University Students' Perception of Quality: A Case of Bangladesh

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ABSTRACT

This paper explored the quality perception of university students of Bangladesh in terms of 57 quality dimensions. A total of 258 responses from both public and private universities with different demographics are considered using non-probability convenient sampling technique. The responses are found reliable and valid. The most important quality dimensions observed by the respondents are value for money, completeness, privacy, serviceability, performance, durability, accurate quantity, reliability, taste, sound, easy identification, and conformance. The very close to highly agreed attributes are quality certification, ease of use, responsiveness, timeliness, hygienic/cleanliness, accuracy, easy installation, competency, and accessibility and convenience. On the other hand, the least agreed quality dimensions as perceived by the respondents are appealing facilities, packaging/look, prestige, financial facilities, foreign good, advertisement, loyalty program, financially sound brand, CSR, celebrity endorsement.

Of the 29 quality attributes of goods, the study identified good value, performance, serviceability, durability, reliability, sound, easy identification, conformance, taste, ease of use, easy set-up as the most important quality dimensions. Interestingly the students give less emphasis on natural and cognitive based quality attributes. On the other hand, of the 18 service quality attributes, the respondents found completeness, accuracy, cleanliness, timeliness, responsiveness, and accessibility & convenience as most important quality attributes. Further, of the ten quality constructs common to both service and manufacturing items the respondents identified privacy of information and quality certification as the most important. On the other extreme the least agreeable attributes are financially sound companies, CSR activity, and celebrity endorsement. Demography and ideography wise no significant difference is observed in the study.

Key words: Cognition-based quality, Manufacturing quality, Natural quality, Service quality,

INTRODUCTION

Background

Quality is critical in satisfying an organization's stakeholders. The quality gurus focused quality as an important component of customer satisfaction and continued with the development of Total Quality Management (TQM) programs (Juran, 1974; Crosby, 1979: Deming, 1982, Feigenbaum, 1989). At the same time several researchers tried to position TQ Memphasizing customer focus, strategic planning and leadership, continuous improvement, and empowerment and teamwork (Bellis-Jones & Hand, 1989; Tobin, 1990).

While this continued focus on quality contributed to a general improvement in products (both goods and services), it did not encompass all phases of a business's competitive position. Although, quality programs helped define dimensions that contributed to a customer's initial perception of quality (Garvin, 1984a; Parasuraman, Zeithaml & Berry, 1988); however, they did not identify how and whether the importance of those dimensions could vary from the customer's initial interest in the provider's product through the product's useful life (Garvin, 1984a; Garvin, 1984b; Parasuraman, Zeithaml, & Berry, 1991).

To successfully compete in the interminable race for business sustenance, an organization and its management must develop a competitive edge (Cronin& Taylor, 1994; Parasuraman, Zeithaml & Berry, 1985/1990; Reicheld & Sasser, 1990; Teas, 1993). This edge may come in the form of understanding how a company's customers value a given quality dimension (relative to the other quality dimensions) and when and if that quality dimension can increase (or decrease) in importance over time. Therefore, to clarify understanding of these quality dimensions and their interrelationships, a comprehensive model would provide operational guidelines in these competitive struggles.

Issue

Despite political strife, natural disasters, and financial shocks, Bangladesh has maintained unique growth during the last few decades. Over the years, the country has significantly decreased poverty and met the Millennium Development Goals ahead of schedule. According to United Nations, Bangladesh has the most competitive manufacturing sector in South Asia. In the 2021 UN Competitive Industrial Performance (CIP) Index, based on a composite index of three dimensions (i.e., manufacturing capacity, technical development and upgrading, and global impact) the country rose three places to 67th (out of 152 countries.) in the globe indicating Bangladesh's continuous improvement of its industry and business ecosystem; however, it scored poorly on some sub-indices.

Bangladesh's economy has shifted from a mostly traditional agriculture-based to one centered on industry and services. The industrial sector has been the primary driver of economic expansion. The technical advancements are fast transforming the production and service modes. Also, Bangladesh's young and expanding workforce has a chance to boost productivity and accelerate economic growth. Hence, the perception of the Bangladeshi students holds significant value in terms of manufacturing and service quality eventually impacting the overall industry and business environment. Therefore, the students' perception of quality, which as the country moves into deeper industrialization will be playing an even more important role.

Therefore, aim to focus on all these factors and the different aspects pertaining to quality is of utmost importance. The tertiary level Bangladeshi students' quality perception, and relevant feedbacks will help universities, and industry understand the factors that come into effect while making management decisions. They will also be able to consider different perspectives while undergoing such decisions for proper quality understanding. This will provide a concrete vision on quality control and help the stakeholders be more aware of their decision-making and make them more cautious while making management decisions as they step into the industry.

Objectives

The broad objective of this paper is to explore the Bangladeshi university students' perception of quality. Specifically, the study focused on functional, natural, perceived, aesthetic, and pre-post sale attributes of goods; systems, human, and supporting attributes of services; as well as customer and company focus common quality attributes. Further, the study identified the differences in perception of quality based on different demographics (gender, age, and household income), type of institution (Public or Private) and faculty of study of respondents.

LITERATURE ON QUALITY

2.1.1 Quality Concept

Quality can be a confusing concept. People view quality subjectively. The meaning of quality continues to

evolve as the quality profession grows and matures (Harris, 1995). ANSI (American National Standard Institute) and ASQC (American Society for Quality Control) defined quality as the totality of features and characteristics of a product that bears on its ability to satisfy given needs. A simpler, yet powerful, definition by progressive organizations is meeting or exceeding customer expectations. Still these definitions are fuzzy. Quality has traditionally been viewed as conformance to requirements (Crosby, 1979),fitness for use (Juran, 1974),orinnate excellence (Parasuramanet al., 1991).Dean and Evans (1994) noted different quality perspectives, e.g., i) Judgmental (abstract, arbitrary & subjective), ii) Product-based (specific, measurable), iii) User-based (determined by customer wants/needs), iv) Value-based (satisfaction to price), v) Manufacturing-based (conformance to specification), and vi) Integrated (depends on one's position in the value chain).

Garvin (1984 b, 1987) characterized product quality as multifocal that appears in eight dimensions: i) performance (a product's primary operating characteristics), ii) features("bells and whistles" of a product), iii) reliability (probability of a product's operating over a specific period of time under stated conditions of use), iv) conformance (degree to which physical and performance characteristics of a product match pre-established standards), v) durability (amount of use one gets from a product before it physically deteriorates), vi) serviceability (speed, courtesy and competence of repair work), vii) aesthetics (looks, feels, sounds, tastes or smells of a product) and viii) perceived quality (subjective assessment resulting from image, advertising, or brand names). He also maintained that quality is in the eyes of the beholder and different users would require difference mixes of the quality dimensions.

