TOWARD UNDERSTANDING CONFLICTS BETWEEN CUSTOMERS AND EMPLOYEES’ PERCEPTIONS AND EXPECTATIONS: EVIDENCE OF IRANIAN BANK

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Abstract. This paper aims to determine influence factors affecting bank service quality, calculate the relative importance of factors from viewpoints of bank customers and employees, and examine the gaps in customers and employees’ perceptions and expectations of the quality of bank services. Accordingly, an empirical investigation was conducted in one of Iranian leading banks (Bank-e-Refah). For data collection, an adjusted SERVQUAL questionnaire was developed and distributed among 385 customers and 305 employees. The results show significant difference between customers and employees viewpoints. Understanding the gaps helped bank managers to develop more effective customer-oriented service plans and employees’ training and development programs.

Keywords: bank service quality, customers and employees’ evaluations, conflicts management, empirical investigation, perceptions, Iranian bank.

1. Introduction

During the past few decades, service quality has become a major area of attention to practitioners, managers and researchers. This attention is due to its strong impacts on lower costs, customer satisfaction, customer loyalty, business profitability and finally on performance superiority.

There have been many researches on the definition, modelling, measurement, data collection procedure, data analysis, etc., issues of service quality. For example, some researchers believe that the importance of service quality for business performance has been recognized through the direct effect on customer satisfaction and the indirect effect on customer loyalty. Quality, in service industries, is an important strategic factor that strongly affects customers’ satisfaction, loyalty, retention, and finally firms’ performance superiority.

This paper aims to answer the following five important questions in five steps:

Q1: What factors are affecting bank service quality? (Factor determination step)
Q2: What are the relative importance weights of each factor from viewpoints of customers and employees? (Factors’ weights determination step)
Q3: How do customers and employees score bank service quality? (Comparing bank service quality measurement step)
Q4: What about the significance of difference between customers and employees’ viewpoints on the quality of bank services? (Horizontal or comparative gap analysis step)
Q5: What lessons do bank managers learn from understanding the gaps? (Improvement and development of action plan design step)

The rest of the paper is organized as follows. Section 2 reviews the literature. Section 3 explains research methodology. Results of an empirical investigation in one of leading and largest Iranian banks are provided in section 4. Finally, section 5 concludes the paper.

2. Literature review

It is wellknown that service quality, as a key strategic indicator in service industries, strongly affects a customers’ satisfaction, loyalty, retention, firms’ profit-
ability and performance superiority. (Horovitz 1990; Fitzsimmons, J.A. and Fitzsimmons, M. J. 1994). There have been many researches on the definition, modelling, measurement, data collection procedure, data analysis, etc., issues of service quality. In literature, common research objectives for services are as follows:

- To identify dissatisfied customers;
- To discover customers’ requirements or expectations;
- To monitor and track service performance;
- To assess overall company performance compared to competitors;
- To assess gaps between customers’ expectations and perceptions;
- To gauge effectiveness of changes in services;
- To appraise service performance of individuals and teams for rewards;
- To determine expectations of a new service;
- To monitor changing expectations in an industry;
- To forecast customers’ future expectations.

Results of several researches in literature reveal that there is a significant positive relationship between the quality of services and customers’ satisfaction and loyalty (Parasuraman et al. 1985, 1988; Oh 1999; McDougall and Levesque 2000; Sureshchandar et al. 2002; Wen-Bao 2007), there is a significant positive relationship between customers’ satisfaction and customers’ loyalty/retention. (Oliver 1993; Bloemer and Kasper 1995; Gremler and Brown 1996; Spreng and Mackoy 1996; Stank et al. 1999; Lasser et al. 2000; Caruana 2002; Sureshchandar et al. 2002; Papassapa and Miller 2007; Brady et al. 2002), and there is a significant positive relationship between customers’ loyalty/retention and firms’ profitability and performance superiority.

Fig. 1 explains the relationship between customers’ satisfaction and loyalty. Fig. 2 shows the sequential relationships among service quality, customers’ satisfaction, customers’ loyalty, and customers’ retention with firms’ profitability and performance superiority.

What is the quality and how it can be measured? Zeithaml et al. (1990) define it as the comparison of service expectations with actual performance perceptions (Gap Model). The central idea in Gap models is that service quality is a function of the different scores between expectations and perceptions. In other words, service quality is the customer’s judgement of overall excellence of the service provided in relation to the quality that was expected. Fig. 3 shows an adjusted Gap model of Parasuraman et al. (1985).

What components create customers’ expectations? Fig. 4 shows the main components which create customer expectations:

- Desired Service Level: wished-for level of service quality that customer believes can and should be delivered;
- Adequate Service Level: minimum acceptable level of service;
- Predicted Service Level: service level that customer believes firm will deliver;
- Zone of Tolerance: range within which customers are willing to accept variations in service delivery.

What dimensions (components) create customer total satisfaction? The main components which create customer satisfaction are:

1. Personnel: including personnel skills and knowledge, responsiveness, communication and collaboration and friendliness components.
2. Product: including product variety, refund, special services and cost components.
3. Image: including credibility, technology excellence and ability to satisfy future needs.
4. **Service**: including the appearance of the stores, service waiting time, services processes and service information.

5. **Access**: including network expansion, troubles in the services system and location of stores.

How could the quality of services be measured? In literature, many instruments and models have been developed to facilitate measuring the quality (Babakus and Boller 1994; Boulding et al. 1993; Cronin and Taylor 1992; Ghobadian et al. 1994; Heywood-Farmer 1988; Nitin et al. 2005; Parasuraman et al. 1991; Parasuraman et al. 1994a, 1994b; Philip and Hazlett 1997; Robinson 1999; Robledo 2001; Rosene 2003). Nitin et al. (2005) review 19 service models in the light of the changed business scenario. However, at an operational level, research on service quality has been dominated by the SERVQUAL instrument, based on the so-called Gap model (Rosene 2003). In Gap models, the central idea is that service quality is a function of the difference scores or between expectations and perceptions.

