Systematic Literature Review Protocol for

SORT

Software Outsourcing Relationships Trust

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Systematic Literature Review (SLR) Protocol for Software Outsourcing Relationships Trust (SORT)

Abstract

CONTEXT – Offshore Software development outsourcing is a modern business strategy for producing high quality software at low cost. Many organisations in the developed countries have outsourced software development projects to low wages countries. Choosing a capable vendor is a key element in the project success. Trust plays a vital role in establishing and maintenance of the outsourcing relationship between and client and vendor organisations.

OBJECTIVE – This report aims to review the literature in a systematic way to identify the factors and barriers that can have a positive or negative impact on Trust building and its maintenance between the clients and vendors organisations in the context of offshore software outsourcing relationships.

METHOD – We have developed a systematic literature review (SLR) protocol for software outsourcing Relationships Trust (SORT). SLR is based on a structured protocol, and is therefore, different from ordinary literature review. We are in the process of implementing the protocol for the SORT.

EXPECTED OUTCOME – The anticipated outcome of this review will be a list of factors which can play an important role in the establishment and maintenance of Trust in software outsourcing relationships.

Contents

Preamble

"Trust develops through frequent and meaningful interaction" [1]. The vendor must be a trustworthy because issues regarding trust and security may arise as some vendors may not keep secrecy of their clients' data [2]. Communication quality plays a vital role in building trust between client and vendor organisations in offshore software outsourcing relationships [3]. Both trust and structural controls get together lead to projects success in outsourcing relationships [4]. Trust can be categorized into four types. These are calculus-based trust, knowledge-based trust, Identification-based trust and performance-based trust [4].

This research is premised on the need to gain an in-depth understanding of different factors that play an important role in building and maintaining trust in offshore software development outsourcing relationships. Understanding these critical factors will lead software development outsourcing vendors in addressing those criteria in order to be fully ready for software development outsourcing initiatives. This may also help to ensure the successful outcome of outsourcing projects and long lasting relationships between clients and vendors [5, 6].

We have consulted various SLR protocols developed by other researchers [7-9] and the SLR protocol for SOVRM [10] in the development of this protocol.

1. Background

1.1 What is software development outsourcing?

Software development outsourcing is defined as a situation where a company (a client) contracts out all or part of its software development activities to another company (a vendor), who provides agreed services for remuneration [11, 12]. "Outsourcing is derived from 'finding the source from the outer', which is a kind of new service mode that the hosts deliver all or part of their IT business to other professional SPs(service providers)" [13]. IT or software development outsourcing is a modern business strategy which has been implemented by many organizations for gaining benefits like cost reduction, increased efficiency and to focus on core activities of the organization [13].

1.2 Types of Outsourcing

Various types of outsourcing that were traced during the conduction of the systematic literature review for software outsourcing vendors readiness model (SOVRM), are grouped into the follow two categories. These are also presented in Figure-1.

(i) Types of Outsourcing on the basis of Geographic Location

(ii) Types of Outsourcing on the basis of Relationship

(i) Types of Outsourcing on the basis of Geographic Location

On the basis of geographic distance of vendors from clients, outsourcing is categorized into three types. These are onshore outsourcing , nearshore outsourcing and offshore outsourcing [14].

- **Onshore Outsourcing**

  Onshore outsourcing is also called domestic outsourcing, which consists of both domestic vendors and domestic clients [15]. Which means that both (vendor and client) organizations are located in same country.

- **Nearshore Outsourcing**

  In the software development industry the term nearshore was first introduced in a story about an entrepreneurial software development venture called PRT that was established in the Caribean island of Barbados during the years 1995-1998 [16]. During this period the word "near" referred to closeness to US from geographic point of view while "far" referred to the geographic distance of the US outsourcing firms from the Indian vendors. An example of the nearshore outsourcing destination for the outsourcers in US is Canada [17].

- **Offshore Outsourcing**

  Offshore outsourcing is also termed as farshore outsourcing in the literature but the name 'offshore outsourcing' has been used very often in the literature. "Offshore outsourcing is nothing but 'international trade' and nations benefit considerably from international trade" [18]. The major vendor countries for offshore outsourcing are India, Ireland, China and Russia whereas the client firms in countries like US, UK, and Japan are the major outsourcer of outsourcing software projects to these offshore countries [19]. In providing offshore outsourcing services India gains the largest share than any other country [20]. Regarding offshore outsourcing destinations, India has been ranked number one offshore IT outsourcing destination in the current market whereas China has been ranked number two by the Global outsourcing report. The report also predicts that China will overcome India in the next decade [20, 21].

(ii) Types of Outsourcing on the basis of Relationship

Gallivan et al. [22] have grouped the offshore outsourcing relationships into four different types, based on the number of clients and vendors involved in the outsourcing contract. These are Simple Dyadic Relationships, Multi-Vendors Relationships, Co-Sourcing Relationships and Complex Relationships.

- **Simple Dyadic Outsourcing Relationship**

  In a Simple Dyadic Relationship, there is one client and one vendor involved in the outsourcing contract. The client outsources its software development activity to a single vendor who is alone responsible for the fulfilment of the job as per clients' needs. This is the most common type of outsourcing [22].

  In the case of a simple dyadic outsourcing relationship, when the relationship between vendor and client is on micro/personal level instead of macro/organizational level, then such type of a dyadic outsourcing relationship is called Microsourcing [23].

- **Microsourcing**

  It is a type of simple dyadic outsourcing relationship. Microsourcing also termed as personal work outsourcing, which is a type of outsourcing relationship on micro/individual level. The relationship between the client and the vendor is dyadic. The situation occurs when an individual (client) outsources his/her own personal software development work to another person/programmer (vendor) who provide services for remuneration [23].

- **Multi-Vendors Outsourcing Relationship**

  In a Multi-Vendors Relationship, there is one client and many vendors involved in the outsourcing contract. The client relies on more than one outsourcing vendors for the fulfilment of the software development activity. In this type of agreement/contract one client and many vendors are involved who consult each other to benefit from each others expertise and to settle the outsourcing task jointly [22].

