

Analysing Factors Affecting Customer Satisfaction with Sena-Kallayan Songsthan's Consumer Products

Md Wahidul Haque^a, Md Enamul Islam^{b*}

^aAcademy of Social Science Research, Bangladesh

^bRajuk Uttara Model College (RUMC), Uttara Model Town, Dhaka-1230, Bangladesh

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ABSTRACT

Sena Kallayan Songsthan is well-known for its quality products in Bangladesh. The business organization is looked after by the Bangladesh Armed Forces. Since the independence of the country, Sena Kallayan Songsthan has kept its footprint in various types of consumer products as well as some heavy machinery products. However, no known empirical research was noticed for assessing the customer satisfaction of the industry. Three important parameters of customer satisfaction were considered in this study to find out the predictive relevance of product quality, service quality and information quality.

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Introduction

In today's information age, the widespread extension of business information technology has replaced the traditional way of public interaction. Entrepreneurs are moving forward in a span, the necessity of accessing a large audience with improved operational efficiency, product quality and service quality (Uddin and Cheng, 2014). The proliferation in technology usage is observed in organisations, while entrepreneurs face a tremendous challenge to providing the best service with good quality products/s while keeping the consumer informed. The significance of customer satisfaction is recognised in a commercial enterprise (Raja Irfan *et al.*, 2014). Customers are sources of revenue that ensure profit in steady companies. Companies which know how to keep their customers happy can experience more excellent financial stability. Customer satisfaction is an essential component of future business. Satisfaction is a satisfactory explanation. It is a judgment about the nature and quality of the product itself that provides a pleasurable experience that contributes to the overall fulfilment. Regular research on consumer satisfaction helps business organisations change their business strategy (Uddin and Cheng, 2014).

Customer satisfaction is usually associated with the product quality and service quality provided by the entrepreneurs, and if the consumers are informed about the product. These factors together can represent consumer satisfaction. As a result, the business owner utilises various strategies to survive (Tuan and Rajagopal, 2018). A key strategy to building a prosperous economy is to satisfy customers, which

ensures long-term growth. Nowadays, organisations are aware of the importance of retaining the customer and continuing to strive to know why a black box of customer affects the brand choice to reduce the turnover rate (Hanif, Hafeez and Riaz, 2010).

In 1971, the Fauji Foundation came into being as the Sena Kalyan Sangstha (SKS). SKS was officially renamed on 01 July 1972. An organisation devoted to the welfare of retired, discharged, and released personnel of the Bangladesh Armed Forces and their dependents. The vision and mission of this commercial organisation controlled by the Bangladesh Armed Forces Division are "To serve the entire community of the retired armed forces personnel by generating maximum profit through commercial ventures utilising its resources efficiently and distributing the profit by a wide range of welfare activities while focusing on future growth in a sustainable manner for a broader range of welfare" (<https://www.senakalyan.org/>, no date). The organisation has various consumer products and services like cement, food and oil, bottled drinking water, electric appliances, textiles, insurance and tours and travel services.

Research on consumer satisfaction is a continuous process and never-ending, primarily when multi-national and multi-dimensional companies operate in the same market. An experimental study is necessary to understand the factors affecting user satisfaction with any organisation's consumer products and services. The research objective is to identify the factors affecting customer satisfaction with SKS's consumer products.

*Corresponding Author: Md. Enamul Islam *

Email Address: enamul5085@gmail.com



Literature Review

Today's consumer product manufacturing is faced with multi-dimensional challenges. The manufacturers need to emphasise more on the department's ability to support the product. They were reflecting the application of technology and engineering in products and services—the type and quality of the supplier's response. Evaluate suppliers' ability to meet deadlines and process efficiently. Supplier service provided to customers. Complaint management. Weight, durability, price and performance of the item. The supplier's mannerisms and interactions. Supplier's ability to cover the life cycle of a customer. Comprehensive and uncomplicated functions and operations (Raja Irfan *et al.*, 2014).