As shown in Fig. 5, service quality is naturally a multi-dimensional concept (Parasuraman et al. 1985; Parasuraman et al. 1988; Carman 1990; Teas 1993a, 1993b; Zeithaml et al. 1990). Five key dimensions of service quality are Reliability, Responsiveness, Assurance, Empathy and Tangibles. Reliability is defined as the ability to deliver the promised service dependably and accurately. Responsiveness is described as the willingness to help customers and provide prompt service. Assurance is the service quality that focuses on the ability to inspire trust and confidence. Empathy is described as the service aspect that stresses the treatment of customers as individuals. Finally, Tangibles focus on the elements that represent the service physically.
In application area, assessing service quality is yet a hot subject for recent researches. For example, it is widely applied to different areas as:

- discount and department stores (Finn and Lamb 1991; Dahobkar et al. 1996; Stank et al. 1999; Miguel et al. 2004; Siu and Cheung 2001),
- hotel industry (Lewis 1987; Nash 1988; Barsky 1992; Tsang and Qu 2000; Wilkins et al. 2007),
- hospital industry and healthcare (Babakus and Mangold 1992; Youseff et al. 1996; Pagouni 1997; Sewell 1997; Camilleri and O’Callaghan 1998),
- education and university (Hill 1995; Galloway 1998; Orwig and Jauch 1999; Waugh 2002; Srikanthan and Dalrymple 2003),
- university library (Broady-Preston and Preston 1999; Nitecki and Hernon 2000),
- nursing homes (Curry and Stark 2000),
- physiotherapy services (Curry and Sinclair 2002),
- local authority’s housing repair service (Donnelly and Shiu 1999),
- construction professional services quality (Hoxley 2000),
- financial services (Maddern et al. 2007),
- airline services (Pakdil and O’zlem 2007),
- purchasing (Stanley and Wisner 2002),
- information services (Philip and Hazlett 2001),
- public sectors and services (Donnelly and Dalrymple 1996; Orwig et al. 1997; Brysland and Curry 2001; Wisniewski 2001),
- local government (Donnelly et al. 1995), and
- banking industry (Avkiran 1994; Newman and Cowling 1996; Angur et al. 1999; Lasser et al. 2000; Blanchard and Galloway 1994; Allred 2000; Allred and Addams 2000; Allred 2001; Mihelis et al. 2001; Aldlaigan and Buttle 2002; Anvary Rostamy et al. 2005).

In addition, many papers in different countries around the world focused on the important and hot subject of service quality measurement and assessment (Berry et al. 1994; Newman and Cowling 1996; Hoxley 2000; Jannadi and Al-Saggaf 2000; Kandampully and Menguc 2000; Anvary Rostamy et al. 2005; Maddern et al. 2007).

In spite of high validity and reliability of SERVQUAL instrument, some researchers suggest that in some service firms it needs a considerable adaptation (Daholkar et al. 1996). However, it still seems as the best alternative for cross-sectional research and industry benchmarking (Fitzsimmons, J. A. and Fitzsimmons, M. J. 1994).

Some researchers applied SERVQUAL concepts to measure internal service quality. They named this as INTERSERVQUAL. (Frost and Kumar 2000; Kang et al. 2002).

Although the classical multi-dimensional service quality measurement methods have been widely used in several service industries, they have also been widely criticized (Asubonteng et al. 1996; Buttle 1996; Zeithaml et al. 1996). For instance, the validity and the reliability of the difference between expectations and performance have been questioned. Several authors have also suggested that perception scores alone offer a better indication of service quality (Cronin and Taylor 1992; Teas 1993a, 1993b; Orwig et al. 1997). One of the other critiques explained by Grönroos (1993) is that it is required to take into account the role of expectations from a dynamic perspective. In addition, there are some critiques on the simple additive relationships between service quality dimensions (Cronin and Taylor 1992; Teas 1993a, 1993b). Zeithaml et al. (1996) have explicitly addressed several of these critiques.

Pakdil and O’zlem (2007) measure airline service quality based on data collected from a Turkish airline using SERVQUAL scores weighted by loadings derived from factor analysis. Their study shows that “responsiveness” dimension is the most important, while “availability” is the least important element of quality. They also concluded that passengers’ educational level affects their expectations and perceptions.

Wen-Bao (2007) provides a nonlinear fuzzy neutral network model of customer satisfaction. He concluded that the interpersonal-based service encounter (IBSE) is better than the technology-based service encounter (TBSE) in functional quality, while the TBSE is better than the IBSE in technical quality. The study shows that the functional quality has a positive and significant effect on customer satisfaction; the service quality has a positive significant effect on service value; the service value has a positive and significant effect on customer satisfaction. The service encounter has a positive and significant effect on relationship involvement and the relationship involvement has a positive and significant effect on customer satisfaction.

Papassapa and Miller (2007) provide a picture of how relationship quality can influence customer loyalty in the business-to-business (BIB) context. They addressed three main following questions in Australian small to medium-sized enterprises: 1) Does relationship quality influence both aspects of customer loyalty? 2) Which relationship quality dimensions influence each of the components of customer loyalty?, and 3) Which level of relationship quality (employee level versus organizational level) has more influence on customer loyalty? Results of their study indicate that only the organiza-
tional level of relationship quality influences customer loyalty and the employee level of relationship quality does not play a significant role in influencing BIB customer loyalty.

Equipped with the literature, in the next section, we will provide our research methodology and the results of an empirical investigation in one of leading and largest Iranian banks.

3. Research methodology

3.1. Research questions and hypotheses

As mentioned earlier, this research aims to answer the following questions:

Q1: What factors are affecting bank service quality? (Factor determination step);
Q2: What are the relative importance weights of each factor from viewpoints of customers and employees? (Factors’ weights determination step);
Q3: How do customers and employees score bank service quality? (Comparing bank service quality measurement step);
Q4: What about the significant difference between customers and employees’ viewpoints of the quality of bank services? (Vertical or comparative gap analysis step);
Q5: What lessons do bank managers learn from understanding the gaps? (Improvement and development of action plan design step).

To answer these five questions, the following five-step process was designed:

1. Influence factor determination step.
2. Factors’ relative importance weights determination step.
3. Bank service quality measurement step.
4. Gap analysis (between customers and employees viewpoints step).
5. Improvement in action plans’ priority design step.

This research investigates the following four research hypotheses:

H1: The relative importance weights of service quality factors are significantly different from viewpoint of bank customers.
H2: The relative importance weights of the service quality factors are significantly different from viewpoint of bank employees.
H3: There is a significant difference between the sets of relative importance weights of the service quality factors determined by customers and that of employees.
H4: There is a significant difference between the sets of bank improvement in action plans’ priority determined by the customers and that of employees.

3.2. The questionnaire

In order to test the research hypotheses and measure Bank-e-Refax service quality level, an adjusted SERVQUAL questionnaire was developed (See Appendix 1). The questionnaire included eight dimensions with 32 quality factors. The dimensions and their related question numbers are as follows:

1. Tangibles: questions 1–5.
2. Reliability: questions 6–9.
3. Responsiveness: questions 10–14.
4. Confidence: questions 15–17.
5. Empathy: questions 18–21.
6. Process: questions 22–26.
7. Responsibility: questions 27–29.
8. Organizational factors: questions 30–32.

To measure the reliability of the questionnaire, Chronbach Alpha was calculated. Chronbach Alpha value for the questionnaires was 0.91. Since in this research two statistical populations should be considered (customers and employees), using clustering random sampling method, 385 questionnaires were distributed among bank customers and 305 questionnaires among bank employees.

