Determining Factors Affecting on Customer Satisfaction in Outsourcing IT Services in University of Isfahan

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Abstract
This quantitative research comprehensively evaluated determining factors affecting on customer satisfaction in outsourcing IT services in university of Isfahan. Currently, service quality are facing an increasingly competitive and rapidly changing environment. Firms are increasingly utilizing business process outsourcing to manage their operations and achieve their objective. Based on a survey of 252 users of IT services in Isfahan University a framework of customer satisfaction was developed with seven determinants: responsiveness, reliability, quality of communication, service attitude, empathy, quality of information, ethics. The Statistics Package of SPSS was utilized for the data analysis of the collected surveys. Each of the seven independent variable constructs has a significant impact on the dependent variable customer satisfaction in outsourced IT services. Analysis concluded that Training of service providers in attitudinal, technical, and communication competencies based on these seven determinants has been recommended for improving customer satisfaction thereby benefiting firms.

Key words: Outsourcing, Customer, Service quality, Customer satisfaction.

1. Introduction
Rapid changes in today's growing businesses force senior managers to adopt strategies which focuses not only on the organization current successes but also on invest in activities that improve competitive advantage for future success of the organization. Organizations change basically in shape and have no resemblance to their past. One of these fundamental changes in organizational structures and behaviors is networking their activities. Nowadays organizations do not try to do all their required activities by themselves, each organization perform one or two activities which is the key feature of that organization through which make value for customers than competitors and other activities will pass to other businesses in which the activities are the key feature for them. One of this strategies is focus on core competencies of the organization and transfer other activities to do by outside resources (outsourcing). The use of external agents to perform one or more of organizational activities has been defined as outsourcing (Brooks, 2006). Global outsourcing of services (also called off-shoring) to low cost countries has significantly increased in the last few years in many sectors. Schniederjans and Cao (2006) cite a Conference Board survey of 52 different types of companies in U.S. and Europe that indicated that 79% of them outsourced helpdesk processes to overseas providers, and that information technology processes were outsourced three times more than any other functional services. Outsourcing employs domestic or global subcontractors for the production of goods and services. Global outsourcing of services to low cost countries has significantly increased in the last few years in many sectors like information technology (IT), medical, banking, insurance, and engineering (Alster, 2005; Suuroja, 2003). Jones (2005) estimated that about 3.3 million American IT jobs could move overseas by 2015. A study of determinants of customer satisfaction is, therefore, important to business leaders in achieving both short-term and long-term corporate objectives. Thus, in managing customer relationships in the 21st century, a leader’s responsibility will be to increase customer’s satisfaction through the entire organization by monitoring every interaction with the customer and by enhancing customer value.

2. Preceding studies
The impact of customer satisfaction on businesses has been studied by several researchers. Tapas Sarkar and Asit Kr. Batabyal, (2011) aims to develop an evaluation model of the customer satisfaction index (CSI) in an R&D organization. A conceptual framework on customer satisfaction with a probabilistic approach has been attempted based on customer requirements and expectations in compliance with the clauses of ISO 9001:2008.
A survey through a well-designed customer feedback data sheet has been used as an effective tool for the measurement of CSI. The questionnaire was framed on the basis of the requirements of a quality management system with advice to the customer for allotting grade points on a given scale to the quality parameters. The research model has been analyzed based on a fault-tree approach and the probability of failure of each quality parameter has been assigned on the basis of grade point average. Data analysis for the estimation of the probability of failure at a customer satisfaction level (CSL) was carried out based on the probability of failure of each quality element graded by the customers. As a result of case study analysis, 88 percent of customers are fully satisfied and the result reveals that there is no significant difference between customer satisfaction levels.

Cheolho Yoon (2010) in his study investigates the antecedents of customer satisfaction with online banking in China, and explores the effects of experience on the relationships between the antecedents and customer satisfaction. Based on prior research, the six antecedents of customer satisfaction — ease of use, design, speed, security, information content and customer support service — are proposed, and the effects of experience on the relationships between these and customer satisfaction are analyzed using a structural multi-group (a high-experience group and a low-experience group) model. The results show that design, speed, security, information content, and customer support service have a significant influence on customer satisfaction in the high-experience group or the low-experience group, but ease of use does not have a significant influence on customer satisfaction in either of the groups.

