Sample size and survey administration: The conventional requirement of four to five observations per item is considered sample size sufficiency (Hair et al. 1998). Some scholars (Connolly et al.2010, Akinci et al. 2010, Boshoff 2007)have conducted study on fairly large sample size and there are few studies (Vos et al. 2014, StamenkovandDika 2016) considered sample size (table 1). Other studies under review took base of sample size i.e. approx. 150 to 500 respondents. However a sufficiently large sample size should be considered to validate the results of the study.

Online or off line, are the two methods of collecting primary data for conducting any study. For identifying and reaching online shoppers, online methodology is considered more efficient (Szymanski and Hise, 2000). Approximately 60% of the studies under review administered online survey (table 1). For conducting online survey various methods are adopted by researchers such as survey sent by e- mail, e-mail containing hyperlink to questionnaire, web survey etc. There are some studies (Sahadev and Purani 2008, Liang 2012) which have used both online as well as offline methods of survey administration. However some scholars did not adopted online surveys due to its low response rate (Herington andWeaven 2009). Hence it is advised to researchers that they should report logic behind choosing a particular mode for administrating a survey.

Dimensionality Analysis for assessing factor structure (EFA, CFA)

Researchers use exploratory factor analysis (EFA) or confirmatory factor analysis (CFA) to estimate or assess dimensionality of the scale. EFA is used to uncover the underlying structure of a relatively large set of variables. It does not involve any pre-hypothesized factor structure. Some studies, which are under review conducted EFA only (Herington and Weaven 2009, Connolly et al. 2010,Santouridis et al. 2012, Vos et al. 2014). EFA helps in selecting most suitable solution on the basis of theoretical interpretability among various computed solutions.

CFA tests are considered as a prehypothesized factor structure or model. Around 40 % of the studies reviewed (Sahadev and Purani 2008, Chiou et al. 2009, Saha et al. 2010, Sheng and Liu 2010, Falk et al. 2010, Akinci et al. 2010, Kimand Kim 2010, Zavareh et al. 2012, Rafiq et al. 2012, Pearson et al. 2012, Ariff et al.2012, Suh et al. 2013, Khan et al. 2014, Kandulapati 2014, Barrera 2014, Roger-Monzo 2015) applied only CFA to test their models. The argument given by these researchers for not using EFA before conducting CFA is the existence of already the oretically supported base of E-S-QUAL scale. Moreover CFA provides goodness of fit indicators to evaluate whether factor structure fit into data or not. It further helps in comparing several model specifications and allows the researchers to examine the invariance of a specific parameter in the factor solution.

Whereas some studies (Boshoff 2007, Yang and Tsai 2007, , Marimon et al. 2010, Yaya et al. 2011, Lee and Wu 2011, Marimon et al. 2012, Bernardo et al. 2012, RaoandRao 2013, Llach et al. 2013, Cetinsoz 2015, Stamenkov and Dika 2016, Cristobal- Fransi 2017) applied both EFA and CFA in their studies. Liang 2012 used E-S-QUAL scale for the online gaming websites, which have hedonic elements like fun or pleasure in it also added one new dimension 'entertainment' in the scale but he did not apply any psychometric tests to reject/accept the items/dimension.

Reliability and Validity: The ability of an instrument to measure consistently, is termed as the reliability of the scale. Cronbach's alpha or composite reliability are the two main tests available for assessing the reliability of any measure. Cronbach (1951) developed α, indicates the degree to which a set of items measures a single unidimensional latent construct. The composite reliability also known as jorskog's ρ coefficient, takes into account the actual factor loadings, rather than assuming that each item is equally weighted in the composite load

determination (Sun et al. 2009). Most of the papers under review indicated good reliability of each dimension presented with Cronbach α coefficient ranging between 0.70 to 0.96 (Nunnally and Bernstein, 1994, Peterson , 1994) which demonstrates high internal consistency.

Reliability does not dependent on validity though validity is dependent on reliability of an instrument. Validity is the extent to which an instrument measures what it intends to measure (Tavakol and Dennick, 2011). There are six types of validity classified under two categories. One is translation validity (which includes face validity and content validity), and the other is criterion validity (it includes predictive / nomological validity, concurrent validity, convergent validity and discriminant validity) (Drost 2004).

Face validity is the weaker form of construct validity than the content validity, as it includes subjective judgment on operationalization of a construct. It is used by Kim and Kim 2010 (table 1) for the purpose of translation of English language questionnaire into Korean language. Content validity on the other hand gives more insight about the domain of the concept, as expert advice is used to judge whether the measure fully represents the domain. Many studies under review have adapted the E-S-QUAL, as per their field of study, hence content validity becomes more important. Marimon et al. 2010, Akinci et al. 2010, Zavareh et al. 2012, Ariff et al. 2012, Suh et al. 2013and Stamenkov and Dika, 2016 established content validity in their respective studies.

Convergent validity reflects the extent to which two measures capture a common construct. Poor convergent validity can affect the magnitudes and interpretability of research findings (Carlson andHerdman 2012). One way of calculating this type of validity is the average variance extraction. According to FornellandLarcker (1981), Hair et al. (1998), if average variance extracted (AVE) extracted from each construct exceeds 0.5 of the total variance supported convergent validity, Scholars like (Cristobal- Fransi 2017, StamenkonandDika 2016, Barrera et al. 2014, Suh et al. 2013, Akinci et al.2010) in their studies applied it. The other test to assess the convergent validity of an instrument is to assess factor loadings on individual items both after running exploratory factor analysis as well as confirmatory factor analysis (Parasuraman et al. 2005), which was further applied by Boshoff 2007, Connolly 2010. In a recent study conducted by Yaya et al.(2016), experts were of the opinion that it is not necessary to use more than one of these methods because some of these criteria overlap .But however they maintained that convergent validity must be reported by the researchers.

Scale's discriminant validity is viewed as the extent to which measures of constructs that theoretically should not be related to each other (Yaya et al. 2016). The AVE values must be higher than the variance shared between a subscale so that, when performing correlations between them, the values on diagonal (corresponding to the square root of the AVE values of each of them) should be greater than the other factors of each row and column that corresponds to it and the correlations between the dimensions comprising the construct should not exceed 0.8 (Baggozzi and Yi 1988). This test is applied by various scholars (Cristobal- Fransi 2017, Stamenkon and Dika 2016, Roger-Monzo 2015). One test suggested by (FornellandLarcker 1981) to assess the discriminant validity is when average variance extracted for each factor is greater than the squared correlation between the construct and the other construct in the model used by (Yaya et al.2011, Barrera et al.2010, Akinci et al. 2010). Falk et al. (2010) used nested model confirmatory analysis approach to test the discriminant validity. In this approach, for each pair of factors, a constrained model is constructed in which the covariance between them is fixed to unity. Then an unconstrained model is constructed by freeing the covariance between the factors and then on the basis of Chi-square values between constrained and unconstrained models with one degree of freedom, discriminant validity is identified.

