International Variations in Measuring Customer Expectations

PHILIP J. CALVERT

ABSTRACT

ONE OF THE PROBLEMS WITH USING GAP ANALYSIS is our partial understanding of customer expectations. A survey of Chinese university library students' expectations of service quality was compared to a similar survey done previously in New Zealand. Marked similarities in results show that there is perhaps a global set of customer expectations that can be used to measure academic library service quality. Three dimensions that concern staff attitudes, the library environment, and services that help the customer to find and use the library's materials efficiently, are found in both studies. A secondary study investigated national culture as a source of attitudes to customer service. Using Hofstede's dimensions, Library and Information Science (LIS) students in China and New Zealand were compared. Apart from some variation in the role of the manager in setting service standards, little variation appeared. The two surveys both suggest that national culture is not a major precursor of attitudes to service quality, so it will not impede efforts to set international measures of service quality for libraries.

INTRODUCTION

The increased emphasis on customer care seen in the 1980s and 1990s has also affected university libraries around the world and, as a result, the need to understand what library customers expect in terms of service quality is now necessary for good management. Service quality can be defined in different ways, but the most common approach used in libraries is

Philip J. Calvert, Library and Information Studies Programme, School of Communications & Information Management, Victoria University of Wellington, P. O. Box 600, Wellington 6001, New Zealand
LIBRARY TRENDS, Vol. 49, No. 4, Spring 2001, pp. 732-757

disconfirmation theory that examines the difference between a customer's expectations and the customer's perceived sense of actual performance. Surveys look for the extent that customer expectations of service are disconfirmed in practice; this is also called "gap" analysis. The SERVQUAL model of establishing service quality by employing gap analysis has been used in libraries for several years, and research shows it "offers service providers a diagnostic tool to assess what is important to meet or exceed their readers' expectations for quality service and a monitor of how well they do so" (Nitecki, 1998, p. 190).

Quinn (1997) argued that customer expectations can only be assessed by professionals, yet it has been established that customers and librarians have different expectations of the library, and "If there is a lack of congruence between users' expectations and providers' expectations, service quality will suffer regardless of how well services are planned, delivered, and marketed" (Edwards & Browne, 1995, p. 164). Hernon, Nitecki, and Altman (1999) say the belief that librarians already know what customers want, need, and expect is one reason they have been slow to accept the need to investigate service quality (p. 13). Customers have expectations about the service they will receive from an organization, and it is widely accepted that the key to good service quality lies in providing performance that meets or exceeds customer expectations of the service. That places the onus on library managers to know the expectations of their customers. Separately, but perhaps as importantly, a fuller knowledge of the origins, or antecedents, or customer expectations will provide management with a fuller understanding of the complex nature of service quality.

The twenty-four statements in SERVQUAL have been so thoroughly tested that their reliability and validity is well established (see Zeithaml, Parasuraman, & Berry, 1990). Still, doubts have been expressed about the SERVQUAL's applicability to contexts not close to its original setting (Robinson, 1999, p. 29). Its generality, as opposed to the specific context of a particular service sector such as libraries, has encouraged some LIS researchers to try a variation of gap analysis. Hernon and Altman (1998) pioneered a method of comparing customer expectations with objective indicators of service quality (p. 106) that has been tested in academic libraries in the United States, New Zealand, and Singapore (Calvert, 1997). This method is, in essence, similar to SERVQUAL but uses statements developed in consultation with library staff and customers that cover a wide range of aspects of service quality in libraries, though even the large number of statements generated so far cannot be said to be comprehensive. It also has the merit of being flexible enough to allow individual libraries to frame survey questionnaires to suit their own needs.

Searching for Global Dimensions of Library Service Quality

A problem with the gap model is that we have an inadequate understanding of customer expectations. Nitecki (1999) has pointed out that most research into library service quality has been case studies and has not produced normative results. She said: "Additional investigation is needed in library settings to draw insights about what library users find important in judging service quality and to speculate if universally prioritized factors exist across all library settings" (p. 225). In this project, it was hoped that, by investigating customer expectations in Chinese university libraries, the results would aid researchers around the world to move toward Nitecki's ideal of a global understanding of customer expectations. Comparisons between the Chinese results and those from a similar survey conducted in New Zealand will add to our understanding of customer expectations.

Precursors of Service Quality

Writers have identified different precursors of customer expectations. The SERVQUAL authors list word-of-mouth communication between customers; the personal needs of customers; past experiences of customers; and the external communications from service providers (Zeithaml, Parasuraman, & Berry, 1991, p. 19). A list produced from an LIS perspective included word of mouth, customer's prior experience, and competitive behavior (Hernon & Altman, 1998, p. 11). To those lists, the impact of national culture can be added. The resulting six factors can be configured as follows:

The customer:

1. past experience of the customer;
2. word-of-mouth from other customers;
3. personal needs of the customer; and
4. national culture of the customer.

The service provider:

5. communications (direct and indirect) about what the customer can expect.

Competitors:

6. service provided by other providers that acts as a benchmark.

There seems to be no research that tries to establish priority among the various sources of expectations. Millson-Martula and Menon (1995) say that "needs" may be accorded the most worth because of their supposed objectivity; yet, however true this may be, personal needs vary so much between customers that management will find it extremely difficult to incorporate any knowledge of individual needs into strategic plans. Only when a pattern of needs emerges is the information of value.

Of the other four factors given in the literature, the most influential in forming expectations is likely to be the customer's personal experience of the service. In a project that examined the relationship between customer perceptions and expectations of a pubic library service, British researchers concluded: "User's experience has emerged as the most important factor impacting on the way that they form expectations and perceptions of the service." It was the "snapshot" of service received during a service experience that had a significant impact on perceptions, and also that subsequent expectations were formed as a result of the experience (Lilley & Usherwood, 2000, p. 16). A series of such encounters will form the customer's expectations of service quality. A practical difficulty that results from this is that expectations are likely to change with familiarity (Carman, 1990) so, if possible, the level of familiarity should be gauged along with the expectations or, alternatively, take only the views of individuals with experience of the service and use their responses as a norm for all customers' expectations (Robinson, 1999, p. 28). Chinese university students will have had few true library experiences prior to starting a degree, for school libraries are nonexistent throughout much of the country and rudimentary where they do exist. This is not so in New Zealand, so the impact of school library experiences on university student expectations needs to be borne in mind as a possible factor, though this research has not produced any conclusions about its effect.