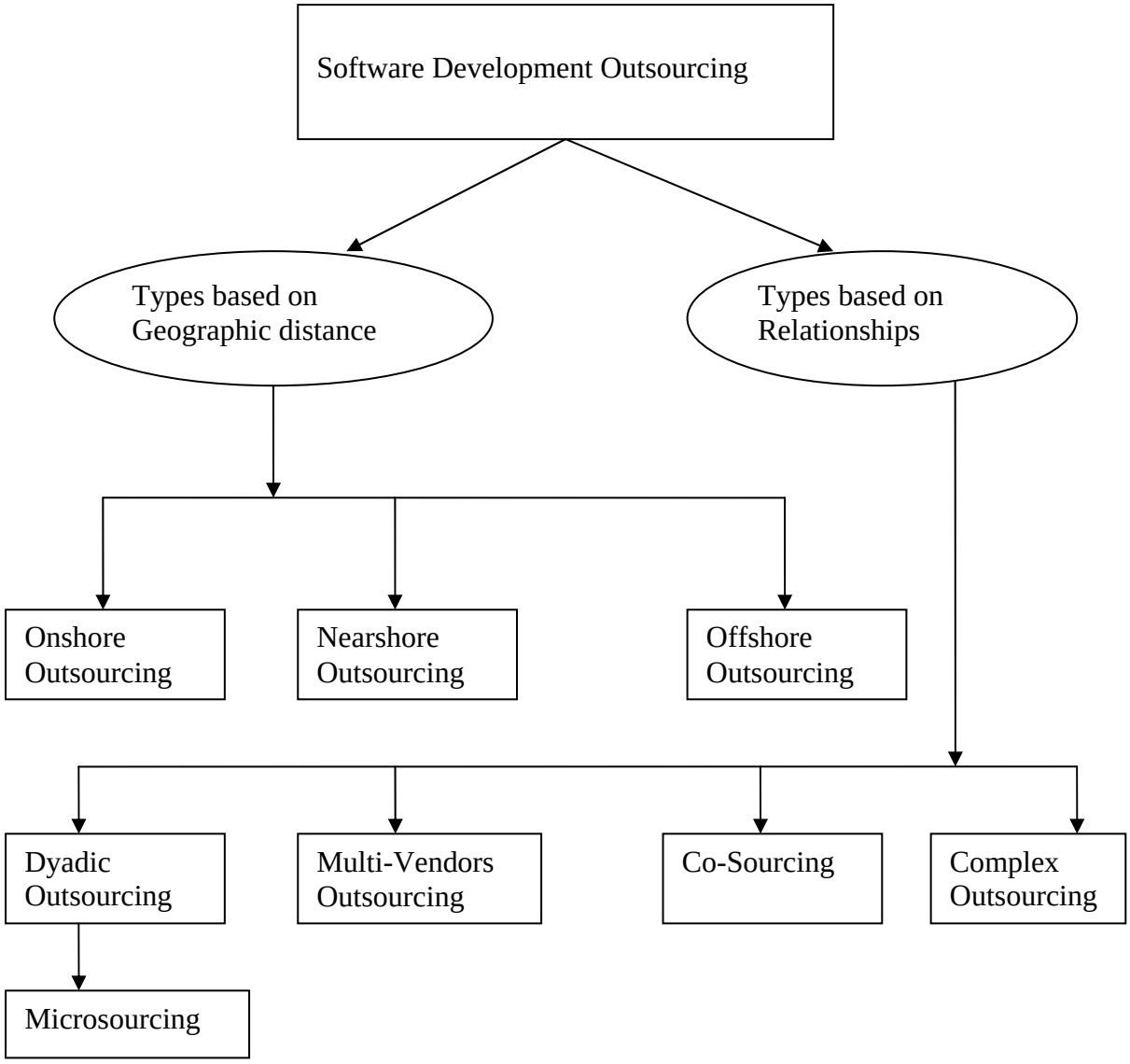

Figure-1: Depicting the various types of outsourcing found during the conduction of systematic literature review for SOVRM.

- **Co-Sourcing Relationship**

  In Co-Sourcing Relationships, many clients' firms are involved with one vendor for the software development outsourcing activity. It is the inverse of Multi-Vendors Relationship. In this type of outsourcing relationship occurs in a situation where two or more than two outsourcing clients need common software for their operations. So they jointly outsource the software development project to a single vendor. This type of situation arises in organizations like hospitals etc that need nearly common software for some of their activities [22].

- **Complex Outsourcing Relationship**

  The Complex Outsourcing Relationship comprises many clients and many vendors. This type of situation occurs when two or more outsourcing clients' organizations

need a common software solution for their business and hence they outsource the project to multiple vendors who work on its development jointly like partners [22].

2. Research Questions

There are two research questions that have motivated the work reported in this document:

RQ1: What factors are important for establishing trust in offshore software outsourcing relationships?

RQ2: What factors are important for maintaining and strengthening trust in offshore software outsourcing relationships?

2.1 Constructing Search Term

The following details will help in designing a search term relevant to our research questions.

Population: offshore software outsourcing relationships

Intervention: factors, characteristics, trust builders

Outcomes of relevance: Establishing trust, trust building, Strengthening outsourcing relationship

Experimental Design: Empirical studies, theoretical studies, case studies, experts' opinions.

An example of the Research Question containing the above details is:

RQ1:

[What factors/ characteristics]----------"INTERVENTION"

are important for

[Establishing Trust]----------"OUTCOMES OF RELEVANCE"

in

[Offshore software outsourcing relationships]----------"POPULATION"

3. Search Strategy

3.1 Trial Search

A trial search was conducted using the following search string on cite seer digital library.

("Offshore software outsourcing" OR "IT outsourcing" OR "IS/IT outsourcing") AND (trust OR relationship OR contract OR "vendor's reputation" OR factors OR "trust building" OR "maintaining trust").

The papers retrieved through this search string will be used as a guide for the development and validation of the major search terms.

3.2 Identifying Search Terms

The following search strategy is used for the construction of search terms.

a. Use the Research Questions for the derivation of major terms, by identifying population, intervention and outcome;
b. For these major terms, find the alternative spellings and synonyms;
c. Verify the key words in any relevant paper;
d. Use of Boolean Operators for conjunction if the database allows, in such a way, to use 'OR' operator for the concatenation of alternative spellings and synonyms whereas 'AND' for the concatenation of major terms.

Results for a)

RQ1: offshore software outsourcing relationships, factors, establishing trust

RQ2: offshore software outsourcing relationships, factors, trust maintenance, strengthening trust

Results for b)

(i) RQ1:

Offshore software outsourcing: ("offshore software outsourcing" OR "information systems outsourcing" OR "information technology outsourcing" OR "IS outsourcing" OR "IT outsourcing" OR "CBIS outsourcing" OR "computer-based information systems outsourcing" OR "software contracting-out" OR "distributed software development" OR "multi-site software development" OR "global software development")

(Trust OR trustworthy R trustworthiness OR trusted OR reliance OR "relationship building" OR "relationship maintenance" OR reputation OR satisfaction OR reliable OR reliability OR best performance OR "expectations match" OR responsiveness OR "good track record" OR "project success" OR co-ordination)

Factors: (factors OR drivers OR motivators OR elements OR characteristics OR parameters)

Establishing: (Establishing OR establishment OR setting-up, building, launching, creating, agreement OR contracting OR alliance OR approval OR pleasure OR sure OR confidence OR "successful relationship" OR "relationship management" OR satisfaction)

(ii) RQ2:

Offshore software outsourcing: ("offshore software outsourcing" OR "information systems outsourcing" OR "information technology outsourcing" OR "IS outsourcing" OR "IT outsourcing" OR "CBIS outsourcing" OR "computer-based information systems outsourcing"

OR “software contracting-out” OR “distributed software development” OR “multi-site software development” OR “global software development”)

(Trust OR trustworthy R trustworthiness OR trusted OR reliance OR “relationship building” OR “relationship maintenance” OR reputation OR satisfaction OR reliable OR reliability OR best performance OR “expectations match” OR responsiveness OR “good track record” OR “project success” OR co-ordination)

Factors: (factors OR drivers OR motivators OR elements OR characteristics OR parameters)

Maintenance: (maintenance OR maintaining OR preserve OR sustain OR retain OR uphold OR continue OR keeping- up)

Strengthening: (strengthening OR strengthen OR fortification OR supporting OR reinforcing OR reinforcement)

Results for c)

Offshore software outsourcing relationships, Trust in software outsourcing relationship, trust building, maintaining trust, outsourcing alliance, software outsourcing vendor

Results for d)

RQ1.

(“Offshore software outsourcing” OR “information systems outsourcing” OR “information technology outsourcing” OR “IS outsourcing” OR “IT outsourcing” OR “CBIS outsourcing” OR “computer-based information systems outsourcing” OR “software contracting-out” OR “distributed software development” OR “multi-site software development” OR “global software development”)

AND

((Trust OR trustworthy OR trustworthiness OR trusted OR reliance OR “relationship building” OR “relationship maintenance” OR reputation OR satisfaction OR reliable OR reliability OR best performance OR “expectations match” OR responsiveness OR “good track record” OR “project success” OR co-ordination)

OR

(Factors OR drivers OR motivators OR elements OR characteristics OR parameters)

OR

(Establishing OR establishment OR setting-up, building, launching, creating, agreement OR contracting OR alliance OR approval OR pleasure OR sure OR confidence OR “successful relationship” OR “relationship management” OR satisfaction))

RQ2.

("Offshore software outsourcing" OR "information systems outsourcing" OR "information technology outsourcing" OR "IS outsourcing" OR "IT outsourcing" OR "CBIS outsourcing" OR "computer-based information systems outsourcing" OR "software contracting-out" OR "distributed software development" OR "multi-site software development" OR "global software development")

AND

((Trust OR trustworthy R trustworthiness OR trusted OR reliance OR "relationship building" OR "relationship maintenance" OR reputation OR satisfaction OR reliable OR reliability OR best performance OR "expectations match" OR responsiveness OR "good track record" OR "project success" OR co-ordination)

OR

(Factors OR drivers OR motivators OR elements OR characteristics OR parameters)

OR

(Maintenance OR maintaining OR preserve OR sustain OR retain OR uphold OR continue OR keeping- up)

OR

(Strengthening OR strengthen OR fortification OR supporting OR reinforcing OR reinforcement))

3.3 Search Term Break up

We will first use the search strings RQ1 and RQ2 mentioned in 3.2(d) as our search terms. As some of the databases don't allow the lengthy search strings we will split the search term into smaller sub strings and will do separate search for each of these search strings. Finally we will summarize the search results by removing the redundancy. It should be noted that while using IEEExplore digital library, the search strings mentioned in 3.2(d) will be used with a technique that it should be put in the pane instead of text-boxes provided in the advance search. An example is given in Appendix-A.

