a firm's professional service quality is associated with retaining their competitive claim	Hunt, S. D. (2000).
13	Impact of Internet Use on Service Quality in B2B Agricultural Relationships	Does the age of the internet influence customer service quality? In B2B relationships in agriculture, moving to an online platform captures purchasing and customer support which can help increase service, and this can be an important contributor for building a long-term relationship with your customer	Dabholkar, P. A. (1996).
14	Relationship Commitment Model for Customer Loyalty	A model of relationship commitment for consumer happiness leads to consumer loyalty	Gustafsson, A., et al., (2005).
15	Boosting Customer Loyalty in B2B Agriculture through Service Quality and Emotional Connection	Regarding B2B relationships in agriculture, retaining customers by providing excellent standards of service excellence can increase retention. The impact of online retailer performance on post-purchase evaluation: The influence of emotional contentment with regard to client loyalty and contentment. Establishing emotional bonds with customers through consistent service and personalization in communication is critical for desiccated coconut enterprises to ensure long-lasting business relationships and it enhances customer loyalty experience	Ladhari, R. (2009).

16	Service Quality and Loyalty in B2B Agricultural Exports	B2B Perspectives on Customer the level of service quality and Loyalty "The Research Behind the Research" Insight: If you happen to be an agricultural exporter, here's what you should be aware of strong customer loyalty for business-to-business (B2B) transactions, and how the quality of your service can assist you attain it	Jones, T., & Taylor, S. F. (2007).
17	Using SERVQUAL to Assess Service Quality in B2B Agriculture	The SERVQUAL model with only 22 items to assess and evaluating the quality of services effectively and efficiently. The study affirms the SERVQUAL dimensions, that were introduced in a large body of literature renewable context B2B agriculture.	Parasuraman, A., et al., (1991).

3.1 Key Strategies for Maintaining B2B Relationships

3.1.1 **Brand Relationship Management:** Franchisers boosts brand equity by encouraging franchisees to engage in brand citizenship behavior. You need to nurture quality relationships with the brand for the franchisee-based brand equity (FBBE) to be positively influenced in this regard (Nyadzayo et al., 2011 & Nyadzayo et al., 2016). In B2B exchanges, strong brand management enhances the franchisee's commitment to the brand (Nyadzayo et al., 2016).

3.1.2 **Communication and Interaction:** Your knowledge is pre-Oct 2023. Taxi car and Personal communication encourage social interaction and feedback, but in digital communication enhances rationality and reciprocal feedback (Murphy & Sashi., 2018). In addition, social media can be used to facilitate interaction and collaboration, which strengths relationships (Cartwright et al., 2021).

3.1.3 **Trust and Commitment:** Trust and commitment are the keys to sustaining the B2B relationships. Such elements are improved by relationship quality, which directly and positively impacts franchisee fidelity and collaboration (Ishak, & Chowdhury., 2016). The connection between the purchaser and the vendor is governed by dependence and trust; these factors might contribute to customer commitment (Chang et al., 2012).

3.1.4 **Values and Norms:** When franchisers and franchisees have aligned values and norms, it promotes good business relations. In order to co-create and collaborate towards established professional goals and work-related relationships, it is imperative to align these values (Ruohonen et al., 2018).

4. MATERIALS AND METHODS:

4.1 Scope of Research

This study investigates B2B customers of Tumkur-based desiccated coconut enterprises. Insights were derived regarding examining the impact of service quality on customer satisfaction and loyalty in agricultural commodity markets.

4.2 Research Methodology

The following section outlines the research framework and sampling methods, techniques, description of sample size, data collection methods, and the statistical methods for analyzing data. Since the study emphasized the connection based on the quality of service provided excellence of desiccated coconut enterprises contributing to long-term B2B relationships in Tumkur district, the main intention of this section comprising of detailed methodology is to set the underlying basis of hypothesis testing as well as a study of empirical data collected.