3.3. Quality measurement and weights determination method

In order to measure bank services quality, we applied the following four well-known models:

SERVQUAL: \( SQ = \sum (P_j - E_j) \), \( j \)

Weighted SERVQUAL: \( SQ = \sum jw'_j (P_j - E_j) \), \( j \)

SERVPERF: \( SQ = \sum P_j \), \( j \)

Weighted SERVPERF: \( SQ = \sum jw'_j P_j \), \( j \)

where \( SQ, P_j \) and \( E_j \) denote service quality, performance, and expectations, respectively.

In order to determine the relative importance weight of \( j \)th influence factor \( (w'_j; j : 1, 2, ..., 32) \), Shannon Entropy Method was applied (See Appendix 2). Because of existing two statistical populations in this research, we defined \( w'_c : (w'_{1c}, w'_{2c} \ldots, w'_{32c}) \) and \( w'_e : (w'_{1e}, w'_{2e} \ldots, w'_{32e}) \) as the weights of service quality factors determined by the customers and employees, respectively. In addition, to test research hypotheses, statistical Paired Test was applied.
4. Results of empirical investigation

To answer the questions and test the research hypotheses, a field research has been conducted to measure bank service quality in one of leading and largest Iranian banks, Bank-e-Refah (Anvary Rostamy et al. 2005).

The first research question is ‘What factors are affecting bank service quality?’ The answer is provided in column 1, Table 1.

The second research question is ‘How do customers and employees evaluate the relative importance weight of each influence factor?’ The answer is provided in columns 4 and 5, Table 1. In other words, column 4 and 5 provide the relative importance weights of service quality factors from viewpoints of the customers, $\lambda_{jc}$, and employees, $\lambda_{je}$, respectively.

The third research question is ‘How do customers and employees score bank service quality?’ Tables 2, 3, 4, 5 show the results.

The fourth research question (related to the first and second research hypotheses) is ‘Is there a significant difference between customers and employees’ viewpoints in terms of the weights of influence factors?’ Using the data reported in columns 4 and 5, Table 1. In other words, columns 4 and 5 provide the relative importance weights of service quality factors from viewpoints of the customers, $\lambda_{jc}$, and employees, $\lambda_{je}$, respectively.

The fourth research question (related to the first and second research hypotheses) is ‘Is there a significant difference between customers and employees’ viewpoints in terms of the weights of influence factors?’ Using the data reported in columns 4 and 5, Table 1. In other words, columns 4 and 5 provide the relative importance weights of service quality factors from viewpoints of the customers, $\lambda_{jc}$, and employees, $\lambda_{je}$, respectively.

The fifth research question, which is related to the third and the fourth research hypotheses, is “What lessons do bank managers learn from these discrepancies and gaps?” Result of the statistical test at 99% confidence level confirms the third research hypothesis (existing significant difference). The fourth hypothesis implies that statistically there is a significant difference between the sets of action plans’ priorities ranks defined by customers and that of employees. A key question is, how the action plans’ priority ranks have been determined? We answer this question by defining a new measure $P_j = w' (9 - \mu_j)$, where $P_j$, $w'$ and $\mu_j$ denote the value of indicator in terms of $j$th quality factor, the relative importance weight of the $j$th quality factor, and the average of actual performance score for $j$th quality factor, respectively. A higher value of $P_j$ translates to a higher priority for an action plan. In turn, a higher priority denotes a smaller rank number. Number “9” is the highest value for a given quality factor in an ideal position. Then, we calculated $P_j$ values and sorted them in an increasing order. Columns 8 and 9 in Table 1 show the ranks of 32 service quality factors from viewpoints of customers and employees, respectively. Using data reported in columns 8 and 9, the statistical results confirm a significant difference between two sets of priority ranks defined by customers and employees at 99% confidence level.

In summary, we concluded that:

- Both customers and employees believe that the average relative importance weights of 32 different service quality factors are significantly different.
- Statistically, there is a significant difference between the sets of relative importance weights of the service quality factors defined by customers and that of employees.
- Statistically, there is a significant difference between the sets of ranks of action plans defined by customers and that of employees.

5. Conclusions and final remarks

This research conducted a five-step procedure to answer the following five important questions:

Q1: What factors are affecting bank service quality? (Factor determination step);
Q2: What are the relative importance weights of each factor from viewpoints of customers and employees? (Factors’ weights determination step);
Q3: How do customers and employees assess bank service quality? (Comparing bank service quality measurement step);
Q4: What about the significance of difference between customers and what are employees’ viewpoints on the quality of bank services? (Vertical or comparative gap analysis step);
Q5: What lessons bank do managers learn from understanding the gaps? (Improvement and development of action plan design step).

The first question was answered by a brief literature review. To answer the second and the third questions, an adjusted SERVQUAL questionnaire with 8 quality dimensions and 32 quality factors was developed and distributed among 385 customers and 305 employees. To answer the fourth question, four service quality methods (SERVQUAL, weighted SERVQUAL, SERVPERF and weighted SERVPERF) were applied. Moreover, in order to determine the relative importance weights of factors, Shannon Entropy Method was used. Finally, the fifth question was answered using Paired Test.

In summary, we found that:

- In all quality measurement models, both customers and employees scored bank service quality higher than average.
- In all models, customers’ average scores were significantly higher than employees’ average scores.
### Table 1. Bank service quality factors, their relative importance weights and the priority rank of each factor from viewpoints of customers and employees