The break up of the RQ1 and RQ2 are mentioned in the form smaller strings mentioned below.

Search string1

("Offshore software outsourcing" OR "information systems outsourcing" OR "information technology outsourcing" OR "IS outsourcing" OR "IT outsourcing" OR "CBIS outsourcing" OR "computer-based information systems outsourcing" OR "software contracting-out" OR "distributed software development" OR "multi-site software development" OR "global software development")

AND

(Trust OR trustworthy R trustworthiness OR trusted OR reliance OR "relationship building" OR "relationship maintenance" OR reputation OR satisfaction OR reliable OR reliability OR best performance OR "expectations match" OR responsiveness OR "good track record" OR "project success" OR co-ordination)

Search string 2

("Offshore software outsourcing" OR "information systems outsourcing" OR "information technology outsourcing" OR "IS outsourcing" OR "IT outsourcing" OR "CBIS outsourcing"

OR “computer-based information systems outsourcing” OR “software contracting-out” OR “distributed software development” OR “multi-site software development” OR “global software development”)

AND

(Factors OR drivers OR motivators OR elements OR characteristics OR parameters)

Search string 3

(“Offshore software outsourcing” OR “information systems outsourcing” OR “information technology outsourcing” OR “IS outsourcing” OR “IT outsourcing” OR “CBIS outsourcing” OR “computer-based information systems outsourcing” OR “software contracting-out” OR “distributed software development” OR “multi-site software development” OR “global software development”)

AND

(Establishing OR establishment OR setting-up, building, launching, creating, agreement OR contracting OR alliance OR approval OR pleasure OR sure OR confidence OR “successful relationship” OR “relationship management” OR satisfaction)

Search string 4

(“Offshore software outsourcing” OR “information systems outsourcing” OR “information technology outsourcing” OR “IS outsourcing” OR “IT outsourcing” OR “CBIS outsourcing” OR “computer-based information systems outsourcing” OR “software contracting-out” OR “distributed software development” OR “multi-site software development” OR “global software development”)

AND

(Maintenance OR maintaining OR preserve OR sustain OR retain OR uphold OR continue OR keeping- up)

Search string 5

(“Offshore software outsourcing” OR “information systems outsourcing” OR “information technology outsourcing” OR “IS outsourcing” OR “IT outsourcing” OR “CBIS outsourcing” OR “computer-based information systems outsourcing” OR “software contracting-out” OR “distributed software development” OR “multi-site software development” OR “global software development”)

AND

(Strengthening OR strengthen OR fortification OR supporting OR reinforcing OR reinforcement))

3.4 Resources to be searched

- IEEE Xplore
- ACM Portal
- ScienceDirect(www.sciencedirect.com)
- Cite Seer Digital Library (citeseer.ist.psu.edu)
- Google Scholar (scholar.google.com)

3.5 Search Constraints and Validation

We are searching for all published papers related to our research and hence don't put any date boundaries. A prior search was conducted using a set of major search terms ("Offshore software outsourcing" OR "IT outsourcing" OR "IS/IT outsourcing") AND (trust OR relationship OR contract OR "vendor's reputation" OR factors OR "trust building" OR "maintaining trust").

and we found certain relevant papers on CiteSeer digital libraries. Prior to undertake the review process, these relevant papers will be used for the validation of search strings.

3.6 Search Documentation

Search results will be documented in the format as shown in the table below.

Name of database	Search strategy	Search string no.	Date of search	Years covered by search	No. of publications found	Initial selection decision	Final selection decision
CiteSeer digital library	("Offshore software outsourcing" OR "IT outsourcing" OR "IS/IT outsourcing") AND (trust OR relationship OR contract OR "vendor's reputation" OR factors OR "trust building" OR "maintaining trust")	Trial search	19-Dec-2008	All			

3.7 Search Result Management

Primary source references will be stored electronically in a separate directory. The results of each search will be stored in a directory as html pages, see Appendix-A which contains the search results of our SOVRM protocol. Moreover the primary selection list will be in the following format taken from our SOVRM protocol. It should be noted that the Tracing no. is the no. found for a particular paper during its search as shown in Appendix-A. if a paper is referenced in more than one databases, then it will be entered once in the final selection list to avoid duplication. The "S.No" field of the final list is the primary key for a paper being selected in the review.

S.No	Tracing Number	Database	Paper Title
1	IEEE-86	IEEExplore	An analysis of capabilities of Pakistan as an offshore IT services outsourcing destination
2	ACM-4	ACM	Game Theory Perspective on Client-Vendor Relationships in Offshore Software Outsourcing
3	SD-7	Science Direct	Is more IT offshoring better? An exploratory study of western companies offshoring to South East Asia

4. Publication Selection

This section contains three subsections namely inclusion criteria, exclusion criteria and the selection of primary sources, in order to choose only those search results which are relevant to the research questions. We will only consider papers/reports/books relating to offshore software outsourcing. Papers/reports/books relating to nearshore outsourcing or onshore outsourcing will be ignored.

4.1 Inclusion Criteria

The inclusion criteria we used to determine which piece of literature (papers, technical reports, or 'grey literature' or book) found by the search term will be used for the data extraction. We will only consider papers related to offshore software outsourcing. The criteria are listed below:

- Studies that describe factors/motivators for offshore software outsourcing trust building/ trust development
- Studies that describe factors/motivators for offshore software outsourcing trust maintenance/ strengthening trust
- Studies that describe offshore software outsourcing relationships
- Studies that describe software outsourcing contracts
- Studies that describe distributed software development/global software development
- Studies that describe criteria for a successful software outsourcing relationships
- Studies that describe issues in software outsourcing relationships
- Studies that describe factors affecting the continuation/termination of the outsourcing relationships

4.2 Exclusion Criteria

This section describes the exclusion criteria in order to decide which piece of literature found by the search term will be excluded/ignored. The criteria are listed below:

- Studies that is not relevant to the research questions.
- Studies that don't describe software outsourcing trust
- Studies that don't describe software outsourcing relationships

- Studies that don't describe software outsourcing contracts decision
- Studies other than offshore outsourcing

4.3 Selecting Primary Sources

Initial selection of the primary sources will be performed by reviewing the title, keywords and abstract. The purpose is to exclude/ignore only those results which have no relevance to the problem/research questions.

The primary sources chosen in the initial selection process will be checked against the aforesaid inclusion/exclusion criteria by reviewing carefully through full text of the studies.

The source will be sent to the secondary reviewer, for review in case of any uncertainty regarding the inclusion or exclusion decision.

The record of inclusion/exclusion decision regarding each primary source will be sustained properly. This will describe the reasons/justification whether or not the primary source has been included in the final review.

Researcher Responsible: Our collaborator at International Islamic University, Pakistan

5. Publication Quality Assessment

The measurement of quality is performed after final selection of publications. The quality of publications is assessed in parallel at the time of data extraction. The quality checklist contains the following questions:

- Is it clear how trust was measured/evaluated in offshore software outsourcing relationship?
- Is it clear how the CSFs (critical success factors) for establishing/building trust between clients and vendors were identified in offshore software outsourcing relationship?
- Is it clear how the CSFs (critical success factors) for maintaining and strengthening trust between clients and vendors were identified in offshore software outsourcing relationship?

Each of the above factors will be marked as 'YES' or 'NO' or 'Partial' or 'N.A'.

A secondary reviewer will score a small subset for validation.

6. Data Extraction Strategy

6.1 Primary Study Data

The purpose of the study is to collect the data, from the publications, which is focused on satisfying the research questions for the review. The following data will be extracted from each publication.

