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Cultural Influences on IS Service Quality Perceptions

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Abstract

While Information services function's (ISF) service quality is not a new concept and has received considerable attention for over two decades, cross-cultural research of ISF's service quality is not very mature. The author argues that the relationship between cultural dimensions and the ISF's service quality dimensions may provide useful insights for how organisations should deal with different cultural groups. This paper will show that ISF's service quality dimensions vary from one culture to another. The study adopts Hofstede's (1980, 1991) typology of cultures and the "zones of tolerance" (ZOT) service quality measure reported by Kettinger & Lee (2005) as the primary commencing theory-base. In this paper, the author hypothesised and tested the influences of culture on users' service quality perceptions and found strong empirical support for the study's hypotheses. The results of this study indicate that as a result of their cultural characteristics, users vary in both their overall service quality perceptions and their perceptions on each of the four dimensions of ZOT service quality.

Keywords

Cultural dimensions, Information services function, ISF, Service quality, SERVPERF.

INTRODUCTION

Information services function (ISF), which is defined as: *"all IS groups and departments within the organization"* (Chang & King, 2005, p: 86) and considered the predominant unit to provide end-users support; is expected to provide various support services to end-users: (1) across a variety of different packages and configurations, (2) on hardware and software maintenance, upgrades and installation, (Jiang, Klein, & Carr, 2002), (3) on data backup and recovery, and (4) to provide these support functions in a cost- and time-effective manner (Shaw, DeLone, & Niederman, 2002). Assessing ISF's performance has long been an important issue to IS executives (Carlson & McNurlin, 1992; Chang & King, 2005; Saunders & Jones, 1992). The attention given to the ISF's performance is evident from the prominence of this issue in various IS studies (e.g. Chang & King, 2005; Munkvold, 2003; Pitt, Watson, & Kavan, 1997; Saunders & Jones, 1992; Shaw et al., 2002; Velsen, Steehouder, & Jong, 2007). Evidence suggests that poor performance of the ISF is a serious inhibitor to good business performance (Carlson & McNurlin, 1992; Chang & King, 2005). It is believed, though, that the ISF "is an integral part of achieving organizational success" (Chang & King, 2005, p: 86).

The role of the ISF has changed significantly from principally a manufacturing activity, involving development and operation of large scale hardware and software systems, to include additional roles of distribution and technology transfer that require higher levels of user interaction and service delivery (Zmud, 1984). Given the changed role of the ISF, several IS researchers (e.g. Jiang et al., 2002; Kettinger & Lee, 1994, 2005; Shaw et al., 2002; Watson, Pitt, & Kavan, 1998) recognised the importance of the services provided by the ISF and adapted the service quality (SERVQUAL) measure, from the marketing field, to evaluate the quality of the services provided by the ISF. IS service quality defined as: *"The quality of the support that system users receive from the IS department and IT support personnel. For example: responsiveness, accuracy, reliability, technical competence, and empathy of the personnel staff"* (Petter, DeLone, & McLean, 2008: 239).

While ISF's service quality is not a new concept and has received considerable attention for over two decades, cross-cultural research of ISF's service quality is not very mature. The author argues that the relationship between cultural dimensions and the ISF's service quality dimensions may provide useful

insights for how organisations should deal with different cultural groups. This paper will show that ISF's service quality dimensions vary from one culture to another.

This study proceeds from a central interest in the importance of understanding cultural influences on ISF's service quality. The study aims to address the main research question: ***"what are the influences of different cultures on ISF's service quality?"*** This study examines perceptions of ISF's service quality in two countries (Australia and Jordan). The study adopts Hofstede's typology of cultures and the "zones of tolerance" (ZOT) service quality measure reported by Kettinger & Lee (2005) as the primary commencing theory-base. The study also uses Leung & Bond (1989) technique for cross-cultural comparisons. In this paper, the author hypothesised and tested the influences of culture on users' service quality perceptions and found strong empirical support for all of the study's hypotheses. This study indicates that as a result of their cultural characteristics, users vary in both their overall service quality perceptions and their perceptions on each of the four dimensions of ZOT service quality.

The remainder of the paper will first present a brief review of relevant literature. Next, Hofstede's typology of culture and the research hypothesis are presented. Section four addresses the research approach and methodology. The research findings are presented in section five. Finally, the paper concludes with a summary, implications and limitations.