Yu (2007) studied the banking industry in Taiwan and empirically validated the relationship between customer satisfaction, repurchase intention, and the firm’s reputation. Yu also established a direct link between customer satisfaction and profitability. Gupta and Zeithaml (2006) discussed several research studies and made an empirical generalization that improvement in customer satisfaction had a significant and positive impact on the financial performance of firms. Gupta and Zeithaml indicated that a 1% drop in the satisfaction rating resulted in about a 5% drop in the return on investment.

The linkage of long-term success of business profitability to customer satisfaction has been established by many researchers. Lee and Hwan (2005) studied the relationship of corporate profitability in Taiwanese firms and concluded that customer satisfaction was indeed an antecedent to profitability. Anderson, Fornell, and Mazvancheryl (2004) studied 200 Fortune 500 firms and concluded that a 1% improvement in the ACSI could lead to an increase of $240 million in the market value of a firm. Also based on their studies of ACSI, Gruca and Rego (2005) suggested that a single point increase in ACSI produced an increase of $55 million in a firm’s net operational cash flow. Smith and Wright (2004) studied customer satisfaction and loyalty in the PC industry and concluded that high customer loyalty resulted in competitive advantage for manufacturers.

Payne and Frow (2005) developed a conceptual framework for customer relationship management (CRM) that helps broaden the understanding of CRM and its role in enhancing customer value and, as a result, shareholder value. Payne and Frow have pointed out that customer satisfaction, an integral part of the value creation process and an important metric, reached only 36% of the board of directors as a concern. Identifying determinants of customer satisfaction (and thus actionable items) may bring a higher degree of attention from the leadership and help improve firm value as discussed earlier.

Discussing the broader firm strategy, organizational alignment, and technology as part of customer relationship management, Roberts, Liu, and Hazard (2005) considered customer satisfaction as one of three objectives, loyalty, and retention being the other two. Luo and Bhattacharya (2006) examined the linkages between corporate social responsibility (CSR), customer satisfaction, and market value creation; achieving customer satisfaction was determined to be one of the ways of realizing the financial returns and increasing the market value, crucial to business leaders.

Tam (2004) developed an integral model linking customer satisfaction, service quality, and perceived value; the study concluded that customer satisfaction and perceived value significantly influenced post purchase behavior represented by future recommendations and purchase intentions. Thus, as a part of successful customer relationship management, measurement and analysis of customer satisfaction were important to the leaders of organizations.

Economou-Kogetsidis (2005) studied telephone service encounters in a comparative study of Greek and English airline customers and observed that there were culture-influenced style differences ranging from interactional to transactional. Findings from the study suggested that telephone service encounters were influenced by sociocultural relativity, with different degrees of perceived politeness, directness, courtesy, misunderstandings, and social distance. Perceived service quality of employees in the cross-cultural context was studied by Buda, Sengupta, and Elsayed-Elkhouly (2006). Culture-based differences in service quality were not observed in internal services received by the employees.

Laroche, Ueltschy, Abe, Cleveland, and Yannopoulos (2004) examined customer satisfaction in the context of cultural differences based on factorial experiments in the United States, Canada, and Japan. There were
Empathy: Empathy is a set of expressed attitudes that covers six aspects: expressions of caring remarks, customer discusses the service issue at hand (Winsted, 2000). Congeniality, genuineness in assisting the customer. It is a predisposition of the service provider even before the service encounter. Service attitude: The construct of service attitude has the four components of concern for the customer, civility, ability to understand customer, live guidance through process, and follow-through (Boshoff & Staude, 2003; Matsuura, Chiba, & Fujieda, 1999).