Predictive/ Nomological Validity test measures some outcomes in the future from the measured constructs (Drost 2004). If the constructs perform as predicted by theory (based on traditional service or emerging evidence on the field), then it can infer that the measurement of the constructs is nomologicallyvalid (Yaya et al. 2012). Some authors modeled e-SQ as a first order exogenous (predictor) construct that influences the higher order constructs of predictive dimensions in the proposed model (Akinci et al. 2010, Marimon et al. 2010,Chiou et al. 2009). While others on the basis of strong positive inter-correlations among the dimensions of e-SQ, predict validity about the relationship between the respective dimensions with e-SQ and further treat e-SQ as a second order latent construct in the structural model (Roger-Monzo 2015, Kandulapati and Bellamkonda 2014).

Out of 36 studies reviewed (table 1), most of the studies reported convergent and discriminant validity, with a few exceptions like, Kurt andAtrek 2012, Liang et al. 2012, who did not report convergent and discriminant validity. The studies reviewed indicated that irrespective of any particular method or test applied to measure nomological validity, in most of the cases relationships between the dimensions of E-S-QUAL and predictive dimensions were confirmed.

Observation regarding dimensionality validated: Out of the 36 studies reviewed, 19 studies (approx. half of the studies) reported four dimensions which were in line with the universal dimensions proposed by the Parasuraman et al. (2005) for measuring service quality delivered by customers' online web sites. It has also been observed that scholars have altered the number of items in dimensions, names of the dimensions and wordings of the statements as per their context of the study. Disagreement over one dimension 'fulfillment' is also found across studies. Boshoff (2007) and Yaya et al. (2011) removed 'fulfillment' dimension from their model while Rafiq et al. (2012) and chiou et al. (2009), regarded 'fulfillment' as one of the core elements for online services. The review of literature also shows that dimensional structure is very unstable even within same sector and country as well. For example, Marimon et al. 2012 and Yaya et al. 2011 both conducted study to measure the service quality provided by online banking websites in Spain. The number and items used by both researchers in their study is not same as Marimon et al. 2012, used five dimensions namely efficiency, system availability, privacy, responsiveness and contrast, while Yaya et al. 2011 used efficiency, system availability and privacy. Similarly, dimensions and items within dimensions, considered for measuring e-service quality provided by general online retailing companies operating in different cultures or countries, were also different. Barrera et al. 2014(Spain), used five dimensions with 22 items, Vos et al. 2014 (Greece) used four dimensions with 22 items, Sheng and Liu 2010 has considered four dimensions with 18 items. Lot of disagreement felt across studies about the importance or relevance of the dimensions which suggested by Parasuraman et al. (2005) for measuring e-service quality.

CONCLUSION

The present study has raised some concerns about the different methodology used by researchers associated with the re-assessment of E-S-QUAL in different countries for varied e-services.Review of literature shows that all the studies are of the same view about the multidimensionality of the e-service quality as a construct. However, disagreement found in reviewed studies regarding the dimensionality of the e-service quality construct across industry or country. Bauer et al. (2006) draws attention towards the inability to measure the hedonic elements of service quality which are crucial determinants of service quality. Boshoff 2007, who was one of the first to examine the relationship between e-quality and e-loyalty, proposed that the E-S-QUAL scale should have six dimensions rather than the original four. He also advised that proper examination and evaluation of the dimensions

should be done by researchers before capturing the data by the original scale given by Parasuraman et al. 2005. Some studies (Roger-Monzo et al. 2015, Rao and Rao 2013,Connolly et al. 2010)reported the same results as reported by Parasuraman et al. 2005. Majority of the studies documented contrast results regarding the comparative importance of dimensionsof e-service quality. For example Privacy is found to be least important dimension in the studies conducted by Bernardo et al.(2012), Rafiq et al. (2012) while the results of the studies done by Kurt and Atrek (2012) , Kim and Kim (2010) reported it as most important dimension for e-service quality.After reviewing more than 35 studies it can be concluded that the E-S-QUAL scale which is claimed to be a generic scale given by Parasuraman et al. 2005, for measuring e-service quality is however gives researchers an idea about the important dimensions and attributes which should be considered for measuring any e-service quality but it does not provide the exhaustive list of items. Variables can be different across industry and culture. Scholars should keep in mind the nature of the service and the context of the study before applying the scale in adopted form. A thorough revision of items is advised to researchers before conducting the study using E-S-QUAL in the original form.

On the whole, this study is a small endeavor to highlight the results obtained by several authors on the same platform so that concrete conclusions can be formed. Having said that, in this new environment of electronic service, practitioners in general need a generic scale that provides the potential for cross-industry and cross-functional comparisons.

REFERENCES

Akinci S.,Inan- Atilgan E and Aksoy S.(2010), ' Re-assessment of E-S-Qual and E-RecS-Qual in a pure service setting', Journal of business research, 63, 232-240

Ariff M. Shoki Md., Yun L. Ooi, Zakuan N. and Jusoh,(2012), 'Examining dimensions of electronic service quality for internet banking services', Social and behavioral sciences ,40, 854-59

Balasubramani P. and Rajamohan A. (2011), 'Satisfaction level of tourists towards online shopping with reference to Puduchrry', International journal of research in management and technology, 1(2), 87-92.