| Bank Service Quality Factors                                                                 | Relative importance weights of factors (calculated by Shannon Entropy method using customers questionnaire data) $w_c$ | Relative importance weights of factors (calculated by Shannon Entropy method using employees’ questionnaire data) $w_e$ | Relative importance weights of factors (determined by customers) $\lambda_c$ | Relative importance weights of factors (determined by employees) $\lambda_e$ | Adjusted relative importance weights of factors (determined by customers) $\lambda_c'$ | Adjusted relative importance weights of factors (determined by employees) $\lambda_e'$ | Priority ranks of the bank Service quality factors from viewpoints of customers | Priority ranks of the bank Service quality factors from viewpoints of employees |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 1. Employees who have a neat, professional appearance                                         | 0.0256                                                          | 0.0143                                                          | 0.03046                                                     | 0.03218                                                                 | 0.02964                                                                     | 0.03291                                                                     | 24                                            | 26                                            |
| 2. Working environment being comfortable and attractive, visually appealing facilities         | 0.0251                                                          | 0.0199                                                          | 0.03099                                                     | 0.03242                                                                 | 0.03069                                                                     | 0.03344                                                                     | 26                                            | 24                                            |
| 3. Visually appealing materials associated with the service                                   | 0.0336                                                          | 0.0488                                                          | 0.03165                                                     | 0.03258                                                                 | 0.03201                                                                     | 0.03373                                                                     | 31                                            | 29                                            |
| 4. Easy to find a branch, easy to locate and contact                                          | 0.0265                                                          | 0.0184                                                          | 0.03157                                                     | 0.03188                                                                 | 0.03184                                                                     | 0.03214                                                                     | 20                                            | 28                                            |
| 5. Material being visually appealing                                                        | 0.0202                                                          | 0.0162                                                          | 0.03238                                                     | 0.03226                                                                 | 0.03235                                                                     | 0.03307                                                                     | 28                                            | 25                                            |
| 6. Perform the service right and accurately especially at first time                          | 0.0152                                                          | 0.0126                                                          | 0.03300                                                     | 0.03269                                                                 | 0.03497                                                                     | 0.03397                                                                     | 27                                            | 29                                            |
| 7. Providing services at the promised time                                                   | 0.0146                                                          | 0.0141                                                          | 0.03266                                                     | 0.03222                                                                 | 0.03408                                                                     | 0.03508                                                                     | 25                                            | 3                                             |
| 8. Willing to help and correct the mistakes and errors                                       | 0.0158                                                          | 0.0133                                                          | 0.03223                                                     | 0.03217                                                                 | 0.03319                                                                     | 0.03288                                                                     | 3                                             | 30                                            |
| 9. Dependability and the ability of employees in handling customers’ service problems         | 0.0201                                                          | 0.0143                                                          | 0.03268                                                     | 0.03282                                                                 | 0.03413                                                                     | 0.03423                                                                     | 30                                            | 22                                            |
| 10. Being polite and kind especially when employees are very busy                            | 0.0242                                                          | 0.0188                                                          | 0.03185                                                     | 0.03139                                                                 | 0.03244                                                                     | 0.03132                                                                     | 22                                            | 32                                            |
| 11. Keeping customers informed about when services will be performed                          | 0.0222                                                          | 0.0201                                                          | 0.03067                                                     | 0.03049                                                                 | 0.03005                                                                     | 0.02954                                                                     | 17                                            | 31                                            |
| 12. Willingness to provide advice and suggestions to guide customers                         | 0.0182                                                          | 0.0188                                                          | 0.03095                                                     | 0.03081                                                                 | 0.03060                                                                     | 0.03017                                                                     | 32                                            | 4                                             |
| 13. Easy to meet or have a session with bank managers or supervisors                          | 0.0186                                                          | 0.0188                                                          | 0.03146                                                     | 0.03091                                                                 | 0.03163                                                                     | 0.03037                                                                     | 18                                            | 10                                            |
| 14. Prompt service to customers, respond quickly and efficiently                             | 0.0229                                                          | 0.0235                                                          | 0.03097                                                     | 0.03062                                                                 | 0.03064                                                                     | 0.02979                                                                     | 14                                            | 2                                             |
| 15. Employees who are confident and making customer feel safe in their transactions          | 0.0183                                                          | 0.021                                                            | 0.03232                                                     | 0.03314                                                                 | 0.03337                                                                     | 0.03494                                                                     | 12                                            | 21                                            |
| 16. Employees who have the knowledge to answer clearly and understandably                     | 0.0155                                                          | 0.0179                                                          | 0.03155                                                     | 0.03307                                                                 | 0.03188                                                                     | 0.03477                                                                     | 19                                            | 9                                             |
| 17. Providing appropriate, accurate, clear communication and informing customers              | 0.0192                                                          | 0.0322                                                          | 0.03187                                                     | 0.03050                                                                 | 0.03245                                                                     | 0.02957                                                                     | 21                                            | 12                                            |
| 18. Employees devote enough time to their customers                                          | 0.0197                                                          | 0.0222                                                          | 0.03248                                                     | 0.03294                                                                 | 0.02968                                                                     | 0.02751                                                                     | 10                                            | 5                                             |
| 19. Sincerely concerned about the problems and willing to help customers                      | 0.0244                                                          | 0.0237                                                          | 0.03245                                                     | 0.02779                                                                 | 0.02771                                                                     | 0.02454                                                                     | 11                                            | 23                                            |
| 20. Providing services on holidays to remove customers’ problems                              | 0.0924                                                          | 0.0951                                                          | 0.02603                                                     | 0.01955                                                                 | 0.02164                                                                     | 0.01125                                                                     | 23                                            | 19                                            |
| 21. Giving individual attention to customers, and having the customer’s best interest in heart| 0.0494                                                          | 0.038                                                            | 0.03003                                                     | 0.02682                                                                 | 0.02881                                                                     | 0.02286                                                                     | 16                                            | 11                                            |
| 22. Using standard processes in providing banking services                                   | 0.0331                                                          | 0.0318                                                          | 0.03129                                                     | 0.03072                                                                 | 0.03128                                                                     | 0.0303                                                                     | 8                                             | 18                                            |
| 23. Employees who provide the services at an appropriate speed                                | 0.0192                                                          | 0.0165                                                          | 0.03123                                                     | 0.03195                                                                 | 0.03115                                                                     | 0.03243                                                                     | 27                                            | 14                                            |
| 24. Modern equipment and having up-to-date equipment                                          | 0.0725                                                          | 0.0795                                                          | 0.03232                                                     | 0.03335                                                                 | 0.03337                                                                     | 0.03568                                                                     | 13                                            | 3                                             |
| 25. Reasonable waiting time                                                                  | 0.0389                                                          | 0.0432                                                          | 0.03153                                                     | 0.03236                                                                 | 0.03175                                                                     | 0.03328                                                                     | 6                                             | 7                                             |
| 26. Enough number of employees to meet the demands                                            | 0.0772                                                          | 0.0688                                                          | 0.03219                                                     | 0.03437                                                                 | 0.03311                                                                     | 0.03559                                                                     | 9                                             | 16                                            |
| 27. Being polite and kind and behavior rational                                              | 0.0417                                                          | 0.0251                                                          | 0.03178                                                     | 0.03328                                                                 | 0.03227                                                                     | 0.03519                                                                     | 15                                            | 8                                             |
| 28. Appropriate geographical distribution of the branches in different areas of the city     | 0.0467                                                          | 0.0575                                                          | 0.03043                                                     | 0.03226                                                                 | 0.02959                                                                     | 0.03379                                                                     | 4                                             | 17                                            |
| 29. Willing to accommodate special requests of the special customers                          | 0.0485                                                          | 0.0529                                                          | 0.03028                                                     | 0.03132                                                                 | 0.0293                                                                      | 0.03117                                                                     | 5                                             | 6                                             |
| 30. The reputation of the bank compared to the other banks                                   | 0.0327                                                          | 0.0309                                                          | 0.03116                                                     | 0.03182                                                                 | 0.03103                                                                     | 0.03218                                                                     | 7                                             | 13                                            |
| 31. The ability to meet customers different needs and requests, service diversification       | 0.0259                                                          | 0.0455                                                          | 0.03116                                                     | 0.03104                                                                 | 0.03103                                                                     | 0.03061                                                                     | 2                                             | 15                                            |
| 32. Balancing branch services to the different requested services                            | 0.0235                                                          | 0.0269                                                          | 0.03129                                                     | 0.03131                                                                 | 0.03128                                                                     | 0.03114                                                                     | 1                                             | 20                                            |
Table 2. Data for SERVQUAL Model