It is improbable that the manufacturer would be able to provide all the necessary features. It is good and bad in products and services, such as those that delight customers or ones that irritate them. The final opinion is the result of a lot of customer feedback over time. The greater the good aspects, the more satisfied a customer is with the purchase. The service provider's intended outcome should always be to enhance the positive feelings of all its customers to increase customer satisfaction. The supplier must provide a means of augmenting its positive aspects by evaluating customer information using experimental research. Customers' likes and dislikes vary to some extent. Therefore, it is essential to focus on individual requirements and target customers (Tojib, Sugianto and Sendjaya, 2008).

Service quality generally focuses on what customers expect regarding performance and how well they meet these expectations. A business with high quality service can adapt to changing customer demands while at the same time maintaining quality. Service quality, customer satisfaction, and a firm's business strategy should be priorities for its overall strategy. In addition to measuring and reviewing customer-related strategies, regular monitoring and evaluation of customer needs can help managers implement the products/services that customers value the most, while also retaining existing customers. Second, managers should view their organisation as a complex system comprised of many components and, more importantly, managers should put their efforts into bringing all these different components together to serve a common objective. The significant

contribution of previous research in customer satisfaction-related studies is to test various constructs in relationship marketing literature, such as service quality, customer satisfaction, and customer loyalty, to test their interrelationships in a different context. Satisfaction is determined by how much a customer likes the service of the manufacturer. Therefore, a hypothesis can be developed that customers' satisfaction is significantly influenced by the service quality provided by the manufacturer or the distributor/supplier (H_1).

Product quality involves incorporating attributes committed to meeting needs (wants) and providing customers with loyalty by improving goods and services (products) and making them free from any defects or abnormalities. A pictorial view of the attributes of product quality can be seen in Figure 1. Most businesses will not succeed if they cannot build confidence with prospective customers; countless opportunities are lost when manufacturers fail to meet customer choice and demand. However, by having the confidence and loyalty of consumers, the business has the freedom to raise prices without losing the same level of consumer loyalty. Maintaining and delivering high-quality products and services is an effective way to encourage consumers to appreciate and build trust in the products they purchase. Kaniganat and Chaipoo Pirutana (2014) have concluded that customer satisfaction is directly influenced by product quality, while indirectly through the perception of price fairness.

One aspect of quality is the look, feel, sound, taste, and smell of a product. The product's look, precisely the colours, prints, shapes, textures, and features, sets it apart from its competitors. Customers find these kinds of details beneficial, which is why they are tempted to buy. The business organisation should always have a focus on retaining customers. High-quality products have low complaints and provide great profit (Li, 2013). A satisfied customer is more valuable to the organisation, and customers who are buying from it for a long time will produce a higher profit.

Figure 1: Various attributes of product quality, adapted from Caramela (2020)



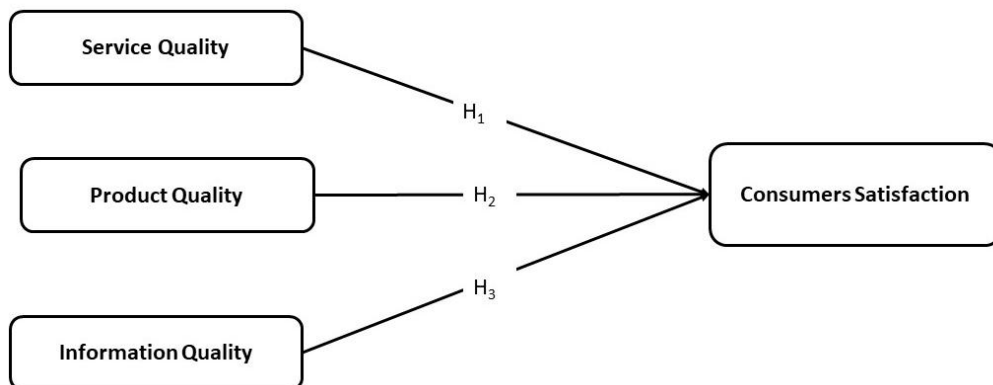
They are generally able to offer the lowest service cost and can be used to offer premium services. They act as brand ambassadors for the supplier, encouraging others to purchase the product. Hence, the organisation needs to ensure good quality products in the market and nurture their customers to create a strong bond with them in the short run and then focus on higher profits in the long run over the whole life cycle of customers. Therefore, it can be hypothesised that product quality significantly affects consumer satisfaction (H_2).