Barrera R. Barrera, Garcia A. Navarro, and Moreno M. Rey,(2014), 'Evaluation of the e-service quality in service encounters with incidents: differences according to the socio-demographic profile of the online consumer', AEDEM, 23, 184-193

Barnes S.J. and Vidgen R. T. (2003), 'An integrative approach to the assessment of e-Commerce quality', Journal of electronic commerce research, 3(3), 114-127

Bauer H.H., Falk T., andHammerschmidt M. (2006), 'eTransQual: a transaction process-based approach for capturing service quality in online shopping', Journal of business research, 59(7), 866-75

Bagozzi R. P. , Yi Y., and Philips L.W. (1992), 'Assessing construct validity in organizational research, administrative science quarterly', 36, 421-58

Boshoff C., (2007), 'A psychometric assessment of E-S-Qual: a scale to measure electronic service quality', Journal of electronic service quality, 8(1), 101-114

Bernardo M., Marimon F., and Alonso-Almeida M.(2012), 'Functional quality and hedonic quality: a study of the dimensions of e-service quality in online travel agencies', Information and management, 49, 342-47

Cai, S. and Jun M., (2003), 'Internet users' perceptions of online service quality: a comparison of online buyers and information searchers', Managing service quality, 13(6), 504-19

Carlson K.D. and Herdman A. O. (2012), 'Understanding the impact of convergent validity on research results', Organisational research methods, 15(1), 17-32

ÇETİNSÖZ B. C., (2015), 'The influence of e-service quality on customer perceived value : a study on domestics tourists in Turkey', International journal of science and research, 4(1), 1265-1277

Chiou J., Wu L., and Sung Y. (2009), 'Buyer satisfaction and loyalty intention in online auctions', Journal of service management, 20(5), 521-43

Cronbach, L. J.(1951), 'Coefficient alpha and the internal structure of tests', Psychometrika, 16(3), 297-334

Cristobal-Fransi E., Hernandez-Soriano F., andMarimon F., (2017), 'Critical factors in the evaluation of online media: creation and implementation of a measurement scale (e-SQ- Media)', Univ. access infsoc, 16, 235- 46

Connolly R., Bannister F. and Kearney A., (2010), 'Government website service quality: a study of the Irish revenue online service', European journal of information system, 19, 649-67

Devaraj S. Fan M. andKohli R. (2002), 'Antecedents of B2C channel satisfaction and preference: validating e-commerce

metrics', Information system research 13(3), 316-33

Drost E.A. (2004), 'Validity and reliability in social science research, Education research and perspectives', 38(1), 105-123

Falk T., Hammerschmidt M. andSchepers J.J.L.(2010), 'The service quality-satisfaction link revisited: exploring asymmetries and dynamics', J. of the Acad. Mark. Sci., 38, 288-302

Fernandes F. R. andPaschoarelli L. C. (2014), ' Online shopping websites: an evaluation of user experience and interface ergonomic criteria from the perspective of older users', A. Marcus (Ed.): DUXU, part II, LNCS 8518, 104-15

Fornell C. andLarcker D.F. (1981), 'Evaluating structural equation models with unobservable variables and measurement error', Journal of marketing research, 18(1), 39-50

Francis J. E. and White L., (2002), ' PIRQUAL: A scale for measuring customer expectations and perceptions of quality in internet retailing', American marketing association, Winter, 263-69

Ganguli S. and Roy S. K. (2013), 'Conceptualisation of service quality for hybrid services: a hierarchical approach', Total quality management and business excellence, 24(9,10), 1202-18

Gerbing D.W. and Anderson J. C. (1998), 'An updated paradigm for scale development incorporating unidimensionality and its assessment', journal of marketing research, 25(2), 186-92

Gefen D. (2002), 'Customer loyalty in e-commerce, Journal of the association for information systems', 3, 27-51

Hair J.F. Anderson, R.E. Tatham, R.L. andBlack W.C. (1998), 'Multivariate Data Analysis (fifth ed.)', Englewood Cliffs, NJ: Prentice-Hall

Herington C. and Weaven S. (2009), 'E-retailing by banks: e-service quality and its importance to customer satisfaction', European journal of marketing, 43(9/10), 1220-31

Ingle S. and Connolly R.(2007), 'Methodological and research issues using E-S-Qual to measure online service quality in Irish SMEs', Methodological .qxp, 25

Kandulapati S. andBellamkonda R. Shekhar(2014), 'E-service quality: a study of online shoppers in India', American journal of business, 29(2), 178-188

Khan H. Ullah, Awan M.A., and Ho H. Chiang, (2014), 'How do Chinese and Saudi customers perceive online service quality?' A comparative study, The journal of business inquiry, 13(2), 142-157

Kim M., Kim J, and Lennon S. (2006), 'Online service attributes available on apparel retail websites: an E-S-QUAL approach', Managing service quality, 16(1), 51-77

Kim J.H. and Kim C., (2010), 'E-service quality perceptions: a cross cultural comparison of American and Korean consumers', Journal of research in interactive marketing, 4(3), 257-75

Kurt S. DumanandAtrek B., (2012), 'The classification and importance of E-S-QUAL quality attributes: an evaluation of online shoppers', Managing service quality, 22(6), 622-637

Liang H. (2012), 'Exploring the relationship between perceived electronic service quality, satisfaction, and personality: a study of Taiwan's online game industry', Total quality management, 23(8), 949-63

Llach J., Marimon F., Alonso-Almedia, M.D.M., and Bernardo M.,(2013), 'Determinants of online booking loyalties for the purchasing of airline tickets', Tourism management, 35, 23-31

Lee F. Hui,and Wu W. Yih (2011), 'Moderating effects of technology acceptance perspectives on e-service quality formation: evidence from airline website in Taiwan', Expert systems with applications, 38, 7766-73

Marimon F., Vidgen R., Barnes S., and Cristobal E.(2010), 'Purchasing behavior in an online supermarket: the applicability of E-S-QUAL', International journal of market research, 52(1), 111-129

Nagesh S., Ryab T. andIgbaria M. (2003), 'Quality and effectiveness in web-based customer support systems', Information and management, 40(8), 757-68

Nunnally, J.C. and Bernstein I.H.,' Psychometric theory', New York, McGraw Hill, 1994

Parasuraman A., Zeithaml, V.A., and Berry L.L. (1985), 'A conceptual model of service quality and its implications for future research', Journal of marketing, 49(4), 41-50

Parasuraman A., Zeithaml, V.A., and Berry L.L. (1991), 'Refinement and reassessment of the SERVQUAL scale', Journal of retailing, 67(4), 420-50

Parasuraman A., Zeithaml, V.A., and Berry L.L. (1994), 'Alternative scales for measuring service quality: a comparative assessment based on psychometric and diagnostic criteria', Journal of retailing, 70(3), 201-30

Parsuraman, A.; Zeithaml, V.A.; Malhotra, A. (2005), 'E-S-QUAL: A multiple-item scale for assessing electronic service quality'. Journal of service research 7(3), 213-233.

