

Does the ITIL Service Quality Framework Improve Outsourcing Relationship Outcomes?

Moahammed Alojail

Department of Information Systems, King Faisal University, Al Hassa, Saudi Arabia
Email: ma.alojail@gmail.com

Brian Corbitt

RMIT University, Melbourne, Australia
Email: brian.corbitt@rmit.edu.au

Abstract—More and more Australian firms are outsourcing their IT – indeed, outsourcing of at least some services is the dominant pattern. Yet managing outsourced IT is difficult and outcomes are uncertain. It has been suggested that firms that adopt a formal quality framework (such as ITIL) will have better outcomes and achieve greater cost savings from their outsourcing. In a survey of 140 users, when the hypothesis that ITIL would lead to better outsourcing outcomes was tested, the data indicated that while ITIL use led to better service level agreements, these did not lead to better downstream outcomes. On average, those that had implemented ITIL, and those that had not, achieved similar outsourcing outcomes. It appears that the focus of ITIL on within-firm service delivery makes it less helpful as a strategy for managing externally provided IT services.

Index Terms—IT outsourcing, IT outsourcing relationship, ITIL, service level agreement

I. INTRODUCTION

The practice of outsourcing IT services is not new. It has been used by firms since the 1960s [1]. Since that time, outsourcing has experienced a number of changes [2]. IT outsourcing (the use of external suppliers to provide IT services) has been formally defined in several ways. Many of the definitions provided in the literature only apply to services that were performed in-house then turned over to someone else (i.e. a vendor). For example, [3] defined IT outsourcing as ‘a process whereby an organisation decides to contract-out or sell the firm’s IT assets, people and/or activities to a third party supplier, who in exchange provides and manages these assets and services for an agreed fee over an agreed time period’. However, a large number of modern outsourcing deals involve services that were never in-house to start with, so these definitions lack precision. Therefore, for this study, the authors have formally defined IT outsourcing as “a contractual relationship where an external organisation takes on responsibility for performing all or part of a business process or function, to agreed performance criteria at an agreed price”. Over the last two decades, IT outsourcing has become increasingly popular in IS

research. This is demonstrated by the increasing numbers of publications [4] and [5]. Table I shows the main topics that have been researched in the IT outsourcing literature.

TABLE I. THE MAIN TOPICS IN THE IT OUTSOURCING LITERATURE

Topic	Authors (Examples)
Benefits/Risks	[6]-[8]
Arrangement types	[9], [10]
Determinants of IT outsourcing	[11], [12]
Development of a good contract	[13], [14]
Success factors	[15]-[17]
Outsourcing relationship	[18]-[20]

Organisations generally adopt IT outsourcing in order to achieve benefits such as cost saving, access to expertise or to attain better quality [12] and [17]. However, the last decade has seen a general reformulation, within the business literature, of internal support functions as “service providers”. As part of this trend, issues related to IT service management have received increasing attention in the Information Systems literature [21] and [22]. [23] observed that an IT department must shift attention from technological infrastructure to the IT services it provides. On the basis of several case studies, [22] echoed this, identifying a number of key IT service management problems within IT departments.

[21] have observed that in order to achieve cost savings, many organisations have invested in some form of Information Technology Service Management (ITSM) framework. Corresponding to the rise in focus on IT service management, organisations have begun adopting a range of service-management frameworks in order to manage their services. Several frameworks exist, such as Control Objectives for Information and related Technology (COBIT), ISO 20000 and the Information Technology Infrastructure Library (ITIL). In Australia, ITIL is the most frequently used framework [24].

Over the past two decades, ITIL has been modified to ensure a more consolidated and straightforward framework [25]. ITIL has gone through a number of revisions-the most recent revision being ITIL 2011. Table II shows the development of ITIL. The main difference between ITIL v2, ITIL v3 and ITIL 2011 is in the service

life cycle. Table III shows the difference between ITIL v2, ITIL v3 and ITIL 2011.

