

CHAPTER 3

RESEARCH METHODOLOGY

The chapter first describes the development of measuring scale, with a detail explanation on the construction of questionnaire based on modified SERVQUAL multi-scale items. Then sampling method and techniques of statistical analysis are explained. The limitations of study are also discussed.

Measuring Scale

The proposed measure of product/service quality and satisfaction of copier repair service is a 21-item scale, consisting of 10-items from SERVQUAL (Parasuraman 1988) and 11 items developed for copier repair service. For the original 22 items are developed for pure service industry such as banks, credit card company.

SERVQUAL items are modified. This is because the original scale is based on research conducted by Parasuraman et al. (1988). Attributes in the original questionnaire that are appropriate for copier industry are retained. Whereas

attributes that are deemed unrelated to copier services are not included.

Referring to the questionnaire at the Appendix, The details of modification are explained. The question numbers of the questionnaire are used as reference in the explanation.

- Q1. Instead of "....have up-to-date equipment" in original question No.1, the question is changed to "This copier brand sells copier with many features."
- Q2. The original question no.2 "Physical facilities are visually appealing..." is changed to "This copier brand have excellent print quality"
- Q3. One added question "Every function of the copier ... conforms to specification". The addition is necessary to address copier product quality. Customers may based their satisfaction on the product quality.
- Q4. The original SERVQUAL question no.3.
- Q5. The original SERVQUAL question no.4.
- Q6. SERVQUAL question no.6 "The staff is sincere..." is deleted, since the sincerity of the company can be observed in other areas which are covered by other questions. A new question no.6 is developed to "This copier seldom break down problem", which may be a major reliability issue in using the copier.
- Q7. The original SERVQUAL question no.5 has become question no.7.

- Q8. The original SERVQUAL question no.9. Since SERVQUAL Question no.8 is similar to SERVQUAL Question no.5. Thus it is deleted.
- Q9. The original SERVQUAL question no.7 was retained and become Question no.9.
- Q10. Same as original SERVQUAL Question no.10.
- Q11. An addition question on "The staff is quick to response to phone calls". The copier service usually are requested by customer through the telephone to the company.
- Q12. The original SERVQUAL Question no.11.
- Q13. The original SERVQUAL Question no.12. The SERVQUAL Question no.13 "...not too busy to response to customer request promptly." is deleted as most services requested by customers are through the phone, not face to face.
- Q14. The original SERVQUAL Question no.17. The SERVQUAL Question no.14 "Customer able to trust employee..." is deleted and replaced by Question no.16, where the consistency of technical skills become the focus of confidence.
- Q15. Unlike pure service industry, where every service stems from a transaction, there is usually only one customer purchasing transaction on the machine, and subsequently full services provided by service contract. The original SERVQUAL Question no.15 "Customer feel safe in their transactions..." become irrelevant. It is replaced by SERVQUAL Question no.16.
- Q16. An addition question "The staff is consistently skillful in repairing the machine."

- Q17. An additional question "The company always carry enough stock of equipment and spare parts." to ensure smooth replacement of parts/equipment in case of copier major break down.
- Q18. Similar to original SERVQUAL Question no.18.
- Q19. The original SERVQUAL Question no.19 "Employee give personal attention..." is not applicable to copier services. It is therefore changed to "The contract and statements are easy to understand."
- Q20. Aa addition question "the staff is skilfull in handling customer complaints." SERVQUAL Qustion no.20 "...employee know customer need." and no.21 "...have customer best interests at heart."are deleted as they are similar to Question no.22.
- Q21. The original SERVQUAL Question no.22.

The above questions are first constructed to enquires for customer expectations from an excellent firm (part A). Then the same set of questions are re-constructed to enquire for customer perceived quality on the current copier brand that they use (part D). This way the questionnaire allows for gap analysis between expectation and perceived quality, as well as purely perceived performance analysis. The complete questionnaire is shown in the appendix.

At the end of part A in the questionnaire, respondents were asked to score each of the five dimensions in terms of importance using Likert scale (part B). The respondents are again asked to rank the five dimensions

by importance (part C). This is to qualify the priority of quality dimension as perceived by the respondents.

In part E of the questionnaire, respondents are asked on 3 different set of questions. First, Respondent's overall satisfaction on product and service. Then respondents are asked to rate their overall satisfaction level and their likelihood to repurchase the same brand. Thirdly, respondents are asked whether he/she encounter problems recently with the copier marketer.

Part F of the questionnaire consists of demography information on the respondent's company and the respondent, and information on machine type.

THE SAMPLE

The samples are drawn from businesses that are using one or more copiers. Since this study incorporates a competitive study between brands, there is no restrictions on the copier brand for the respondents. Due to the time limit in conducting this research, the sampling area is limited to the firms in located in the Klang Valley.

A total of 100 firms are identified with a mixture of big and small firms. Because this study intends to gather responses from the key operator, decision maker and users from the companies, each of these firms is given three questionnaires.

Questionnaires are mailed together with a stamped return envelop. The stamped return envelop helps to achieve a higher response rate. A total of 108 usable questionnaires are gathered out of 300 distributed questionnaires. The response rate is 36%.

The sampling frame work was entire working adults population with experience of using a copier. A total of 260 questionnaire were distributed randomly and 108 usable questionnaire were gathered constitute 41.5% response rate.