Pearson A., Tadisina S. and Griffin C.,(2012), 'The role of e-service quality and information quality in creating perceived value: antecedents to web site loyalty', Information system management, 29, 201-15

Peterson R. (1994), 'A meta-analysis of Cronbach's coefficient alpha', Journal of consumer research, 21(2), 381-91

Pritwani K., Sharma N.K (2011), 'An exploratory study to assessing the online satisfaction of foreign tourists visiting Pushkar', SAJTH, 4(2), 193-205

Rao A. SrinivasaandRao V. Gopal,(2013), 'Service quality in e-commerce and strategic advantage: an empirical assessment', The IUP journal of business strategy, 10(2), 50-66

Rafiq M., Lu X., andFulford H.,(2012), 'Measuring internet retail service quality using E-S-QUAL', Journal of marketing management, 28(9-10), 1159-73

Roger-Monzo V., Marti- Sanchez M., andGuijarro-Garcia M.,

(2015), 'Using online consumer loyalty to gain competitive advantage in travel agencies', Journal of business research, 68, 1638-40

Saha P., Nath A., andSalehi-SangariEsmail(2010), 'Success of government e-service delivery: does satisfaction matter? 'M.A. Wimmer et al. (Eds.): EGOV 2010, LNCS 6228, 204-215

Sam M.F.M., Tahir, M.N.H. (2009), 'Website quality and consumer online purchase intention of air ticket', International journal of basic and applied science, 9 (10), 4-9

Sahadev S. andPurani K. (2008), 'Modelling the consequences of e-service quality, Marketing intelligence and planning', 26(6), 605-20

SantouridisIlias; PanagiotisTrivellasandGeorgiosTsimonis (2012), 'Using E-S-Qual to Measure Internet Service Quality of E-commerce Web-sites in Greece', International journal of quality and service sciences, 4(1), 86-98

Sabiote C.M., Frias, D.M. and Castaneda J.A. (2012), 'E-service quality as antecedent to e-satisfaction. The moderating effect of culture', Online information review, 36(2), 157-74

Sheng T., Liu C.,(2010) , 'An empirical study on the effect of e-service quality on online customer satisfaction and loyalty', Nankai business review, 1(3), 273-83

Stamenkov G., andDika Z. (2016), 'Bank employees' internal and external perspectives on e-service quality, satisfaction and loyalty', Electron markets, 26, 291-309

Sun Q., Wang C., and Cao, H. (2009), 'Applying E-S-QUAL scale to analysis the factors affecting consumers to use internet banking services, proceeding of IITA International Conference on Service Science', Management and Engineering, Zhangjiajie, China 242-45

Suh Y. IK, Ahn T. and Pedersen P. M (2013), 'Examining the effects of team identification, e-service quality (e-SQ) and satisfaction on intention to revisit sports websites', International journal of sports marketing and sponsorship, 2-20

Szymanski, D.M. andHise, R.T. (2000), 'E-satisfaction: an initial examination, Journal of retailing', 76(3), 309-22

Tavakol M. andDennick R., (2011), 'Making sense of Cronbach's alpha', International journal of medical education, 2, 53-55

Vargo, S.L. andLusch, R.F.(2004), 'Evolving to a new dominant logic for marketing', Journal of marketing, 68(1), 1-17

Von A., Marinagi C., Trivellas P., Eberhagen N., Giannakopoulous G., and Skourlas C.(2014), 'Electronic service quality in online shopping and risk reduction strategies', Journal of systems and information and technology, 16(3), 170-186

Wu L. Yu., Chen K. Yang, Chen P. Yuan and Cheng S. Ling (2014), 'Perceived value, transaction cost, and repurchase-intention in online shopping: a relational exchange perspective', Journal of business research, 67(1), 2768-76

Yang Z., Peterson R.T., andCai S. (2003), 'Service quality dimensions of internet retailing an exploratory analysis', Journal of services marketing, 17(7), 685-700

Yang H., Tsai F.(2007), 'General E-S-QUAL- scales applied to websites satisfaction and loyalty model', Communications of the IIMA, 7(2), 115 -126

Yaya L.H. Petnji, Marimon F. andCasadesus M.,(2011), 'Customer's loyalty and perception of ISO 9001 in online banking', Industrial management and data, 111(8), 1194-1213

Yaya L.H. Petnji, Marimon F. andCasadesus M.,(2012), 'Assessing e-service quality: the current state of E-S-QUAL', Total quality management, 23(12), 1363-78

Yaya L.H. Petnji, Marimon F. andCasadesus M.,(2016), The expert experience in adopting the E-S-QUAL scale, Total quality management,doi.org/10.1080/14783363.2015.1135728, 1-15

Yoo, Boonghee and Donthu Naveen(2001), 'Developing a scale to measure the perceived quality of an internet shopping site (SITEQUAL)', Quarterly Journal of Electronic Commerce, 2(1), 31-47.

Zavareh F. Beheshti, Ariff M. Shoki Md., Jusoh A., Zakuan N., andBahari Z., (2012), 'E-service quality dimensions and their effects on e-customer satisfaction in internet banking services', Social and behavioral sciences, 40, 441-45

BRIEF PROFILE OF THE AUTHOR

Pooja Goel is an Assistant Professor, Department of Commerce, Shaheed Bhagat Singh College, University of Delhi. Dr. Goel received her Ph.D. from Kurukshetra University. Her area of specialization is consumer behavior, service quality, customer satisfaction, and e-commerce. She has more than 10 years of teaching experience and in handling various administrative as well as academic positions. She has attended various national and international conferences and contributed papers in UGC refereed journals and conferences.

Application of E-S-QUAL : Assessment of Studies Across Globe

Pooja Goel
Department of Commerce, Shaheed Bhagat Singh College(M), University of Delhi

This paper reviews range of studies that have applied the E-S-QUAL scalefor measuring the quality of core e-services from the year 2006 till recently. The research papers are sourced from prestigious databases such as ABI/Inform, ScienceDirect, Emerald, Sage, Springer, Routledge, EBSCOhost, Google Scholar. The paper identifies and summarizes the dimensional structure of E-S-QUAL that appears to be very unstable, even within a given sector.Majority of the studies documented contrast results regarding the comparative importance of dimensions of e-service quality. After reviewing more than 35 studies it can be concluded that the E-S-QUAL scale which is claimed to be a generic scale given by Parasuraman et al. 2005, for measuring e-service quality however gives researchers an idea about the important dimensions and attributes for measuring any e-service quality but it does not provide the exhaustive list of items.This paper is first to undertake the comprehensive review of the studies undertaken using E-S-QUAL scale since its inception. The paper is an attempt to highlight various methodological differences in studies while adopting the scale across industries and countries.From a managerial perspective, author believe that the E-S-QUAL instrument is an excellent instrument to measure electronic service quality but practitioners must examine and evaluate the dimensionality before drawing any conclusions.