Information quality refers to the value of the information and the usefulness or utility of the given information. Good information is that which is applied and adapted to solve problems. Recent studies show that useful information contains numerous qualities and characteristics. Useful information is relevant to the problem and sufficiently accurate for its purpose, complete in terms of substance, reliable and targeted to the right audience (DeLone and McLean, 2003). Business profit depends on selling products. Unlike other factors, information quality also matters most

when today's consumer has easy access to the information system. It is the supplier or manufacturer's prime responsibility to provide timely and necessary information to the consumers. One best ways to keep the customers informed is through mass media advertisement and online platforms (Alshikhi and Abdullah, 2018).

Information quality can be ensured in terms of accuracy, timeliness, completeness, relevance, and consistency. The more quickly and precisely entrepreneurs can provide the consumer's information, the better marketing they can achieve. Easy access to information technology, such as the internet, makes consumers' lives more comfortable to finding the right quality products in the market. Even a consumer who wishes to purchase spices from the local market nowadays days a Google search to find the best quality products. Therefore, it can be hypothesised that entrepreneurs' ability to produce information quality might significantly influence customer satisfaction (H_3). A pictorial view of the conceptual framework is shown in Figure 2.

Figure-2 : Hypothesised relationship of latent constructs





Methods and Materials

This research aims to study the influence of service quality, product quality, and information quality on SKS's consumer products customer satisfaction. The descriptive research gathers information about how behaviour occurs in particular situations, not how it is performed in controlled situations. Surveys can only provide necessary information on what, where, when, who, and how something occurs, not why it occurs. Commonly used in survey research are the observation, case study, and survey methods. The survey is a research technique that involves the collection of a data set that would then be analysed by the researcher. A questionnaire survey was developed to get a response from the target population. This research is confined to the consumer's items such as bakery, spices, edible oil, cosmetics, soap, food grains and other miscellaneous items produced by the SKS and sold in Canteen Store Department (CSD) shops and local markets in and around Dhaka city.

Apart from the demographic variables such as age, gender, marital status, and average monthly purchase, the researchers used four sub-scales to measure the latent constructs. The subscales are adapted from existing literature. For example, the researcher has adapted the scale developed by Kaniganat and Chaipooirutana (2014) for measuring the endogenous latent construct "Customer's Satisfaction". The Sub-scale to measure "service quality" exogenous latent construct was adapted from Masukujjaman (2010). The items to measure the product quality variable were adapted from Li (2013). The information quality sub-scale was adapted from DeLone and McLean's "Information Service" success model (2003). Since the researcher adapted the sub-scales from existing literature, which was conducted in a developed nation, a pilot study was necessary to find out the validity and reliability (Kumar, 2011). The researcher conducted a pilot study with 65 respondents.

The targeted populations are the 18 to 70-year-old customers in and around Dhaka city. The researcher has collected data from 384 samples (the number of populations is unknown). The unit of analysis is individual customers who have consumer products in their shopping list. The researcher has used a purposive simple random sampling technique for selecting the samples (Sikder, 2019). The researcher analysed the collected data with Computer-Aided Quantitative Data

Analysis Software (CAQDAS). The fifth-generation SmartPLS software was used to test the hypotheses. Partial Least Squared Structural Equation Modelling (PLS-SEM) is a variance-based structural equation modelling technique that has become very popular in management and social sciences in recent years. It can test complex models (Nitzl, Roldan and Cepeda, 2016, P. 4).