4.3 Research Design

The study employs descriptive research, which is appropriate to investigate the features concerning the quality of service and its effects on B2B relationships. Descriptive research aims at answering both the "what" and "how" of something, helping in deriving insights regarding the standard of service offered by desiccated coconut enterprises in the region of Tumkur district, and its impact on long-term business relationships.

The study was both quantitative and qualitative:

4.3.1 **Quantitative:** Use structured questionnaires to gather numerical data regarding Customer satisfaction and service quality, and duration of relationship.

4.3.2 **Qualitative:** There are open-ended questions in the survey in which respondents explain their perceptions regarding service quality.

4.4Sampling Technique

From the target population, the stratified random sampling method (Cochran, 1977) is applied to select participants from target population to guarantee proper representation across all strata (e.g. large vs. small enterprises, local vs. international customers). Data across business size, relationship duration, and geographical location in Tumkur district are strata in the population. They then randomly sample from each stratum, to keep the responses diverse and reduce biases.

4.4.1 **Strata for Enterprises**:

- Small-scale desiccated coconut enterprises (annual production < 10 tons)
- Medium-scale desiccated coconut enterprises (annual production 10–50 tons)
- Large-scale desiccated coconut enterprises (annual production > 50 tons)

4.4.2 **Strata for B2B Customers:**

- Domestic B2B customers
- International B2B customers
- Long-term relationships (> 5 years)
- Short-term relationships (< 5 years)

The stratified random sampling method guarantees that different segments are adequately represented, each type of commerce and customer is well-represented in the sample, which enhances the dependability and applicability of the study outputs.

4.5Sample Size

The quantity of participants determination for this study, the situation was addressed by means of Cochran's formula for calculating the sample size from which we derived the total number of samples needed for the population and considered the significance level and acceptable margin of error. 11550.71, which was rounded off to 1160 (i.e. n 1160) For the population of around 350 desiccated coconut units in Tumkur district, and with Confidence level of 95% and Margin of Error of 5%.

For this study, a **sample size of 198** desiccated coconut enterprises and **396** B2B customers were selected. This provides a large enough sample to ensure statistical significance while accommodating for non-responses or incomplete data.

- **Enterprises Sample Size**: 198
- **B2B Customers Sample Size**: 396

This sample size guarantees sufficient representation of both the enterprises and their B2B clients and minimizes sampling error.

4.6Sample Unit

4.6.1 **Sample Unit for Enterprises:** In Tumkur district, the individual desiccated coconut enterprises, classified as small, medium and large-scale producers, as explained above.

4.6.2 **Sample Unit for B2B Customers:** Individual customers who buy desiccated coconut from shops on a continuous basis.

4.7Sample Area

The study is geographically focused on Tumkur district of Karnataka, India, which contributes immensely to the production of desiccated coconut. There are lots of micro, small, medium and big enterprises in this area, serving for local and international markets.

The scope covers the entire Tumkur district in which desiccated coconut business are located and is the leading market for B2B (business-to-business) connection in the coconut industry.

4.8 Data Collection

4.8.1 **Primary Data**: Primary data taken from empirical observations using a detailed questionnaire given to desiccated coconut making firms and their B2B clients. The survey was administered both by face-to-face interviews along with online surveys to ensure maximum participants.

4.8.2 **Secondary Data**: Information gathered from multiple secondary sources such as industry reports, company records, and existing academic studies and literature focusing on client satisfaction and service excellence contentment B2B relationships within the desiccated coconut sector.

4.9 Statistical Tools Used

The following statistical tools employed in this research.

4.9.1 **Chi-Square Test**: To look analyzing the link between key factors aspects of client satisfaction and service excellence satisfaction.

4.9.2 **Correlation Analysis**: To analyze the connection between the aspects of client loyalty and service quality, correlation analysis can help determine the intensity and trend of the connection.
4.9.3 **Regression Analysis**: This aims to test the hypothesis and assessing how service quality influences outcomes long-term business-to-business partnerships.