Keywords: *E-S-QUAL, e-service quality, online shopping, review of literature, methodological issues*

INTRODUCTION

Traditional bricks and mortar service providers like real-estate brokers, marriage bureaus, letting agents, betting houses, mortgage advisors, etc. are all now being taken over by online service providers (Sahadev and Purani 2008). Businesses are transforming and disruptive innovations have forced to think marketers about inventing more and more novel services and adopt them to deliver through the internet. Online consumers have not only clear expectations regarding their interactions with online vendors; they also demand high level of services. Research in the context of electronic commerce has been studied from two different perspectives. Scholars have generally carried out their studies on customer satisfaction of consumers shopping from e-commerce (Balasubramaniand Rajamohan 2011, Pritwani K., Sharma N.K.) and the assessment of the service quality presented by websites to consumers (Parasuraman et al. 2005, Sam andTahir 2009). In the above context, service quality is given importance and not manufacturing quality regardless of the industry (VargoandLusch, 2004).

REVIEW OF LITERATURE

Important studies in the past have focused on issues like, the search behavior of individuals with regard to a website, consumer behavior in the context of internet retailing and characteristics of online consumers, information agents, consumer communities etc. (Sahadevand Purani 2008). New researches in the area has responded to the changing

nature of the online marketing effort by focusing on new issues like moderating effect of culture on e-service quality(Sabiote et al. 2012) , conceptualization of service quality for hybrid services (Ganguliand Roy 2013), transaction cost and repurchase-intention in online shopping (Wu et al. 2014) etc.

Given the importance of service quality, it is not surprising that a number of tools have been developed to measure it. Probably the best known and most commonly used measure has been the SERVQUAL scale, which was originally developed by Parasuraman et al. (1985) and subsequently refined by Parasuraman et al. (1991, 1994). Although SERVQUAL was developed for the measurement of service quality in a traditional service context, the applicability of the instrument in the online environment has been assessed in a few studies (Devraj et al. 2002, Nagesh et al. 2003). Gefen (2002) applied an adapted SERVQUAL instrument to the online service context and reported that the five dimensions of the scale collapsed into three namely tangibles, empathy, and one combined dimension of responsiveness, reliability and assurance. The results of the study demonstrated a need to further research in the area of e-service quality to Parasuraman et al.(2005) and they stated that service quality needed to be extended to the online shopping environment, so that the firms could benefit from the increased interest in online shopping (Pearson et al. 2012).

E-S-QUAL SCALE (What and Why)

To build a multidimensional measure of online quality, Parasuraman et al. (2005) developed two scales to evaluate e-service quality. The first scale, E-S-QUAL, provides a more comprehensive approach, since it supports the measurement of both pre and post e-service quality aspects with the research focus on those web sites which sold physical products. E-S-QUAL scale consists of 22 items on four dimensions, which they labeled and defined as follows:

1. Efficiency: The ease and speed of accessing and using a site.
2. Fulfillment: The extent to which the site's promises about order delivery and item availability are fulfilled.
3. System availability: The correct technical functioning of a site.
4. Privacy: The degree to which the site is safe and protects customer information.

The second multidimensional scale to measure service recovery is E-RecS-QUAL contains 11 items having responsiveness, compensation, and contact dimensions- that is intended for assessing the quality of a website's service in response to problems or questions experienced by customers. (However, this scale is not replicated much, as compared to E-S-QUAL, thus this scale has not been considered as a part of the review).

Authors used focus groups to understand respondents' reaction to alternative ways of phrasing scale items and anchors (Likert-type versus low or high performance anchors). On the basis of insights from focus groups, study adopted a five-point Likert scale (1= strongly disagree, 5= strongly agree) format for capturing responses. Both the scales demonstrated good psychometric properties based on findings from a variety of reliability and validity tests.

Why E-S-QUAL

The main reason behind the widespread use of E-S-QUAL is that it focuses on measuring the quality of the core service attributes rather than technical quality of the web site measured by other models (YooandDonthu 2001, Branes and Vidgen 2002). Scholars find E-S-QUAL scale relatively simple (Sheng and Liu 2010) as it is able to make accurate assessment of quality from customer's perspective

(Marimon et al. 2010).It also takes into account consumers' entire shopping experience (Kim and Kim 2006) and demonstrates good psychometric properties during its development phase(Connolly et al. 2010). Additionally, developers of E-S-QUAL suggested directions for further research in the area by highlighting various gaps which could be the objectives of various studies. Various scholars took the clue from these identified gaps and helped in further validation of the scale. The first gap identified is the need to examine the scale in the pure service sites. Authors of E-S-QUAL also suggested that adapted versions of scale need to be created and formally for other kind of e-service websites, which gives relevance to scholars to replicate the E-S-QUAL scale in their research area.

METHODOLOGICAL ANATOMY OF REVIEWED STUDIES

Widespread use across countries and cultures: The review of literature demonstrated that E-S-QUAL scale developed by Parasuraman et al. in 2005, has been so far able to attract the attention of researchers across the countries. This scale has been used (adapted/adopted) in approximately twenty countries like China, India, Turkey, Taiwan, Spain, U.K., Australia, Ireland etc. which have diverse languages and cultures (Table 1). The reason of such an overwhelming response to this particular scale of measurement is because it's the first scale of its kind to capture the nature of electronic service quality from the consumer's perspective for shopping online through a website (Boshoff, 2007). Since service quality is important for success of e-retailers, external validation of e-service quality measures through replication is extremely important, particularly in cases where measures developed in one country are intended for use in other countries(Rafiq et al. 2012). Kim and Kim (2010) examined E-S-QUAL on a cross-cultural basis aiming to examine how consumers in two different countries (Korea and USA) perceived e-service quality in relation to overall e-service quality, e-satisfaction, and e-loyalty. The result of the study confirms the significant relationship among overall e-service quality, e-satisfaction and e-loyalty. Such relationships are validated in India (SahadevandPurani 2008), Ireland (Connolly et al. 2010), Taiwan (Liang et al. 2012) and in Spain (Marimon et al., 2010, Cristobal-Fransi et al. 2017) .The results of another study which was conducted by Khan et al. in 2014 usingE-S-QUAL, compared the online service quality of the websites, which offers services in China with that of Kingdom of South Africa (KSA) in order to identify cultural variations.