TABLE II. ITIL FRAMEWORK HISTORY

Framework	Years	No of books incorporated in the framework Books
ITIL	1989-1990s	42
ITIL v2	2000-2007	9
ITIL v3	2007- 2011	5
ITIL 2011	2011-now	5

TABLE III. DIFFERENT BETWEEN ITIL v2, ITIL v3 AND ITIL 2011

ITIL v2	ITIL v3	ITIL 2011
Service Support	Service Strategy	Service Strategy
Service Delivery	Service Design	Service Design
Security Management	Service Transition	Service Transition
Applications Management	Service Operation	Service Operation
Planning to Implement Service Management	Continual Service Improvement	Continual Service Improvement
ICT Infrastructure Management	Same principals, mostly editorial changes, slight content changes. Remarkable change was added the Business relationship management process under Service Transition volume.	
ITIL Business Perspective		

The current version, ITIL 2011, was developed in 2011 and contains five core texts (or books), namely service strategy, service design, service transition, service operation and continual service improvement. Each outlines its own purpose, process; activity and role.

The ITIL framework focuses on different strategies for achieving high quality service, including a range of recommended techniques, methods, processes, activities and measurements. These aspects are often adopted by service providers to ensure better quality IT service delivery and, as a result, achieve greater customers' satisfaction. Also customers can adopt some features and mechanisms of ITIL in order to better understand their responsibilities and attain their expectations.

[24] observed that 'Australia is at the forefront of ITIL adoption'. In the same vein, the study by [21] found that from 204 responses, 56% had adopted ITIL V2 while 44 % had adopted ITIL v3. IT service management is an emerging topic for academic research. Therefore it is not surprising that there is, as yet, little academic research on the ITIL adoption. Most studies to date have concentrated on likely benefits and reporting descriptive statistics [23] and [24].

Few studies have, to date, examined ITIL implementation within an environment where much of the IT is outsourced, even though this is increasingly the situation in modern business. Some researchers proposed that ITIL adoption would lead to an improved IT outsourcing relationship. Based on referencing a 2004 Enterprise Management Associates study of 48 IT managers regarding the ITIL adoption, [26] argued that ITIL implementation could benefit IT outsourcing relationships in many ways, such as aligning business process requirements with the outsourcing relationship

structure. Similarly, on the basis of case study observations, [27] concurred with [26]'s argument that the adoption of ITIL in an outsourcing scenario could bring substantial benefits to both parties. On the basis of a case study, [28] suggested a framework based on ITIL v3 to assist customers and vendors to manage their outsourcing projects. These cases, however, need to be supported with empirical research, which this study intends to provide.

ITIL was not designed to manage extensive IT outsourcing but has been adapted to do so, similar to the use of other governance standards like those from ISO and COBIT. Hence, the post-implementation impact of ITIL on IT outsourcing relationships is still under-researched. There is a lack of research that theorises, tests, validates and evaluates the effect of ITIL on the IT outsourcing relationship. To address this gap, this study attempts to discover how ITIL implementation can assist the IT outsourcing relationship.

II. RESEARCH METHOD

A. Descriptive Survey

The researchers obtained an IT Australian managers list with 2000 records. The participants were contacted over the period from May 1, 2012 to June 15, 2012. The researchers used Qualtrics software (www.qualtrics.com) in order to send the invitations. As a result, in total, 239 questionnaires were received representing a response rate of 11.95 %. However, only 140 responses were valid. 45 % of firms used some formal system such as COBIT, ISO 2000 and ISO/IEC 17799, of which the large majority, 83 participants, used ITIL. The unit of analysis was outsourcing arrangement as almost all firms (70 %) engaged in some form of IT outsourcing (asked to focus on most recent outsourcing arrangement).