Reeves and Bednar (1994) identified similar approaches to quality and conclude that a global definition of quality is difficult; rather, different definitions of quality are appropriate under different circumstances. These quality dimensions became the foundation on which much current quality research is founded and have received considerable support and some criticism. (Sureshchandar, Rajendran & Kamalanabhan, 2001). Crosby (1979) argued that price should have been added to the quality dimensions, thereby forcing choice and stability. A recent review of literature identified a continued separation of good and service quality dimensions. These include an interest in service quality gaps (Sureshchandar, Chandrasekharan, Anantharaman, 2002; Candido & Morris, 2000; Morris, 2001), the relevance of these dimensions in various industries (Canic & McCarthy, 2000; Cook & Thompson, 2000) and industry-specific interpretations of these dimensions (Sureshchandar et al., 2001).

The realization that quality is a multi-dimensional construct (Garvin, 1984 b; Hjorth-Anderson, 1984) is empirically evidenced by Stone-Romero, Stone and Grewal (1997). Parasuraman, et al., (1988) identified five dimensions for service industries: i) tangibles (the physical facilities and equipment, and the appearance of personnel), ii) reliability (the ability to provide what was promised, dependably and accurately), iii) responsiveness (the willingness to help customers and provide prompt service), iv) assurance (the knowledge and courtesy of employees, and their ability to convey trust and confidence), and v) empathy (the degree of caring and individual attention provided to customers). In these dimensions, few transactions can be identified as purely manufacturing, or purely service. Rather, most transactions provide a combination of manufacturing with accompanying service, or service with some tangibility. Hence product composed of a combination of goods and services require an evaluation of both (Evans & Lindsay 2002).

Manufacturing Quality Dimensions

Despite the above findings, most research treat quality as a unidimensional construct and does not take the necessary care to clearly state the definition of quality used (Stone-Romeroet al., 1997). In fact, the relative strategic importance of the different quality dimensions varies across products and industries. An organization will only achieve competitive advantage through quality if there is a match between the importance that the markets assign to the individual quality dimensions and the organization's performance

along those individual dimensions (Garvin, 1984b). Also, different quality dimensions exhibit different relationships with other competitive variables such as cost and delivery dependability. Regarding cost, improved conformance may lead to reduced costs, while improvement in the performance dimension may imply reduce conformance and increased costs (Maani, 1989).

In addition, the deficiencies of the existing quality management literature in defining product quality have been identified as being responsible for conflicting results linking quality to market share, cost, and profits (Reeves, & Bednar, 1994). Also, provision of different quality dimensions poses different demands on different organizational functions (e.g., marketing, design, manufacturing, purchasing) and may require different organizational practices (including quality management practices) depending on the quality dimension in question (Flynn, Schroeder& Sakakibara, 1995). For example, while the design function and associated practices are bound to influence most quality dimensions, the manufacturing function and practices will probably be limited to influencing conformance to quality. Hence studies should not aim at a single definition of quality rather, they should focus upon the fundamental nature of an organization's output and use a combination of relevant dimensions for that output.

Service Quality Dimensions

Service quality has been described as a form of attitude, related but not equivalent to satisfaction that results from the comparison of expectations with performance (Bolton& Drew, 1991 a; Parasuraman, et al., 1985). Though researchers admit that the current measurement of consumers' perceptions of service quality closely conforms to the disconfirmation paradigm (Bitner, 1990; Bolton& Drew, 1991a), they also suggest that service quality and satisfaction are distinct constructs (Bitner, 1990; Bolton, & Drew, 1991a; Bolton, & Drew, 1991b; Parasuraman, et al., 1988).

Thus, the service literature has left confusion as to the relationship between consumer satisfaction and service quality. The importance of this issue has led to several efforts to clarify the relationship between satisfaction and service quality (Bitner, 1990; Bolton, & Drew, 1991a; Bolton, & Drew, 1991b; Parasuraman, et al., 1988). Parasuraman, et al. (1985; 1988) proposed that higher levels of perceived service quality result in increased consumer satisfaction, but evidence suggest that satisfaction is an antecedent of service quality (Bitner, 1990; Bolton& Drew, 1991a; Bolton, & Drew, 1991b).

Bolton and Drew (1991a) posit that perceived service quality is a function of a consumer's residual perception of the service's quality from the prior period and his or her level of (dis)satisfaction with the current level of service performance. This notion suggests that satisfaction is a distinct construct that mediates prior perceptions of service quality to form the current perception of service quality. This implies that the disconfirmation process, expectations, and performance all should have a significant impact on consumers' current perceptions of service quality. However, their results suggest that perceived service quality is strongly affected by current performance and that the impact of disconfirmation is relatively weak and transitory.

METHODOLOGY

Data

The data for the study is collected from both primary and secondary sources. The primary data source is responses from 265 currently enrolled university students (both private and public universities of Bangladesh) collected through a survey questionnaire. The secondary sources include relevant literature review of books, journal articles, and research papers. The opinions of the learned people and industry experts in this area along with the secondary sources helped in identifying the quality variables and in formulating the coordination schema.

Sample, Population and Sampling Techniques

The target population for this research is the currently enrolled university students. The 265 respondents comprised of students from Public and Private Universities studying in the faculties of Business, Arts, Commerce, Science, Engineering, and Pharmacy giving gender consideration. The samples were identified using non-probabilistic convenient, judgmental and quota sampling technique (Google forms and personal contacts).

Questionnaire

A self-administered questionnaire was developed for collecting primary data after the formulation of the research problem, objectives, hypotheses, and schema (Appendix 1). The questionnaire was pre-tested by taking comments from 8 university students and edited accordingly. The questionnaire maintains high face validity in the sense that the questions and options logically relate to the variables they are supposed to measure. The structured self-administered questionnaire had 57 quality attributes developed in a 5-point Likert scale ranging from "strongly agree" to "strongly disagree". The respondents' ideographic data also collected through the questionnaire to analyze further. The study made use of descriptive statistics, one sample and independent sample t-tests, ANOVA, correlation, and factor analysis in analyzing the data.