- Publication details (Title, Authors, Journal/Conference title, etc)

- Data that address the research questions.

To address the research questions, the following data will be extracted:

RQ1:

- Background information, Critical Success Factors (CSFs) for establishment/building trust in offshore software outsourcing relationships

RQ2:

- Background information, Critical Success Factors (CSFs) for maintaining and strengthening trust between clients and vendors in offshore software outsourcing relationships

The following table presents the data to be captured in the data extraction form.

Data to be extracted
• Date of review • Title • Authors • Reference • Database • Methodology (interview, case study , report , survey etc) • Sample Population • Target Population • Publication Quality Description • Organisation Type (software house, university, research institute etc) • Company size (small, medium, large) • Country / location of the Analysis • Year • Outsourcing Type/Option (simple dyadic, multi-vendors, co-sourcing, complex) • Critical Success Factors(CSFs) for Establishment of Trust: factors that play an important role in building trust between clients and vendors in offshore software outsourcing relationship • Critical Success Factors(CSFs) for maintaining and strengthening of Trust: factors that play an important role in the maintenance and strengthening of trust between clients and vendors in offshore software outsourcing relationship

Sim et al. [24] defines sample and target populations as follow.

"Sampling is the selection of a group of cases from a large collection of such cases, according to a specific procedure. These 'cases' may be persons, institutions, objects or events. The target population is the collection of cases in which the researcher is ultimately interested, and to which he or she wishes to make generalizations."

6.2 Data Extraction Process

The review will be undertaken by a single researcher, who will be responsible for the data extraction. A secondary reviewer will be approached for guidance in case of an issue regarding the data extraction.

The inter-rater reliability test will be performed after the data extraction process by the primary reviewer. The secondary reviewer will select few publications randomly from the list of publication already chosen by the primary reviewer. The secondary reviewer will independently extract the data from the randomly selected publication. The results will then be compared with the results produced by the primary reviewer.

Primary Reviewer: Our collaborator at International Islamic University, Islamabad, Pakistan.

Secondary Reviewers: Siffat Ullah Khan (s.khan@epsam.keele.ac.uk), Dr Mahmood Khan Niazi (m.k.niazi@cs.keele.ac.uk)

6.3 Data Storage

The summarized data for each publication will be kept as a Microsoft Word/SPSS document and will be stored electronically.

7. Data Synthesis

Due to two research questions, the synthesis will also be categorized into two parts. For the Research Question1, the data will be synthesized by creating one summary table having the columns (S.No, CSF's, Frequency, Percentages) showing the list of all the CSFs along with their frequencies and percentages. The complete detail of every CSF mentioned in the Summary table will be recorded in a separate table which will hold the following the columns (CSF group name, S.No of reference, CSF subgroups, Paper reference/Paper title). For details see the attached Appendix-B containing SLR synthesis of our protocol for SOVRM.

For the Research Question2, the same process will be performed as for the RQ1 mentioned above.

8. Validation of the Review Protocol

The protocol will be reviewed by our collaborator at International Islamic University, Pakistan.

9. Potential Conflict of Interest

Not known

10. Review Timetable

Task	Date
Start of the Protocol	19-Dec-2008
Submission of the Protocol for Review	05-Jan-2009
Completion of the Protocol	17-Feb-2009
Completion of Search	17-Mar-2009
Completion of Primary Study Selection	17-May-2009
Completion of Data Extraction	17-Jul-2009
Completion of Data Synthesis	17-Sep-2009
Completion of Review Report	01-Oct-2009

11. Divergences

In case of any divergence from the protocol, which may occur during the study, we will record any change in a new Appendix to this document.

12. References

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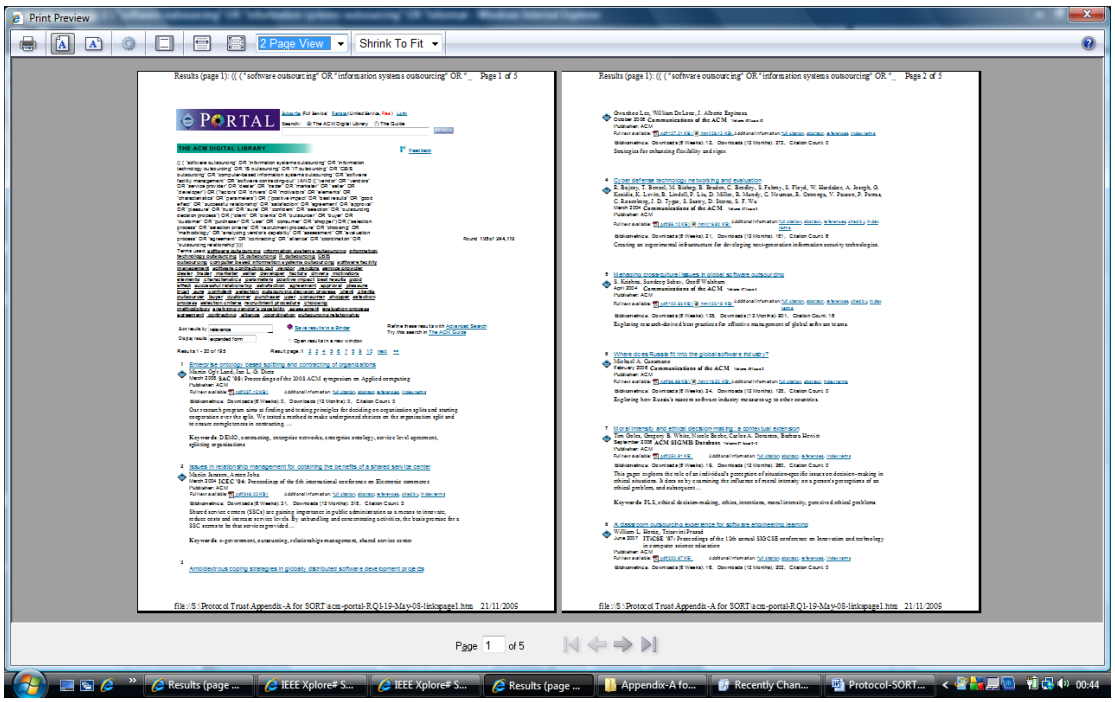
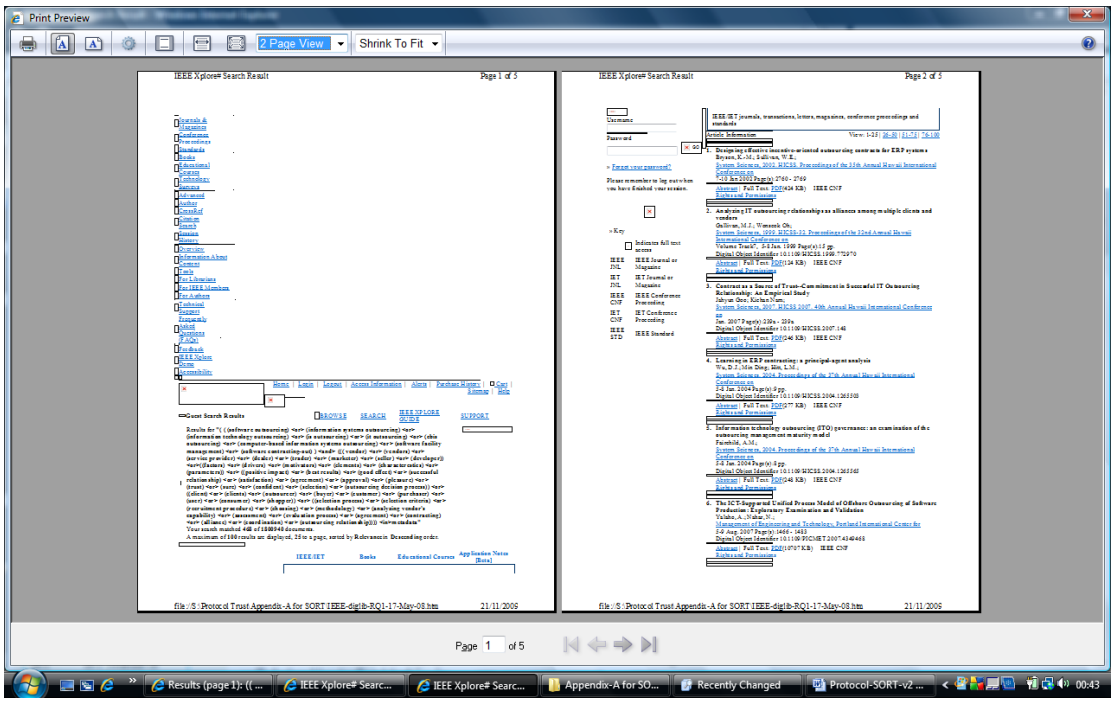
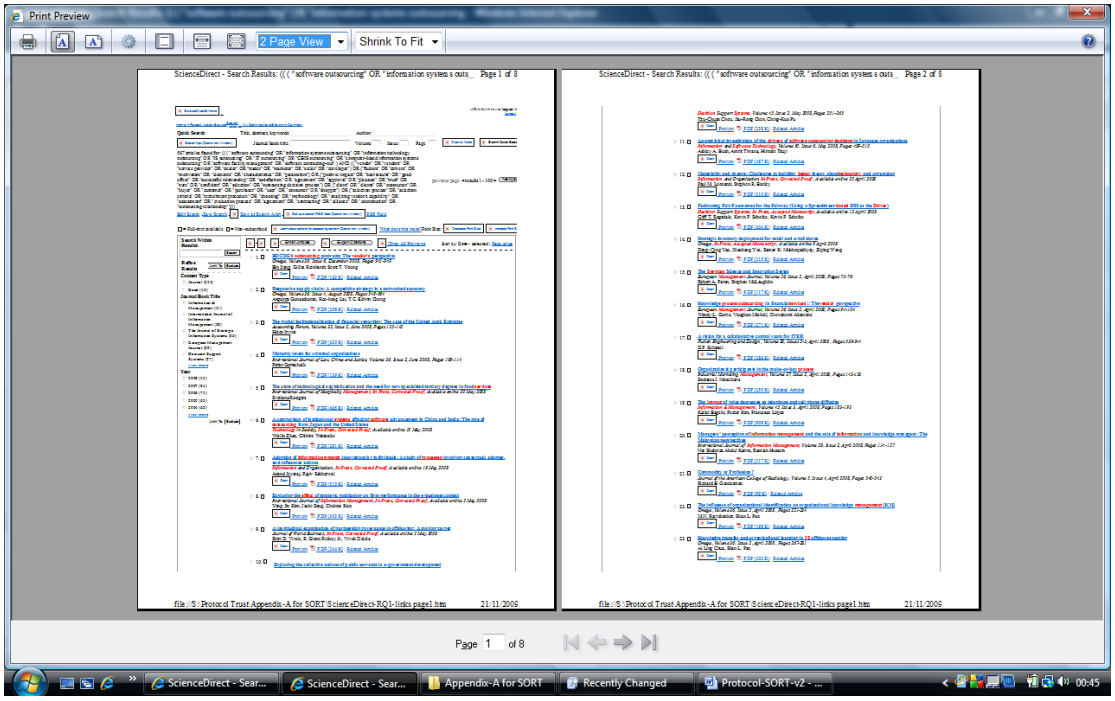
Appendix-A (Search Results of SOVRM protocol)