REVIEW OF RELEVANT LITERATURE

The Service Quality (SERVQUAL) Instrument from Marketing

The service quality (SERVQUAL) instrument was originally developed in the marketing field by Parasuraman et al. (1988). This 22-item measure has been of central interest to the Services Marketing discipline for several decades. In fact, *"The single most researched area in services marketing to date is service quality"* (Fisk, Brown, & Bitner, 1993b, p: 77). The SERVQUAL instrument was developed as a way to measure the gap between a consumers' expected and perceived level of service quality. The gap is measured across five dimensions presented in Table (1). Parasuraman et al., (1988) define 'service quality' broadly as *"a global overarching judgment or attitude relating to the overall excellence or superiority of a service"*. SERVQUAL instrument is administered as two questionnaires (i.e. one capture expectations and one capture perceptions). The first part, consisting of 22 questions for measuring expectations, is benchmarked in terms of the performance of an excellent provider of the service being studied. The second part, also consisting of 22 questions, measures perceptions by framing questions in terms of the performance of the actual service provider. Service quality for each dimension is captured by a gap score (G), where G is the difference between corresponding perception of delivered service (P) and expectation of service (E) for each dimension ($G = P - E$).

Table 1. The Five Dimensions of SERVQUAL (Adapted from Parasuraman et al., 1988)

Dimension	Explanation
Tangibles	Physical facilities, equipment, and appearance of personnel
Reliability	Ability to perform the promised service dependably and accurately
Responsiveness	Willingness to help customers and provide prompt service
Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence
Empathy	Caring, individualized attention the firm provides its customers

The SERVQUAL Instrument and IS Service Quality

Kettinger and Lee (1994) established a short form (13 items) SERVQUAL, within the ISF context, with strong validity for four of the Parasuraman et al. (1991) SERVQUAL dimensions, but reserved claims of external validity because their study was a single sample test.

Pitt et al. (1995) independently analysed SERVQUAL data from three different sample sites using principal components and maximum likelihood methods deriving a three, five and seven factor solution, respectively. Given their findings, Pitt et al. (1995, p: 181) report that *"SERVQUAL does not clearly delineate among the dimensions of service quality"*. They warn users of the 22-item SERVQUAL to be aware of the coalignment of the dimensions of responsiveness, assurance, and empathy due to the semantic similarity of these concepts and indicate that the reliability of the tangible dimension is low. For instance, the use of IS SERVQUAL has been the subject of considerable debate (Fisk, Brown, &

Bitner, 1993a; Kettinger & Lee, 1994; Parasuraman, Zeithaml, & Berry, 1993; Pitt et al., 1997; Van Dyke, Kappelman, & Prybutok, 1997; VanDyke, Prybutok, & Kappelman, 1999). The focus of the debate concerns calculating differences between two possibly different constructs, expectations and perceptions.

Kettinger & Lee (1997) conducted an empirical comparison between SERVQUAL and SERVPERF (SERVQUAL using only perceived scores-no gap measure) in terms of the psychometric superiority in the IS setting. That is, while slightly better reliability and explained variance were noticed with the SERVPERF measure, neither SERVQUAL nor SERVPERF data fits well enough to hold a model of the proposed five factor structure. Nonetheless, IS service quality has been praised for its practical relevance (Jiang et al., 2002; Kettinger & Lee, 2005) and continues to be used to evaluate technical support service interactions (e.g. Carr, 2002). IS researchers have also expanded the use of service quality into new areas, such as measuring service quality longitudinally (Watson et al., 1998) and internationally (Kettinger, Lee, & Lee, 1995). More recently IS researchers have also adapted service quality for use in the evaluation of electronic service environments such as e-commerce web sites (e.g. Li, Tan, & Xie, 2003; Wang & Tang, 2003) and Internet banking sites (Jayawardhena, 2004).

Kettinger & Lee (2005) reported on a study of an alternative instrument adapted from marketing referred to as the "zones of tolerance" (ZOT) service quality measure. The authors argued that this zones of tolerance measure is conceptualised to overcome one of the most significant points of criticisms with the original SERVQUAL instrument; namely, the need for a more parsimonious conceptualisation of service quality expectations, while retaining the practical diagnostic power of understanding service expectation levels. IS ZOT SERVQUAL contains measures for desired, adequate, and perceived service quality levels, and identified 18 commonly applicable question items.

