Software Outsourcing Partnership(SOP): A Systematic Literature Review Protocol with Preliminary Results

Sikandar Ali[1,2] and Siffat Ullah Khan[1,2]

[1]*Software Engineering Research Group (SERG), University of Malakand, KP Pakistan,*
[2]*Department of Computer Science & IT, University of Malakand, KP Pakistan,*
hqsikandar@yahoo.com, siffatullah@uom.edu.pk

Abstract

CONTXEXT:-Software outsourcing partnership (SOP) is a relationship between client and vendor organizations for shared goals. A SOP is different than ordinary outsourcing contractual relationship. Usually a successful outsourcing relationship may lead to outsourcing partnership.

OBJECTIVE:-The objective of this research is to identify factors via systematic literature review (SLR), that are significant to be developed by outsourcing vendor organization which lead them to convert existing outsourcing contractual relationship into outsourcing partnership with client organization.

METHOD: -SLR will be used for the aforementioned objective. SLR is based on a structured protocol and is more thorough than ordinary review.

EXPECTED OUTCOMES: - We have developed a SLR protocol for the SOP and are in the process of implementing the protocol. The anticipated outcome of this review will be a list of critical success factors (CSFs) and critical risks (CRs) which can have a positive or a negative role in building or converting the existing outsourcing relationship into outsourcing partnership. The ultimate aim of this research is the development of SOP Model.

Keywords: Client-Vendor Relationship, Software Outsourcing partnership, Software Outsourcing partnership Model

1. Introduction

Software outsourcing partnership (SOP) is a mutually trusted inter-organisational software development alliance between client and vendor organisations to accomplish shared goals of the partners involved. A SOP is different to conventional software development outsourcing (SDO) relationship [1]. In conventional outsourcing relationship a client contracts software development task to a remote vendor who delivers development services for payment whereas SOP is the enhanced form of conventional outsourcing relationship. SOP could be considered as a long term relation with mutual adjustment and renegotiations of tasks and commitment that exceed mere contractual obligations stated in an initial phase of the collaboration. SOP aims to offers many benefits including long term relationships between client and vendor organisations, flexible and based on shared goals, risks and benefits. Usually a successful SDO relationship may lead to SOP [2]. According to Kishore *et al.*, [2] outsourcing relationships can be characterized into four kinds. 1) Reliance, 2) Alignment, 3) Support, and 4) alliance, a relationship in which trust is high and control is low. SOP is a kind of an alliance relationship [3, 4]. Partnership is a relationship that goes beyond contract. Jia and Lamming definition are as follow "a tailored business relationship based upon mutual trust,

openness, shared risk, and shared rewards that yield a competitive advantage, resulting in business performance greater than would be achieved by the firms individually" [5]. Organisations generally establishes SOP with counterpart organisations after recognising the limitation of conventional outsourcing relationship, as conventional relationship possess the following barriers as reported in the literature which is listed in Table 1.

Table 1. List of Barriers in Contractual Relationship

Barriers in contractual relationship	Related Literature
Difficulties in writing a complete contract	[6]
Investment from both parties on relation specific assets	[6]
Strict term and fixed amount in contract	[6]
Many clients wants to implement total IT outsourcing	[6]
Insufficient Management of the risk associated with complex software projects in Contract	[7]
Uncertainty because of unrealistic estimation of cost, manpower and time in contract	[7]
It will be hard to apply the results because the outcome often do not match the actual results	[7]

Partnership Relationship provides the mechanism for (1) Protecting relations specific assets investments and promote further investments. (2) Sustaining long-term relationships.(3) dealing with uncertainty and (4) reducing risk [8, 9]. However, despite the importance of software development outsourcing partnership, little empirical research has been carried out on software development outsourcing partnership practices in general and identification of factors that have a significant positive impact on client organizations in particular. To do this we intend to address the following research questions:

RQ1. What are the critical success factors, as identified in the literature, to be developed by software outsourcing vendor organizations which assist in converting the exiting outsourcing relationship into partnership with client organization.