Grouping of Quality Dimensions

The 57 quality attributes mainly describe the quality dimensions of Goods, Services, and quality dimensions common to both goods and services. These quality attributes are again sub-grouped as follows.

a. Goods (29)

1. **Functional Quality Dimensions (6):** Performance (1), Features (2), Reliability (3), Ease of Use (4), Conformance (5), Durability (6)
2. **Natural Quality Dimensions (4):** Less preservatives (7), Environment friendly (8), Organic products (9), Disposability (10)
3. **Cognition-based Quality Dimension (12):** Brand (16), Image (17), Advertisement (18), Prestige(19), Creativity (20), Premium products (23), Foreign products (50)
4. **Aesthetic Quality Dimensions (5):** Packaging/Look (11), Feeling (12), Fragrance (13), Taste (14), Sound (15)
5. **During-sale and Post-Sale Quality Dimensions (7):** Serviceability (21), Good value (22), Financing options (24), Ease of delivery (25), Easy set-up (26), Accurate quantity (27), Easy identification (48)

b. Services (18)

1. **Quality Dimensions (System Aspects) (7):** Time (28), Timeliness (29), Completeness (30), Consistency (31), Accuracy (32), Responsiveness (33), Credibility (34)
2. **Quality Dimensions (Personal Aspects) (6):** Courtesy (35), Amicability (36), Values (37), acknowledging customer feelings (38), Inspirational employees (39), Competency (40)
3. **Supporting Quality Dimensions (5):** Accessibility & convenience (41), Documentation (45), 24-hour customer service (46), Cleanliness (47), Personalize customer preference (49)

c. Common quality dimensions (10)

1. **Customer focus (5):** Appealing facilities (42), Physical safety during purchase (43), Privacy of client information (44), Customer loyalty programs (53), Publicly available specifications (55)
2. **Company focuses (5):** Quality Certification (51), CSR activity (52), Celebrity Endorsement (54),

Companies with reputed suppliers (56), Financially sound companies (57)

Validity and reliability

The study made use of face validity to identify the attributes those are supposed to define the parameter. To ensure that the responses were consistent, a reliability test was conducted using Cronbach's Alpha for different groups and sub-groups (Table 1). As noted, the Cronbach's Alpha for all 57 attributes of quality (0.944), 29 attributes of goods (0.882), and 18 attributes of services (0.942) indicate excellent internal consistency. The reliability test of goods sub-groups on the (i) six items from the functional quality dimensions (0.791), (ii) four items of natural quality dimensions (0.838), (iii) 12 items of cognition-quality dimensions (0.846), and (iv) seven items of during- and post-sale quality dimensions (0.771) also implies good levels of internal consistency.

The reliability test of services sub-groups on the (i) System Aspects Quality Dimensions (0.837), (ii) Personal Aspects Quality Dimensions (0.798), and (iii) supportive Quality Dimensions (0.756) also signal good internal consistency. Further, the study identified nine combined quality dimensions divided into (i) four focusing customer and (ii) five focusing company. The Cronbach's alpha for these group and sub-groups are found to be 0.758, 0.672 and 0.598 respectively indicating good internal consistency.

Table 1: Reliability Tests of Different Quality Dimensions

Groups/Subgroups (Number of items)	Cronbach's Alpha	Groups/Subgroups (Number of items)	Cronbach's Alpha
1. Overall (All 57 attributes)	0.940	4. Services (18)	0.912
2. Goods (29)	0.868	5. Services sub-groups	
3. Goods sub-groups		a) Quality dimensions (System aspects) (7)	0.827
a) Functional quality (6)	0.785	b) Quality dimensions (Personal aspects) (6)	0.786
b) Natural quality (4)	0.828	c) Supporting service quality dimensions (5)	0.754
c) Cognition-based quality (7)	0.814	6. Common quality dimensions (10)	0.771
d) Aesthetic quality (5)	0.621	a) Customer focus (5)	0.654
e) During- & post-sale quality (7)	0.763	b) Company focusses (5)	0.601

DATA ANALYSIS AND FINDINGS

In this study, students'quality perception of goods and services measured using 57 attributes was collected using a 5-point Likert scale (-2: strongly disagree, -1: disagree, 0: indifferent, 1: agree and 2: strongly agree). The mean indices of the responses are broadly grouped as goods and services and their sub-groups. Also, the responses are analyzed demographically (Age, HH Income, Gender) and ideographically (University type, Faculty). The respondent profile and analysis of the findings are given below.

Respondents Profile

The study made use of 267 responses, of which 130 (49.1%) were from private and 135 (50.9%) were from

public university. Of the total respondents 141 (53.2%) were male and 124 (46.2%) were female students. Faculty wise the distribution is as follows: Arts 32 (12.1%), Science 53 (20.1%), Business 108 (40.8%), Pharmacy 26 (9.8%), and Engineering 46 (17.4%). The mean age of the respondents is found to be 23.51 years (σ = 2.273 years). The average household income of the respondents appeared to be Tk. 108,786 ($1,279.9) with a standard deviation of Tk. 92, 627 ($1089.7).

Analysis of Simple Variables

The study tried to identify the agreement of the students with each of the 57 attributes by measuring corresponding mean indices and their significance level (Appendix 2). As noted, all the mean indices are found positive and statistically different from 0 (Indifferent)at 5% level except the variable "Celebrity endorsement". The highly agreed variables (1.25~2.00) are found to be Value for money (1.52), Completeness (1.43), Privacy (1.41), Serviceability (1.36), Performance (1.38), Durability (1.37), Reliability (1.33), Taste (1.28), Sound (1.28), Accurate quantity (1.27), easy identification (1.27), Conformance (1.26). The very close to highly agreed attributes (1.20~1.24) are Ease of use (1.24), Accuracy (1.23), Responsiveness (1.22), Timeliness (1.22), Quality Certification (1.22), Hygienic/Cleanliness (1.22), Easy installation (1.22), Competency (1.21), Accessibility and convenience (1.21).The least agreed quality dimensions(0.67~0.00) as perceived by the respondents are Appealing facilities (0.66), Packaging/look (0.67), Prestige (0.54), Financial facilities (0.58), Foreign good (0.59), Advertisement (0.62), loyalty program (0.58), financially sound brand (0.43), CSR (0.32), Celebrity endorsement (0.10).