Presumably, word-of-mouth communication is a by-product of personal experiences of the library by different individuals who then share the knowledge they have gained with their friends. This might be modified by library communications, but it seems as though it is the personal experience that has the strongest effect—as one might intuitively expect. As libraries raise their marketing efforts, they will presumably be conscious of the impact their messages have on customer expectations. Indeed, marketing services can help to create reasonable expectations of a service before it is experienced in person, as can the use of service level agreements, provided they are widely publicized. Both Chinese and New Zealand university libraries produce written material introducing customer services, and they are increasingly using Web sites to promote access to electronic services, so this will surely have some impact on expectations. This sort of promotion runs the risk that unmediated customer use of electronic services may result in some very unhappy "snapshot" experiences. Marketing is also important in changing those customer expectations that management believes are below a desirable level. For example, the University of Waikato discovered very low customer expectations of "reader education" classes (or bibliographic instruction, as they might be called in North America) so set out to raise expectations in order that more students would take advantage of the classes offered (Harwood & Bydder, 1998).

Significantly, the research that produced most of these "factors" in forming attitudes to service quality has all emanated from the United States and so is representative of a single national culture. It is worth asking if the same antecedents of customer expectations will be found around the world or if national culture exercises a major influence on the formation of attitudes to service quality. Every person carries patterns of emotions and potential behavior learned throughout a lifetime. Much of this is acquired in early childhood from family members and the social environment such as friends, television, and pop music, and it forms what Hofstede (1997) calls "mental programs" that partially predetermine a person's behavior (p. 4). People have a learned reaction to any given situation, so it would be logical to expect customer service to include many moments when cultural characteristics play a part in the behavior of the customer or staff member concerned. As an example, it could condition the response a staff member shows to a customer's dress or speech, to the amount of certainty the staff member feels she must show in the answer provided, to the extent she shows personal initiative in seeking a satisfactory answer to the customer's question and how much she might fall back on stock responses from a manual, even to how much the staff member attempts to impress superiors with her behavior. Later, this article will tentatively explore the potential impact of national culture on the formation of attitudes to service quality in library and information management. It is worth adding at this point that Hofstede did not claim that "mental programs" were unerasable, but he suggested that certain behavior might need to be unlearned while new behavior patterns are acquired.

Objectives of the Primary Project

There were two objectives set for the research reported here: (1) to compare the customer expectations among university library customers in China and New Zealand to identify similarities and differences, and (2) to produce global dimensions for customer expectations of academic library service quality.

Methods

Focus groups of between four and eight library staff were held in Peking and Tsinghua Universities in China. The focus group members were presented with a list of statements produced in New Zealand by Hernon and Calvert (1996) and asked to consider their appropriateness to the Chinese situation. The statements on the list were amended and deleted according to the opinions expressed in the focus groups, with more statements being added to make the list truly representative of service quality as it is understood by university library staff in China. As an example of this, statements about drinking fountains were removed, but one on an adequate supply of clean water (for making tea) was added.

Although this reduced the comparability of the two lists, there was also a need to produce outputs useful to the hosting university libraries so that the final list of statements included some elements of compromise to achieve that result.

The statements were put into a questionnaire that asked library customers to rate their expectations of service quality in an "ideal" university library on each statement. The survey was completed by 135 customers (all of them students) in the two libraries.

The data were entered into SPSS running on a PC. The mean of responses to each statement was calculated for each university separately, then the combined mean for all 135 customers. Ranked lists with the highest means at the top were produced for each university and then for the combined means (Table 1). Both universities have been given their own ranked lists together with calculated means, so a by-product will be a list of statements that each individual university library will be able to use if they wish to conduct a separate analysis of service quality. A Spearman Rho correlation for the two universities was .73, perhaps lower than might be expected considering the similarity between the student bodies but significant nonetheless. Further analysis of the ranked lists for Peking and Tsinghua showed forty of the eighty-six statements within ten spaces of each other, showing considerable similarity on *some* aspects of service. At one university, statements on staffing scored quite highly while, at the other university, statements about the library's catalog ranked higher.

The data were subjected to principal component analysis followed by Varimax rotation. Nine factors could be produced using all eighty-six variables, but it required the removal of two statements before more factors could be produced and, once thirteen factors had emerged, it was not possible to produce more, even after forty rotations, without removing an excessive number of variables. Thirteen factors produced the most easily comprehensible output (see Appendix A). Reliability analysis of all thirteen factors produced high Alphas between .919 (the first factor) and .579 (the eleventh factor), showing that the results are robust. Only statements loading at higher than .4 are displayed.

Comparison between Chinese and New Zealand Results

Table 1 shows the combined means and resulting ranked list of statements from the two Chinese university libraries. Customers have said their expectations on the statement "It is easy to find where materials (books, journals, videos, maps, etc.) are shelved" exceed all others. If expectations are based on personal experience, then the sheer size of the two university library buildings at Peking and Tsinghua may account for this because students, in particular, will find it challenging to find what they need unless a rational layout supported by good signage aids them in their search for materials and service desks. A visitor to either one of the libraries

Table 1. The Mean of All Responses, Ranked from Highest Expectations to the Lowest.