See the attached html pages please. Or contact me on the through the following email addresses if you have queries. s.khan@epsam.keele.ac.uk or siffat7@yahoo.com






Print Preview
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ScienceDirect - Search Results: ((("software outsourcing" OR "information system s outs_ Page 1 of 8
ScienceDirect - Search Results: ((("software outsourcing" OR "information system s outs_ Page 2 of 8
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Appendix-A for SORT
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Protocol-SORT-v2 - ...
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Appendix-B (Copy of a portion of synthesis of SOVRM)

SLR Synthesis for SOVRM (Software Outsourcing Vendors Readiness Model)

By
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CSFs Grouping-version-6 (Partially completed version)

Summary Table

S.No	CSF's	Frequency Out of 122	Percentages
01	Skilled Human Resource	82	
02	Cost-saving	84	
03	Infrastructure	73	
04	Quality of Products and Services	69	
05	Outsourcing Relationships	59	
06			
07			
08			
09			
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18			

1. Skilled Human Resource

CSF Group name	S.No of ref:	CSF sub group	Primary selection Tracing Number	Final list Reference No
Skilled Human resource	01	To employ High Skilled workers with professional degrees in Computer Science, Engineering, Management similar fields. • Human Expertise and Resources i. Availability of skilled resources ii. Education system iii. English Proficiency iv. Software/Hardware v. Marketing skills	IEEE-86	1
	02	Competent and Reliability of a vendor	IEEE-81	2
	03	To Hire offshore employees that have American education or work experience to minimize the cultural and language barriers Technical capabilities	IEEE-82	3
	04	People Align staff skills, values and motivation to desired performance levels	IEEE-43	5
	05	Human resources i. Professional quantity ii. Technical capability iii. Management capability	IEEE-52	6
	06	Dual-role skilled people	IEEE-146	8
	07	Maintain Stable and Quality Human Resources	IEEE-145	9
	08	Qualified labour (skilled and qualified personnel)	IEEE-124	10
	09	Human Resource (skilled staff, management, etc)	IEEE-108	13
	10	Skills i. “Are right skills and engineers available as agreed?” Skilled engineers	IEEE-141	19
	11	Skills	IEEE-133	20
	12	Technical staff	IEEE-132	21
	13	Talent pool	IEEE-122	22
	14	Personnel with proper skills	IEEE-46	25
	15	Business knowledge of IT managers “Knowledge and skills of IT professionals that enable them to ‘understand the business domain, speak the language of business, and interact with their business partners.”	IEEE-104	28
	16	Size and Quality of human resource	IEEE-126	32
	17	Access to large labor pool	IEEE-158	36
	18	Full time technical specialists Offer a broad range of technical knowledge Technology personnel	ACM-2	38

		New IT related skills Offer a broad range of skills to clients		
	19	Vendor to be in better position to retain and increase the skilled manpower Technical skills Economies of scale for more and mature skills	ACM-4	40
	20	Capabilities of a vendor (client is usually keen to know a vendor's capability in at least three areas. • Technical capability • **People capability** • Management capability	ACM-5	41
	21	Vendor staffing assign high quality vendor staff with experience, requisite skills and good work attitude (vendor staffing),	ACM-6	42
	22	Professional in IT fields, know well of the development of IT technology	ACM-8	43
	23	1. Highly qualified technical talent 2. IT professionals / skilled programmers 3. Specific technical competencies / technical skills 4. Tacit knowledge 5. Specialized in a specific service such as Java programming or web-based development.	ACM-19	50
	24	IS talent Specific skill	ACM-23	54
	25	Highly trained people Technical competence	ACM-27	56
	26	Well-skilled labor	ACM-32	60
	27	Skilled labor	ACM-33	61
	28	Skilled manpower	ACM-35	62
	29	High qualified software professionals Solid fundamentals in IT applications	ACM-37	63
	30	Project related knowledge and skills	ACM-46	66
	31	Domain expertise	ACM-55	69
	32	ability of HR	SD-1	71
	33	Skilled people Technical expertise	SD-17	78
	34	Human resources	SD-28	79
	35	(Well-motivated and well-educated) human resource	SD-33	94
	36	HR process expertise	SD-34	81
	37	Technical personnel Social skills of its sales representatives Technical expertise/Technical ability	SD-35	95
	38	People background (skilled staff etc)	SD-36	82
	39	Specialise IT employees	SD-38	96
	40	Appropriate people Expertise/skills	SD-40	98
	41	Specialised staff Technical competency	SD-43	85
	42	Qualified personnel	SD-24	91
	43	Professional capacities IT Technical experience	IEEE-140	31
	44	IT professional (IT skills) Skills and talent	CS-2	100