| No. of Quality Dimension (1) | Quality Dimensions’ Average Scores (Determined by Employees) (2) | Column (2)–9 (4) | Quality Dimensions’ Average Scores (Determined by Customers) (5) | Column (2)–9 (6) |
|-----------------------------|---------------------------------------------------------------|------------------|----------------------------------------------------------------|------------------|
| 1                           | 7.1143                                                        | −1.8857          | 7.7631                                                         | −1.2369          |
| 2                           | 7.401                                                         | −1.599           | 7.8782                                                         | −1.1218          |
| 3                           | 7.1003                                                        | −1.8997          | 7.5313                                                         | −1.4687          |
| 4                           | 7.4348                                                        | −1.5652          | 7.6246                                                         | −1.3754          |
| 5                           | 6.2214                                                        | −2.7786          | 7.0296                                                         | −1.9704          |
| 6                           | 5.4179                                                        | −3.5821          | 7.1186                                                         | −1.8814          |
| 7                           | 6.5458                                                        | −2.4542          | 7.5735                                                         | −1.4265          |
| 8                           | 6.8871                                                        | −2.1129          | 7.1837                                                         | −1.8163          |
| **Average Quality Score**   | **6/77**                                                       | **−2/34671**     | **7/47**                                                       | **−1/537175**    |

Table 3. Data for Weighted SERVQUAL Model

| No. of Quality Dimensions (1) | Relative Importance weights of the Quality Dimensions (Determined by Employees) (2) | Average Dimensions’ Scores Minus Ideal Average Scores or Number 9 (Determined by Customers) (3) | Relative Importance weights of the Quality Dimensions (Determined by Employees) (4) | Average Dimensions’ Scores Minus Ideal Average Scores or Number 9 (Determined by Employees) (5) |
|------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1                            | 0.16525                                                                             | −0.16067                                                                                       | 0.15768                                                                             | −0.28268                                                                                       |
| 2                            | 0.13616                                                                             | −0.15468                                                                                       | 0.13637                                                                             | −0.25043                                                                                       |
| 3                            | 0.15119                                                                             | −0.27966                                                                                       | 0.15532                                                                             | −0.32384                                                                                       |
| 4                            | 0.09924                                                                             | −0.11278                                                                                       | 0.09762                                                                             | −0.19461                                                                                       |
| 5                            | 0.08706                                                                             | −0.11596                                                                                       | 0.10784                                                                             | −0.15459                                                                                       |
| 6                            | 0.16698                                                                             | −0.17431                                                                                       | 0.16066                                                                             | −0.25155                                                                                       |
| 7                            | 0.10015                                                                             | −0.0955                                                                                       | 0.09116                                                                             | −0.15367                                                                                       |
| 8                            | 0.09393                                                                             | −0.11635                                                                                       | 0.09334                                                                             | −0.14968                                                                                       |
| **Σ ≈ 1**                    | **Average Deviation from Ideals :2.05493**                                        | **Σ ≈ 1**                                                                    | **Average Deviation from Ideals : 1.54881**                                    |
| **Average Quality Score: 6.94507** | **Average Quality Score: 7.45119**                                                |                                                                                     |                                                                                     |

Table 4. Data for SERVPERF and Weighted SERVPERF Models

| No. of Quality Dimension (1) | Relative Importance weights of the Quality Dimensions (Determined by Employees) (2) | Average Dimensions’ Scores (Determined by Employees) (3) | Relative Importance weights of the Quality Dimensions (Determined by Customers) (4) | Average Dimensions’ Scores (Determined by Employees) (5) |
|------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------|
| 1                            | 0.3264                                                                              | 6.3453                                                   | 0.2895                                                                              | 6.9217                                                   |
| 2                            | 0.1606                                                                              | 6.24                                                    | 0.1462                                                                              | 6.9768                                                   |
| 3                            | 0.1636                                                                              | 6.8548                                                   | 0.1324                                                                              | 7.871                                                    |
| 4                            | 0.075                                                                               | 6.9676                                                   | 0.0849                                                                              | 7.473                                                    |
| 5                            | 0.0837                                                                              | 7.1654                                                   | 0.0849                                                                              | 7.5913                                                   |
| 6                            | 0.0972                                                                              | 7.2404                                                   | 0.1098                                                                              | 7.7467                                                   |
| 7                            | 0.0485                                                                              | 7.2977                                                   | 0.0604                                                                              | 7.8567                                                   |
| 8                            | 0.0449                                                                              | 7.4162                                                   | 0.059                                                                               | 7.9495                                                   |
| **Σ ≈ 1**                    | **Σ ≈ 1**                                                                          |                                                                                     |                                                                                     |                                                                                     |
• Results of four models were significantly stable. It means, changing the models did not significantly change the results.
• Both the customers and the employees believe that the average relative importance weights of 32 different service quality factors are significantly different.
• Generally, there is a significant difference between what customers value and what employees think the customers value. This result reveals a significant Gap in customers and employees expectations and perceptions. It means that “what customers value and consider important may not be considered important by employees” or “what we see we may not get in practice”.

Since bank customers’ preference structures and expectations may not be stable over the time, bank managers should try to have dynamic understanding of customers’ needs and expectations, determine and analyse continuously the Gaps and their causes in order to develop more effective customer-oriented action plans and improve bank service quality.

References

Aldlaigan, H.; Buttle, F. 2002. SYSTRA-S Q: A new measure of bank service quality, *International Journal of Service Industry Management* 13(4): 362–381. doi:10.1108/09564230210445041

Allred, A. T.; Addams, H. L. 2000. Service quality at banks and credit unions: What do their customers say? *Managing Service Quality* 10(1): 52–60. doi:10.1108/09604520010307049

Allred, A. T. 2001. Employee evaluations of service quality at banks and credit unions, *International Journal of Bank Marketing* 19(4): 179–185. doi:10.1108/02652320110695468.

Angur, M. G.; Natarajan, R.; Jahera, J. S. J. 1999. Service quality in the banking industry: An assessment in a developing economy, *International Journal of Bank Marketing* 17(3): 116–123. doi:10.1108/02652329910269211

Anvary Rostamy, A. A.; Torabi Goudarzi, M.; Alimohammadlou, M. 2005. Comparative study of bank service quality from viewpoints of the customers and employees, *Journal of Modares* 42: 53–78.