Types of Service Industries: Various endeavors have been made by the scholars to validate the results of E-S-QUAL scale for different industries which has originally been designed to assess quality in services in general. This scale had been successfully adopted (Yang and Tsai 2007, Lee and Wu 2011, Santouridis et al. 2012, KandulapatiandBellamkonda 2014) and adapted (Chiou et al. 2009, Falk et al. 2010, Barrera et al. 2014, Stamenkov and Dika 2016), for different sectors (travel agency, media, auction, sports, banking, portal sites, gaming ,etc). The reason behind using E-S-QUAL model of assessing the service quality in general to measure the service quality of specific sector is to analyze the quality of service and particular the structure in which it operates, not the product (Cristobal-Fransi et al. 2017). The dual usage of the scale in the field of service marketing and IS provides sufficient confidence about the appropriateness of using it across sectors (StamenkovandDika 2016).

Scales Used: Studies under review shows that approximately 65 percent of the studies (table 1) adopted Likert type 5 point scale to capture the respondents' views for the service quality dimensions. One justification of being 5 point scale so widely used is given as it helps in increasing the quality of response rateand reducesthe respondents'

fatigue. There are some studies (Cristobal-Fransi et al. 2017, Stemenkov and Dika 2016, Vos et al. 2014, Ariff et al. 2012, Zavareh et al. 2012, Saha et al. 2010) under review which have not reported any information about the scale they have used. Boshoff (2007) has used 6 point Likert-type scale and other studies by researchers (Yang and Tsai 2007, Rafiq et al. 2012, Liang et al. 2012, Barrera et al. 2014) have used 7 point scale as they consider it helpful in broadening the range and variability of responses.

Sampling Method: Sixty percent of the studies reviewed (table 1) adopted convenience sampling as their sampling technique. Number of researchers have acknowledged the limitation of convenience sampling (Francis and White 2002, Caiand Jun 2003,Yang et al. 2003), and expressed their concern about generalization of their results to broader population because the sample may not consists of truly representative population. Still only a few actually applied it (Ariff et al. 2012, Marimon et al. 2012, Rafiq et al. 2012, Yaya et al. 2011, Connolly et al. 2010, Boshoff 2007). Kurt and Atrek (2012), expressed their infeasibility to use random sampling on the basis of non availability of list of population which opts for online shopping. Similarly Kim and Kim (2010), expressed their inability to use online survey because of the less availability of online survey companies in South Korea. Other arguments for the use of convenience samplingis having an additional advantage of choosing homogenous samples which typically provide a stronger test of theory (Akinci et al. 2010). Some researchers (Zavareh et al. 2012, Cristobal-Fransi et al. 2017) have not reported any information about their sampling techniques.

Table 1 Methodological anatomy of Reviewed Studies

S. No.	Study	Country	Type of website	Sample size and sampling method	Surveys	Internal reliability α/composite construct reliability ρ	Validity	Adoption/ Adapted	Dimensions considered for study/Items	Directly related to
1.	Cristobal Fransi et al. (2017)	Spain	Online Newspaper	211 Respondents Age 25-44: 57.8% Gender: 56.9% females (Not reported about sampling method)	Online survey, (No information about anchors of scale)	Ranges from .771 to .896	Convergent, Discriminant, Nomological	Adapted	Efficiency(15) System availability(8), reliabilityand privacy(7), Interaction(7)	Perceived quality
2.	Stamenkov and Dika (2016)	Republic of Macedonia	Employee's Attitude towards e-banking service (cross sectional study)	112 for internal e-service perspective, 119 for external e-service perspective, no demographic information reported, (Convenience sampling)	Intranet survey uploaded on website for 30 days, (No information about anchors of scale)	For internal perspective: ranges from .73 to .76 For external perspective: ranges from .77 to .92	Content, Convergent, Discriminant, Nomological	Adapted	QUAIE(3), QUAIARC(3) QUAEEA(3), QUAEARC(2), QUAEP(3)	Satisfaction , Loyalty
3.	Roger-Monzo et al. (2015)	Portugal, Spain and the USA	Travel agency	334 Respondents (74% Spanish respondents) Average age : 33 years Gender: 50.3% females (Convenience sampling)	Offline questionnaire through personal survey, (5 point scale)	Ranges from .88 to .88	Convergent, Discriminant, Nomological	Adopted	Efficiency(6), system availability(4), fulfillment(6), privacy(3),	Perceived value , Loyalty
4	ÇETİNSÖZ BurçinCevdet (2015)	Turkey	Tourist service	346 respondents Age < 40: 38.6% Gender: 37.8% females (Convenience sampling)	Offline administration of questionnaire (5 point scale)	Ranges from 0.95 to 0.95	Discriminant Nomological	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Perceived value