	45	Technical staff	CS-4	101
	46	People	GS-8	107
	47	Human resource management Technical skills	GS-32	117
	48	Highly trained/educated workers Technical and business expertise	GS-30	115
	49	Professional staff	GS-10	108
	50	Access to skilled labour pool	GS-20	113
	51	Technical staff	CS-7	103
	52	Well educated trained English speaking software programmers and Engineers	CS-12	104
	53	Capable technical personnel	CS-14	105
	54	People	GS-40	119
	55	Improved team work	IEEE-30F-123	30
	56	People management	GS-CMU	120
	57	Domain expertise	IEEE-7F-152	7
	58	Technical expertise	IEEE-15F-123	15
	59	Technical skills	IEEE-17F-35	17
	60	S/w expertise / specialities	ACM-1	37
	61	IT expertise	ACM-14	47
	62	IT expertise	ACM-15	48
	63	1. Tacit knowledge (technical ability, expertise, knowledge and skills) 2. Technical competency	ACM-17	49
	64	Technical capabilities	ACM-20	51
	65	Skill and expertise	ACM-21	52
	66	Niche expertise	ACM-22	53
	67	1. Latest skills and capabilities 2. Expertise	ACM-25	55
	68	Technical skills	ACM-29	57
	69	Technical expertise Expertise and special offerings	ACM-31	59
	70	Technical skills Expertise	ACM-44	65
	71	Expertise for appropriate IT solutions	ACM-51	68
	72	Requisite skills	ACM-57	70
	73	Skills	SD-2	72
	74	Technical skills	SD-3	73
	75	Technical know-how	SD-7	74
	76	Greater depth of knowledge	SD-8	75
	77	Skill capability The capability to handle classified information	SD-41	84
	78	Technical competence Information exchange	SD-45	87
	79	Availability of required technical skills Expertise	IEEE-29F-22	29
	80	Provides scarce IT skills	SD-52	93
	81	Technical capabilities	GS-26	114
	82	Technical capability	GS-19	112

2. Cost-saving

CSF Group name	S.No of ref:	CSF sub group	Primary selection Tracing Number	Final list Reference No
Cost	01	Cheap software availability	IEEE-1F-86	1
	02	Low cost	IEEE-2F-81	2
	03	Reduced cost	IEEE-4F-39	4
	04	Reduced Cost Ability to deliver a product on time, **within budget**, with the standards of quality and reliability	IEEE-7F-152	7
	05	Reduced Cost Price model	IEEE-8F-146	8
	06	Competitive prices (“keeping the prices down”)	IEEE-9F-145	9
	07	Cost reduction	IEEE-10F-124	10
	08	Reduced Cost	IEEE-13F-108	13
	09	Cost/aggregate Price	IEEE-16F-125	16
	10	Cost/price	IEEE-17F-35	17
	11	Cost	IEEE-18F-147	18
	12	Cost	IEEE-19F-141	19
	13	Quicker, cheaper and better services	IEEE-20F-133	20
	14	Low Cost	IEEE-22F-122	22
	15	Reduced Cost	IEEE-23F-9	23
	16	Cost	IEEE-25F-46	25
	17	Price/Cost	IEEE-26F-45	26
	18	Low Cost budget constraints	IEEE-30F-123	30
	19	Cost	IEEE-32F-126	32
	20	Cost reduction	IEEE-36F-158	36
	21	Low Cost	ACM-1	37

		"Many companies have found that purchasing IT components from external contractors allows them to enjoy the benefits of specialization and lower costs,……."		
	22	Cost Savings / Cost Reduction More clearly defined IS costs	ACM-2	38
	23	Financial issues (cost savings, business revenue, expenses) "Interviewees particularly emphasized adopting best practices for setting up effective relationships. Financial issues i.e. cost savings, business revenue, expenses are also worth noting."	ACM-3	39
	24	Cost-saving	ACM-4	40
	25	Cheap labour cost	ACM-5	41
	26	Project pricing "charge a fair and competitive price"	ACM-6	42
	27	Less cost	ACM-8	43
	28	Reduce cost	ACM-14	47
	29	Cost reduction / lower cost	ACM-15	48
	30	Cost reduction / lower cost	ACM-17	49
	31	Cost Savings / Minimal Costs	ACM-19	50
	32	Low cost	ACM-21	52
	33	1. Reduced costs 2. Low wage countries (low labor costs)	ACM-23	54
	34	Cost savings	ACM-27	56
	35	low cost	ACM-29	57
	36	Cost reduction	ACM-30	58
	37	Cost reduction	ACM-31	59
	38	Reduced Costs	ACM-32	60
	39	Huge savings due to low labor cost	ACM-33	61
	40	Low cost	ACM-35	62
	41	Cheaper	ACM-38	64
	42	Lower costs	ACM-44	65
	43	Lower cost	ACM-51	68
	44	Reduced cost	ACM-55	69
	45	Cost	ACM-57	70
	46	Cost	SD-1	71
	47	Reduced costs	SD-2	72
	48	Cost advantage	SD-3	73
	49	Lower cost (To provide similar or better level services at a lower cost)	SD-7	74
	50	Cost reductions	SD-8	75
	51	Cost efficiency	SD-9	121
	52	Low cost	SD-10	122
	53	Reduced cost	SD-29	80
	54	Lower costs	SD-33	94
	55	Cost	SD-34	81
	56	Reduce cost	SD-35	95
	57	Reduction of operational costs	SD-37	83
	58	Lower cost	SD-38	96
	59	Cost	SD-41	84
	60	Undertake work at lower cost	SD-43	85
	61	Reduced cost	SD-44	86

	62	Cost reduction	SD-45	87
	63	Cost savings	SD-23	90
	64	Low cost	SD-12	88
	65	Cost advantage	IEEE-29F-22	29
	66	Cost benefits	IEEE-31F-140	31
	67	Cost savings	SD-52	93
	68	Price	CS-1	99
	69	Price	GS-12	109
	70	Reasonable cost Less expensive software production	CS-2	100
	71	Reduce cost	CS-4	101
	72	Cost (lower than competitors)	GS-28	118
	73	Pricing structure	GS-32	117
	74	Low labor cost	GS-30	115
	75	Price	GS-26	114
	76	Cost	GS-10	108
	77	Low cost	GS-19	112
	78	Reduce cost	CS-7	103
	79	Low production costs	CS-12	104
	80	Cost	CS-14	105
	81	Sales	GS-18	111
	82	Pricing Balancing cost	GS-40	119
	83	Production costs	IEEE-6F-52	6
	84	Pricing	GS-CMU	120

3. Infrastructure

CSF Group name	S.No of ref:	CSF sub group	Primary selection Tracing Number	Final list Reference No
Infrastructure	01	IT infrastructure Country infrastructure i. Political stability ii. Government support iii. Regularatory environment iv. Communication infrastructure (linked with internet using latest technologies in instruments and latest technologies Communication techniques (Capability of the IT managers of communicating with outer world both synchronously and asynchronously. Groupware, video conferencing, email, etc)	IEEE-1F-86	1
	02	Strong communication infrastructure Quality management infrastructure	IEEE-2F-81	2
	03	Latest Communication Technologies for both synchronous and asynchronous communication i. Synchronous Communication (social oriented, information oriented) a. Social oriented (Face to Face, Phone and audio-conference, Video-	IEEE-3F-82	3