Result and Discussion

The pilot study achieved an .835 Cronbach Alpha with 42 items in 4 variables; however, expert opinion was taken from marketing research experts who have suggested reducing items. The researcher conducted confirmatory factor (CFA) analysis and kept 28 items besides four demographic variables. The final study was conducted from July 2020 to November 2020. The research has confirmed the data purification before statistical analysis. Mahalanobis Distance test (D^2) was used to find out potential outliers. The D^2 value was (40.3397) below the critical value considering the degree of freedom (28) and $P < .05$. The result indicates that the data set is free from outliers. However, the data set fails to achieve a normal distribution of the data.

Common Method Bias (CMV) has been generally agreed to be a significant issue associated with self-report surveys (Lindell and Whitney, 2001; Reio, 2010; Henseler *et al.*, 2014; Vishwanath, 2017). Harman's single-factor test was performed with confirmatory factor analysis on all 28 items that measure the entire construct as an unrotated principal factor to determine the number of factors that account for the construct's variance. A single factor explained 33.18% total variance, which is well below a 50% variance. Thus, CMB was not a potential threat to the data set.

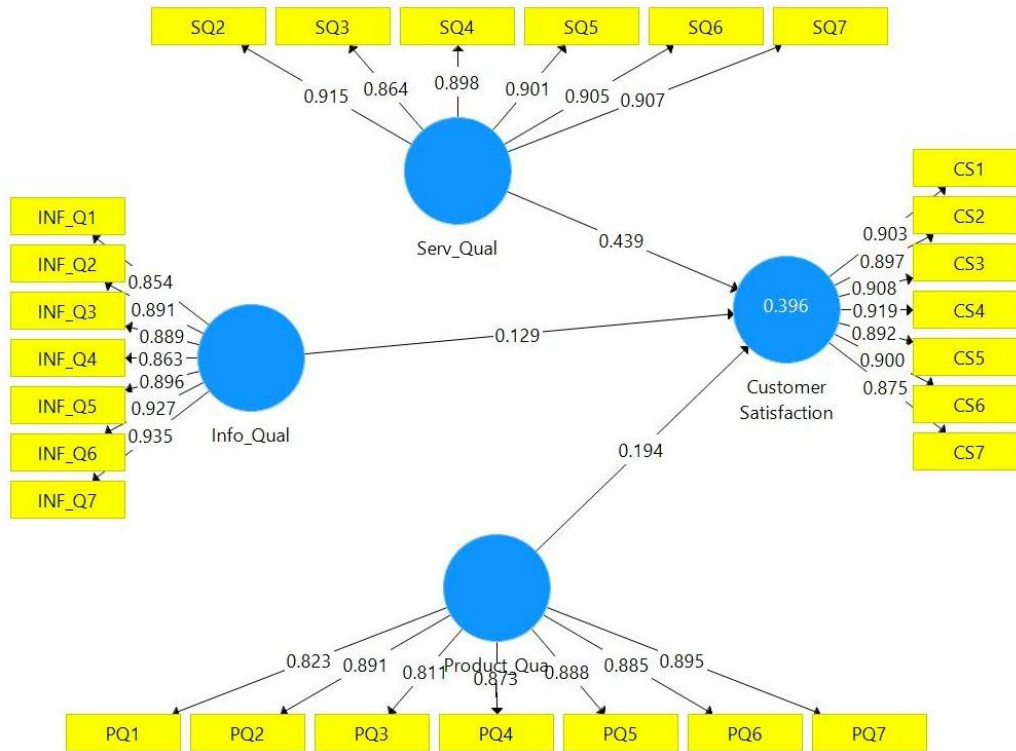
Regarding the multicollinearity, both inner and outer model Variance Inflation Factors (VIF) were below five, indicating the data set is free from collinearity issues. Construct validity and reliability were achieved through composite reliability and Average Variance Extracted (AVE) as seen in Table 1. The items' outer loadings were also above 0.708 (except one item in service quality, which loaded with 0.532 and was deleted from the data set), measuring the reliability of the data set as can be seen in Figure 2.