Statement	Mean	St Dev
1. It is easy to find where materials (books, journals, videos, maps, etc.) are shelved.	5.970	1.348
2. The information I get from library materials is accurate.	5.940	1.231
3. The library's Web pages contain correct and useful information about library services and materials.	5.904	1.304
4. Information displayed on the computer catalog is clear and easy to follow.	5.888	1.296
5. Study areas in the library are kept quiet.	5.858	1.322
6. Lighting in the building is adequate to my needs.	5.856	1.230
7. Catalog computers are in good working order.	5.837	1.372
8. Documents I want are in their proper places on the shelves.	5.826	1.401
9. The computer catalog is an accurate source of information about all documents held by the library.	5.687	1.384
10. The range of materials held by the library meets my course needs.	5.687	1.438
11. Instructions on remote access to the computer catalog are easy to follow.	5.684	1.264
12. Directional signs in the library are clear, understandable, and helpful.	5.667	1.388
13. Library materials are reshelved promptly after use.	5.664	1.262
14. The library material I need is in good condition (e.g., not brittle or falling apart).	5.649	1.389
15. The toilets are clean.	5.644	1.307
16. Internet, CD-ROM, and database computers are in good working order.	5.621	1.470
17. The library purchases new materials which are relevant to my course needs.	5.614	1.506
18. I can usually find a seat or study desk when I want one.	5.611	1.512
19. I find the temperature in the building is comfortable.	5.603	1.161
20. Computers for the library catalog are conveniently distributed throughout the library.	5.602	1.359
21. Library staff give accurate answers to my questions.	5.594	1.354
22. Library staff are approachable and welcoming.	5.586	1.393
23. It is easy to find out in advance when the library will be open.	5.571	1.327
24. I find the ventilation in the building is comfortable.	5.567	1.160
25. When I connect remotely to the computer catalog I do not get a busy signal or get disconnected.	5.556	1.535
26. The material I need from the course materials collection is usually available to me when I want it.	5.552	1.480
27. Library staff are courteous and polite.	5.523	1.384
28. I feel safe in the building.	5.485	1.797

(Table 1 continued on page 739)

29. Library staff are available when I need them.	5.481	1.368
30. Librarians provide teaching programs to help me make more effective use of the library.	5.448	1.318
31. Staff communicate with me using terms I understand.	5.440	1.289
32. I find displays of new materials helpful.	5.437	1.509
33. The computer catalog has a "Help" option which I understand.	5.436	1.544
34. Hours when the library are open match my schedule and needs.	5.425	1.533
35. When I enter the library I can see where I can go for help.	5.400	1.421
36. Library staff are friendly and easy to talk to.	5.388	1.476
37. I find the humidity in the building is comfortable.	5.378	1.309
38. The documents I need have not been mutilated (e.g., torn pages or highlighted text).	5.364	1.458
39. Photocopiers are in good working order.	5.351	1.431
40. I do not have to wait more then three minutes when I ask for assistance at a reference desk.	5.343	1.349
41. Library staff offer suggestions where to look for information in other parts of the library.	5.329	1.429
42. Library furniture is comfortable.	5.321	1.444
43. I do not have to wait more then three minutes when I use the computer catalogue.	5.296	1.621
44. There is an adequate supply of clean drinking water in the building.	5.295	1.670
45. The library provides timely, accurate, and clear information about equipment not in working order.	5.288	1.422
46. It is easy to make a compliment, complaint, or suggestions about library services or conditions.	5.286	1.465
47. The library acts promptly when I make a complaint.	5.286	1.318
48. I do not have to wait more then three minutes when I use the course materials collection.	5.271	1.509
49. Knowledgeable staff are available to assist whenever the library is open.	5.265	1.445
50. There is a sufficient number of toilets in the building.	5.258	1.633
51. When I request an item currently on loan to another person, I am told how long it will take to arrive.	5.254	1.611
52. I do not have to wait more then three minutes when I borrow materials.	5.240	1.488
53. Library staff are willing to leave the desk area to help me.	5.241	1.488
54. Audio-visual equipment is in good working order.	5.233	1.576
55. Library brochures and help sheets are helpful.	5.227	1.294
56. Library furniture is designed to meet my practical needs.	5.220	1.464
57. Accurate and helpful written instructions are available next to all equipment.	5.187	1.441
58. The library has an attractive interior.	5.172	1.396

(Table 1 continued on page 740)

Table 1. continued from page 739

Statement	Mean	St Dev
59. Library staff encourage me to come back to ask for more assistance if I need it.	5.158	1.546
60. I do not have to wait more then three minutes when I use Internet, CD-ROM, and database computers.	5.152	1.651
61. Microfilm and microfiche readers are in good working order.	5.135	1.551
62. When I request an item from a closed shelf, I am told how long it will take to arrive.	5.134	1.506
63. When I request an item by interlibrary loan (ILL), I am told how long it will take to arrive.	5.127	1.479
64. There are an adequate number of lockers in which I can store my personal belongings.	5.108	1.681
65. Library staff demonstrate and teach the use of the Internet, CD-ROMs, and databases.	5.076	1.470
66. Library staff understand what information I am looking for.	5.022	1.719
67. Library staff offer suggestions on where to look for information outside the library.	5.015	1.708
68. Computer printers are in good working order.	5.015	1.728
69. Library staff do not refer me unduly from one service area to another for my enquiry to be answered.	5.000	1.291
70. I do not have to wait more then three minutes when I use photocopiers.	4.963	1.533
71. Library staff help me select appropriate electronic resources.	4.925	1.540
72. Library staff mention interlibrary loan as a means to obtain material the library does not have.	4.909	1.637
73. Library staff personally help me to use electronic resources.	4.873	1.443
74. I do not have to wait more then three minutes when I phone the library for assistance or information.	4.821	1.608
75. Library staff direct me to library brochures and help sheets.	4.803	1.490
76. All public service desks throughout the library are served by knowledgeable staff.	4.800	1.568
77. Library staff do not overwhelm me with too much information and detail.	4.795	1.562
78. Library staff demonstrate cultural sensitivity.	4.773	1.541
79. Library staff show me how to use the computer catalog.	4.770	1.569
80. There are places for me to use a laptop computer within the building.	4.744	1.820
81. The library provides services such as staplers, hole punchers, pencil sharpeners, and giving change.	4.733	1.603

(Table 1 continued on page 741)

82. I do not have to wait more then three minutes when I need prints from a computer.	4.658	1.682
83. There is a sufficient number of group study rooms.	4.659	1.830
84. I do not have to wait more then three minutes when I use microfilm and microfiche readers.	4.542	1.656
85. There are study areas where talking is permitted.	4.489	1.963
86. Library staff take me directly to documents I want, instead of just pointing or telling me where to go.	4.378	1.757

will notice the efforts being made to set out collections and services clearly and to support the layout with directional signs.