Using commonly accepted factor selection criteria, four constructs with 18 items were derived. Three original SERVQUAL constructs emerged from the exploratory factor analysis (tangibles, reliability, and responsiveness). However, two of the original dimensions, empathy and assurance, were merged into one dimension. Kettinger & Lee (2005, p: 612) argued that, based on a review of the retained items and the seeming similarity of the constructs when applied in the IS context, *"the new merged construct was named rapport because the construct items focus on an IS service provider's ability to convey a rapport of knowledgeable, caring, and courteous support"*.

Table 2. The Four Dimensions of IS ZOT SERVQUAL (Adapted from Kettinger & Lee, 2005)

Dimension	Explanation
Reliability	The ability to perform promised ISF services dependably and accurately
Responsiveness	The willingness to help ISF users and to provide prompt service.
Rapport	The ISF ability to convey a rapport of knowledgeable, caring, and courteous support
Tangibles	Physical facilities, equipment, and appearance of personnel

The IS ZOT SERVQUAL instrument was pretested through a series of interviews with IS professionals and IS graduate students. After pre-testing and refining the instrument, two samples were chosen for the cross validation: an initial sample from the university setting and a holdout sample from the industry setting. The findings represent an important step toward addressing past concerns with the original IS SERVQUAL's expectation measure and gap-scoring. The IS ZOT SERVQUAL instrument has strong practical potential as a diagnostic tool through which managers can quickly visualize their current IS service quality situation and design corrective actions.

The Link between the Culture and IS Service Quality

The theoretical relation between culture and information technology (IT), in general, is not new. In fact, various IS researchers have studied this relationship for over two decades. For example, Ho et al. (1989) found cultural differences in the use of Group Decision Support Systems (GDSS). Robey & Rodriquez- Diaz (1989) identified cultural differences that affected IS implementation success. Nelson et al. (1992) found end-user computing profoundly different in the U.S.A. as compared to Japan, and King and Sethi (1993) reported that globally run firms often operate differing ISF operations in varying countries, and integration of these culturally diverse systems "requires substantial understanding of local business practice and people" (King & Sethi, 1993, p: 581), More recently, Rabaa'i (2009) investigated the impact of culture on enterprise systems (ES) implementations.

While the relation between culture and IT is not new, the impact of culture on IS service quality is not very mature. In marketing research, a great body of literature has studied the relationship between the culture and service quality (e.g. Edvardsson & Gustavsson, 1988; Malhotra, Ulgado, Agarwal, & Baalbaki, 1994; Mattila, 1990). However, according to the author's knowledge, only one study (Kettinger et al., 1995) has investigated the relationship between culture and IS service quality.

Kettinger et al. (1995) examines perceptions of ISF Service Quality in four countries (Hong Kong, Korea, the Netherlands and the USA), by using a measure of service quality reported by Kettinger & Lee (1994). Based on confirmatory factor analysis, support was found for four of the original five SERVQUAL quality dimensions in the USA and the Netherlands. However, the same four-dimensional measurement model did not fit the Hong Kong and Korean samples. The authors argued that the Hong Kong and Korean samples shared a somewhat similar factor structure that differs from the shared USA and Netherlands structure. Their findings support previous research that has found an "Asian factor" with differing definitions of IS Service quality. They stated that their findings suggest that the feasibility of standardised global ISF measurement depends heavily on the relative magnitude of cultural effects.

HOFSTEDE'S TYPOLOGY OF CULTURE AND RESEARCH HYPOTHESES

Hofstede (1994, p: 4) defined culture as the *"collective programming of the mind which distinguishes the members of one group or category of people from those of another"*. Hofstede (1980) established four dimensions of national culture: *power distance* (PDI), *individualism* (IDV), *masculinity* (MAS), and *uncertainty avoidance* (UAV), to which a fifth was added subsequently: *long-term orientation* (LTO) (Hofstede, 1991). The combination of these dimension values suggests a rule-based, risk averse society where leaders are powerful, and in-group loyalties are strong and enduring (see Hofstede, n.d.). While these dimensions initially were developed from employees of just one firm, IBM, they have been found to be "generalisable" outside. The cultural dimensions of Hofstede may be criticised for a number of reasons, including: (1) the internal validity of the dimensions and (2) the method of constructing the scales. While the criticisms may be reasonable, Hofstede's cultural dimensions have some appealing attributes, namely, the size of the sample and the codification of cultural traits along numerical indices. In fact, Hofstede's study is also one of the most widely used among international marketing and management scholars.