Table 1: Construct validity and reliability result (SmartPLS algorithm report)

Latent Constructs	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Customer Satisfaction	0.961	0.963	0.967	0.809
Info_Qual	0.958	0.961	0.965	0.799
Product_Qual	0.945	0.954	0.955	0.752
Serv_Qual	0.952	0.953	0.962	0.807

Figure 2: Showing the indicators' outer loadings.



Source: PLS Algorithm report

Table 2: Respondents' profile (n=384)

Variables	Codes	Frequency	Per cent
Gender	Male	288	75.0
	Female	96	25.0
Age	Below 30 yrs	92	24.0
	30 to 40 yrs	119	31.0
	41 to 50 yrs	96	25.0
	Above 51 yrs	77	20.1
Marital Status	Married	345	89.8
	Unmarried	24	6.3
	Divorced	13	3.4
	Missing Value	2	.5
Average Shopping Expenditure Per Month	Below 5000 taka per month	237	15.6
	5000 to 10000 taka	102	40.1
	Above 10000 taka	45	44.3
Purchase Frequency of SKS products	Regular	115	29.9
	Once in a month	175	45.6



Knowledge about SKS Products	Some time	94	24.5
	Yes	179	46.6
	No	204	53.1
	Missing Value	1	.3

As shown in Table 2, 75% of respondents are male, while 25% are female, indicating that male consumers often purchase SKS consumer products. An average consumer spent less than 5000.00 taka per month. 45.9% of respondents purchase SKS consumer products once a month. 53.1 % of respondents opined that they do not have any pre-decision or knowledge about SKS products.

Hypotheses Testing

The research was conducted to find out the predictive causal effect of “service quality”, “product quality” and “information quality” on customer satisfaction while purchasing SKS consumer products. Bootstrapping procedure reports provide empirical t-statistics (obtained by dividing the path coefficient value by standard error)

and ‘P values’ (the probability of erroneously rejecting the null hypothesis). The empirical t value is compared with the critical value to determine if it is higher than the critical value, which is desired. The critical t values are 2.57, 1.96, and 1.65 for a significance level of 1%, 5%, and 10%, respectively, for two-tailed tests (Wong and Kwong, 2013).

H₁ was a premise in a prediction that service quality might affect consumer satisfaction. The path relationship is significant at 1 per cent (t=7.527; p-value is 0.000). This statistical analysis rejects the null hypothesis (referring to Table 3). There is a positive effect of service quality on customer satisfaction. Therefore, the study rejects the null hypothesis and found that the alternative hypothesis is **supported**.

Table 3: Bootstrapping result (5000 sub-sample)

Path Relationship	Hypothesis	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
Service Quality -> Customer Satisfaction	H ₁	0.439	0.441	0.058	7.527	0.000
Product Quality -> Customer Satisfaction	H ₂	0.194	0.193	0.060	3.225	0.001
Information Quality -> Customer Satisfaction	H ₃	0.129	0.130	0.049	2.620	0.009

It was predicted that product quality might have a significant effect on customer satisfaction (H₂). The path relationship is significant at 1 per cent (t=3.225; p-value is 0.001). This statistical analysis rejects the null hypothesis (referring to Table 3). There is a positive effect of product quality on customer satisfaction. Therefore, the study rejects the null hypothesis and found that the alternative hypothesis is **supported**.