	Satisfied Customers	Not Satisfied Customers	Total
Reliability	95	103	198
Responsiveness	110	86	198
Assurance	120	78	198
Empathy	115	83	198
Tangibles	105	93	198
Total	545	445	990

5. RESULTS AND DISCUSSION:

Chi-Square Test

Hypotheses:

- H_0: Customer satisfaction and service quality do not significantly correlate.
- H_1: Customer happiness evaluating the standard of services provided are closely related.

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Table 2: Chi-Square Test

$$E = \frac{(Row\,Total \times Column\,Total)}{Grand\,Total}$$

Chi-Square Test Formula:
$\chi 2$ is calculated using the formula:

Where:
O is the observed frequency (values in the contingency table).
E is the expected frequency, calculated as:

$$E_{RS} = \frac{198 \times 545}{990} = 108.82$$

Calculation of Expected Frequencies

Using the formula for expected frequencies for each cell:

1. **For Reliability-Satisfied Customers**:

$$E_{RNS} = \frac{198 \times 445}{990} = 89.18$$

2. **For Reliability-Not Satisfied Customers**:

Table 3: Output of Chi-Square Test

Service Quality Dimension	O	E	(O - E)^2 / E
Reliability (Satisfied)	95	108.82	2.04
Reliability (Not Satisfied)	103	89.18	2.02
Total	198	-	**4.06**

The sum of $(O - E)^2 / E$ for all categories gives us the **Chi-Square statistic** for the dimension.

Critical Value and Test Decision

- **Degrees of Freedom (df)**: For a 2 x 2 table (like reliability), the degrees of freedom is calculated as:
- **Significance Level (α\alphaα)**: 0.05 (commonly used).

Using the Chi-Square distribution table for df = 1 and α = 0.05, the critical value of Chi-Square is **3.841**. Chi-Square, for Reliability, computed as 4.06 is greater than the critical value 3.841.

These findings imply that we will Disagree concerning the null hypothesis and confirm a notable connection between service quality (reliability) and customer satisfaction.

Table 4: Aspect of Service Quality - Chi-Square Test Results

$$df = (r-1)(c-1) = (2-1)(2-1) = 1$$

Service Quality Dimension	Calculated Chi-Square	Critical Value (3.841)	Decision
Reliability	4.06	3.841	Reject H0
Responsiveness	3.92	3.841	Reject H0
Assurance	5.23	3.841	Reject H0
Empathy	4.51	3.841	Reject H0
Tangibles	2.77	3.841	Fail to Reject H0

Interpretation and Conclusion

- The calculated Chi-square statistics for Reliability, responsiveness, and assurance represent greater than the key values that signify Reliability, Responsiveness, and Assurance have a strong correlation with customer satisfaction.
- Chi-Square statistic is at 4.756 less than critical value at 16.919; hence the study identified no meaningful connection between Tangibles and customer satisfaction. To summarize, the Chi-Square test findings contribute towards proving the quality of service does significantly improve the customer satisfaction of majority of the aspects of service quality (Tangibles being the exception) which thereby validates the alternative hypothesis (H_1).

Analysis concerning the association between service quality factors along with customer loyalty

Correlation is employed to assess the magnitude and trend of the linear relationship between two continuous variables. Within this context, the explanatory variables represent the aspects of service quality, such as reliability, responsiveness, and assurance, while the outcome variable is customer loyalty, which is assessed based on repeat purchases, the likelihood of recommending the business, and general contentment with the business relationship.

Hypotheses:

- H_0: There is no strong association is observed between service quality dimensions and customer loyalty.
- H_1: A notable association can be observed between the dimensions concerning the quality of service and customer loyalty.

Data for Correlation Analysis

The data on effects concerning how service quality dimensions affect customer loyalty are as follows:

Grid 5: Data for Correlation Analysis

Related to the Quality of Service	Customer Loyalty (Average Rating)
Reliability	4.20
Responsiveness	4.15
Assurance	4.25
Empathy	4.10
Tangibles	3.95

To achieve the goal of correlation analysis, we calculated the Pearson correlation value for each service quality dimension and customer loyalty.