Power distance is defined as *"the extent to which the less powerful members of institutions and organizations within a country expect and accept the power is distributed unequally"* (Hofstede, 1991, p: 27). Power distance also reflects general human inequality in areas such as wealth, power, prestige, and law. People of high power distance show great reliance on centralisation and formalisation of authority and great tolerance for the lack of autonomy, which fosters inequalities in power and wealth (Hofstede, 1980). Also, people of high power distance show tolerance in accepting power hierarchy, tight control, vertical top-down communication, and even discrimination by age, gender, educational level, race, and family background. In cultures with a high power distance, users would respect the service provided by the ISF and think that the ISF's services are beyond their grasp. As a result of their tolerance in accepting inequalities in power, they are likely to set a low level of service quality perceptions. Moreover; such users would not perceive high-performance services even though they may think the ISF know and work better than they do themselves. Thus:

> *Hypothesis 1a: High power distance users have low ISF's service quality perceptions.*

> *Hypothesis 1b: Low power distance users have high ISF's service quality perceptions.*

Uncertainty avoidance is defined as *"the extent to which the members of a culture feel threatened by uncertain or unknown situations"* (Hofstede, 1991, p: 113). Uncertainty avoidance reflects the level of tolerance for uncertainties and ambiguities embedded in everyday life (Hofstede, 1980). People of low uncertainty avoidance tend to accept uncertainty without much discomfort, take risks easily, and show tolerance for opinions and behaviours different from their own. People of high uncertainty avoidance have a strong need to control environment, situations and events. Users with high uncertainty avoidance culture would hesitate to choose uncertain situations. High uncertainty avoiders are cautious in choosing ISF's services; they do not make quick decisions. As a result of their risk-aversive decisions, such users are likely to perceive low service quality of the ISF's services. Such users would use tangibles as a surrogate of service quality because tangibles are visible evidence. However, this might not hold true in ISF's services which involve a major intangible component. Thus:

> *Hypothesis 2a: High uncertainty avoidance users have low ISF's service quality perceptions.*

> *Hypothesis 2b: Low uncertainty avoidance users have high ISF's service quality perceptions.*

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,"* and *collectivism,* 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, 1991, p: 51). Individualistic people prefer to act as individuals rather than as members of groups. In an individualistic society, where self-concept and free will or freedom prevail, people develop a great sense of autonomy and personal achievement as opposed to a sense of collectivism and importance of social and security needs (Hofstede, 1980). Individualistic people emphasise job specialisation, individual rewards, competitive climate, and individual family independence. Low individualism users emphasises the "we" (both the users and the ISF) rather than the "I" (the users) because they stress interdependence in human relations. Such users would likely tolerate poor services of the ISF because they do not break the relationships between them and the ISF. Therefore, low individualism users do not have high level of service quality perceptions. When individualism is low, service users may not openly express their attitudes and beliefs about ISF service quality. ISF service quality assessments will be influenced by group opinion.

Hypothesis 3a: Low individualism users have low ISF's service quality perceptions.

Hypothesis 3b: High individualism users have high ISF's service quality perceptions.

Masculinity represents *"the dominant sex role pattern in the vast majority of both traditional and modern societies"* (Hofstede, 1991, p: 277). In masculinity societies, social gender roles are clearly distinct: Men are supposed to be assertive, tough, and focused on material success, whereas women are supposed to be more modest, tender, and concerned with the quality of life (Hofstede 1991). In cultures with a high degree of masculinity, the relative importance of the service quality dimensions is different depending on whether the service is provided by a male or female service employee. In such a culture, users expect a male service employee to be professional, more reliable, and more responsive than a female one. A female service employee is expected to be more empathic than a male one. On the other hand, in more feminine cultures, where social gender roles overlap (Hofstede 1991), where the service employee is a male or a female will not make any difference in the end-user's perception of the importance of the different service quality dimensions.

Hypothesis 4a: High masculinity users have low ISF's service quality perceptions if they were served by a female support employee.

Long-term orientation is the extent to which a society exhibits a pragmatic future-oriented perspective (fostering virtues like perseverance and thrift) rather than a conventional historic or short-term point of view (Hofstede 1991, p: 165). In cultures with a long-term orientation, long-term relationships with the ISF are expected. In these cultures, reliability, responsiveness, and empathy are important; as a result of close relationships with the ISF. Assurance and tangibles will be less important in these cultures. In such cultures, relationships with the ISF are expected to last, so assurance is not so critical.