		Conference, Chat) b. Information oriented (Electronic meetings, Virtual Whiteboards, Data Conference, Faxes) ii. Asynchronous Communication (social oriented, information oriented) a. Social oriented (Voice mail, Snail mail, Emails, Electronic bulletin boards, Discussion groups) b. Information oriented (Online conferences, Emails, Group calendars, Non real time databases, Faxes) Infrastructure		
	04	Infrastructure Technology	IEEE-5F-43	5
	05	Basic infrastructure (related both with the country and the company) i. Telecom ii. Power iii. Road	IEEE-6F-52	6
	06	Infrastructure to sustain large development projects	IEEE-7F-152	7
	07	Access to advanced IT technology Organisational IT capability	IEEE-8F-146	8
	08	Technological infrastructure	IEEE-12F-58	12
	09	Infrastructure including H/W, S/W, functionality and business blueprint Progressive Technology/Use of emerging Technology	IEEE-13F-108	13
	10	Sufficient resources	IEEE-17F-35	17
	11	Network infrastructure	IEEE-18F-147	18
	12	Resource availability Communication i. “Are there possibilities to improve communication?”	IEEE-19F-141	19
	13	Infrastructure	IEEE-20F-133	20
	14	High connection speed of the Internet Collaboration Technology (telephone, email, etc)	IEEE-21F-132	21
	15	To adopt appropriate collaboration tools and infrastructure to compensate for distance and time zone differences	IEEE-22F-122	22
	16	Latest technologies IT infrastructure Securing capabilities and resources	IEEE-23F-9	23
	17	IT infrastructure flexibility (Technical IT infrastructure, Human IT infrastructure) i. Technical IT infrastructure: “Set of shared, tangible IT resources forming a foundation for business applications.” ii. Human IT infrastructure “ The technology management	IEEE-28F-104	28

		knowledge and skills and technical knowledge and skills of the IT personnel."		
	18	Infrastructure	IEEE-32F-126	32
	19	Communication technologies Technical infrastructure	IEEE-36F-158	36
	20	IT infrastructure Technology obsolescence	ACM-2	38
	21	Setup	ACM-3	39
	22	IT resources "The enterprise should do the following before they really do outsourcing. Firstly, they need to make clear that what IT resources owned, including the number of servers, the intranet structure and the performance of the of the systems etc."	ACM-8	43
	23	Technology (Information & communication technologies (ICTs)	ACM-9	44
	24	Tangibles (Physical facilities, equipment & appearance of personnel)	ACM-11	45
	25	Communication setup Tangibles	ACM-13	46
	26	Infrastructure Resources	ACM-14	47
	27	Organizational IT infrastructure	ACM-15	48
	28	IT infrastructure	ACM-20	51
	29	Good communication infrastructure	ACM-21	52
	30	Technical infrastructure	ACM-22	53
	31	Adoption of new technologies	ACM-23	54
	32	Better equipped with new technologies, skill and processes Needed resources	ACM-25	55
	33	Infrastructure (transportation, roads, office space, electrical supply, Internet access, sewer and water system)	ACM-29	57
	34	Access to advanced facilities	ACM-30	58
	35	Best resources	ACM-32	60
	36	Communication infrastructure Technological infrastructure of machines and software High speed communication links	ACM-35	62
	37	Advanced infrastructure Rich technology resources Software parks, a strong infrastructure for development	ACM-37	63
	38	Strategic resources	ACM-44	65
	39	Infrastructure Technology related (system complexity, software portability)	ACM-57	70
	40	Infrastructure Telecommunication network/technology	SD-1	71
	41	Capability through resources Ability to configure resources	SD-2	72
	42	IT infrastructure	SD-7	74

	43	Appropriate infrastructure (such as building and air conditioning)	SD-9	121
	44	IT resources (IT infrastructure, human IT resources, IT-enabled intangibles)	SD-11	76
	45	Capabilities i. **latest technology**, skilled people, systematic process, **infrastructure**, ii. Management capabilities iii. **Infrastructure** Technologies and infrastructure	SD-17	78
	46	Relationship-specific investment (tangible assets like specialized facilities and technologies, and intangible assets)	SD-25	92
	47	Foreign country's infrastructure support of outsourcing activities (e.g., internet connectivity, human resources, etc.).	SD-28	79
	48	Information and communication technologies Transportation infrastructure	SD-33	94
	49	Leading edge technology	SD-34	81
	50	Technological resources	SD-38	96
	51	Access to expertise/facilities (Resources)	SD-44	86
	52	Access to leading technology	SD-45	87
	53	Technological deployment to win legitimacy Employment of a sophisticated encryption technology for safer communication	SD-24	91
	54	Technological competence	SD-23	90
	55	Advanced/New Technologies	SD-52	93
	56	Scope of resources	CS-1	99
	57	Scope of resources	GS-12	109
	58	Infrastructure Qualified resources	CS-2	100
	59	Leading-edge technology Resources	CS-4	101
	60	Communication Videoconference facilities	CS-15	106
	61	Infrastructure Technologies	GS-8	107
	62	Infrastructure	GS-32	117
	63	Telecommunications infrastructure (cell phones, satellite transmission, transoceanic fibre optic cables) Country infrastructure (roads, electric power reliability, mass transit (buses, rails) 0	GS-30	115
	64	Technology capabilities Communication facilities	GS-26	114
	65	Telecommunication infrastructure Special technology investment	GS-10	108
	66	ICTs	GS-19	112
	67	Communication technologies (video conferencing, electronic bulletin boards, etc)	GS-20	113
	68	Resources Leading-edge technology	CS-7	103

	69	Availability of functioning infrastructure: telecommunication lines, Internet, electricity Favourable Government policy and support for software production, low tax Political stability	CS-12	104
	70	Standard software infrastructure Political stability	CS-14	105
	71	Physical infrastructure ("includes physical buildings, office layouts, coffee machines, and even the badges worn by the employees working on the project") Technical infrastructure ("includes a number of items including workstations, replicated servers, networks, switches for testing, software tools for configuration management, programming languages, telephone lines etc") Telecommunication infrastructure: video conferencing, audio conferencing, email, etc	GS-18	111
	72	Resources Physical assets	GS-40	119
	73	Technology management	GS-CMU	120

4. Quality of Products and Services

CSF Group name	S.No of ref:	CSF sub group	Primary selection Tracing Number	Final list Reference No
Quality	01	Quality Performance	IEEE-3F-82	3
	02	Quality of working style ("When our team has established a good working style with the client, it just makes things so much easier. We spoke to them on a regular basis, we all understood what our joint goals were, we understood what our joint limitations were. It's (a good working style) a bridge for sharing ideas, values and commitment with colleagues, it helps and develop trust and respect")	IEEE-5F-43	5
	03	Ability to deliver a product on time, within budget, with the **standards of quality** and reliability	IEEE-7F-152	7
	04	Reliability of quality Attract client through special IT service	IEEE-8F-146	8
	05	Quality of Products and Services	IEEE-9F-145	9

		Specialize instead of generalizing ("It should carefully select a field of specialization and establish itself in that field before it attempts to expand into other areas. Through specialization, a company will be able to improve the quality of its software products and services more easily".) Specialize instead of generalizing ("A possible remedy would be for larger companies that have sufficient human resources to dedicate special development forces, or to join efforts with other companies, to explore the sector of systems software, especially system software integration. Once they are experienced, these companies would be positioned to service larger and more complex projects.")		
	06	Quality	IEEE-10F-124	10
	07	Quality and Productivity End User fulfilment	IEEE-13F-108	13
	08	Quality	IEEE-16F-125	16
	09	Quality	IEEE-17F-35	17
	10	Quality	IEEE-18F-147	18
	11	Quality of work performed	IEEE-19F-141	19
	12	Quality	IEEE-20F-133	20
	13	Quality	IEEE-21F-132	21
	14	Improved Quality Service Quality	IEEE-23F-9	23
	15	Quality	IEEE-26F-45	26
	16	Producing products quickly that meets customer requirements	IEEE-30F-123	30
	17	Quality software Evaluation of the tools used in the software development	IEEE-35F-157	35
	18	Quality software	IEEE-36F-158	36

	19	Availability / Quality of vendors Offer a wide range of services	ACM-2	38
	20	S/W Quality	ACM-5	41
	21	1. Quality assessments 2. Ensuring successful performance	ACM-13	46
	22	1.Service quality 2. User and business satisfaction Commitment	ACM-15	48
	23	1. Quality capabilities 2. Development of high-quality software in time	ACM-19	50
	24	Quality (system quality, information quality, service quality)	ACM-27	56
	25	1. High sophisticated technical work 2. Strong process focus	ACM-29	57
	26	Service quality	ACM-32	60
	27	Quality of software	ACM-33	61
	28	High attention to software quality and process improvement Rich pool of quality software talents	ACM-37	63
	29	Quality of service	ACM-44	65
	30	High quality	ACM-51	68
	31	Improved performance	ACM-55	69
	32	Quality	ACM-57	70
	33	Quality	SD-1	71
	34	Quality improvement	SD-2	72
	35	Product or service quality	SD-8	75
	36	Regular upgrading of hardware and software	SD-9	121
	37	Improved performance	SD-10	122
	38	Communication quality (the accuracy, timeliness, adequacy and the credibility of the information exchanged)	SD-11	76
	39	Quality	SD-25	92
	40	Auditing the subcontractor's quality assurance system. References from other organizations about the quality of maintenance services provided by the subcontractor.	SD-28	79
	41	Improved quality	SD-33	94
	42	Software competency	SD-34	81
	43	To own system solutions (offer high-availability solutions) Improve quality	SD-35	95
	44	Higher quality of service	SD-37	83
	45	High quality	SD-38	96
	46	System Quality (Response time, system reliability, system availability) Information Quality (Accuracy, Format, Timeliness) Service Quality (Responsiveness, reliability, assurance, empathy)	SD-16	89
	47	Quality performance	SD-12	88
	48	Better quality service	SD-52	93
	49	Commitment to quality	CS-1	99
	50	Commitment to quality	GS-12	109