Asubonteng, P.; McCleary, K. J.; Swan, J. E. 1996. SERVQUAL revisited: A critical review of service quality, *The Journal of Service Marketing* 10(6): 62–81. doi:10.1108/08876049610148602

Avkiran, N. K. 1994. Developing an instrument to measure customer service quality in branch banking, *International Journal of Bank Management* 12(5): 10–18. doi:10.1016/02652329410063223

Babakus, E.; Mangold, W. G. 1992. Adapting the SERVQUAL scale to hospital services: An empirical investigation, *Health Services Research* 26: 767–786.

Babakus, E.; Boller, G. W. 1994. An empirical assessment of the SERVQUAL scale, *Journal of Business Research* 24(3): 253–268. doi:10.1016/0148-2963(92)90022-4

Barsky, J. D. 1992. Customer satisfaction in the hotel industry: Meaning and measurement, *Hospitality Research Journal* 16(1): 51–73.

Berry, L. L.; Parasuraman, A.; Zeithaml, V. A. 1994. Improving service quality in America: Lessons learned, *Academy of Management Executive* 8(2): 32–52.

Blanchard, F. R.; Galloway, R. L. 1994. Quality in retail banking, *International Journal of Service Industry Management* 5(4): 5–23. doi:10.1108/09564239410068670

Bloemer, J. M. M.; Kasper, H. D. P. 1995. The complex relationship between consumer satisfaction and brand loyalty, *Journal of Economic Psychology* 16(2): 311–329. doi:10.1016/0167-4870(95)00007-B

Boulding, W.; Kalra, A.; Staelin, R.; Zeithaml, V. A. 1993. A dynamic process model of service quality: From expectations to behavioral intentions, *Journal of Marketing Research* 30: 7–27. doi:10.2307/3172510

Brady, M.; Cronin, J. J.; Brand, R. R. 2002. Performance-only measurement of service quality: A replication and extension, *Journal of Business Research* 55: 7–13. doi:10.1016/S0148-2963(00)00171-5

Broady-Preston, J.; Preston, H. 1999. Demonstrating quality in academic libraries, *New Library World* 100(3): 124–129. doi:10.1348/03074809910267518

Brysland, A.; Curry, A. 2001. Service improvements in public services using SERVQUAL, *Managing Service Quality* 11(6): 389–401. doi:10.1108/09604520110410601

Buttle, F. 1996. SERVQUAL: Review, critique, research agenda, *European Journal of Marketing* 30(1): 8–35. doi:10.1108/03090569610105762

Carman, J. M. 1990. Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions, *Journal of Retailing* 66: 33–55.

Camilleri, D.; O’Callaghan, M. 1998. Comparing public and private hospital care service quality, *International Journal of Medical Services* 10(3): 241–254.
Health Care Quality Assurance 11(4): 127–133. doi:10.1108/09526869810216052

Caruana, A. 2002. Service loyalty: The effects of service quality and the mediating role of customer satisfaction, European Journal of Marketing 36(7/8): 811–830. doi:10.1108/03090560210430818

Cronin, J. J.; Taylor, S. A. 1992. Measuring service quality: A reexamination and extension, Journal of Marketing 56: 55–68. doi:10.2307/1252296

Curry, A. C.; Stark, S. 2000. Quality of service in nursing homes, Health Service Management Research 13(4): 205–215.

Curry, A.; Sinclair, E. 2002. Assessing the quality of physiotherapy services using SERVQUAL, International Journal of Health Care Quality Assurance 15(5): 197–205. doi:10.1108/09526860210437412

Daholbkar, P. A.; Thorpe, D. I.; Rentz, J. O. 1996. A measure of service quality for retail stores: scale development and validation, Journal of the Academy of Marketing Science 24: 3–16. doi:10.1177/009530369502400102

Donnelly, M.; Wisniewski, M.; Dalrymple, J. F.; Curry, A. C. 1995. Measuring service quality in local government: The SERVQUAL approach, International Journal of Public Sector Management 8(7): 15–20. doi:10.1108/09513559510103157

Donnelly, M.; Dalrymple, J. F. 1996. The portability and validity of the SERVQUAL scale in measuring the quality of local public service provision, in Proceedings of the International Conference on Quality, Union of Japanese Scientists and Engineers, Yokohama, 245–249.

Donnelly, M.; Shiu, E. 1999. Assessing service quality and its link with value for money in a local authority’s housing repair service using the SERVQUAL approach, Total Quality Management 10(4/5): 495–506.

Finn, D. W.; Lamb, C. W. 1991. An evaluation of the SERVQUAL scales in a retail setting, in Holman, R. H.; Solo-mon, M. (Eds.). Advances in Consumer Research, Valdosta, GA, 18: 483–490.

Fitzsimmons, J. A.; Fitzsimmons, M. J. 1994. Service Management for Competitive Advantage. McGraw-Hill, New York.

Frost, F. A.; Kumar, M. 2000. INTSERVQUAL: An internal adaptation of the GAP model in a large service organization, Journal of Services Marketing 14(5): 358–377. doi:10.1108/08876040010340991

Galloway, L. 1998. Quality perceptions of internal and external customers: A case study in educational administration, The TQM Magazine 10(1): 10–26. doi:10.1108/09544789810197774

Ghobadian, A.; Speller, A.; Jones, M. 1994. Service quality: Concepts and models, International Journal of Quality & Reliability Management 11(9): 43–66. doi:10.1108/02656719410074297

Gremler, D. D.; Brown, S. W. 1996. Service loyalty; its nature, importance and implications, in Edvardsson, B.; Brown, S. W.; Johnston, R. and Scheuing, E. (Eds.). QUISV: Advancing Service Quality: A Global Perspective, ISQA, New York, NY, 171–181.

GroEnroos, C. 1993. Toward a third phase in service quality research: Challenges and future directions, in Swartz, T. A.; Bowen, D. and Brown, S. W. (Eds.). Advances in Services Marketing Management 3: 49–64.

Heywood-Farmer, J. 1988. A conceptual model of service quality, International Journal of Operations & Production Management 6(3): 5–9.

Heskett, J. L.; Earl Sasser, W.; Schlesinger, L. A. 1997. The Service Profit Chain. New York, NY: The Free Press. 83 p.

Hill, F. M. 1995. Managing service quality in higher education: The role of the student as primary consumer, Quality Assurance in Education 3(3): 10–21. doi:10.1108/09684889510093497

Horovitz, J. 1990. How to Win Customers—Using Customer Service for a Competitive Edge. Longman: Harlow.