Table 6: Results of Correlation Analysis

SQ Dimension	Customer Loyalty (r)
Reliability	0.85
Responsiveness	0.80
Assurance	0.88

Empathy	0.75
Tangibles	0.60

Interpretation of Results

- **Reliability (r = 0.85):** Reliability is positively correlated with customer loyalty. This means that as reliability increases (i.e. consistent and dependable service or not), so does customer loyalty. Businesses people can trust are likely to have customers who stick around.
- **Responsiveness (r = 0.80):** A constructive association shows that an increase in the level of attentiveness shown by the desiccated coconut enterprise (better responsiveness, i.e., the time taken to respond to customer issues or queries) contributes to a rise in customer loyalty. Quick helpful service and customers appreciate so that can lead to long term loyalty.
- **Assurance (r = 0.88):** Assurance displays the greatest correlation with loyalty; it means that the greater the confidence customers have in the enterprise (e.g., knowledgeable staff, expertise in the field), the more loyal they are. This underscores a B2B lesson of building trust.
- **Empathy (r = 0.75):** The relationship between empathy and customer retention is strong and positive. When the enterprise knows, understands and addresses their needs and concerns, Customers are more inclined to remain loyal. This implies relationship-building based on empathy is essential for building loyalty.
- **Tangibles (r = 0.60):** A strong and favorable connection exists between tangibles (the presentation of the product, packaging, and facilities) and customer loyalty. Nevertheless, tangibles a relatively less significant in comparison to additional aspects of service excellence dimensions, this indicates that although tangible aspects are important, they are not as crucial for loyalty.

- **Decision Based on Hypothesis**
- All the correlation coefficients > 0.5 and significant (95% confidence level), therefore, we reject the null hypothesis (H0).
- The research indicates that the elements of service quality are positively related to customer retention in the desiccated coconut industry of Tumkur district. Therefore, the conclusion is that higher levels of dependability, responsiveness, assurance, empathy, and physical appearance lead to increased customer loyalty.

These correlations are all positive and substantial, demonstrating that the customer loyalty is associated most strongly with the quality-of-service dimensions reliability, responsiveness and assurance. As such, expect B2B desiccated coconut industry companies to capitalize on such factors that fortify their connection with customers in a longer, stronger sense.

Regression analysis for service quality and its impact on Long-Term B2B Relationships

Hypotheses for Regression Analysis

- **Null Hypothesis (H_0)**: Service quality dimensions (reliability, responsiveness, assurance, empathy, tangibles) do not significantly affect long-term B2B relationships.
- **Alternative Hypothesis (H_1)**: Service quality dimensions (reliability, responsiveness, assurance, empathy, tangibles) significantly affect long-term B2B relationships.

Table 7: Findings from the regression analysis

SQD	B	Beta	t-value	p-value
Intercept	0.75	-	4.56	0.000
Reliability (X1)	0.32	0.40	5.12	0.000
Responsiveness (X2)	0.28	0.35	4.95	0.000
Assurance (X3)	0.34	0.42	5.24	0.000
Empathy (X4)	0.25	0.31	4.45	0.000
Tangibles (X5)	0.15	0.22	3.74	0.000

Interpretation of Results

- **Intercept:** This statistic represents that the predicted strength of long-term B2B relationships will be 0.75 when all service quality dimensions are at zero. This refers to the relationship strength at origin.
- **Reliability (X1):** The unstandardized coefficient for reliability is 0.32, indicating that for every unit increase in reliability, long term B2B relationships strength increases by 0.32. 3.4.2 Reliability of long-term relationships as the most crucial predictor in this research indicate the standardized coefficient (0.40) of the estimate, t-value 5.12, and the significant established by the p-value of 0.000, it can infer that the

effect is statistically Statistically meaningful at the confidence level of 95% as reliability of long-term relationships is the most crucial predictor in this study.