The rankings in Table 1 were then compared with the results from a similar survey conducted in New Zealand (Calvert & Hernon, 1997). Twenty-two statements were ranked highly (higher than fortieth place) in both China and New Zealand (see Table 2). The twenty-two statements can easily be reduced to six broad groups:

1. *Study environment*—environment, personal safety, provision of study desks, toilets.
2. *Materials*—matching course needs, accuracy.
3. *Equipment*—maintenance, in good working order.
4. *Organization of materials*—directional signs, OPAC clarity and accuracy.
5. *Services provided*—speed and accuracy of reshelving, notice of opening hours.
6. *Staff attributes*—welcoming behavior.

Recognition of the importance of environmental factors and signage echo Bicknell's (1994) findings for reference services.

All twenty-two statements can be placed into a simple scenario. In this, the customer is perhaps already aware that the library's collection matches her needs and that information she will find in the materials is accurate so, as she prepares to visit the library, she discovers that it is easy to check that the library will be open at a time that suits her. On entering the library, she sees the clear directional signs. Sufficient OPAC computers are working, and the information on the OPAC is displayed clearly. Using accurate information from the OPAC, she then proceeds to find with ease where the materials she needs are shelved. The documents have been reshelved quickly and accurately so they are available when she needs them. There is a study desk readily available, and the library environment (temperature, ventilation, and lighting) are all adequate to her needs. Her chosen study area is quiet, and she feels safe in the library. When she needs to question staff, they are approachable and give her accurate answers. During her visit to the library, she finds that the toilets are clean. Her study needs require use of an Internet capable computer and a photocopier, so she is pleased to find sufficient numbers of them working. As she leaves the library, she may well reflect on a way that the library met her expectations of good service.

Table 2. Statements Ranked Highly in China and New Zealand.

	China	NZ
Catalog computers are in good working order	7	4
Directional signs in the library are clear, understandable, and helpful	12	31
Documents I want are in their proper places on the shelves	8	23
Hours when the library are open match my schedule and needs	34	12
I can usually find a seat or study desk when I want one	18	1
I feel safe in the building	28	20
I find the temperature in the building is comfortable	19	16
I find the ventilation in the building is comfortable	24	19
Information displayed on the computer catalog is clear and easy to follow	4	9
Internet, CD-ROM, and database computers are in good working order	16	17
It is easy to find out in advance when the library will be open	23	11
It is easy to find where materials (books, journals, videos, maps, and so on) are shelved.	1	30
Library materials are reshelved promptly after use	13	26
Library staff are approachable and welcoming	22	25
Library staff give accurate answers to my questions	21	10
Lighting in the building is adequate to my needs	6	2
Photocopiers are in good working order	39	5
Study areas in the library are kept quiet	5	22
The computer catalog is an accurate source of information about all documents held by the library	9	8
The information I get from library materials is accurate	2	3
The range of materials held by the library meets my course needs	10	7
The toilets are clean	15	13

The emphasis on self-sufficiency is obvious. Academic library customers prefer to work on their own and value organization and clear signage. Both Chinese and New Zealand students gave a very low ranking to the statement "Library staff take me directly to documents I want, instead of just pointing or telling me where to go." Library staff need not fear this discovery, for who else is it that plans for, and provides, the good organization that customers desire? In a similar example, a customer may enter a wine shop intending to purchase a good Chardonnay from a particular winery. Initially the customer needs to know the opening hours of the shop, and that it is likely to stock the Chardonnay of choice. On arriving at the door, the customer wants good signage to point out the Chardonnay section. The internal environment of the shop should be pleasant and the layout of the shelves and the purchase counter should be clear. Only if the customer discovers that the Chardonnay is not available is she likely to ask shop assistants for help, though she will find it agreeable to meet pleasant and courteous staff. One could pursue this analogy further, but the intention of its provision should be apparent.

If the twenty-two statements are reduced to ones that only appear in the top ten in both countries, five remain:

1. Computer catalogs are in good working order.
2. Information displayed on the computer catalog is clear and easy to follow.
3. Lighting in the building is adequate for the user's needs.
4. The computer catalog is an accurate source of information about all documents held by the library.
5. The information from library materials is accurate.

The library's catalog (or OPAC, if you will) is included in three of the five statements. Perhaps not even the most enthusiastic proponent of library automation would have expected customers to place so much importance on the catalog, but the evidence from this research seems clear.

The Dimensions of Customer Expectations

Academic libraries perform numerous functions for a diverse community, making it difficult for managers to identify key aspects of customer service. This research project alone used eighty-six separate statements, each describing a different aspect of service quality, and this makes it hard for the manager to convert the theory into practical resource allocation decisions. The results of the research are easier to understand once data reduction has simplified the output. Factor analysis attempts to identify underlying factors, or dimensions, that explain the correlations within the variables (statements) that have been used and, further, researchers can describe what the factors represent conceptually. This tool has successfully been used to identify the dimensions of academic library

effectiveness (McDonald & Micikas, 1994), and here it is applied to the similar but different topic of service quality.

Not all the factors display interpretable results. Factor 1 of the Chinese survey is clear and shows considerable similarity to the New Zealand factor 1. Many of the statements here are also in Table 2, meaning that customers have high expectations of these aspects of library service. Significantly, many are about services provided by the library as mediation between customer and collections, though often with no direct personal communication. The range of this factor is about customer self-service and the materials being readily available for use. The most similar dimension in SERVQUAL is "reliability." The highest loading statement in the China survey is "Information displayed on the computer catalogue is clear and easy to follow." Remarkably, once two statements not used in China are deleted, exactly the same statement is the highest loading variable in New Zealand factor 1, so this once again emphasizes the centrality of the OPAC to good service quality. Factor 2 is something of a farrago but has some similarities to New Zealand's sixth factor. Even though there is not much coherence in the statements, the repetition between the two surveys is worth noting.