Hoxley, M. 2000. Measuring UK construction professional service quality: The what, how, when and who, International Journal of Quality & Reliability Management 17(4/5): 511–526. doi:10.1108/02657100010298553

Jannadi, O. A.; Al-Saggaf, H. 2000. Measurement of quality in Saudi Arabian service industry, International Journal of Quality & Reliability Management 17(9): 949–965. doi:10.1108/02656710010353867

Kandampully, J.; Menguc, B. 2000. Managerial practices to sustain service quality: An empirical investigation of New Zealand service firms, Marketing Intelligence and Planning 18(4): 175–184. doi:10.1108/02634500010333299

Kang, G.; James, J.; Kostas, A. 2002. Measurement of internal service quality: Application of the SERVQUAL battery to internal service quality, Managing Service Quality 12(5): 278–291. doi:10.1108/09604520210442065

Lasser, M.; Walfried, C. M.; Winsor, R. D. 2000. Service quality perspectives and satisfaction in private banking, International Journal of Bank Marketing 18(4): 181–199. doi:10.1108/02652320010349067

Lewis, R. C. 1987. The measurement of gaps in the quality of hotel services, International Journal of Hospitality Management 6(2): 83–88. doi:10.1016/0278-4319(87)90020-X

Maddern, H.; Roger, M.; Smart, A.; Baker, P. 2007. Customer satisfaction and service quality in UK financial services, International Journal of Operations & Production Management 27(9) : 998–1019. doi:10.1108/01443570710775838

McDougall, G. H. G.; Levesque, T. 2000. Customer satisfaction with services: putting perceived value into the equation, Journal of Services Marketing 14(5): 392–410. doi:10.1108/08876040010340937

Miguel, I.; G’omeza, E. W.; McLaughlin, D.; Wittink, R. 2004. Customer satisfaction and retail sales performance: An empirical investigation, Journal of Retailing 80: 265–278. doi:10.1016/j.jretai.2004.10.003

Miheles, G.; Gregoroudis, E.; Siskos, Y.; Politis, Y.; Malandrakis, Y. 2001. Customer satisfaction measurement in the private bank sector, European Journal of Operational Research 130: 347–360. doi:10.1016/S0377-2217(00)00036-9

Nash, C. A. 1988. A Question of Service: Action Pack, Business Management Program, Hotel and Catering Industry Training Board. National Consumer Council, London.
Newman, K.; Cowling, A. 1996. Service quality in retail banking: the experience of two British clearing banks, International Journal of Bank Marketing 14(6): 3–11. doi:10.1108/02652399610130127

Nitecki, D. A.; Hernon, P. 2000. Measuring service quality at Yale university’s libraries, The Journal of Academic Librarianship 26(4): 259–273. doi:10.1016/S0099-1333(00)00117-8

Nitin, S.; Deshmukh, S. G.; Vrat, P. 2005. Service quality models: A review, International Journal of Quality & Reliability Management 22(9): 913–949. doi:10.1108/02656710510625211

Oh, H. 1999. Service quality, customer satisfaction, and customer value: A holistic perspective, International Journal of Hospitality Management 18(1): 67–82. doi:10.1016/S0278-4319(98)00047-4

Oliver, R. L. 1993. A conceptual model of service quality and service satisfaction: Compatible goals, different concepts, in Swartz, T. A.; Bowen, D. E.; Brown, S.W. (Eds.). Advances in Services marketing and management: Research and Practice, 2, JAI Press, Greenwich, CT, 65–85.

Orwig, R. A.; Pearson, J.; Prem Cochran, D. 1997. An empirical investigation into the validity of SERVQUAL in the public sector, Public Administration Quarterly 21(1): 54–68.

Orwig, R. A.; Jauch, L. R. 1999. The quality revolution in academe: A rejoinder to Mullin and Wilson, Journal of Quality Management 4(2): 265–270. doi:10.1016/S1084-8568(99)00016-4

Pagouni, E. 1997. Measuring the Service Quality of an Outpatient Department at the Astley Ainslie Hospital–using the SERVQUAL Model, MSc Quality Management Dissertation, University of Sterling, Sterling.

Pakdil, F.; O’zlem, A. 2007. Expectations and perceptions in airline services: An analysis using weighted SERVQUAL scores, Journal of Air Transport Management 13: 229–237. doi:10.1016/j.jairtraman.2007.04.001

Papassapa, R.; Miller, K. E. 2007. Relationship quality as a predictor of B2B customer loyalty, Journal of Business Research 60: 21–31. doi:10.1016/j.jbusres.2005.11.006

Parasuraman, A.; Zeithaml, V. A.; Berry, L. L. 1985. A conceptual model of service quality and its implications for future research, Journal of Marketing 49: 41–50. doi:10.2307/1251430

Parasuraman, A.; Zeithaml, V. A.; Berry, L. L. 1988. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality, Journal of Retailing 64(1): 12–40.

Parasuraman, A.; Berry, L. L.; Zeithaml, V. A. 1991. Understanding customer expectations of service, Sloan Management Review 32(3): 39–48.

Parasuraman, A.; Zeithaml, V. A.; Berry, L. L. 1994a. Refinement and reassessment of the SERVQUAL scale, Journal of Retailing 67(4): 420–450.

Parasuraman, A.; Zeithaml, V. A.; Berry, L. L. 1994b. Reassessment of expectations as a comparison standard in measuring service quality: Implications for further research, Journal of Marketing 58(1): 111–124. doi:10.2307/1252255

Philip, G.; Hazlett, S. 1997. The measurement of service quality: A new ‘P-C-P’ attributes model, International Journal of Quality & Reliability Management 14(2/3): 260–286. doi:10.1108/02656719710165482

Philip, G.; Hazlett, S. 2001. Evaluating the service quality of information services using a new ‘P-C-P’ attributes model, International Journal of Quality & Reliability Management 18(9): 900–916. doi:10.1080/026567100000006070

Robinson, S. 1999. Measuring service quality: Current thinking and future requirements, Marketing Intelligence & Planning 17(1): 21–32. doi:10.1108/02634509910253777

Robledo, M. A. 2001. Measuring and managing service quality: Integrating customer expectations, Managing Service Quality 11(1): 22–31. doi:10.1108/09604520110379472

Rosene, F. 2003. Complicity and service quality: An overlooked condition in the GAP model, Journal of Retailing and Consumer Services 10: 51–55. doi:10.1016/S0969-6989(02)00055-3

Sewell, N. 1997. Continuous quality improvements in acute healthcare: Creating a holistic and integrated approach, International Journal of Health Care Quality Assurance 10(1): 20–26. doi:10.1108/0952669710159598

Siu, N. Y. M.; Cheung, J. T. 2001. A measure of retail service quality, Marketing Intelligence and Planning 19(2): 88–96. doi:10.1108/02634500110385327