	51	Quality management	CS-2	100
	52	Quality management issues, Audits Quality processes	CS-15	106
	53	Quality (meets/exceeds minimum quality criteria)	GS-28	118
	54	Improved performance	GS-30	115
	55	Service Quality	GS-31	116
	56	Quality Superior products	GS-26	114
	57	Quality system	GS-10	108
	58	Good quality	GS-19	112
	59	Quality	GS-20	113
	60	Quality assurance engineers	CS-12	104
	61	Effective project quality control	CS-14	105
	62	Improved quality	GS-40	119
	63	Development of the product/system as per specifications	ACM-1	37
	64	Increase consumer satisfaction	ACM-38	64
	65	Product differentiation Greater convenience Market differentiation Product differentiation	ACM-17	49
	66	Outsourcer satisfaction	IEEE-25F-46	25
	67	Improved focus Increased productivity	SD-44	86
	68	Performance management	GS-CMU	120
	69	Quality management infrastructure	IEEE-2F-81	2

5. Outsourcing Relationships

CSF Group name	S.No of ref:	CSF sub group	Primary selection Tracing Number	Final list Reference No
Linkage/Links with clients organisations	01	Meetings with clients organisations to introduce the past achievements Trust	IEEE-1F-86	1
	02	Good Communication between the two parties is essential to progress i. Negotiation skills ii. Communication skills iii. Business skills Trust (“Trust develops through frequent and meaningful interaction”)	IEEE-3F-82	3
	03	Open and two-way communications between the client and vendor organisations Open and trusting relationship Communication	IEEE-5F-43	5

		Trust		
	04	Inter-organisational relationship	IEEE-8F-146	8
	05	Building strong one-to-one relationship between individual clients and developers, which can be developed through facilitating meetings and other informal contacts.	IEEE-12F-58	12
	06	Relationship (existing) Reliability	IEEE-16F-125	16
	07	More Communication with clients	IEEE-18F-147	18
	08	Relationship management i. “Are there possibilities to improve relationship management?”	IEEE-19F-141	19
	09	Frequent communication with clients and good relationships Establishing trust Developing relationships and trust with clients	IEEE-21F-132	21
	10	Communication	IEEE-26F-45	26
	11	Regular communication with client organisations	IEEE-30F-123	30
	12	Communication ”The formal and informal sharing or exchange of information” Trust ”The expectation that a party will act predictably, fulfil its obligations, and behave fairly” Coordination ”The management of interdependencies between parties” Cooperation ”The undertaking of activities to achieve mutual benefits” Commitment ”The willingness of the parties to exert effort and devote resources in order to sustain an ongoing relationship” Interdependence ”The extent to which each party’s attainment of goals is dependent on the other party.”	IEEE-34F-156	34
	13	Working relationships including communications Relationship management	ACM-2	38

	14	Interactions 1. Expectations of both sides (client and vendor) Expectation (e.g. financial, business, technical and political). 2. Best practices "we found that interviewees believed that the expectations of both sides (client and vendor) are important in setting up the relationship. Interviewees particularly emphasized adopting best practices for setting up effective relationships. Financial issues i.e. cost savings, business revenue, expenses are also worth noting."	ACM-3	39
	15	Relationship building work well and build good working relationship with client (relationship building), Respond promptly and beyond call of duty to client requests (vendor responsiveness),	ACM-6	42
	16	1. Credibility with the client ('some of the people from vendor work with the client, so that client may see them in operation, in order to gain client credibility') 2. Earlier mutual experience with client 3. Long-term relationship (knowing each other well, shared experience on some project) Identifying with each other's goals Shared goals Balanced trust	ACM-13	46
	17	1.Communication 2. Client's past experience with the vendor 3. Understanding each other's needs & capabilities 4. Co-operation, honesty & openness between the two parties Trust Match between expectations Dependency / Mutual dependence Reliability	ACM-14	47
	18	1. Prior relationship 2. Mutual understanding 3. Complete understanding of the requirements of the client firm Mutual understanding Trustworthy	ACM-17	49
	19	Effective communication and co-ordination Trust	ACM-20	51

	20	1. Relationship management 2. Communication 3. Coordination 4. Cooperation Interdependence Trust	ACM-27	56
	21	Mutual understanding Inter-organizational coordination and communication Common goals with client / Mutual shared expectations Trust	ACM-31	59
	22	Communication and co-ordination	ACM-35	62
	23	Communication Knowledge about managing relationships, norms and values of the organizations. Co-operation and co-ordination Role expectation (the vision individuals have about their own roles as well as the roles of others)	ACM-46	66
	24	Prior relationships The ability to build a trusting partnership Understanding each other's business Trust	ACM-51	68
	25	Commitment i. Try to maintain the relationship with the client ii. Keep the relationship strengthened iii. Keep the promises iv. Willing to continue the relationship Trust i. To make beneficial decisions for clients ii. Willing to provide assistance without exception iii. To be sincere all times iv. Friendly relations with clients	SD-11	76
	26	Personal Visits (Invite clients to the vendors site, to see the process)	SD-17	78
	27	Cross-organizational communication Trust building factors i. Norms of cooperation	SD-35	95
	28	Personal visits (Encourage clients to vendors working place, to see the process)	SD-36	82
	29	Good communication (the level of interaction, open-ness, and honesty between managers) Social and personal bonds with client's staff (development of close and personal relations through 'ongoingness' and social events Commitment and Trust	SD-40	98
	30	Good vendor-client relationship	SD-52	93
	31	Existing relationship	CS-1	99
	32	Existing relationship	GS-12	109
	33	Relationship building Trust	CS-15	106

	34	Prior relationship Trust	GS-31	116
	35	Communication (Encouraging more direct channels of communication)	GS-16	110
	36	Communication Trust	GS-19	112
	37	Communication Visits to clients site Liaisons for trust building	GS-20	113
	38	Effective communication	CS-14	105
	39	Communication/Relationship	GS-18	111
	40	Relationship Trust	GS-40	119
	41	Co-operative network	ACM-37	63
	42	Cooperation	IEEE-25F-46	25
	43	Coordination United vision, long-term commitment, and a clear focus	IEEE-36F-158	36
	44	Close cooperation between internal and external staff Trust	SD-37	83
	45	be better able to communicate in business teams and understand business needs Trustworthy	SD-43	85
	46	Relationship management	GS-CMU	120
	47	Mutual interest	ACM-15	48
	48	Persistent expectations Trust	CS-6	102
	49	Trust	IEEE-2F-81	2
	50	Trust	IEEE-4F-39	4
	51	Assurance (trust & confidence) Reliability (ability to perform the promised service dependably & accurately)	ACM-11	45
	52	Trust	ACM-22	53
	53	Trust, Commitment and Co-operation	SD-2	72
	54	Vendor trustworthiness (degree to which a vendor can be trusted)	SD-3	73
	55	Trust	SD-16	89
	56	Trust Reliability	GS-26	114
	57	Rationality in providing much benefit "In offshore software outsourcing, client and vendors are rational partners. They direct their strategies based on how much benefit they can avail from each action they take. Their rationality perspective may not consider harming each other's interests."	ACM-4	40
	58	Reliability	ACM-9	44
	59	Reliability	ACM-57	70