Service quality: Service quality was defined in the study as a set of judgments of various factors experienced during the service encounter. The seven independent variables and their component were representative of such factors. Customer satisfaction: Customer satisfaction was defined in the study, closely following the definition given by Oliver (1980), as a post service evaluative judgment of a service encounter resulting in a pleasurable end-state, based on a combined assessment of the performance of service factors that constituted that service.

Responsiveness: Responsiveness is defined as a willingness to help, accompanied by courtesy, quick response, and a speedy resolution of the customer's concerns; four components (Parasuraman et al., 1988; Parasuraman, Zeithaml, & Malhotra, 2005).

Reliability: Reliability is defined by a combination of five components: dependability, technical competence, availability, error-free instruction, and sincerity. (Parasuraman et al., 1988; Parasuraman et al., 2005).

Quality of communication: Quality of communication is a construct based on a combination of 7 concepts: acceptable speed of delivery of speech, clarity of instruction, explanation, comprehensibility by customer, ability to understand customer, live guidance through process, and follow-through (Boshoff & Staude, 2003; Matsuura, Chiba, & Fujieda, 1999).

Service attitude: The construct of service attitude has the four components of concern for the customer, civility, congeniality, genuineness in assisting the customer. It is a predisposition of the service provider even before the customer discusses the service issue at hand (Winsted, 2000).

Empathy: Empathy is a set of expressed attitudes that covers six aspects: expressions of caring remarks, consideration for customer's time and urgency, ability to listen patiently, trustworthiness, friendliness, and attentiveness (Parasuraman et al., 1988).
Quality of information: Quality of information is defined as a combination of four concepts: accuracy, timeliness, relevance, and the ease of use of information given to the customer (Kuo, Lu, Huang, & Wu, 2005).

Ethics: Ethics in a service encounter combines the four expectations of security, privacy, nondeceit, and a fulfillment of promise (Roman, 2007).

3. Hypothesis

H0: Quality of responsiveness has no effect on customer satisfaction in outsourced IT services.

HA: Quality of responsiveness has an effect on customer satisfaction in outsourced IT services.

H0: Reliability of the service provider has no effect on customer satisfaction in outsourced IT services.

HA: Reliability of the service provider has an effect on customer satisfaction in outsourced IT services.

H0: Quality of communication has no effect on customer satisfaction in outsourced IT services.

HA: Quality of communication has an effect on customer satisfaction in outsourced IT services.

H0: Attitude of the service provider has no effect on customer satisfaction in outsourced IT services.

HA: Attitude of the service provider has an effect on customer satisfaction in outsourced IT services.

H0: Empathy of the service provider has no effect on customer satisfaction in outsourced IT services.

HA: Empathy of the service provider has an effect on customer satisfaction in outsourced IT services.

H0: Quality of information given by the service provider has no effect on customer satisfaction in outsourced IT services.

HA: Quality of information given by the service provider has an effect on customer satisfaction in outsourced IT services.

H0: Ethics of the service provider has no effect on customer satisfaction in outsourced IT services.

HA: Ethics of the service provider has an effect on customer satisfaction in outsourced IT services.

4. Methodology

4.1 Sample & Survey Method

Population for the study was all IT services users in Isfahan University. The survey instrument was designed to elicit information from those who had a need to contact IT services. The collection of data was done through the administration of a survey questionnaire to the sample of selected population as university faculty, MA students and the administrative department. Reliability analysis of independent variables was conducted using Cronbach’s alpha method.

In a questionnaire that was distributed among users of IT services, 43% of respondents were female and 57% were male. 65% of respondents are young people who are in the range of 20 to 30 years and allocated the highest population to them, the least of which is in the age range of 51-60 years with 3.2%.

Collected data were processed by applying regression, correlation test and t-test results. The reduced results indicated that all these factors are contributing towards dependent factor.

4.2 Regression Equation

H0: \(Y = \beta_0\)

HA: \(Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7\)

\(X_1=\) responsiveness

\(X_2=\) reliability

\(X_3=\) quality of communication

\(X_4=\) service attitude

\(X_5=\) empathy

\(X_6=\) quality of information

\(X_7=\) ethics

Research hypotheses corresponding to the seven variable constructs were tested using two-tailed t tests at 95% and all the seven variables were found to be significant (p < 0.001) as predictors of customer satisfaction, the dependent variable.