Based on the preliminary focus group and literature findings, the researcher tested a set of hypotheses by developing an online survey. Both [29] and [30] suggested that hypotheses can be tested by using statistics and statistical analysis. Below shows the hypotheses used in this research:

- H1a: ITIL-usage will positively influence the quality of SLA practices
- H1b: the quality of SLA practices will positively influence Technical Service Quality
- H2a: ITIL-usage will positively influence communication quality
- H2b: communication quality will positively influence technical service quality.
- H3 a: ITIL will positively influence knowledge sharing
- H3b: knowledge sharing (KS) will positively influence technical service quality (TSQ)
- H4: TSQ will positively influence benefits (economic, strategic and technological).
- H5: benefits will positively influence satisfaction.
- H6a: satisfaction will positively influence trust
- H6b: satisfaction will positively influence commitment

The model (Fig. 1) tested includes nine constructs (ITIL-usage, SLA quality, Communication Quality, Knowledge Sharing, Technical Service Quality,

Satisfaction, Benefits, Commitment and Trust). Each construct had three items as a minimum.

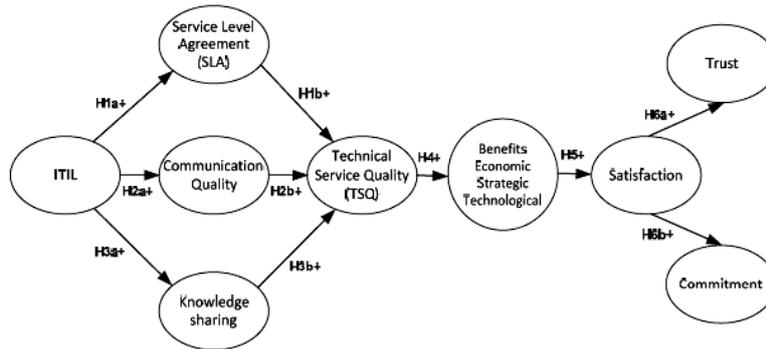


Figure 1. The preliminary research model with Hypotheses.

An eight-point Likert scale was used to measure all items of the survey. The reason for selecting the large scale was to ensure more reliable scores [31]. As the questions covered a wide range of IT outsourcing relationship and service quality related questions, there was always the chance that the respondent could not answer questions that did not apply to their organisation. Therefore, the ‘not applicable’ option was added to each question to minimise the risk of obtaining inaccurate responses from participants [32]. The survey instrument was designed to be anonymous and all data collected was aggregated to avoid any possibility of identification. The researcher provided participants with the key definitions of concepts used in the survey. These included outsourcing, vendor, ITIL, service, service quality, your organization and outsourcing arrangement.

III. FINDING AND DISCUSSION

The survey was developed based on the findings from both a preliminary focus group and from pertinent literature. The preliminary focus group informants suggested that ITIL’s main impact on outsourcing relationship quality is via service level agreement practices, and via mechanisms that are designed to improve communication quality and knowledge sharing were supported in the survey findings.

TABLE IV. THE AVERAGE POSITIVE/NEGATIVE OUTCOMES

Construct (Average)	Positive %	Negative %
SLA Quality	78.3	21.7
Communication Quality	78.6	21.4
Knowledge Sharing	77.2	22.8
Technical Service Quality	71.4	28.6
Satisfaction	71.4	28.6
Trust	70	30
Commitment	77.2	22.8
Cost Savings	57.8	42.2

The survey results also reported that the majority of participants scored positive outcomes for each construct. Table IV describes the average positive/ negative outcomes by construct.

However, when using a range of more complex statistical methods such as AMOS and MANOVA, the results showed that the usage of ITIL had a small impact on SLA Quality and accounted for only 4.8% of the variation. While the results indicated that SLA Quality had not much effect on other outcomes such as Technical Service Quality, Cost Savings and Commitment, Communication Quality had a large standardised effect on Technical Service Quality construct ($\beta = .72, p < 0.001$), accounting for 67% of its variance ($R^2 = .67$). Moreover, the regression path from the ITIL-usage construct to Communication Quality was statistically no different from zero which means there is no impact of ITIL usage on Communication Quality.