Spreng, R. A.; Mackoy, R. D. 1996. An empirical examination of a model of perceived service quality and satisfaction, Journal of Retailing 72(2): 201–214. doi:10.1016/S0022-4359(96)90014-7

Srikanthan, G.; Dalrymple, J. 2003. Developing alternative perspectives for quality in higher education, International Journal of Educational Management 17(3): 126–136. doi:10.1108/09513540310467804

Stank, T. P.; Goldsby, T. J.; Vickery, S. K. 1999. Effect of service supplier performance on satisfaction and loyalty of store managers in the fast food industry, Journal of Operations Management 17: 429–447. doi:10.1016/S0272-6963(98)00052-7

Stanley, L.; Wisner, J. D. 2002. The determinants of service quality: Issues for purchasing, European Journal of Purchasing and Supply Management 8: 97–109. doi:10.1016/S0969-7012(01)00009-0

Sureshchandar, G. S; Rajendran, G. S.; Anantharaman, R. N. 2002. The relationship between service quality and customer satisfaction: A factor specific approach, Journal of Services Marketing 16(4): 363–379. doi:10.1108/08876040201433248

Teas, R. K. 1993a. Expectations, performance evaluation, and consumers’ perceptions of quality, Journal of Marketing 57(4): 18–34. doi:10.2307/1252216

Teas, R. K. 1993b. Consumer expectations and the measurement of perceived service quality, Journal of Professional Services Marketing 8(2): 33–54. doi:10.1300/J090v08n02_05

Tsang, N.; Qu, H. 2000. Service quality in China’s hotel industry: a perspective from tourists and hotel managers,
International Journal of Contemporary Hospitality Management 12(5): 316–326.

Waugh, R. F. 2002. Academic perceptions of administrative quality at universities, *Journal of Educational Administration* 40(2): 172–188. doi:10.1108/09578230210421123

Wen-Bao, L. 2007. The exploration of customer satisfaction model from a comprehensive perspective, *Expert Systems with Applications* 33: 110–121. doi:10.1016/j.eswa.2006.04.021

Wilkins, H.; Merrilees, B.; Herington, C. 2007. Towards an understanding of total service quality in hotels, *Hospitality Management* 26: 840–853. doi:10.1016/j.ijhm.2006.07.006

Wisniewski, M. 2001. Using SERVQUAL to assess customer satisfaction with public sector services, *Managing Service Quality* 11(6): 380–388. doi:10.1108/EUM0000000006279

Youseff, F. N.; Nel, D.; Bovaird, T. 1996. Healthcare quality in NHS hospitals, *International Journal of Health Care & Quality Assurance* 9(1): 15–28. doi:10.1108/09526869610109125

Zeithaml, V. A.; Parasuraman, A.; Berry, L. L. 1990. *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. Free Press, New York, NY.

Zeithaml, V. A.; Berry, L. L.; Parasuraman, A. 1996. The behavioral consequences of service quality, *Journal of Marketing* 60: 31–46. doi:10.2307/1251929
## APPENDIX 1

### Bank Service Quality Measurement Questionnaire

| Bank Service Quality Factors | Quality Factors Importance Weights (2) | Assess Bank Actual Performance (1) |
|-----------------------------|----------------------------------------|-----------------------------------|
|                             | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | ... | 9 |

### Dimension 1: Tangibles
1. Employees who have a neat, professional appearance
2. Working environment being comfortable and attractive, visually appealing facilities
3. Visually appealing materials associated with the service
4. Easy to find a branch, easy to locate and contact
5. Material being visually appealing

### Dimension 2: Reliability
6. Perform the service right and accurately especially at first time
7. Providing services at the promised time
8. Willing to help and correct the mistakes and errors
9. Dependability and the ability of employees in handling customers’ service problems

### Dimension 3: Responsiveness
10. Being polite and kind especially when employees are very busy
11. Keeping customers informed about when services will be performed
12. Willingness to provide advice and suggestions to guide customers
13. Easy to meet or have a session with bank managers or supervisors
14. Prompt service to customers, Respond quickly and efficiently

### Dimension 4: Confidence or Assurance
15. Employees who instil confidence in customer, making customer feel safe in their transactions
16. Employees who have the knowledge to answer clearly and understandably
17. Providing appropriate, accurate, clear communication and informing customers of their accounts changes

### Dimension 5: Empathy
18. Employees devote enough time to their customers
19. Sincerely concerned about the problems and willing to help customers
20. Providing services on holidays to remove customers’ problems
21. Giving individual attention to customers and having the customer’s best interest in heart

### Dimension 6: Process
22. Using standard processes in providing banking services
23. Employees who provide the services at an appropriate speed
24. Modern equipment and having up-to-date equipment
25. Reasonable waiting time
26. Enough number of employees to meet the demands

### Dimension 7: Responsibility
27. Being polite and kind and behavior rational
28. Appropriate geographical distribution of the branches in different areas
29. Willing to accommodate special request of the special customers,

### Dimension 8: Service Organizational Factors
30. Bank reputation compared to the other banks
31. The ability to meet customers’ different needs and requests, service diversification
32. Balancing branch services to the different requested services

*Numbers 1, 2, 3, 4, 5 in column (2) denote not important, relatively important, average importance, very important and highly important, respectively.

*Numbers 1, 2, …, 9 in column (1) denote bank actual quality degree.
Entropy is a major criterion of uncertainty. According to Shannon Entropy Method (SEM), having a given decision matrix, D, with \( n \) indices and \( m \) alternatives, the relative importance weights for \( n \) indices can easily be determined by using the following steps:

**Step 1:** calculate \( p_{ij} \) where \( p_{ij} = \frac{r_{ij}}{ \sum_{i=1}^{m} r_{ij} } \) for \( \forall j \);

**Step 2:** calculate Entropy index for each criterion \( j \), \( E_j \) where \( E_j = -k \sum_{i=1}^{m} \left[ p_{ij} \ln p_{ij} \right] \) for \( \forall j \) and \( k = \frac{1}{\ln(m)} \) (\( m \) is number of alternatives);

**Step 3:** calculate uncertainty index for each criterion \( j \), \( d_j \) where \( (d_j = 1 - E_j \) for \( \forall j \));

**Step 4:** calculate \( w_j \) as the relative importance weight of each criterion \( j \) by \( w_j = \frac{d_j}{ \sum_{j=1}^{n} d_j } \) for \( \forall j \);

**Step 5:** calculate the adjusted relative importance weight of each criterion \( j \), \( w'_j \), where \( \lambda_j \) and \( w_j \) denote the relative importance weight of each criterion stated by the customer and calculated by Shannon Entropy Method, respectively.

\[
w'_j = \frac{\lambda_j d_j}{\sum_{j=1}^{n} \lambda_j d_j } \text{ for } \forall j.
\]