Hypothesis 5a: Medium long-term orientation users have low ISF's service quality perceptions.

Table 3 summarises the Jordanian and the Australian cultures based on Hofstede's studies.

Table 3. Jordanian and Australian cultures based on Hofstede's studies

Dimension	Jordan	Australia
Power distance	High	Low
Individualism	Low	High
Masculinity	High	Low
Uncertainty avoidance	High	Low
Long-term orientation	Medium[1]	Medium

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[1] In Jordanian case, the long-term orientation was estimated

RESEARCH APPROACH AND METHODOLOGY

Measurement

The IS ZOT SERVQUAL instrument developed by Kettinger & Lee (2005) was used as the theory-base in this study. IS ZOT SERVQUAL contains measures for desired, adequate, and perceived service quality levels, and identified 18 commonly applicable question items. While the survey length of the IS ZOT SERVQUAL adds some complexity when compared to a single point (perception only) measure, Kettinger & Lee (2005, p: 614) stated that "in cases where brevity, cost, or predictive validity concerns demand, the seemingly less clinical perception-only (SERVPERF) measure might be a better option". Hence; in this study, the 18-item SERVPREF measure was used to evaluate users' perceptions of the ISF's service quality.

Sampling and Data Collection

The data was collected from students at (1) the Faculty of information technology at two well established public universities in Jordan, and (2) the Faculty of business at a well established public university in Australia. Student subjects were used because they constitute a homogeneous group from an occupational stage of lifecycle viewpoint. They also have frequent relationships with the central university ISF. They usually contact the ISF for a range of services, such as: connecting to the university-wide network, enrolment support, support of computer laboratories, consulting, training, and normal help desk assistance.

The data collection in Jordan involved translation effort, as the country's official language is Arabic. Several translation techniques are reported in the literature (e.g. Brislin, 1970, 1986; Hansen, 1987; Samaddar & Kadiyala, 2006). Brislin's (1986) translation technique was thought to be the most appropriate for the context of this study.

Two anonymous, self-administered, written survey instruments were distributed to: (1) 265 undergraduate IT students in two Jordanian universities; 221 usable responses were collected (83.3% response rate), and (2) 246 undergraduate business students in the Australian university; 174 usable responses were collected (78.7% response rate). Students were told that participation in the study was voluntary.

The survey was divided into three sections. In the first section, respondents were asked some demographic questions for classification purposes. In the second section, respondents were asked to indicate the frequency of their contacts with their ISF and if they were familiar with their ISF services. The Jordanian survey instrument included one additional question asking the respondents who were most frequently served by a female service staff. Only respondents who were familiar with various ISF services and have frequently used these services were considered in the data analysis of this study. The third section measures their perceived ISF's service quality (SERVPREF). With an option for "no opinion", a 7-point Likert scale was used to measure SERVPREF with a statement for each item of the 18 items, from 1 (strongly disagree) to 7 (strongly agree).

RESEARCH FINDINGS

Analysis of the demographic data showed that the non-random samples did not differ significantly in age, gender, or educational level. However, as the author was familiar with the two countries felt that similar segments were represented.

The dimensions of the SERVPREF scale were highly reliable. By using the pooled data and Leung & Bond (1989) technique, for Cross-Cultural Comparisons; an average Cronbach's Alpha (reliability) values of 0.83, 0.88, 0.82, and 0.86 respectively, for the dimensions of responsiveness, reliability, rapport, and tangibles. Table 4 summarises Cronbach's Alpha (reliability) values for the two countries.

Table 4. Summary of Cronbach's Alpha (reliability) values for the two samples

Dimension	Reliability (Jordanian Sample) (n=221)	Reliability (Australian Sample) (n=174)	Average Reliability (Both Samples)
Responsiveness	0.82	0.83	0.83
Reliability	0.88	0.87	0.88

Rapport	0.79	0.85	**0.82**
Tangibles	0.87	0.85	**0.86**

Next, the mean and the standard deviation were calculated for both samples. With an option for "no opinion", a 7-point Likert scale was used to measure SERVPREF with a statement for each item of the 18 items, from 1 (strongly disagree) to 7 (strongly agree). The Australian sample showed consistently greater means and variance on all items. Indeed; while the modal response of Australian respondents on all items was "neutral" or "moderately agree", the modal response of Jordanian respondents was "moderately disagree" or "disagree". Table 5 demonstrates the summary results.