RQ2. What are the critical risks, as identified in the literature, involved from software vendor's perspective in promoting the exiting outsourcing relationship into partnership with client organization.

2. Background

Referring to the problems found in outsourcing relationships, several research gaps can be found in the field of outsourcing partnership research. Lee and co-authors [10] identify five key research areas of outsourcing partnership: (1) motivation towards outsourcing partnership (this area focus on differences between contractual relationship and partnering relationship, drivers behind partnership contracts, benefits and risks in outsourcing partnership, *etc.*), (2) Scope of outsourcing partnership(this area includes topics such as total or selective outsourcing, long-term or short-term relationship, service or asset transferring partnership, *etc.*), (3) performance measurement of outsourcing partnership (this area includes evaluating, verifying, and improving performance, *etc.*), (4) decision-making frameworks (this area focus on finding factors ,criterion for decision establish partnership or not etc.), and (5) partnership contract (this includes process and management issues, contract making, procedures for building and sustaining outsourcing partnership *etc*).

Dibbern and co-authors [11] argue that definition and operationalization of outsourcing relationship is highly dependent on many variables so they still need more research. According to [12] few studies have investigated partnership related issues, still they have the following limitations:

- Most of them are performed from the one perspective i.e from outsourcer/Client viewpoints. Since the partnership is a mutual relationship, it is also important to study these issues from the other suppliers/vendors perspectives [13].
- Most studies on outsourcing partnership are limited to onshore outsourcing instead of offshore outsourcing [11]. Due to larger inherent risks of offshore outsourcing, it is important to investigate effects of these factors on building and maintaining partnerships in offshore context.
- Most study units focus on the company level. Few of them have investigated outsourcing partnership on a project level [11].

Various investigators have address some of the issues of SOP, *e.g.*, (Yuan Sun *et al.*, [9], En-lin Li [14], Roses *et al.*, [15], Kumar et al [7], Kinnula [16, 17], Kedia *et al.*, [18] and Bowersox *et al.*, [19] *etc.*,). Summary of few are presented as follow:

According to Bowersox *et al.*, [19] to achieve mutual advantages that cannot be achieve individually by either organisation, a long-term partnership should be formed where partners with shared goals work closely with each other, make joint decisions, share information, resources, risks, and accomplish mutual beneficial outcomes.

A study was conducted in the USA in which a partnership model was presented to manage the software outsourcing partnership [20]. The focus of the study was on factors affecting software outsourcing partnership relationship. The main findings of the study was Trustworthiness and culture distance they also mentioned driver for partnership formatting such as cost reduction, higher work quality, increased risk sharing, business transformation, inexpensive labour pool , higher labour skills, Cumulative experience, Learning scope, Global innovation talent, and world class delivery model. A similar study was conducted by [16] she examine the partnership formation process and develop outsourcing partnership life cycle model, she divide partnership life cycle into four steps *i.e.*, planning , developing, implementing and managing. Sehic *et al.*, [21] work on strategic partnership model SPM in which they identified internal forces (such as cost, resource, strategy organizational perspective, history and competitive positioning) and internal forces (such as competitive, political, social and technology). Kumar *et al.*, [7] proposed Software Outsourcing Service Provider Relationship Model (SOSPRM) they suggest that the software companies need to focus on knowledge sharing and transfer factors in order establish effective partnership quality among offshore and on-site teams and achieve the GSD project outcome from the service provider perspective.

According to Ross *et al.*, [22] research to date does not tell us why partnership is important, whether there are situations in which partnership is not necessary, or whether organisation management approaches can substitute for partnership.

To overcome aforementioned problems a number of client organisations have established strong relationships with other vendor organisation like Motorola and UPS [23, 24], Kodak and DEC [25], Hi Sun and SDB [26], USAA and IBM [25, 27], and EDS and Xerox [27].