The third hypothesis was to test the effect of information quality on customer satisfaction. The path relationship is significant at 1 per cent (t=2.620; p-value is 0.009). This statistical analysis rejects the null hypothesis (referring to Table 3). There is a positive effect of service quality on customer satisfaction. Therefore, the study rejects the null hypothesis and found that the alternative hypothesis is **supported**.

Model Assessment

The coefficient of determination (r² value) depicts the structural model’s predictive accuracy and is calculated as the squared correlation between a specific endogenous construct’s actual and predicted values (Hair et al., 2014). The r² gives the combined effects of independent variables on the dependent variable, i.e. it represents the amount of variance in the endogenous constructs explained by all of the exogenous constructs linked to it (Tabachnick and Barbara, 2019). The study achieved (referring to Figure 2) an r² value of 0.396, indicating that the independent variables together have 39.6% variance on the dependent variable.

Effect Size can be calculated as $f^2 = (r^2_{\text{included}} - r^2_{\text{excluded}}) / (1 - r^2_{\text{included}})$ where r² included and r² excluded are the r² values of the endogenous latent variable when a selected exogenous latent variable is



included in or excluded from the model. Cohen (1988) has suggested that f^2 values: 0.02, 0.15, and 0.35, respectively, represent small, medium, and large effects

of the exogenous latent variable. Table 4 shows the effect size (f^2) of the independent variables on the dependent variable.

Table 4: Effect Size

Independent Variables	Dependent Variable (Customer Satisfaction)	Decisions
Information Quality	0.023	Small Effect
Product Quality	0.043	Small Effect
Service Quality	0.199	Medium effect

Standardised Root Mean Square Residual (SRMR) reading has grown in popularity, and the researchers considered that an SRMR value below 0.08 represents a useful result. Table 4 noted that the SRMR value is 0.044 (<0.08), indicating that the model fits the goodness of fit criterion.

achieve goodness of fit (The NFI constructs a χ^2 score based on the hypothesis tested and compares it to a tangible benchmark value). As shown in Table 5, the NFI value is 0.939, above the recommended threshold (>0.9). This data analysis confirms further goodness of fit of the model.

Hair et al. (2014) have also suggested that the Normed Fit Index (NFI) value of a model should be above 0.9 to

Table 5: SRMR and NFI report

Result	Saturated Model	Estimated Model
SRMR	0.044	0.044
d_ULS	0.727	0.727
d_G	0.306	0.306
Chi-Square	667.447	667.447
NFI	0.939	0.939

Conclusion and Guideline for Future Research

Assessing customer satisfaction is a continuous process. Business needs to remain updated and keep their performance increasing. This research's objective was to test the effect of a defined set of variables on the customer's satisfaction with SKS's consumer products. All three hypotheses were supported, indicating that service quality, product quality and information quality significantly affect the customer's satisfaction. 53.1% of respondents have limited or no knowledge about SKS products, indicating that product information has not reached the customers. This research might help managers of SKS to provide better service, increase product quality and inform the customers about the product (through advertising).

The research is not free from limitations. The researcher could select some more variables, like store location, customer motivation, perceived usefulness, and user benefit as independent variables. The purposive sampling may limit the generalizability of the result. Due to time and funding availability, the researcher could not conduct a mixed-method or qualitative research (human behaviour also demands opinions and comments from the people involved), which could have

made the research more authentic as suggested by Ivanko (2003). Future researchers may expand the customer satisfaction study into a cross-sectional study.

Recommendations

The researcher, with his interest and inquisitiveness, has conducted this research. There was hardly any previous research noticed by the researcher on the subject matter. This research might become a benchmark for future research for SKS. The researcher makes the following recommendations:

- SKS may conduct an in-depth study to find out customer satisfaction and net benefits following Delone & McLean's information success model.
- SKS management might seek more opportunities for keeping their customers informed through a visual and printed advertising system.
- The customers seem to be satisfied with the product quality; however, information quality needs improvement.
- More dealers may be employed for distribution, and more outlets might be established to reach out to the customers.



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