Application of E-S-QUAL : Assessment of Studies Across Globe

S. No.	Study	Country	Type of website	Sample size and sampling method	Surveys	Internal reliability α/composite construct reliability ρ	Validity	Adoption/ Adapted	Dimensions considered for study/Items	Directly related to
5	Barrera et al. (2014)	Spain	Online shopping	267 respondents Age: < 24 years : 47.5% Gender: 49% females (Convenience and snowball sampling)	E-mail invitation with embedded URL link to the website hosting the survey (7 point scale)	Ranges from 0.789 to 0.923	Convergent, Discriminant	Adapted	Design(3), functionality(4), privacy (3), reliability(5), recovery(7)	N/A
7	Khan et al. (2014)	China Saudi Arabia	Online service quality across sectors	551 respondents (250 Chinese respondents, 301 Saudi Arabian respondents), no demographic information reported (Convenience sampling)	Offline administration of questionnaire (5 point scale)	For most of the dimensions < .81	Nomological	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Perceived value, Loyalty intention
8	Kandulapati and Bellamkonda (2014)	India	Online shopping	160 respondents Age< 35 59% Gender: 39% females (Random sampling)	Online survey through emailed questionnaire (5 point sacle)	Ranges from .808 to .922	Predictive	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Perceived service value, Customer satisfaction
9	Vos et al. (2014)	Greece	Online shopping	74 respondents Age< 35: 46.3% Gender: 48.4% females (Convenience sampling)	Offline administration of questionnaires (No information about anchors of scale)	Ranges from .74 to .94	Predictive	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	e-loyalty, e-satisfaction
10	Suh et al. (2013)	USA	Sports websites	409 respondents Age: Mean age 22 years Gender: 47% female (Convenience sampling)	E-mail invitation with embedded URL link to the website hosting the survey (5 point scale)	Ranges from .88 to .95	Content, Convergent, Discriminant Nomological,	Adapted	Ease of use (4), security(4), reliability(4), information(4), appearance(4)	Satisfaction
11	Llach et al. (2013)	Spain	Airline tickets	617 respondents Age< 35 = 59% Gender:48%females (Random sampling)	Online Survey via airline's website (5 point scale)	Ranges from .924 to .928	Discriminant, Nomological,	Adapted	Efficiency(6), system availability(2), fulfillment(6), privacy(3), hedonic(5),	Perceived value, Loyalty
12	Rao and Rao (2013)	India	Airline and movie tickets	130 respondents no demographic information reported, (Convenience sampling)	Offline administration of questionnaire (5 point scale)	Ranges from 0.839 to 0.937	Discriminant, Nomological	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Perceived value, Loyalty intentions
13	Ariff et al. (2012)	Malaysia	Online banking	256 respondents no demographic information reported, (Random sampling)	No information reported regarding survey administration No information about points of scale	Ranges from .781 to .912	Content	Adapted	Efficiency(6), assurances (4), contact (4), website aesthetic and guide (4), privacy(2)	N/A
14	Bernardo et al. (2012)	Spain	Online travel agency	1201 respondents Age< 35 = 55.8% Gender: 50.2% females (Convenience sampling)	Questionnaire filled through Telephonic Survey (5 point scale)	Ranges from 0.93 to 0.93	Convergent, Discriminant, Nomological	Adapted	Efficiency(6), system availability(2), fulfillment(6), privacy(3), hedonic quality(5)	Satisfaction, Loyalty

Application of E-S-QUAL : Assessment of Studies Across Globe

S. No.	Study	Country	Type of website	Sample size and sampling method	Surveys	Internal reliability α/composite construct reliability ρ	Validity	Adoption/ Adapted	Dimensions considered for study/Items	Directly related to
15	Kurt and Atrek (2012)	Turkey	Importance of E-S-Qual quality attributes for online Shoppers (No specific web site)	202 respondents Age<34 : 46% Gender: 57.9% females (Snowball sampling)	Online survey through emailed questionnaire (5 point scale)	N/A (AHP technique)	N/A	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	N/A
16	Liang (2012)	Taiwan	Online game industry	485 respondents (122 offline respondents 363 online respondents) Age < 35= 99.2% Gender = 34% female (Convenience sampling)	Both online and offline method used for questionnaire administration (7 point scale)	N/A	Predictor construct	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Satisfaction
17	Marimon et al. (2012)	Spain	E-banking	131 respondents Age< 35: 28.2% Gender: 75.6% females (Random sampling)	E-mail containing hyperlink to questionnaire (5 point scale)	Ranges from 0.819 to 0.904	Convergent, Discriminant, Nomological	Adapted	Efficiency(7), System availability(7),, privacy(3), responsiveness (4), contac t(3)	Perceived value
18	Pearson et al. (2012)	USA	Online retail shopping	158 respondents Undergraduate students Gender: 39% females (Convenience sampling)	Offline administration of questionnaire (5 point scale)	Ranges from .800 to .909	Convergent, Discriminant Nomological	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Perceived value, Loyalty intentions
19	Rafiq et al. (2012)	UK	Online grocery shoppers	491 respondents Age < 40: 47% Gender: 50.7% females (Random sampling)	Web-based survey (7 point scale)	Ranges from 0.83 to 0.96	Convergent, Discriminant, Nomological	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Customer satisfaction
20	Santouridis et al. (2012)	Greece	Online retailing	227 respondents, Age< 34: 75.8% Gender: 41% females (Convenience sampling)	Offline Questionnaire (5 point scale)	Ranges from 0.86 to 0.92	Predictive Construct, Nomological	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Overall quality, Perceived value, Loyalty
21	Zavareh et al. (2012)	Iran	Online banking	392 respondents no demographic information reported, no information regarding sampling	No information reported regarding survey administration (No information about anchors of scale)	Ranges from 0.735 to 0.810	Content	Adapted	Efficient and reliable services(4) , security/trust(3), site asthetic (2), responsiveness/ contact (3) fulfillment (4), ease of use (3)	N/A
22	Yaya et al. (2011)	Spain	Online banking	428 respondents Age< 34. 66.7: % Gender: approx. 50% females (Random sampling)	E-mail invitation with embedded URL link to the website hosting the survey (5 point scale)	Ranges from 0.887 to 0.906	Convergent, Discriminant, Nomological	Adapted	Efficiency(7), system availability(7), privacy(3)	Satisfaction, Loyalty
23	Akinci et al. (2010)	Turkey	Online banking	2017 respondents Age <40: 70.2% Gender: 70% females (Convenient sampling)	Online questionnaire through e-mail (5 point scale)	Ranges from .83 to .87	Content, Convergent, Discriminant, Nomological	Adapted	Efficiency(2), system availability(2), fulfillment(2), privacy(2)	Perceived Value, behavioral loyalty