Chinese factors 3 and 4 are both about staff attributes. If any difference can be discerned, it lies in the higher expectations (from Table 1) given to the statements in factor 3, which also coincides with much of the New Zealand factor 4. Put another way, the miscellany of statements in China factor 4 should not be considered as important, though it looks similar to New Zealand's third factor. The highest loading variable in China factor 3 is "Library staff are courteous and polite," and this statement loads second in New Zealand factor 4. Factor 6 contains several statements that are important, such as safety, photocopier maintenance, clean toilets, and good lighting. Several are about the library environment, and perhaps it shows that, to library customers, some equipment—e.g., photocopiers—equates with furniture and lighting and is part and parcel of the library environment. The elements similar to SERVQUAL dimensions are "assurance" and "empathy."

Of the other smaller factors, number 8 includes important statements about signage and knowing opening hours in advance. Factor 10 includes the statements on reshelving materials promptly and having materials in good condition. Factor 13 has two broad statements that correlate well, about having opening hours that match customer needs and good organization that aids customers to find the materials they want.

Findings on Expectations

The surveys conducted in New Zealand and China have shown that customers in two apparently diverse countries display many similarities in their expectations of service quality. The focus is on intermediation largely

without personal contact, making the library and its services readily available when the customer wants them, and offering a collection in good order that matches the customer's needs. Perhaps of more importance is that neither the library staff focus groups nor the survey of university students produced any results that were significantly different to similar research held in New Zealand. The similarities between the two move somewhat toward satisfying the call for more knowledge of global dimensions of library service quality. It also satisfies the need for normative results in customer expectations research.

Objectives of the Secondary Project

Here is also included a report from a secondary project that served the following purpose: to test if underlying attitudes to service quality among LIS students are similar in different cultures.

The Attitudinal Survey

One possible explanation of attitudes to service quality and, therefore, part of the formation of expectations, might be the national origins of the respondents. Service quality is itself such an intangible and emotional concept that it is reasonable to point at national cultures as a source of these subjective attitudes. If national culture plays a part in forming attitudes to service quality, then, first, the goal of a global set of academic library service quality expectations may be too hard to attain and, second, managers will need to adapt customer service training methods to suit national variations. As a way of testing the impact of national culture, a survey was conducted that examined basic attitudes toward service quality among library and information studies (LIS) students at Peking University in China and Victoria University of Wellington in New Zealand. The instrument used was based heavily on the four dimensions of national culture developed by Hofstede (1997) that has been widely accepted in the disciplines of cross-cultural psychology and ethnography. Despite its apparent suitability for this kind of international study, Hofstede's work does not seem to have been used before in LIS. One reason for supposing that there would be differences in attitudes to service quality is that China is still influenced by Confucianism (though some might argue that this influence is declining), and Confucian philosophy considers human relationships as the basis of all human society. New Zealand, by contrast, is a more egalitarian, individualistic culture.

Hofstede's four dimensions and their implications for library service quality are as follows. Attitudes measured according to the *power distance* (PD) dimension deal with the way a society handles inequality. The more that a society accepts the idea that power is to be distributed unequally, the higher its PD. The PD dimension also includes the emotional distance that separates subordinates from their bosses and, in a high PD culture, it

is common for bosses to have an autocratic or paternalistic style at the head of an organization with a highly vertical structure. Employees will be afraid to express disagreement with their managers and, indeed, if a manager asks for advice from employees, it may be taken as a sign of weakness. A low PD culture is more egalitarian, and organizations are likely to be vertically flat. "In a collectivist culture, while a high-status person can challenge the position or opinion of a low-status person, it is a norm-violation for a low-status person to directly rebut or question the position or the opinion of the high-status person, especially in the public arena" (Ting-Toomey, 1997, p. 399).

In contrast to the "rugged individualism" fostered in the west and popular in American legend, the view of "self" cultivated in the east and strengthened by its dominant philosophies is that of a person embedded within an unchanging social order. Identity is acquired from membership in groups, so the sense of self that emerges is not the western "existential ego" but a "social ego." It is not self-sufficiency and the good of the self that is fostered, it is the collective good of the in-group. Hofstede labeled this as *individualism and collectivism* (IND), in which: "*Individualism* pertains to *societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism* as its opposite pertains to *societies in which people from birth onwards are integrated into strong, cohesive in groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty*" (Hofstede, 1997, p. 51). Application of this dimension to library service quality should see a contrast, on the one hand, between the collectivist concern for nurturing relationships with customers and the avoidance of conflict and, on the other hand, the individualists whose interests lie in personal gain. It will pose particular problems at the reference interview and at all other times when customers need to communicate their information needs or other desires to library staff. In the context of an Asian customer asking a western librarian for assistance, the staff member may be bemused by the unwillingness, which will seem as an inability, to express needs specifically.

The *uncertainty avoidance* (UA) dimension refers to the way that people within a culture deal with uncertainty. Those high in UA feel threatened by ambiguous situations and so like to have rules and set procedures to guide them. Those low in UA can tolerate ambiguity and actually prefer to be left with flexibility in how they respond to any given situation. Confucian thought says that it is the responsibility of the manager to lead employees to a perfect working environment. "A manager has to inform employees clearly about the goal of and behavioral criteria in the company" (Chen & Chung, 1997, p. 323), meaning library staff will expect clear customer service guidelines from their managers and will not wish to deviate from them. By contrast, individuals in a low UA culture will

always look for innovative new ways to improve customer service, and providing good service is part of the challenge and enjoyment of working.

Rather confusingly, *masculinity/femininity* (MAS) does not refer to gender roles but the degree to which a society focuses on assertiveness and the acquisition of things, as opposed to societies that give value to quality of life issues, such as caring for others. High MAS cultures endorse aggressive behavior that results in success, such as promotion at work, so assertiveness and competitiveness are accepted as sensible behavior. The challenge of good customer service as a career move is willingly accepted by those high in MAS. The opposite culture in this dimension is one that values caring, compromise and cooperation, the nurturing of relationships, and modesty.