The survey research suggests that such outcomes can be obtained independent of formal ITIL implementation if the practices underlying the ITIL standards are adopted.

There are other issues that emerged from the survey:

- SLA Quality had only a small indirect effect on Commitment. This may be because the importance of good SLAs to outsourcing has been highlighted for over 20 years in the literature, leading many non-ITIL users, along with ITIL users, to create good SLAs.
- The regression path from ITIL-usage to Communication Quality was statistically no different from zero (0.04, n.s.).
- The regression path from the ITIL-usage to Knowledge Sharing was statistically no different from zero (0.05, n.s.).
- The regression path from the ITIL-usage to Technical Service Quality was statistically no different from zero (0.02, n.s.).
- The regression path from the ITIL-usage to Cost Savings was statistically no different from zero (0.03, n.s.).
- The regression path from the ITIL-usage to Commitment was statistically no different from zero (0.05, n.s.).

The survey of both users and non-users showed that formal adoption of ITIL had little impact on the success

of IT outsourcing arrangements. Previous research [3], [18] and [20]- suggests that the reasons for successful IT outsourcing include: partnership quality, service quality, contract management, communication, trust, personal bond, commitment, conflict resolution, flexibility, participation, and information sharing. This research above does not consider ITIL and, therefore, suggests that factors other than ITIL could also be responsible for the effects on IT outsourcing attributed to ITIL adoption by the IT users in the focus groups.

The SEM analysis in this research provided evidence that ITIL per se has no impact on the success of outsourcing arrangements, though the processes that are emphasised by ITIL certainly did. The quantitative data indicated that both ITIL users and non-ITIL users who employed good management strategies achieved good outcomes, and that non ITIL users gained outsourcing benefits without having ITIL in place.

IV. CONCLUSIONS

Clearly in the surveyed group, many firms that did not have ITIL in place achieved good outcomes, as did those using ITIL. So ITIL is not necessary for effective management of outsourced arrangements, though there is evidence that the principles behind ITIL (particularly encouraging good communication between provider and client) certainly do have a positive effect.

One explanation is that good practices, after 20 years of published literature, have now been widely disseminated in the Australian IT community (at least in the 73 % of firms reporting good practices).

Another explanation might be that ITIL's focus on internal delivery means that it has only limited things to say about outsourcing arrangements. ITIL framework [33] does acknowledge that IT is recently sometimes outsourced but the focus on outsourcing arrangement is incidental rather than core.

So, regardless of which explanation is correct, if ITIL is going to be used in the ways suggested in the literature, it will need to more explicitly address management of outsourced IT services. These are fast becoming the norm. If we treated packaged software as "outsourced" (in that the development of the software was carried out externally) the dominant form of delivery is fast becoming outsourced. As it stands now, these findings do not encourage firms that have not yet adopted ITIL to adopt it, if they are relying, to a large extent, on external providers.

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Mohammed A. Alojail, has a master and PhD degree in Information systems from Australia (University of Melbourne 2008 and RMIT University 2013), he is an Assistant Professor in at King Faisal University (KFU) in Saudi Arabia, currently working as a Consultant at the National Center for Assessment in Higher Education, Riyadh, Saudi Arabia. He has considerable experience in the field of Information systems. Dr. Alojail has written many scholarly papers in the field of IS and IT outsourcing.



Brian J. Corbitt, has a PhD degree in IT policy from Australia (Monash university 1995), he is an Emeritus Professor of Information Systems at College of Business in RMIT University, Australia. Professor Corbitt has significant experience and international standing and recognition in Information Systems, National Information Policy, Health Informatics and e learning. He has published 10 books including 6 on electronic trends. Professor Corbitt has also published over 150 refereed scholarly papers and some 20 invited papers as a keynote speaker on IT policy in different international contexts.