Variance and t tests analysis were also carried out to test Hypothesis 1a, 1b, 2a, 2b, 3a, and 3b. The results are summarised in Table 6. As discussed earlier, while the Jordanian respondents have high power distance; high uncertainty avoidance; and low individualism, Australian respondents have the opposite culture characteristics. Overall, Jordanian sample had lower ISF's service quality perceptions than the Australian sample in all SERVPREF's dimensions. The overall ISF's service quality perceptions for the Jordanian sample were therefore lower than the Australian sample (mean 2.95 vs. 5.07). All of those differences were significant at the 0.05 level, providing empirical support for Hypothesis 1a, 1b, 2a, 2b, 3a, and 3b.

Table 5. Differences in the perceived ISF's service quality in the two samples

Dimension	Measures	Jordanian Sample (*n*=221)		Australian Sample (*n*=174)	
		Mean	**SD**	**Mean**	**SD**
Responsiveness	Willingness to help users	**3.45**	1.55	**5.62**	2.34
	Readiness to respond to user's requests	**3.51**	1.65	**5.89**	2.45
Reliability	Providing services as promised	**2.98**	2.02	**4.54**	1.21
	Dependability in handling user's service problems	**3.51**	2.33	**5.21**	2.02
	Performing service right the first time	**2.14**	1.95	**4.87**	2.09
	Providing services at the promised time	**2.68**	1.79	**4.09**	2.48
	Maintaining the reliable technology and system	**3.25**	2.07	**5.65**	2.21
	Prompt service to users	**2.21**	1.01	**4.36**	2.06
Rapport	Making users feel safer in computer transactions	**3.45**	1.93	**5.48**	2.87
	IS employees who are consistently courteous	**2.98**	1.13	**4.56**	1.25
	IS employees who have the knowledge to answer users' questions	**2.05**	1.29	**4.63**	1.66
	Giving users individual attention	**3.69**	2.01	**5.84**	2.04
	IS employees who deal with users in a caring fashion	**3.16**	1.98	**5.36**	2.59
	Having the user's best interest at heart	**2.36**	1.48	**4.73**	1.50
	IS employees who understand the needs of users	**3.54**	2.55	**5.33**	2.21

Tangibles	Visually appealing facilities	**3.45**	2.47	**5.02**	2.01
	IS employees who appear professional	**3.21**	2.16	**4.56**	2.78
	Useful support materials (such as documentation, training, videos, etc..)	**1.55**	1.02	**5.47**	2.34

The overall ISF's service quality perceptions for the Jordanian sample (mean 2.95) also provide empirical support for Hypothesis 4a and 5a.

Table 6. Hypothesis 1a, 1b, 2a, 2b, 3a, and 3b testing results

Description	Criterion Mean				
	Responsiveness	**Reliability**	**Rapport**	**Tangibles**	**Overall SERVPREF**
Jordanian Sample	3.48	2.80	3.03	2.74	**2.95**
Australian Sample	5.76	4.79	5.13	5.01	**5.07**
Difference significant at the 0.05 level?	**YES**	**YES**	**YES**	**YES**	**YES**

SUMMARY, IMPLICATIONS, AND LIMITATIONS

In this paper, the author hypothesised and tested the influences of culture on users' service quality perceptions and found strong empirical support for the study's hypotheses. This study indicates that as a result of their cultural characteristics, users vary in both their overall service quality perceptions and their perceptions on each of the four dimensions of service quality. This paper has shown the relationship between cultural dimensions and the ISF's service quality dimensions. The findings of this study may provide useful insights for how organisations should deal with different cultural groups. This paper has also show that ISF's service quality dimensions vary from one culture to another.

This study is a first step in understanding cultural influences on ISF's service quality and hence has some limitations, including: Firstly, the author tested the hypotheses in the context of only one ISF at different universities; hence, the hypotheses must be tested in other types of ISF to identify any differences. Secondly, the structure of universities and their ISFs differ among countries and this may affect users' perceptions. Future studies should also employ diverse respondents from many countries, as this paper used similar respondents from only two countries. Finally, despite wide acceptance, validity and reliability of the SERVPREF scale, the author recommends future researchers to test the study's hypothesises using different scale of service quality perceptions.

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