



## Research on Establishing Service Quality Scale at University Library and Information Center in Taiwan

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### ABSTRACT

In this study, a multi-stage scale development procedure was conducted in order to identify and disclose the factor structure for assessing the service quality of library and information center (LIC) at Taiwanese universities that is lacking of information from the literature. Therefore, according to the dimensions and scales of SERVQUAL, E-S-QUAL and LibQUAL+™ service quality models, to establish a service quality scale for supporting Taiwanese library and information center. The research contains six factors: Tangibles, Reliability, Responsiveness, Assurance, Empathy, and System Availability. The result of research provided an effective and robust evaluation tool to the Library and Information Center for conducting appropriate service quality assessment and benefited users, researchers for further investigating service quality issues in LIC.

**KEYWORDS** : Library and Information Center (LIC), Dimensions, Scale, Service Quality

### INTRODUCTION

Prior to 1996, computer center and library were independent administrative and supportive learning units from universities in Taiwan. However, for the last 20 years, most universities have improved their teaching quality for the development of resource sharing, to improve the quality of education and to reduce staff costs. Universities gradually merged computer center and library as one named library and information center (LIC). Traditional computer center provided manpower, computer technology, equipment, network and school's application information system. Traditional library provided manpower, books, periodicals, electronic resources, information technology equipment, resources learning and research. Therefore, LIC combines the functions of both Computer Center and Library as a more effective and highly valuable unit for education administration and resource supply.

However, when users wanted to express their opinions regarding the library and information center, often they can't receive the appropriate responses from past experiences. Even if the staffs at the library and information center would like to improve these problems, but they don't really know where to start and how to do it due to there is no available measuring tool of quality service. Furthermore, library and information center service quality (LIC-SQ) will continues to influence the university's efficiency in administration, education, and service. Therefore, it is a critical issue to create a suitable quality service assessment for library and information center.

In April 2016, among 159 universities in Taiwan, There were 73 universities which have merged library and computer center to become library and information center (LIC). According to investigating report, only a few of LICs have assessment of service quality but their measuring scales are not consistent and comprehensive. Therefore, this study revealed the LIC-SQ assessment issue by designing a robust and systematic procedure to develop service quality scale for covering adequate library and information center service items. However, the scale needs to be repeatedly tested in order to establish its stability. Particularly, the service contents and items will change corresponding to the evolving information technology and users' needs. If the contents of the service quality scale were published, it might help continuous study to extend and update the service quality scale.

### LITERATURE

In past studies among, Parasuraman, Zeithaml and Berry (1985) proposed dimensions and scale of Service Quality Model (SERVQUAL), and gradually revised its contents and models (Parasuraman et al., 1988a, 1988b, 1991, and 1994). The SERVQUAL

consisted of customers' initial expectation and perception of service quality, which was based on customers' responses of perceived services.

Cronin & Taylor (1992) considered the model of SERVPERF should directly focus on consumers' subjective performance. The rationale is that it is a model of perceived service quality, which does not need to compare with consumers' expectation of services. In addition, the items of the original SERVQUAL have improved by scholars Cronin & Taylor from 44 items to 22 items. They made empirical results explaining the SERVPERF was better than SERVQUAL. Finally, Parasuraman, Zeithaml and Berry (1994) also proposed amendments for its scale, integrated dimensions of tangibles, reliability, responsiveness, assurance and empathy consisting of 22 items.

With the rise of the Internet, Zeithaml, Parasuraman and Malhotra (2002) proposed seven dimensions for influencing website service quality, including efficiency, reliability, fulfillment, privacy, responsiveness, compensation, and contact, which divides the service quality into two before use and after use. Parasuraman et al. (2005) stated constructing the E-S-QUAL scale for measuring the service quality of online store. The scale was classified into two categories, core services (E-S-QUAL) and remedial services (E-RecS-QUAL) which were composed of 33 question items. Especially, it consists of efficiency (8 items), system availability (4 items), fulfillment (7 items), and privacy (3 items).

In terms of non-profit organizations, the service quality of library is the most relevant research, and highly related to the business of the library and information center. Association of Research Libraries (ARL) cooperated with Texas A & M University Library in 1999 develop library service quality scale (LibQUAL+™) based on SERVQUAL. The 22 core survey items fall into three dimensions including affect of service, information control and library as place. In 2008, the research and development team of ARL/Texas A&M had tested with a shorter form, it is called LibQUAL+® Lite which used item sampling methods to gather data on all 22 LibQUAL+® core items, but required individual users to respond to only a subset of the 22 core questions (ARL, 2015).

### METHOD

This study sorting out related literature on the dimensions of SERVQUAL, E-S-QUAL and LibQUAL+™, collected the service quality scales from most universities. The current generated a total of 68 items are in an item list. To make these items more accurate and meet actual situations, feedback from experts and users was sought in two stages. In the first stage, one-on-one interviews with five

administrators and ten staffs of computer center were recorded. The administrators and faculty were asked to give advice and amend the questionnaire items. Based on the results of the interviews, similar items were combined, several relevant items were added, and several irrelevant items were deleted. Finally, the total number of items was 46.

In the second stage, a pre-test of the questionnaire on 10 university teachers, 10 staff, and 30 college students was conducted. The fitting results indicated that these items were not a good fit for students, but more suitable to a teachers and staff. The respondents were then asked to compare the importance of the questionnaire items and then made amendments and suggested items to be deleted. In the end, 38 items remained. The 38 items go into the six dimensions, as follows: tangibles (8 items), reliability (9 items), responsiveness (3 items), assurance (3 items), empathy (8 items), and system availability (7 items).

## CONCLUSIONS

The study was based on the definition and the questionnaire content of the quality service model SERVQUAL, E-S-QUAL, and LibQUAL<sup>™</sup>, and develops into building an establishment for the library and information center quality service. The research results showed four dimensions that were important to the users, such as tangibles (8 items), reliability (9 items), empathy (8 items), and system availability (7 items).

The results indicated that in terms of tangibles, the library and information center emphasized on the overall clean environment, landscaping, individual activities, quiet, comfortable and attractive places, supporting enough periodicals and computer related equipment. In terms of reliability, the need to satisfy book gates, easy to use electronic resources, staff service attitude, the efficiency of personnel handling problems, network connection speed and stability. In terms of empathy, it provides book brochure services, borrowing process, book overdue reminder service, e-mail application process. In terms of system availability, the website home design and content, electronic resource query system usability, application information system convenience and stability. In short, it is expected that this scale will contribute to Taiwan's university library and information center to enhance the quality of service and evaluation of the connotation.

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