However, despite the importance of SDO partnership, no sufficiently comprehensive outsourcing partnership models can be found. Similarly no SLR has been conducted on SDO partnership. This research study addressed the problem from a vendor perspective

and aims to fill the some of the research gaps by creating a model based on the previous work survey and validated by empirical study.

The findings presented in this paper supports the findings previously found in this domain like,[15, 16, 28] and [29]. The existing studies mostly covers topic like "outsourcing relationship", "partnership quality", "role of partnership in outsourcing success" and "outsourcing trust". Partnership in outsourcing and trust in outsourcing are important areas to address. Understanding the SOP factors will give guidance to SOP practitioners on what factors to implement when developing SOP. We expect SOP stakeholders will receive useful information from this research.

3. SLR Protocol for SOP

Systematic literature review has three main phases as described by Kitchenham [30]. These are planning the review, conducting the review, and reporting the review. In this paper we describe the SLR protocol which is the first phase of a systematic literature review (*i.e.*, planning the review).

3.1. SLR Protocol Development

Prior to conduct the systematic review, we developed a review protocol. A pre-defined protocol reduces researcher bias and increases the rigor and repeatability of the review [30]. An SLR protocol specifies the review plan and procedures by describing the details of various strategies for performing the systematic review. In particular, it defines background context for the research, the research questions, search strategy to identify the relevant literature, inclusion and exclusion criteria for selecting relevant studies, the treatment of publication quality assessment, the data extraction plan, the data synthesis plan and the methodology for extracting and synthesizing information in order to address the research questions [30]. We have already published the basic idea of our proposed model IOSRJCE [31]. The complete SLR protocol for the proposed model is presented in this paper along with preliminary results. Figure 1 depicts the various stages in the SLR process.
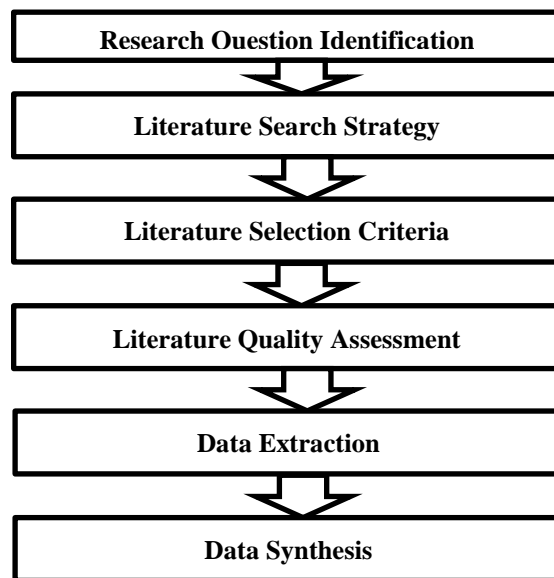

Figure 1. Development Process for the SLR Protocol

3.2. Construction of Search Terms

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

Population: Vendors and clients involved in outsourcing partnership.
Intervention: Factors, Characteristics, Risks, partnership builders, Relationship promoters.
Outcomes of relevance: Establishing software outsourcing Partnership, Partnership maintenance, Promoting existing outsourcing relationship into partnership, capabilities of outsourcing vendors in existing project
Experimental Design: Empirical studies, systematic review, theoretical studies, case studies, expert's opinions. An example of the research question containing the above details is:
Examples of the research question containing the above details are given in Figure 2.
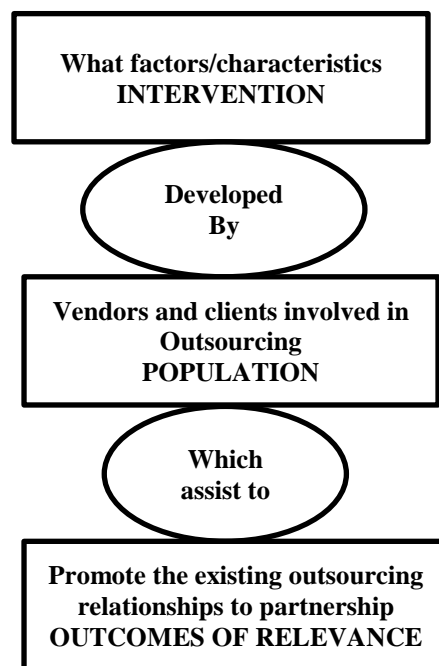**RQ1: population, Intervention, Outcomes.**

Figure 2. Research Question1 Details

3.3. Search strategy and Search

We describe our search strategy from the following dimensions.