Analysis of Manufacturing (Goods) Quality Dimensions

The study identified 29 quality attributes for goods (Table 2). Of these 29, the most important quality dimensions are found to be Good value (1.50), Performance (1.38), Durability (1.37), Serviceability (1.36), Reliability (1.33), Sound (1.28), Taste (1.28), Easy identification (1.27), Conformance (1.26), Ease of Use (1.24), Easy set-up (1.22). As noted, most of the agreed attributes matches with the traditional theorized quality dimensions for manufacturing products. Interestingly the students give less emphasis on natural and cognitive based quality attributes, e.g., Less preservatives (0.84), Environment friendly (0.84), Made of organic ingredients (0.81), Disposability (0.79), Packaging/Look (0.67), Advertisement (0.62), Foreign products (0.59), Financing options (0.58), Prestige (0.54).

Further these 29 variables are again sub-grouped into four areas: i) Functional Quality Dimensions (6), ii) Natural Quality Dimensions (4), iii) Cognition-based Quality Dimension (7), iv) Aesthetic quality dimensions (5) and iv) During- and Post-Sale Quality Dimensions (7). The respondents ranked functional quality dimensions (1.24) and during- and post-sale quality dimensions (1.19) as most important quality dimensions followed by natural quality dimensions (0.82) and cognition-based quality dimension (0.78).

Table 2: Mean Indices of Goods Quality Dimensions

Parameter	Complex Variables (Group Mean)	Simple Variables (Mean Index)
Quality dimension of Goods (1.03)	Functional Quality Dimensions (1.24)	Performance (1.38), Features (0.83), Reliability (1.33), Ease of Use (1.24), Conformance (1.26), Durability (1.37)
	Natural Quality Dimensions (0.82)	Less preservatives (0.84), Environment friendly (0.84), Made of organic ingredients (0.81), Disposability (0.79)
	Cognition-based Quality Dimension (0.78)	Brand (0.97), Image (1.01), Advertisement (0.62), Prestige (0.54), Creativity (0.85), Premium products (0.85), Foreign products (0.59)

	Aesthetic quality dimensions (1.08)	Packaging (0.67), Feeling (1.09), Fragrance (1.07), Taste (1.28), Sound (1.28)
	During-and Post-sale Quality Dimensions (1.19)	Serviceability (1.36), Good value (1.53), Financing options (0.58), Ease of delivery (1.08), Easy set-up (1.22), Accurate quantity (1.29), Easy identification (1.27)

Analysis of Service Quality Dimensions

In the study 18 service quality attributes are considered (Table 3). Of these 18, the respondents found Completeness (1.43), Accuracy (1.23), Cleanliness (1.22), Timeliness (1.22), Responsiveness (1.22) and Accessibility & convenience (1.21) as most important service quality attributes. On the other hand, the least favored quality attributes are 24-hour customer service (0.87) and personalized customer preference (0.89).

Further these 18 variables are again sub-grouped into three areas: i) Quality dimensions (System) (7), ii) Quality dimensions (Personal/Human) (6), and iii) Tangible/Supportive quality dimensions (5). The respondents ranked quality dimensions (system) (1.21) as the most important quality dimensions followed by quality dimensions (personal/human) (1.08) and tangible/supportive quality dimensions (1.08). The findings also support the theorized service quality dimensions.

Table 3: Mean Indices of Service Quality Dimensions

Parameter	Complex Variables (Group Mean)	Simple Variables (Mean Index)
Quality dimension of Services (1.13)	Quality Dimensions (System) (1.21)	Time (1.04), Timeliness (1.22), Completeness (1.43), Consistency (1.19), Accuracy (1.23), Responsiveness (1.22), Credibility (1.14)
	Quality Dimensions (Personal/Human) (1.08)	Courtesy (1.02), Amicability (1.10), Values (1.05), acknowledging customer feelings (1.14), Inspirational employees (0.95), Competency (1.21)
	Supportive Quality Dimensions (1.08)	Accessibility & convenience (1.21), Documentation (1.19), 24-hour customer service (0.87), Cleanliness (1.22), Personalize customer preference (0.89)

Analysis of Common Quality Dimensions

The study identified ten quality constructs common to both service and manufacturing items (Table 4). Of these ten the respondents identified Privacy of information (1.41), and Quality Certification (1.22) as the most important quality dimensions. On the other extreme the least agreeable attributes are financially sound companies (0.43), CSR activity (0.31), and celebrity endorsement (0.09). These ten are also sub-grouped into two areas: i) Customer focus (5) and ii) Company focuses (5). Overall, the respondents found customer focus (0.952) more important quality dimension than company focus (o.598).

Table 4: Service Quality Dimensions

Parameter	Complex Variables (Group Mean)	Simple Variables (Mean Index)

Common quality dimensions (0.775)	Customer focus (0.952)	Appealing facilities (0.66), Physical safety during purchase (1.11), Privacy of information (1.41), Customer loyalty programs (0.58), Publicly available specifications (1.00),
	Company focuses (0.598)	Quality Certification (1.22), CSR activity (0.31), Celebrity Endorsement (0.09), Companies with reputed suppliers (0.94), Financially sound companies (0.43)

Overall, group wise analysis showed that the respondents found service quality dimensions (1.13) more important than manufacturing (1.03) and overall quality dimensions (0.775).

Ideography wise Analysis

Gender

A two-tailed independent sample t-test has been conducted with the 57 quality dimensions to see gender wise perceptional difference between male and female responses. The study noted in nine cases gender wise difference at 5% level of significance (Table 5). In each of the cases male are found more conservative than female. Overall, it can be said that gender wise not much difference in responses is observed.

Table 5: Gender Wise Analysis

Quality Variables	Gender	N	Mean	Sig. level
1) Ease of Use	Male	137	1.12	0.008
	Female	121	1.37	
2) Disposable	Male	137	0.69	0.046
	Female	121	0.90	
3) Feeling	Male	137	0.98	0.014
	Female	121	1.21	
4) Value for money	Male	137	1.42	0.021
	Female	121	1.63	
5) Financial facilities	Male	137	0.47	0.037
	Female	121	0.70	
6) Courtesy	Male	137	0.92	0.025
	Female	121	1.12	
7) Maintaining values	Male	137	0.96	0.047
	Female	121	1.16	
8) Accessibility	Male	137	1.13	0.035
	Female	121	1.30	
9) Hygiene	Male	137	1.09	0.004
	Female	121	1.38	

University Type

The university wise analyses showed that in 13 out of 57 attributes the responses of private and public

university students are significantly different at 5% level of significance (Table 6). Of these 13 cases the private university students are more conservative in six cases (i.e., performance, ease of use, less preservative used, easy installation, friendliness, hygiene) and in rest of the seven cases (i.e., conformance, fragrance, advertisement, prestige, creativity, premium product, foreign good,) the public university students are more conservative. Overall, it can be said that the responses of the private-public university students are not significantly different.