Detailed SPSS outputs of regressions are as below. All factors components in both regressions showed high significance (p < 0.001) based on t-tests, suggesting that each of these factor components added significantly to the regression model of the dependent variable, customer satisfaction.

It being significant (p < 0.001) at 95% confidence level, so null hypothesis was rejected and alternate hypothesis supported. Each of the seven independent variable constructs has a significant impact on the
dependent variable customer satisfaction in outsourced IT services. Further, F-test for goodness of fit showed that the regression model had an F statistic value of 54.515, R-value of 0.880 indicating the model with seven independent variable constructs was a good fit for the predictive relationship of customer satisfaction. Durbin-Watson statistic tests for correlations between adjacent residuals; a value at or near 2.00 is considered acceptable. A value lower than 1.00 or higher than 3.00 is considered problematic (Field, 2005). In the present regression, the Durbin-Watson statistic is 2.11, and is considered acceptable.

5. Discussion
The literature review presented so far has indicated that organizations need to make customer satisfaction a crucial objective. Linkage between customer satisfaction and firm success were discussed in the section. The leader’s responsibility then would be to find avenues of enhancing customer satisfaction at various levels in the organization by monitoring every relationship with the customer. Each of the seven independent variable constructs has a significant impact on the dependent variable customer satisfaction in outsourced IT services, so null hypothesis was rejected and alternate hypothesis supported. Since a quantitative survey instrument was employed, there was a limitation on how many questions a respondent may be asked without the respondent becoming disinterested. The second limitation was that the accuracy of data provided by the respondents depended on the capability of the respondent to recall service encounter experiences. These limitations could be inherent in any customer satisfaction survey, but the effects of these limitations were sought to be minimized through a proper design of the survey instrument. An important aspect of the survey was that the determination of IT services would be based on the judgment of the respondents. The respondent was assumed to give accurate and sincere responses.

Training of IT service providers in attitudinal, technical, and communication competencies based on these seven determinants has been recommended for improving customer satisfaction thereby benefitting firms and their stakeholders.

6. Conclusion
The concluding section of the research study revisited the purpose of the study and discussed the findings and conclusions of the empirical analyses. The successful completion of the study has brought a fresh understanding of the determinants of customer satisfaction specific to outsourced IT services in the Isfahan University from an internal researcher’s perspective, and filled acknowledge gap in the area. Seven significant determinants of customer satisfaction and their components were identified as related to service quality. These seven determinants of customer satisfaction are responsiveness, reliability, quality of communication, service attitude, empathy, quality of information, and ethics. Corporate training in three competency areas attitudinal competency, technical competency, and communication competency was recommended.

The findings, conclusions, and recommendations of the study are expected to guide the leaders of the IT industry and their overseas service providers in improving customer satisfaction and long-term competitive advantage. A recommended next step for the IT industry is to conduct similar studies from within the firm, where more specific customer data may be available. Several future studies in the area have been suggested. In the end, the findings of the research study will benefit both firms and their stakeholders through better service and higher customer satisfaction.
References


Annexure

Table 1. Cronbach's alpha

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<th>Cronbach's Alpha</th>
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Table 2. Descriptive Statistics

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<th>Mean</th>
<th>Std. Deviation</th>
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<td>Valid N (list wise)</td>
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Table 3. Model Summary & regression analysis

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<th>Durbin Watson</th>
<th>Std. Error of the Estimate</th>
<th>F change</th>
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<td>.774</td>
<td>2.11</td>
<td>.757</td>
<td>54.51</td>
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</tbody>
</table>

df1=1; df2=458

a. Predictors: (Constant), communication, reliability, responsiveness, attitude, ethics, empathy, information
b. Dependent Variable: satisfaction

Coefficients

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<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
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<th>Sig.</th>
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<td>Std. Error</td>
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<td>(Constant)</td>
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<td>.598</td>
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<tr>
<td></td>
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a. Dependent Variable: satisfaction