Application of E-S-QUAL : Assessment of Studies Across Globe

S. No.	Study	Country	Type of website	Sample size and sampling method	Surveys	Internal reliability α/composite construct reliability ρ	Validity	Adoption/ Adapted	Dimensions considered for study/Items	Directly related to
24	Connolly et al. (2010)	Ireland	Government website	6121 respondents Age<40 : 32.8% Gender: 49.9% females (Random sampling)	E-mail containing hyperlink to questionnaire (5 point scale)	Ranges from .85 to .90	Convergent, Nomological	Adapted	Efficiency(8), ease of completion(3), system availability(4), privacy(2), contact(3)	Perceived public value
25	Marimonet al. (2010)	Spain	Online supermarket	131 respondents Age< 34: 28.2% Gender: 75.6% females (Random sampling)	Online survey through specially designed Web page (5 point scale)	Ranges from 0.756 to 0.887	Content Convergent Nomological	Adapted	Efficiency(8), system availability(4), fulfillment(7), privacy(3)	Perceived Value
26	Falk et al. (2010)	Germany	Online retailing and Internet portal sites	456 respondents of online retail site, 558 respondents of internet portal site Mean age for Online retail:34.6 years Mean age for internet portal site: 35 years Gender: 45% females for online retail site 52% females for internet portal site (Random sampling)	Online Questionnaire flashed on the portal site (5 point scale)	Ranges from .89 to .94	Convergent Discriminant Nomological	Adapted	Efficiency(3), system availability(3), fulfillment(6), privacy(3), website design(3), enjoyment(3), image (3)	Satisfction
27	Kim and Kim (2010)	USA South Korea	Apparel website	361 respondents (175 from USA 186 from Korea) Age <28 = 100% (for USA and Korea) Gender : 65.7% Females(USA) 70.4% females (Convenience sampling)	Online survey administered in USA and offline administered in South korea (7 point scale)	Ranges from 0.82 to 0.98 (USA) Ranges from 0.76 to 0.87 (South Korea)	Discriminant Nomological	Adopted	Efficiency(4), system availability (2), fulfillment (3), Privacy (3), Responsiveness (3), Contact(2)	Overall e-service quality, E-satisfaction
28	Sheng and Liu (2010)	China	Online shopping	164 respondents Age: No information reported Gender: 43.9% females (Convenient sampling)	Online questionnaire through e-mail (5 point scale)	Ranges from 0.839 to 0.858	Convergent, Discriminant Nomological	Adapted	Efficiency(5), system availability(4), fulfillment(6), privacy(3)	Satisfaction Loyalty
29	Saha et al. (2010)	Sweden	Government e-service delivery	425 respondents Demographic profile not reported (Systematic sampling)	Online survey using web based questionnaire (No information about anchors of scale)	Ranges from .756 to .909	Discriminant Nomological	Adapted	Efficiency(3), responsiveness(3), web assistance(2), privacy(3),	Actual usage of service, Citizen satisfaction
30	Chiou et al. (2009)	Taiwan	Online auction sites	221 respondents Age< 35= 94.8% Gender: 73.8% females (Convenience sampling)	E-mail invitation with embedded URL link to the website hosting the survey (5 point scale)	Ranges from 0.88 to 0.94	Face, Convergent' Discriminant Nomological	Adapted	Efficiency(10), system availability(4), fulfillment(7), privacy(3), responsiveness(5), compensation(3), contact(3)	Overall satisfaction
31	Herington and Weaven (2009)	Australia	Online banking	200 respondents Age<40: 44% Gender: 55% females (Convenience sampling)	Offline administration of questionnaire (5 point scale)	Ranges from 0.80 to 0.96	Discriminant Nomological	Adapted	Only 2 dimensions (efficiency and availability) used Personal needs (3), Site organization (4), User friendliness (4), efficiency of web site(3)	Satisfaction

Application of E-S-QUAL : Assessment of Studies Across Globe

S. No.	Study	Country	Type of website	Sample size and sampling method	Surveys	Internal reliability α/composite construct reliability ρ	Validity	Adoption/ Adapted	Dimensions considered for study/Items	Directly related to
32	Sahadev and Purani (2008)	India	Job portal site	350 respondents (191 executives, 159 MBA) Age: average age 27 years Gender: 27% females (Convenience sampling)	Both online and offline filling of questionnaire (5 point scale)	Ranges from 1.242 to 0.689	Convergent, Discriminant Nomological	Adapted	Efficiency(8), system availability(4), fulfillment(5), privacy(3),	Trust, Satisfaction
33	Ingle and Connolly (2007)	Ireland	Online portal site	361 respondents Demographic profile not reported (Random sampling)	Online survey through vendor's website (5 point scale)	Not Reported	Not reported	Adapted	Efficiency(8), system availability(4), fulfillment(7), privacy(3), responsiveness(5), compensation(3), contact(3) (Plus one each dimension on trust)	Consumer trust, Perceived value , Loyalty intentions
34	Yang and Tsai (2007)	Taiwan	Online shopping	278 respondents Age 21 to 50 years: 94.6% Gender: 75.2% females (Convenience sampling)	No information reported regarding administration of survey (7point scale)	Ranges from 0.868 to 0.941	Convergent, Discriminant Nomological	Adopted	Efficiency(8), system availability(4), fulfillment(7), privacy(3), responsiveness(5), compensation(3), contact(3)	Overall satisfaction
35	Boshoff (2007)	South Africa	Online Marketing Firm selling mainly books, CDs, DvDs, gifts	1409 respondents Age < 39 years : 58.4% Gender: 66.67% females (Random sampling)	Online questionnaire received from the website while buying first product 6 point scale	Ranges from 0.768 to 0.938	Convergent Predictive Nomological	Adapted	Efficiency(6), system availability(3), privacy(3), reliability (3), speed(3), delivery(3)	Value
36	Kim et al. (2006)	USA	Women's apparel websites	111 retail web sites Demographic profile: N/A (Random sampling)	(No Survey) Content Analysis of the websites	N/A	N/A	Adapted	Efficiency(15), fulfillment(6), system availability (2), privacy (8), responsiveness(2), contact (2), personalization (8), information (7), graphic style(21)	N/A

Demographic profile: Some variations were identified across the respondents profile which are selected by the researchers for their respective studies. Some studies (Pearson et al. 2012, Rao and Rao 2013, Suh et al. 2013) have taken college students as their subjects which may cause the variations in the results in spite of using same E-S-QUAL scale for measuring service quality. 30 % of the studies reviewed are found to be gender biased (table1), either they have taken maximum male respondents (Sahadevand Purani 2008,Liang 2012, Pearson et al. 2012) or there were dominance of female respondents (Chiou et al. 2009, Akinci et al. 2010, Kimand Kim 2010, Marimon et al. 2012). Most of the studies (Chiou et al. 2009, Yaya 2011, Santouridis 2012, Liang 2012, Llach et al. 2013, Barrera et al. 2014) have chosen maximum young respondents (table 1) for analyzing the perceived service quality. Kimand Kim (2010) have conducted survey taking age group up to 28 years of age. With the growing number of older people using internet for searching the information, reading emails and shopping online, the selection of demographic profile for future studies needs attention (FernandesandPaschoarelli 2014). Hence diverse sample profile is recommended for future studies.