Comments on the Four Dimensions

In an attitudinal study of 9,000 male commercial pilots, Merritt followed Hofstede's cross-cultural study with the intention of replicating all four dimensions. The dimensions of Power Distance and Individualism-Collectivism were replicated successfully. The report's author considers that the nature of the profession may account for this, "partly because they are at the forefront of their cultures with regard to technology and global communications, but also because of their self-selection into a very individualistic profession." Merritt then attempted to correlate the UA dimension with attitudes to automation and discovered that those cultures whose members endorse rules and procedures as a way of resolving uncertainty also endorse the use of automation, perhaps because the computer takes over decision-making and offers the "correct" solution to a problem. Pilots can be drawn to automation for two reasons, he postulates. Those pilots with low PD and low UA regard the machine as a challenge to be used and conquered. Those with high PD and high UA accept the "expert" role of automation and appreciate the security it brings. It could well be that the nature of a *profession* or a career that displays an inherent need for a particular type of personality may succeed in attracting just that kind of individual to its ranks. If this is true for the library profession, then it will attract people high in collectivism, probably low in masculinity, and perhaps high in uncertainty avoidance (though not consistently so). Librarians may be different in PD according to the cultures of library organizations in their own countries.

The Survey Instrument

The researcher developed sixteen statements describing attitudes to service quality that drew heavily upon Hofstede's work (see Appendix B). In order to ensure that respondents in both countries understood the statements equally well, it was essential that the survey instrument be written in both English and Chinese languages, and that the intention of the statements be the same in both languages. The first version of the survey

instrument was written in English. Commonly, back-translation has been used to create the second version—that is, the original version is translated into the target language then a second translator takes that version and translates it back into the original language. The investigator then checks with both translators for inconsistencies. An alternative way of producing survey instruments in two languages is the method of decentering—a method that considers both languages equally important in the design of the instrument. This uses "continuous revision in which the original draft version changes as the translation process attempts to account for lack of verbal equivalence in the target language" (Metoyer-Duran, 1993, p. 23). For this survey, the method used was closest to back-translation, but statements in the original version were rewritten into a completely different form when translation into Chinese proved cumbersome from the original. In that respect, decentering was used when difficulties were encountered.

Researchers involved with any culture other than their own should beware of monocultural assumptions. This research project, however, was actually looking for different cultural attitudes rather than trying to justify the researcher's own assumptions. Using statements rather than questions in the survey instrument, with the only requirement being that the respondent "rated" them on a Likert scale, avoided the potential pitfall of Asian respondents inaccurately answering "yes" to closed questions in order to avoid the impoliteness of a negative answer (Metoyer-Duran, 1993, p. 23).

Analysis

Responses from all Chinese students (n = 58) were cross-tabulated with responses from all New Zealand students (n = 59) (see Table 3). Only one statement showed any strong difference in attitudes: "I do not expect my manager to serve customers because they have the privilege of choosing not to do so." The Chinese were much more likely to agree with this statement than their New Zealand peers. This underscores the belief that cultures high in PD give deference/respect to those of a higher status. Implications for service quality are that managers may decide not to work on service desks, leaving the work to junior staff, and that junior staff will be very reluctant to question decisions made by their superiors even if it leads to reduced service quality. Interestingly, the statement with the next highest difference between countries is "I need training for customer service from my managers to give me the skills and abilities to do the job properly" which emphasizes a strong underlying variation in national cultural attitudes when librarians consider their relationships with managerial superiors. Another implication is that any customer service training of staff in countries high in PD must take into account the very influential position of senior managers. It comes as no surprise, perhaps, that the

third highest difference (MAS2) also involves attitudes toward management. There could be a strong message here about internal communication (Gap 1 in the SERVQUAL model), though the evidence does not point to the Chinese or western approaches as being superior.

Table 3. Cross-Tabulations on Each Statement by Country of Origin.

	Likelihood ratio	df	p=
PD1	3.521	8	.898
PD2	119.478	8	.000
PD3	21.378	8	.006
PD4	11.167	8	.192
IND1	7.195	8	.516
IND2	36.607	8	.000
IND3	14.410	8	.072
IND4	25.824	8	.001
MAS1	16.547	8	.035
MAS2	29.382	8	.000
MAS3	4.001	6	.677
MAS4	5.085	6	.533
UA1	10.057	8	.261
UA2	3.475	6	.747
UA3	7.404	8	.494
UA4	11.905	8	.155

No one dimension shows complete unity, although the PD dimension shows some differences between the two country responses. The uncertainty avoidance dimension shows almost no significant difference between countries (Merritt's study, mentioned earlier, throws doubt upon the validity of the UA dimension). Thus there is no evidence that strong national cultural differences are showing through and that it is necessary to reject the belief that national cultural differences have strongly influenced attitudes to library service quality among LIS students. There is no reason to suppose that national culture is a major element in the formation of service quality expectations, certainly not a more significant factor than previous experience of a service.

Just as Merritt explained the high IND scores for pilots as a result of the profession's very nature, so the low variation on the IND dimension between librarians in China and New Zealand may be accounted for by two explanations. First, library staff everywhere deal with "strangers" for much of the time, and there is a point beyond which the sense of collective good ceases to influence behavior. Second, Hofstede dealt only with national cultures as generalities and never claimed that all people in one

nation would behave the same way, so naturally New Zealand will have a proportion of people with a higher sympathy for collectivism than for individualism, although the majority may be individualists. It is possible that librarianship, by its very nature, attracts those with a collectivist mentality, for "loaning, borrowing, and giving are all ways of building or maintaining a social network of reciprocation; collectivists would go to great lengths to maintain social relationships by this means" (Hui & Triandis, 1986, p. 229). Collectivists also have a strong feeling of involvement in the lives of others to the extent that others' experiences could have direct or indirect consequences for themselves.