Table 6: University Type Wise Analysis

Quality Variables	University	N	Mean	Sig.
1) Performance	Public	129	1.512	0.025
	Private	129	1.25	
2) Ease of use	Public	129	1.35	0.019
	Private	129	1.12	
3) Conformance	Public	129	1.14	0.008
	Private	129	1.38	
4) Less preservative used	Public	129	1.05	0.001
	Private	129	0.64	
5) Fragrance	Public	129	0.96	0.037
	Private	129	1.17	
6) Advertisement	Public	129	0.47	0.026
	Private	129	0.76	
7) Prestige	Public	129	0.32	0.005
	Private	129	0.77	
8) Creativity	Public	129	0.70	0.012
	Private	129	1.00	
9) Premium product	Public	129	0.71	0.026
	Private	129	0.91	
10) Easy installation	Public	129	1.32	0.034
	Private	129	1.12	
11) Friendliness	Public	129	1.27	0.002
	Private	129	0.93	
12) Hygiene	Public	129	1.33	0.034
	Private	129	1.12	
13) Foreign good	Public	129	0.35	0.000
	Private	129	0.83	

Faculty Wise Analysis

The study considered responses from six different faculties (Arts, Science, Business, Engineering, and Pharmacy). An ANOVA[1] test has been conducted to analyze faculty wise mean responses on the quality perception. The results noted that in seven out of 57 cases the mean of the responses is different at 5% significance level (Table 7). These are i) performance, ii) features, iii) conformance, iv) prestige, v) courtesy, vi) appealing facilities, and vii) foreign good. Hence it can be concluded that faculty wise there is significant difference in mean responses.

Table 7: Analysis of Influence of Faculty

Quality variables	Mean Index					Significance (p-value)
	Arts (32)	Science (53)	Business (107)	Engineering (41)	Pharmacy (24)	
1) Performance	1.56	1.62	1.10	1.59	1.50	0.004
2) Feature	0.94	1.00	0.64	0.93	1.08	0.023
3) Conformance	0.84	1.57	1.18	1.37	1.33	0.000
4) prestige	-0.13	0.72	0.49	0.85	0.83	0.009
5) Courteous	1.06	1.09	1.02	0.71	1.29	0.024
6) appealing facilities	0.38	0.42	0.84	0.76	0.63	0.047
7) foreign good	0.19	0.58	0.54	0.76	1.13	0.019

Age

Pearson Correlation test has been conducted to determine the correlation of age of university students with the quality dimensions. The study found that the mean age of the students is 23.51 years with a standard deviation of 2.273 years (Range 20~40). The correlation results show that in sixteen cases the correlation coefficient is significant at 5% level (Table 8). The correlation is found to be negative and weak in each of the cases (-0.279~-0.123). The negative relationships indicate that with increase in age the quality perception decreases. Overall, it can be said that age does not have significant difference in responses.

Table 8: Correlation Coefficient between Age and the Quality Attributes

Attributes	N	r	Sig. (2-tailed)	Attributes	N	r	Sig. (2-tailed)
1) Performance	255	- 0.241	0.000	9) Completeness	255	- 0.175	0.005
2) Reliability	253	- 0.150	0.017	10) Consistency	255	- 0.261	0.000
3) Serviceability	255	- 0.195	0.002	11) Inspire trust	255	- 0.126	0.045
4) Value for money	255	- 0.198	0.001	12) Competency	255	- 0.124	0.048
5) Easy installation	255	- 0.162	0.010	13) Physical safety	255	- 0.135	0.032
6) Accurate quantity	253	- 0.279	0.000	14) Detailed transaction data	255	- 0.225	0.000
7) Time	255	- 0.143	0.023	15) Hygienic/Cleanliness	255	- 0.177	0.005
8) Timeliness	255	- 0.175	0.005	16) Foreign good	255	- 0.123	0.049

House Hold (HH) Income

Pearson Correlation test has been conducted to determine the correlation of HH income of university students with the quality dimensions. Of the total 258 respondents 234 disclosed their HH income. The

study found that the monthly mean HH income of the students is Tk. 108,786($ 1,280) with a standard deviation of Tk. 92,627($ 1,090) with a Range of Tk. 494,000 ($ 5,812). The correlation results show that in 23 cases the correlation coefficient is significant at 5% level (Table 9). Except three environment related attributes (less preservative used, environment friendly, natural organic products) the correlation is found to be positive. This indicates that with increase in HH income the respondents are more positive towards quality attributes except environmental related variables, i.e., they become more concerned with environmental issues. Overall, the study found weak correlation between HH income and quality attributes (-0.191~ +0.250).

Table 9: Correlation between HH Income and the Quality Attributes

Attributes	N	r	Sig. (2-tailed)	Attributes	N	r	Sig. (2-tailed)
1) Performance	234	0.158	0.015	13) Timeliness	234	0.154	0.018
2) Feature	234	0.279	0.000	14) Completeness	234	0.207	0.001
3) Reliability	233	0.242	0.000	15) Accuracy	234	0.131	0.045
4) Conformance	234	0.139	0.034	16) Courteous	233	0.166	0.011
5) Less preservative	234	-0.195	0.003	17) Acknowledge customer feeling	234	0.158	0.016
6) Environment friendly	233	-0.193	0.003	18) Competency	234	0.165	0.012
7) Natural organic products	234	-0.191	0.003	19) Detailed documentation	234	0.145	0.027
8) Feeling	234	0.158	0.016	20) Foreign good	234	0.214	0.001
9) Prestige	234	0.241	0.000	21) Quality certification	234	0.193	0.003
10) Creativity	234	0.149	0.022	22) Public specification	234	0.147	0.024
11) Premium	234	0.204	0.002	23) Reputed suppliers	234	0.250	0.000
12) Accurate amount	234	0.242	0.000				

FACTOR ANALYSIS

Factor analysis [2](extraction method Principal Component Analysis and Varimax rotated component matrix) is performed to groupthe 57 selected quality attributes under common premise (factors [3]). The result identified 13 factors explaining 75.311% of the total cumulative variance (Table 10). The 13 factors with high factor loadings [4] show strong correlation between the factor and the corresponding variables (Table 11). The factor analysis with 262 responses[5] is found adequate (KMO=0.806 ≥ 0.5) and valid (Bartlett's testof sphericity of significance level of 0.000). The communalities [6] of the variables that constituted the factors are found strong indicating strong relationships among the variables (Appendix 3). The first factor (Cognitive perceived quality) appears to be the most important factor as it explains 25.313% of the variability. Each of the other factors explains less than 10% variability.