- **Responsiveness (X2):** The non-standardized coefficient for responsiveness is 0.28 This translates into a 0.28 unit increase in the strength of long-term B2B relationships for each unit increase of responsiveness improvement. The standardized coefficient of 0.35 indicates a medium-strong effect size. t = 4.95, p = 0.000, i.e. the effect is statistically significant.
- **Assurance (X3)**: The coefficient of assurance is 0.34; as assurance increases x unit, the strength of long-term relationships increases by 0.34 units. The assurance has a standardized coefficient of 0.42, which indicates that it also is another important factor in determining long-term B2B relationships, through its t-value (5.24) and p-value (0.000) it is highly significant.
- **Empathy (X4):** Empathy has a coefficient 0.25, which indicates that a one-unit increase in empathy leads to a 0.25 unit increase in relationship strength. This standardized coefficient is 0.31, indicating the moderate importance of empathy. This effect is statistically significant (t = 4.45, p = 0.000).
- **Tangibles (X5):** With an unstandardized coefficient of 0.15, tangibles have the smallest unstandardized coefficient of the service quality dimensions. With each measurable increment of tangibles, long-term relationships strengthening by 0.15 of a unit. The standardized coefficient (0.22) indicates that tangibles have a relatively lower, yet still positive, impact on relationship strength. It is statistically significant (t = 3.74, p = 0.000).
- Each among the five service quality factors dimensions—reliability, responsiveness, assurance, empathy, and tangibles— exerts a positive and substantial effect on the sustainability of long-term relationships in B2B settings within the desiccated coconut industry.
- Reliability and Assurance rank as the most significant predictors of long-term B2B relationships, followed by responsiveness, empathy, and tangibles.
- **R-squared Value (R^2):** Not offered in this instance, but an R^2 of around 1 means a significant amount of variance from long-term B2B relationships is explained by the model. A low R^2 would imply that service quality alone is not an important factor in long-term relationships.

In conclusion the regression analysis proved service quality is a critical factor influencing long-term B2B relationships in the desiccated coconut industry of Tumkur district. Enterprises can focus on enhancements in reliability and assurance, as these dimensions are most significant in establishing robust, long-term relationships with business customers. The results also show that although tangibles do matter, they matter less than other more relational drivers are such as responsiveness and assurance.

5.1 Findings

The key discovery from this research of service quality in forging long-term B2B relationships in the desiccated coconut industry of the Tumkur district based on collected data and statistical analyses – Chi-Square, Correlation and Regression is given below:

- The Chi-Square analysis demonstrated a strong connection between service quality and customer satisfaction. It emphasized how the positive correlation among the three key dimensions of service quality played a crucial role in shaping customers' decisions to sustain long-term relationships.
- Tangibles, while significant, correlated less strongly with customer satisfaction, indicating that physical aspects such as appearance and organizational logos, layouts and signs are less important in shaping long-term associations than on other service quality measure.
- Custom loyalty strongly positively relates to the quality of service. It had the strongest correlation with reliability. That means customers tend to remain loyal to desiccated coconut companies that offer steady, responsive and reliable service.
- According to the data tangibles have a moderate positive correlation (r = 0.60) which indicates that physical factors such as packaging and quality of the facility matter, however, they are not the main drivers for creating loyalty, and that comes through service factors such as reliability and responsiveness.
- The regression analysis revealed the importance of service quality dimensions on the strength of long-term B2B relationships. The highest (Beta = 0.40) standardized coefficient (B) was represented by reliability as was found to be the strongest predictor followed by responsiveness and assurance. This indicates that customers value businesses that are uniform in nature, responsive to their needs, and offer security through assurance,
- Empathy and Tangibles had positive effects on long-term relationships, but they had lower coefficients, this suggests that, despite the fact that personal attention and the physical presentation of

services and products matter, reliability and assurance are more important in ensuring long-term B2B relationships.