Problems

Perhaps this research attempted a "bridge too far." Hofstede's work has not previously been applied to LIS so perhaps it would be a more reliable starting point to assess librarians in general on the Hofstede dimensions rather than changing the statements to measure attitudes to service quality. Factor analysis did *not* show the four dimensions emerging from the responses, which may mean that the statements were not an accurate reflection of Hofstede's intentions though, as has been pointed out earlier, there are already critics who doubt the strength of some of his dimensions.

Hofstede's work has gained widespread acceptance in cross-cultural psychology, but it is not without its critics. A group calling themselves the Chinese Culture Connection (1987) constructed a rather different survey to Hofstede's, one that attempted to avoid the limitations of a western viewpoint being used to analyze cultural psychological processes that did not share the same origins. By creating an artefact based entirely on Chinese values, the authors searched for dimensions reflective of Chinese culture only. They created four new dimensions; three of them showed similarities with Hofstede's PD, IND, and MAS but none with UA. They labeled the new dimension "Confucian work dynamism." Interestingly, librarians in the Chinese focus groups were eager to mention "trying hard" as the most important element of good customer service. No matter how hard the problem, they said, do your best to provide each individual customer with what he/she wants. This could be evidence of Confucian work dynamism.

Conclusion

It has become increasingly clear, following research in the United States, New Zealand, Singapore, and the People's Republic of China, that academic library customers have very similar expectations of service. The three most common dimensions revealed so far concern staff attitudes, the library environment, and services that help the customer to find and use the library's materials efficiently. The case study approach has revealed

much the same results in four countries, so there is probably no need to take this research method any further. A secondary survey of LIS students in China and New Zealand showed strong similarities in attitudes toward service quality, though variations appeared in deference to management among Chinese students that was not shared by their New Zealand peers.

Although further research could test the strength of the "Confucian work dynamism" dimension, research so far supports a belief that individuals select their careers according to personality types, and that librarianship attracts people with similar attitudes to service quality. National culture does not seem to be a major precursor of service quality attitudes. The two projects together give strong support to the use of internationally accepted measures of academic library service quality.

Acknowledgment

This research was conducted while on an academic exchange program with Peking University in the People's Republic of China, and I wish to give my thanks to colleagues in the University Library and the Department of Library and Information Science, without whom my visit would not have been nearly so pleasant or fruitful.

APPENDIX A

Thirteen Factors Emerging from a Survey of Expectations in Two Chinese University Libraries

Factor 1

Information displayed on the computer catalogue is clear and easy to follow.
The material I need from the course materials collection is usually available to me when I want it.
Instructions on remote access to the computer catalogue are easy to follow.
The range of materials held by the library meets my course needs.
The information I get from library materials is accurate.
Documents I want are in their proper places on the shelves.
The library's Web pages contain correct and useful information about library services and materials.
The computer catalogue is an accurate source of information about all documents held by the library.
Computers for the library catalogue are conveniently distributed throughout the library.
The library purchases new materials which are relevant to my course needs.
Internet, CD-ROM and database computers are in good working order.
The documents I need have not been mutilated (e.g., torn pages or highlighted text).
I do not have to wait more then three minutes when I use the computer catalogue

Factor 2

When I request an item currently on loan to another person, I am told how long it will take to arrive.
When I request an item by Interlibrary loan, I am told how long it will take to arrive.
The computer catalogue has a "Help" option which I understand.
When I request an item from a closed shelf, I am told how long it will take to arrive.
There is an adequate supply of clean drinking water in the building.
When I connect remotely to the computer catalogue, I do not get a busy signal or get disconnected.
When I enter the library I can see where I can go for help.
Library staff mention Interlibrary loan as a means to obtain material the library does not have.
Catalogue computers are in good working order.

Library staff offer suggestions on where to look for information in other parts of the library.
Library staff offer suggestions on where to look for information outside the library.
Computer printers are in good working order.

Factor 3

Library staff are courteous and polite
Library staff are willing to leave the desk area to help me.
Library staff are approachable and welcoming; are friendly and easy to talk to.
Library staff encourage me to come back to ask for more assistance if I need it.
Library staff are approachable and welcoming.
Library staff do not overwhelm me with too much information and detail.
Library staff are available when I need them.
Library staff understand what information I am looking for.

Factor 4

Library staff show me how to use the computer catalog.
Library staff take me directly to documents I want, instead of just pointing or telling me where to go.
Library staff personally help me to use electronic resources.
Library staff demonstrate cultural sensitivity.
Library staff direct me to library brochures and helpsheets.
Library staff do not overwhelm me with too much information and detail.
Library staff help me select appropriate electronic resources.

Factor 5

It is easy to make a compliment, complaint, or suggestions about the library services or conditions.
I do not have to wait more then three minutes when I use the course materials collection.
Audiovisual equipment is in good working order.
The library provides timely, accurate, and clear information about equipment not in working order.
The library provides services such as staplers, hole punchers, pencil sharpeners, and giving change.
I do not have to wait more then three minutes when I use Internet, CD-ROM, and database computers
Microfilm and microfiche readers are in good working order.

Factor 6

Library furniture is comfortable.
I feel safe in the building.
Photocopiers are in good working order.
The toilets are clean.
Staff communicate with me using terms I understand.
There is a sufficient number of toilets in the building.
Lighting in the building is adequate to my needs.

Factor 7

I do not have to wait more then three minutes when I phone the library for assistance or information.
I do not have to wait more then three minutes when I use microfilm and microfiche readers.
I do not have to wait more then three minutes when I use photocopiers.
I do not have to wait more then three minutes when I need prints from a computer.

Factor 8

Directional signs in the library are clear, understandable, and helpful.
It is easy to find out in advance when the library will be open.
All public service desks throughout the library are served by knowledgeable staff.
Library furniture is designed to meet my practical needs.

Factor 9

Librarians provide teaching programs to help me make more effective use of the library.
Library brochures and helpsheets are helpful.
Knowledgeable staff are available to assist whenever the library is open.
I find the ventilation in the building is comfortable.
Library staff demonstrate and teach the use of the Internet, CD-ROMs, and databases.
I find the temperature in the building is comfortable.
I find displays of new materials helpful.