Table 10: Total Variance Explained

Components	Initial Eigenvalues	Variance (%)	Cumulative %
1 Cognitive perceived quality 1	14.326	25.133	25.133
2 Service quality (Human focus)	4.996	8.765	33.899
3 Common quality (Customer focus)	4.072	7.144	41.042

4	Functional qualities of Goods	3.009	5.279	46.321
5	Natural quality of Goods	2.697	4.731	51.052
6	Mixed quality dimensions	2.172	3.810	54.862
7	Service quality (Systems)	2.087	3.662	58.524
8	Common quality (Company focus)	1.695	2.973	61.497
9	Perceived quality 2 (Cognitive)	1.514	2.657	64.154
10	Service quality (Supportive)	1.486	2.607	66.761
11	Common quality dimensions	1.385	2.430	69.191
12	Quality Dimensions 1 (During- & Post-sale)	1.207	2.117	71.308
13	Quality Dimensions 2 (During- & Post-sale)	1.144	2.007	73.315
14	Cognitive Perceived quality 2	1.012	1.776	75.091

Extraction Method: Principal Component Analysis.

The first factor (Cognitive perceived quality) consisting of 10 variables appears to be the most important factor as it explains 25.313% of the variability. It mostly grouped the **cognitive perceived quality of goods** (Table 11). The second factor "Service quality (Human focus)", explains 8.78% of the variability and consists of seven variables. The third factor "Common quality (Customer focus)" explains 7.322% of the variability and consists of six variables. The fourth factor "Goods Functional quality" explains 5.236% of the variability and consists of five variables. The fifth factor "Natural quality" explains 4.794% of the variability and consists of four variables. Other factors do not seem to be very significant as they explain very low variability. It can be noted that the variables in the factors are very much in consistent with grouping made in the coordination schema.

Table 11: Factors with corresponding variables

Factors	Factor loading	Factors	Factor loading
Factor 1: Goods cognitive perceived quality 1 (25.133%)		**Factor 6: Goods functional quality dimensions (3.810%)**	
1) Brand	0.838	1) Reliability	0.775
2) Image	0.740	2) Performance	0.702
3) Appealing facilities	0.637	3) Feature	0.697
4) Prestige	0.580	4) Ease of use	0.481
5) Celebrity endorsement	0.576	5) Reputed suppliers	0.442
6) Smell	0.564	**Factor 7: Service quality (Systems) (3.662%)**	
7) Foreign good	0.560	1) Ease of access	0.791
8) Premium	0.558	2) Consistency	0.474
9) Attractive look	0.517	3) Completeness	0.438
10) Financially sound brand	0.512	**Factor 8: Aesthetic (2.973%)**	
11) Advertisement	0.506		
Factor 2: Human focused service quality (8.765%)		1) Taste	0.815
1) Privacy	0.805	2) Feeling	0.612

2) Maintaining values	0.681	3) Sound	0.520
3) Accuracy	0.662	**Factor 9: Service quality 2 (2.657%)**	
4) Detailed transaction data	0.568	1) Timeliness	0.748
5) Durability	0.566	2) Time	0.542
6) Responsiveness	0.487	3) Accurate amount	0.517
7) Hygiene	0.475	**Factor 10: Common quality (2.607%)**	
8) Physical safety	0.467	1) Quality certified	0.821
9) Courteous	0.412	2) CSR	0.689
Factor 3: Customer focus common quality (7.144%)		**Factor 11: Common quality (2.430%)**	
1) Open specification	0.714	1) Creativity	0.607
2) Loyalty program	0.674	2) Conformance	0.549
3) Friendliness	0.664	3) Value for money	0.502
4) Credibility	0.560	**Factor 12: Quality Dimensions (During- & Post-sale) 1 (2.117%)**	
Factor 4: Personal Service (5.279%)		1) Easy installation	0.562
1) Acknowledge customer	0.757	**2)** Transportability	0.448
2) Uninterrupted service	0.750	3) Organization	0.436
3) Personalization	0.682	**Factor 13: Quality Dimensions (During- & Post-sale) 2 (2.007%)**	
4) Inspire trust	0.621	1) Serviceability	0.761
Factor 5: Natural product quality (4.731%)		**Factor 14: Goods cognition based perceived quality 3 (1.012%)**	
1) Environmental	0.823	1) Competency	0.456
2) Natural Ingredients	0.754	2) Financial facilities	-0.441
3) Disposable	0.744		
4) Less preservative	0.667		

Notes:

1) Extraction Method: Principal Component Analysis.

2) Rotation Method: Varimax with Kaiser Normalization.

3) Rotation converged in 82 iterations.

SUMMARY, CONCLUSION AND RECOMMENDATION

This paper explored the Bangladeshi university students' perception of quality. Specifically, the study digs into the perception of quality based on different demographic and ideographic characteristics of the respondents. The target population for this research is 242 currently enrolled university students comprised of students from Public and Private universities studying in the faculties of Business, Arts, Commerce,

Science, Engineering, and Pharmacy giving gender consideration. The samples were identified using non-probabilistic convenient, judgmental and quota sampling technique. A self-administered questionnaire was developed for collecting primary data which had 57 quality attributes using a 5-point Likert scale ranging from "strongly agree" to "strongly disagree". The study made use of t-tests, correlation analyses, factor analysis and ANOVA in analyzing the data.

The 57 quality attributes mainly describe the quality dimensions of goods (29),services (18) and attributes common to both the groups (10) which are again divided into several sub-groups. The goods are sub-divided into (i) functional quality dimensions (6), (ii) natural quality dimensions (4), (iii) cognition-based quality dimension (12), and (iv) during-sale and post-sale quality dimensions (7). The services are divided into (1) quality dimensions (system aspects) (7), (ii) quality dimensions (personal aspects) (6), and (iii) supporting quality dimensions (5). The common quality dimensions are divided into (i)customer focus (5),and (ii) company focuses (5).The study made use of face validity to identify the attributes those are supposed to define the parameter. The reliability tests of different groups and sub-groups indicate excellent internal consistency.