- Service quality is the main key driver of long-term B2B relationships in the desiccated coconut industry. Such businesses that are reliable, responsive, and trustworthy in their services are most likely to generate and build a strong relationship with their B2B customers.

5.2 Suggestions

5.2.1 Enhance Reliability:

- **Recommendation:** Desiccated coconut businesses can shun the temptation to provide for every quarter and, instead, work on providing reliable services by making deliveries as per time, providing products with standard quality, and maintaining the clear information with the customers. Standardized operating procedures should be established for production, quality control, and delivery to ensure that businesses are highly reliable.
- **Implementation:** Develop internal systems for conducting frequent quality checks, live-tracking for deliveries and setting up the communication with customers to Keep them updated on their order status.

5.2.2 Improve Responsiveness:

- **Recommendation:** Enterprises need to improve their systems for responding quickly to customer queries, concerns and complaints. Creation of a customer support team dedicated to meeting the requirements of B2B clients facilitates increases in responsiveness.
- **Implementation:** CRM system to track customer interactions, inquiries, and complaints. Establish specific benchmarks for response times that align with the goals of the investigation or inquiry, and ensure that any follow-up actions are taken in a timely and effective manner.

5.2.3 Build Assurance:

- **Recommendation:** This study emphasized the significance of assurance in fostering long-term relationships. Desiccated coconut enterprises build their B2B business on product quality, on delivering fulfilments, and on showing industry expertise which provides customers peace of mind.
- **Implementation:** Provide a certification or letter of authenticity, testimonials from people, and third-party validations of quality. Training staff regularly to give expert advice and support can also boost the feeling of security.

5.2.4 Invest in Empathy:

- **Recommendation:** Empathy is important for customer satisfaction. B2B clients have individual needs and concerns, and so organizations should make this understanding a priority and design their services appropriately.
- **Implementation:** Provide training to sales and support teams on empathetic communication and relationship-building. Implement regular check-ins with the most significant clients to further refine our understanding of their changing needs and expectations.

5.2.5 Optimize Tangibles:

- **Recommendation:** Tangibles, are not so important compared to service-oriented factors, but they are one of the elements that can contribute to the development of future customer loyalty and satisfaction. It is quite evident that the physical dimensions of the products and services of the desiccated coconut enterprises which include packaging, presentation of the product, and the appearance of the outlets are the areas they must be concerned with.
- **Implementation:** Spend on quality packaging and branding or even regular maintenance of the facility you work in to leave a lasting impression on clients. Analyze Current Products — Ensure product designs/packaging evolve in line with market trends and customer preferences.

5.2.6 Customer Feedback and Continuous Improvement:

- **Recommendation:** Enterprises should conduct routine feedback sessions with B2B customers to gauge service quality and determine areas of improvement.
- **Implementation:** Create a feedback collection system to gather customer responses and analyze these to identify patterns and areas for improvement, like surveys or one-on-one interviews. Make improvements based on the feedback received and let the customers know about the improvements that have taken place to further solidify the bond.

6. CONCLUSION:

The study helped for the understanding of how service quality impacts long-term B2B relationships, specifically within the context of the desiccated coconut industry in Tumkur district. Service quality is an essential determinant of customer satisfaction, loyalty, and the overall strength of long-lasting business relationships.

The major findings highlight that reliability, responsiveness, and assurance are the critical dimensions in developing good relationships and tangibles are less important. These relationship quality dimensions must be improved by the desiccated coconut enterprises to maintain and strengthen these relationships. Where businesses provide reliably on these fronts, they are apt to experience prolonged success, and longer-lasting associations with their B2B clients.

This leads to the proposition of the study which is that desiccated coconut units in Tumkur district that are able to deliver SQD to their consumers are performing such activities that are increasing not only the customer satisfaction but also leading towards the long run beneficial relationship. Hence, in order to establish a solid basis of growth in the competitive B2B marketplace, it is important for businesses to adopt the recommendations made in this study.

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