Factor 10

Library materials are reshelved promptly after use.
The library acts promptly when I make a complaint.
The library material I need is in good condition (e.g., not brittle or falling apart).

Factor 11

There are study areas where talking is permitted.
I find the humidity in the building is comfortable.

Factor 12

I do not have to wait more then three minutes when I borrow materials.
I do not have to wait more then three minutes when I ask for assistance at a reference desk.

Factor 13

Hours when the library are open match my schedule and needs.
It is easy to find where materials (books, journals, videos, maps, etc.) are shelved.

APPENDIX B.
Sixteen statements on attitudes to library service quality.

PD1	My manager will tell me how to serve a customer and I should listen to him/her to do a good job.
PD2	I do not expect my manager to serve customers because they have the privilege of choosing not to do so.
PD3	All the library staff should join together to set management objectives for good customer service.
PD4	It is good to make decisions about customer service at the local level and not be told what to do by a central authority.
IND1	Customer service is done best when I adopt my own approach to the job.
IND2	I need training for customer service from my managers to give me the skills and abilities to do the job properly.
IND3	I would prefer to say that I can't answer a question rather than give a customer information that may not be accurate.
IND4	It is right to deal with all customers equally in all situations, even though I do not know them personally.
MAS1	If a customer argues with me then I will do everything I can to resolve the conflict by compromise and negotiation.
MAS2	I want to serve customers well because that way management will recognize my ability and so I will rise in status.
MAS3	Providing good customer service is a challenging part of my job, and it is by doing challenging work that I get the greatest personal satisfaction.
MAS4	One of the key skills I need for good service is looking after my relationships with customers.
UA1	I want a full set of written rules that tell me how to serve a customer.
UA2	When I deal with customers I am always looking for new ways to improve the service.
UA3	My managers have learned broad general principles for good customer service and they will help me apply them to my customers.
UA4	All my customers are different and that makes every day different and I enjoy that.

References

Bicknell, T. (1994). Focusing on quality reference service. *Journal of Academic Librarianship, 20*(2), 77-81.

Calvert, P. J. (1997). Measuring service quality: From theory into practice. *Australian Academic and Research Libraries, 28*(3), 198-204.

Calvert, P. J., & Hernon, P. (1997). Surveying service quality within university libraries. *Journal of Academic Librarianship, 23*(5), 408-415.

Carman, J. M. (1990). Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *Journal of Retailing, 66*(1), 33-55.

Chen, G-M., & Chung, J. (1997). The "five Asian Dragons": Management behaviors and organizational communication. In L. A. Samovar & R. E. Porter (Eds.), *Intercultural communication: A reader,* 8th ed. (pp. 317-328). Belmont, CA: Wadsworth Publishing.

Chinese Culture Connection. (1987). Chinese values and the search for culture-free dimensions of culture. *Journal of Cross-Cultural Psychology, 18*(2), 143-164.

Edwards, S. E., & Browne, M. (1995). Quality in information services: Do users and librarians differ in their expectations? *Library & Information Science Research, 17*(2), 163-182.

Harwood, N., & Bydder, J. (1998). Student expectations of, and satisfaction with, the university library. *Journal of Academic Librarianship, 24*(2), 161-171.

Hernon, P., & Altman, E. (1998). *Assessing service quality: Satisfying the expectations of library customers.* Chicago: American Library Association.

Hernon, P., & Calvert, P. J. (1996). Methods for measuring service quality in university libraries in New Zealand. *Journal of Academic Librarianship, 22*(5), 387-391.

Hernon, P.; Nitecki, D. N.; & Altman, E. (1999). Service quality and customer satisfaction: An assessment and future directions. *Journal of Academic Librarianship, 25*(1), 9-17.

Hofstede, G. (1997). *Cultures and organizations: Software of the mind.* New York: McGraw-Hill.

Hui, C. H., & Triandis, H. C. (1986). Individualism-collectivism: A study of cross-cultural researchers. *Journal of Cross-Cultural Psychology, 17*(2), 225-248.

Lilley, E., & Usherwood, B. (2000). Wanting it all: The relationship between expectations and the public's perceptions of public library services. *Library Management, 21*(1 & 2), 13-24.

McDonald, J. A., & Micikas, L. B. (1994). *Academic libraries: The dimensions of their effectiveness.* Westport, CT: Greenwood Press.

Merritt, A. C. (2000). *Replicating Hofstede: A study of pilots in eighteen countries.* Retrieved June 1, 2001 from the World Wide Web: http://www.psy.utexas.edu/psy/helmreich/hofrep.htm.

Metoyer-Duran, C. (1993). Cross-cultural research in ethnolinguistic communities: Methodological considerations. *Public Libraries, 32*(1), 18-25.

Millson-Martula, C., & Menon, V. (1995). Customer expectations: Concepts and reality for academic library services. *College & Research Libraries, 56*(1), 33-47.

Nitecki, D. A. (1998). Assessment of service quality in academic libraries: Focus on the applicability of the SERVQUAL. In *Proceedings of the 2nd Northumbria International Conference on Performance Measurement in Libraries and Information Services* (pp. 181-196). Newcastle-upon-Tyne: University of Northumbria.

Nitecki, D. A. (1999). Service quality in academic libraries. In A. Kent & C. Hall (Eds.), *Encyclopedia of library and information science* (vol. 65, pp. 216-232). New York: Dekker.

Quinn, B. (1997). Adapting service quality concepts to academic libraries. *Journal of Academic Librarianship, 23*(5), 359-369.

Robinson, S. (1999). Measuring service quality: Current thinking and future requirements. *Marketing Intelligence & Planning, 17*(1), 21-32.

Ting-Toomey, S. (1997). Managing intercultural conflicts effectively. In L. A. Samovar & R. E. Porter (Eds.), *Intercultural communication: A reader* (8th ed., pp. 392-404). Belmont, CA: Wadsworth Publishing.

Zeithaml, V.A.; Parasuraman, A.; & Berry, L. L. (1990). *Delivering quality service: Balancing customer perceptions and expectations.* New York: The Free Press.