The mean indices and their significance level noted that all the mean indices are positive and statistically different from 0 (Indifferent) at 5% level except the variable "Celebrity endorsement". The highly agreed variables (1.25~2.00) are found to be Value for money, Completeness, Privacy, Serviceability, Performance, Durability, Accurate quantity, Reliability, Taste, Sound, easy identification. The very close to highly agreed attributes (1.20~1.24) are quality certification, ease of use, conformance, timeliness, hygienic/cleanliness, accuracy, easy installation, and accessibility and convenience. The least agreed quality dimensions (0.67~0.00) perceived by the respondents are appealing facilities, prestige, financial facilities, foreign good, advertisement, loyalty program, financially sound brand, strong CSR activities, celebrity endorsement.

The study identified 29 quality attributes for goods. Of these 29, the most important quality dimensions are found to be good value, performance, serviceability, durability, reliability, sound, easy identification, conformance, taste, ease of use, and easy set-up. As noted, most of the agreed attributes matches with the traditional theorized quality dimensions for manufacturing products. Interestingly the students give less emphasis on natural and cognitive based quality attributes, e.g., less preservatives, environment friendly, made of organic ingredients, disposability, packaging/look, financing options, advertisement, foreign products, prestige. Further analysis of the goods sub-groups showed that the respondents ranked functional quality and during- and post-sale quality dimensions as most important followed by cognition-based and natural quality dimensions.

The findings regarding 18 service quality attributes noted completeness, accuracy, cleanliness, timeliness, responsiveness, and accessibility& convenience as most important. On the other hand, the least agreeable service quality attributes are 24-hour customer service and personalize customer preference. Further the sub-groups of these 18 variables identified service quality dimensions (system) as most important followed by quality dimensions (personal/human) and tangible/supportive quality dimensions. The findings also support the theorized service quality dimensions. Regarding ten quality constructs common to both service and manufacturing, the respondents identified privacy of information and quality certification as the most important quality dimensions. On the other extreme the least agreeable attributes are financially sound companies, CSR activity, and celebrity endorsement. Of the two sub-groups of the combined group variables, the respondents found customer focus to be more important quality dimension than company focus.

The study noted that in only six cases gender wise difference at 5% level of significance. In each of the cases male are found more conservative than female. Overall, it can be said that gender wise not much

differenceis observed. The university wise responses showed that in 12 out of 57 attributes the responses are significantly different (α =5%). Of these 12 cases the private university students are more conservative in five cases (i.e., performance, ease of use, less preservative used, friendliness, hygiene) and in rest of the seven cases (i.e., conformance, fragrance, advertisement, prestige, creativity, premium product, foreign good,) the public university students are more conservative. Overall, it can be said that the responses of the private- public university students are not statistically different.

The correlation between ages of university students with the quality dimensions found significant at 5% level in fourteen cases. The correlation is found to be negative and weak in each of the cases. The negative relationships indicate that with increase in age the quality perception decreases. Overall, it can be said that age does not have significant difference in responses. Further the correlation results between HH income and the quality attributes show that in 26 cases the correlation coefficient is significant at 5% level. Except three environment related attributes (less preservative used, environment friendly, natural organic products) the correlation is found to be positive. This indicates that with increase in HH income the respondents are more positive towards quality attributes except environmental related variables, i.e., they become more concerned with environmental issues. Overall, the study found weak correlation between HH income and quality attributes.

NOTES

1. For ANOVA, first the results of the Levene statistic are analyzed. If a variable satisfies homogeneity of variance, then it is tested for equality of means. For the variables that do not satisfy homogeneity of variance, the Brown-Forsythe and Welch robust tests for the equality of means are conducted. Usually, both yield results in the same direction. If Brown-Forsythe and Welch tests do not yield the same results regarding equality of means, the Post Hoc multiple comparisons (Games-Howell) are checked to ensure the difference in means values. There are many Post Hoc multiple comparison tests. One group is for variables that satisfy homogeneity of variance. Another for those that do not satisfy the condition. One commonly used test for the first group is "LSD" and one such test for the second group is "Games-Howell".

2. Factor Analysis is a type of analysis used to discern the underlying dimensions or regularity in phenomenon in which all variables are simultaneously considered. Its general purpose is to summarize the information contained in many variables into a smaller number of factors.

3. Factor is a linear combination of the original variables. Factors also represent the underlying dimensions (constructs) that summarize or account for the original set of observed variables.

4. 'Factor loading' is a measure of the importance of the variables in each factor, which is used for interpreting and labeling a factor. The loading values are the correlation coefficient between the original variables and the factor, and key to understanding the nature of a factor.

5. Ideally the sample size should be at least 150 (subject to variable ratio greater than 5). The factor analysis of 57 variables with 262 sample is found adequate (KMO test result = 0.806 ≥ 0.5) and valid (Bartlett's test of sphericity indicates a significance level of 0.000).

6. Communality refers to a measure of the percentage of a variable's variation that is explained by the factors. It is the amount of variance an original variable share with all other variables included in the analysis. A relatively higher communality indicates that a variable has much in common with the other variables taken as a group.

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APPENDIX 1: COORDINATION SCHEMA

Parameters	Complex variables	Simple variables (Variable no)	Values
1) Manufacturing/ Goods quality dimensions (29 attributes)	1) Functional quality (6 attributes)	Performance (1), Features (2), Reliability (3), Ease of Use (4), Conformance (5), Durability (6)	Likert scale: -2: Strongly disagree -1: Disagree 0: Indifferent +1: Agree +2: Strongly agree
	2) Natural quality (4 attributes)	Less preservatives (7), Environment friendly (8), Organic products (9), Disposability (10)	
	3) Cognition-based perceived quality (7 attributes)	Brand (16), Image (17), Advertisement (18), Prestige (19), Creativity (20), Premium products (23), Foreign products (50)	
	4) Aesthetic quality (5 attributes)	Packaging/look (11), Feeling (12), Fragrance (13), Taste (14), Sound (15)	
	5) During- & post-sale quality (7 attributes)	Serviceability (21), Value for money (22), Financing options (24), Ease of delivery (25), Easy set-up (26), Accurate quantity (27), Easy identification (48)	
2) Services quality dimensions (18 attributes)	1) System quality (7 attributes)	Time (28), Timeliness (29), Completeness (30), Consistency (31), Accuracy (32), Responsiveness (33), Credibility (34)	
	2) Personal/Human quality (6 attributes)	Courtesy (35), Amicability (36), Values (37), acknowledging customer feelings (38), Inspirational employees (39), Competency (40)	
	3) Supporting quality (5 attributes)	Accessibility & convenience (41), Documentation (45), 24-hour customer service (46), Cleanliness (47), Personalize customer preference (49)	