3.3.1. Search Scope (time and space): We will Search for all published literature related to our research questions without any time (years) boundary/limit.

3.3.2. Search Method i.e. automatic search or manual search: We will use automated search on publisher's sites only.

3.3.3. Electronic Data Sources Used: we will search the following electronic sources
   o   www.ieeexplore.ieee.org
   o   www.acm.org
   o   www.sciencedirect.com

- o citeseer.ist.psu.edu , scholar.google.com
- o www.springerlink.com

3.3.4. Search Strings: We have divided the search string in three types of sub search string. *i.e.*, Trial search string used in trial search, Lengthy search string obtained after combining major terms and its synonyms using Boolean operators and smaller sub search string obtained after search term breakup.

3.3.5. Search validation: Search validation will be performing by results of trial search.

3.3.6. Search Documentation: It will be done in MS word.

3.3.7. Search result Management: Results will be stored electronically in local drive.

3.3.8. Trial Search: We conducted a trial search on ScienceDirect digital library using search string given below. The results will be used for validation of major search terms. (Partnership OR "Outsourcing partnership") AND ("Software outsourcing" OR "IT outsourcing" OR "IS outsourcing").

3.3.9. Lengthy Search String: RQ1:((Partnership OR "Joint-venture" OR "Outsourcing partnership" OR collaboration OR GSD OR "Global software Development" OR alliance) AND ("Software outsourcing" OR "information systems outsourcing" OR "information technology outsourcing" OR "IS-outsourcing" OR "IT-outsourcing" OR "distributed software development") AND (factors OR drivers OR motivators OR elements OR characteristics OR parameters OR promotes OR upgrade OR leads OR convert OR transfer OR Enter OR establish OR builds) AND (vendors OR "Service-provider" OR developer OR clients OR outsourcer OR buyer OR customer OR consumer OR "service receiver"))

RQ2: ((Partnership OR "Joint-venture" OR "Outsourcing partnership" OR collaboration OR GSD OR "Global software Development" OR alliance) AND ("Software outsourcing" OR "information systems outsourcing" OR "information technology outsourcing" OR "IS-outsourcing" OR "IT-outsourcing" OR "distributed software development") AND (risks OR barriers OR challenges OR "Negative impacts" OR obstacles OR hurdles OR promotes OR upgrade OR leads OR convert OR transfer OR Enter OR establish OR builds) AND (vendors OR "Service-provider" OR developer OR clients OR outsourcer OR buyer OR customer OR consumer OR "service receiver"))

3.3.10. Smaller Sub Search String

String1 (Partnership OR "Joint-venture") AND ("Software outsourcing" OR "distributed software development") AND (factors OR characteristics OR promotes OR transfer) AND (vendors OR clients OR buyer)

String2 (Collaboration OR alliance) AND ("information system outsourcing" OR "IS-outsourcing") AND (drivers OR motivators OR leads OR convert OR Enter) AND ("Service-provider" OR "service-receiver" OR outsourcer)

String3 ("Outsourcing partnership" OR GSD OR "Global software Development") AND ("information technology outsourcing" OR "IT-outsourcing") AND (elements OR parameters OR upgrade OR builds OR establish) AND (develope**r** OR customer OR consumer)

String4 (Partnership OR "Joint-venture") AND ("Software outsourcing" OR "distributed software development") AND (risks OR barriers OR promotes OR transfer) AND (vendors OR clients OR buyer)

String5 (Collaboration OR alliance) AND ("information system outsourcing" OR "IS-outsourcing") AND (challenges OR "Negative impacts" OR leads OR convert OR Enter) AND ("Service-provider" OR "service-receiver" OR outsourcer)

String6 ("Outsourcing partnership" OR GSD OR "Global software Development") AND ("information technology outsourcing" OR "IT-outsourcing") AND (obstacles OR hurdles OR upgrade OR builds OR establish) AND (develope**r** OR customer OR consumer).