3) Common quality dimensions (10attributes)	1) Customer focus (5 attributes)	Appealing facilities (42), Physical safety during purchase (43), Privacy of information (44), Customer loyalty programs (53), Public open specifications (55)
	2) Company focuses (5 attributes)	Quality Certification (51), CSR activity (52), Celebrity Endorsement (54), Companies with reputed suppliers (56), Financially sound companies (57)

APPENDIX 2: MEAN INDICES OF THE SIMPLE QUALITY ATTRIBUTES

Attributes	N	Mean	Std. deviation	p-value
1) Performance (primary performance features)	221	1.35	1.018	0.000
2) Feature (secondary and tertiary features)	221	0.80	0.867	0.000
3) Reliability (surviving over a period under given conditions)	219	1.29	0.794	0.000
4) Ease of use	221	1.24	0.777	0.000
5) Conformance to a given standard	221	1.24	0.746	0.000
6) Durability (long lasting)	221	1.35	0.782	0.000
7) Less preservatives used	221	0.83	0.993	0.000
8) Environment friendly	220	0.81	0.890	0.000
9) Natural organic product	221	0.79	0.823	0.000
10) Easy disposable waste	221	0.76	0.868	0.000
11) Attractive packaging	219	0.65	0.958	0.000
12) Good feeling	221	1.10	0.761	0.000
13) Nice fragrance/smell/odor	221	1.04	0.811	0.000
14) Good taste	221	1.26	0.604	0.000
15) Clear sound	221	1.26	0.703	0.000
16) Branded product	221	0.95	0.880	0.000
17) Good Image	221	1.01	0.847	0.000
18) Catchy advertisement	221	0.57	1.079	0.000
19) Prestige item	221	0.50	1.296	0.000
20) Creativity	221	0.85	0.967	0.000
21) Serviceability (easily repaired & parts changed)	221	1.36	0.683	0.000
22) Value for money (better product for same price)	221	1.50	0.730	0.000
23) Superior/Premium product	221	0.86	1.043	0.000
24) Financial facilities	221	0.57	0.894	0.000
25) Easy delivery/transportability	221	1.07	0.820	0.000
26) Easy set-up/installation	221	1.22	0.739	0.000
27) Accurate quantity (as promised)	219	1.31	0.879	0.000
28) Time (mentioning time)	221	1.01	0.783	0.000
29) Timeliness (maintaining time)	221	1.24	0.803	0.000
30) Completeness (including mentioned items)	221	1.43	0.821	0.000

31) Consistency in providing service to every customer	221	1.19	0.813	0.000
32) Accuracy (right first time)	221	1.23	0.782	0.000
33) Responsiveness (quick response)	221	1.21	0.789	0.000
34) Maintaining good reputation & gaining credibility	221	1.14	0.690	0.000
35) Courteous (cheerful, helpful, informative employees)	220	1.03	0.749	0.000
36) Friendliness to customers	221	1.09	0.915	0.000
37) Maintaining values (respect, moral, ethical)	220	1.03	0.819	0.000
38) Acknowledge customer feelings	221	1.12	0.706	0.000
39) Inspire trust and confidence of the customers	221	0.95	0.749	0.000
40) Competency in providing service	221	1.20	0.892	0.000
41) Accessibility and convenience	221	1.21	0.636	0.000
42) Good Look	221	0.68	1.014	0.000
43) Physical safety during purchase	221	1.09	0.775	0.000
44) Privacy of client information	221	1.41	0.883	0.000
45) Detailed transaction data documentation	221	1.17	0.881	0.000
46) Uninterrupted 24-hour service	221	0.85	0.839	0.000
47) Hygienic/Cleanliness of venue	221	1.24	0.811	0.000
48) Easy product identification	221	1.25	0.706	0.000
49) Personalization of service experience of customers	221	0.87	0.801	0.000
50) Foreign good	221	0.54	1.068	0.000
51) Quality certified	221	1.24	1.011	0.000
52) Strong company CSR activities	221	0.33	0.917	0.000
53) Customer loyalty program	221	0.58	0.879	0.000
54) Celebrity endorsement	221	0.09	1.119	0.255
55) Products with clear specification	221	1.00	0.760	0.000
56) Materials from reputed suppliers	221	0.91	0.851	0.000
57) Financially sound manufacturer	221	0.42	0.958	0.000

APPENDIX 3: COMMUNALITIES

Attributes	Extraction	Attributes	Extraction	Attributes	Extraction
1) Performance	0.816	20)Creativity	0.795	39) Inspire trust	0.748
2) Feature	0.774	21)Serviceability	0.705	40) Competency	0.730
3) Reliability	0.827	22)Value for money	0.770	41) Ease of access	0.767
4) Ease of use	0.662	23)Premium	0.774	42) Attractive facilities	0.745
5) Conformity	0.658	24)Financial facilities	0.747	43) Physical safety	0.706
6) Durability	0.753	25)Transportability	0.744	44) Privacy	0.799
7) Less preservative	0.755	26)Easy installation	0.739	45) Detailed transaction data	0.760
8) Environmental	0.816	27)Accurate amount	0.663	46) Uninterrupted service	0.755

9) Natural Ingredients	0.746	28)Time	0.748	47) Hygiene	0.730
10) Disposal	0.784	29)Timeliness	0.732	48) Organization	0.637
11) Attractive	0.753	30)Completeness	0.831	49) Personalization	0.695
12) Feeling	0.710	31)Consistent	0.741	50) Foreign good	0.673
13) Smell	0.747	32)Accuracy	0.744	51) Quality certified	0.830
14) Taste	0.784	33)Responsiveness	0.790	52) CSR	0.792
15) Sound	0.668	34)Credibility	0.780	53) Loyalty program	0.726
16) Brand	0.748	35)Courteous	0.778	54) Celebrity endorsement	0.827
17) Image	0.772	36)Friendliness	0.764	55) Open specification	0.748
18) Advertisement	0.761	37)Maintaining values	0.748	56) Reputed suppliers	0.665
19) Prestige	0.764	38)Acknowledge customer	0.806	57) Financially sound brand	0.772

Extraction Method: Principal Component Analysis.