3.3.11. Identifying Search Terms: The following steps (search strategy) are used for the construction of search terms.

Step1: Derivation of major terms. Step2: Identification of alternative spellings and synonyms. Step3: verification of key words and **Step4: Use of Boolean Operators for conjunction as shown in Figure 3.**
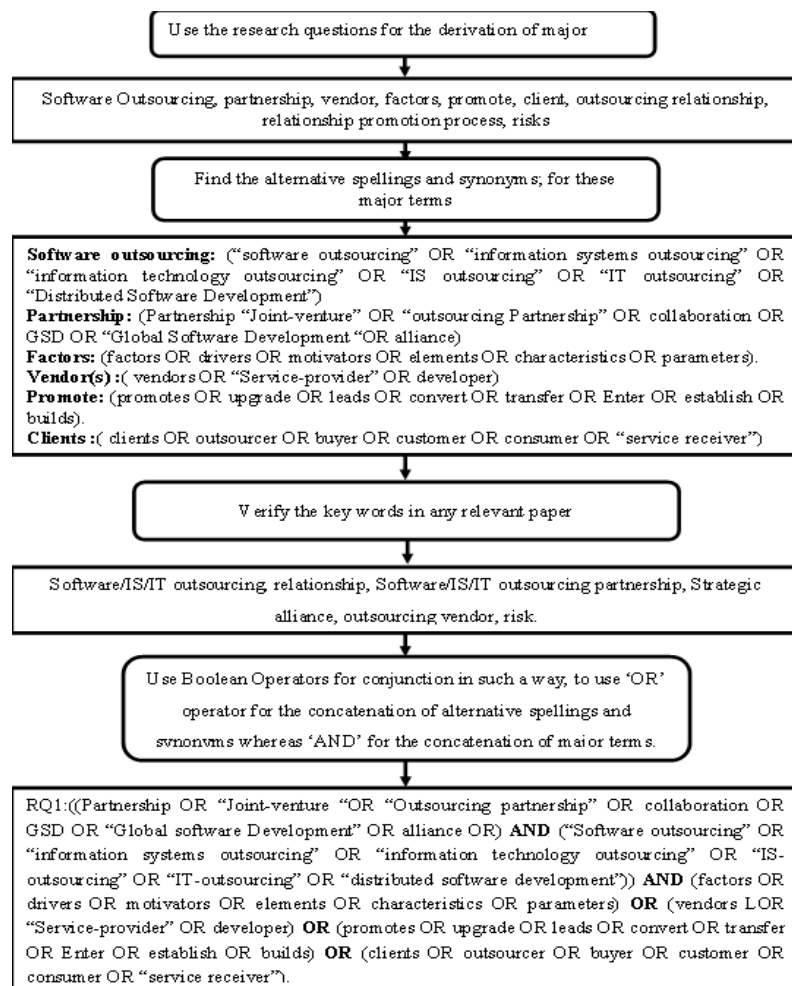

Figure 3. Search String Construction Process

3.3.12. Search Documentation: Search results will be documented properly, and the following data will be recorded: Name of the database**,** Search strategy**,** Search Phase**,** Date of search**,** Years covered (ALL)**,** No. of publications found**,** No .of publication selected**,** Initial selection decision**,** Final selection decision *etc*.

3.4. Publication Selection

This section contains the following subsections.
- Inclusion Criteria
- Exclusion Criteria
- Selecting Primary Sources
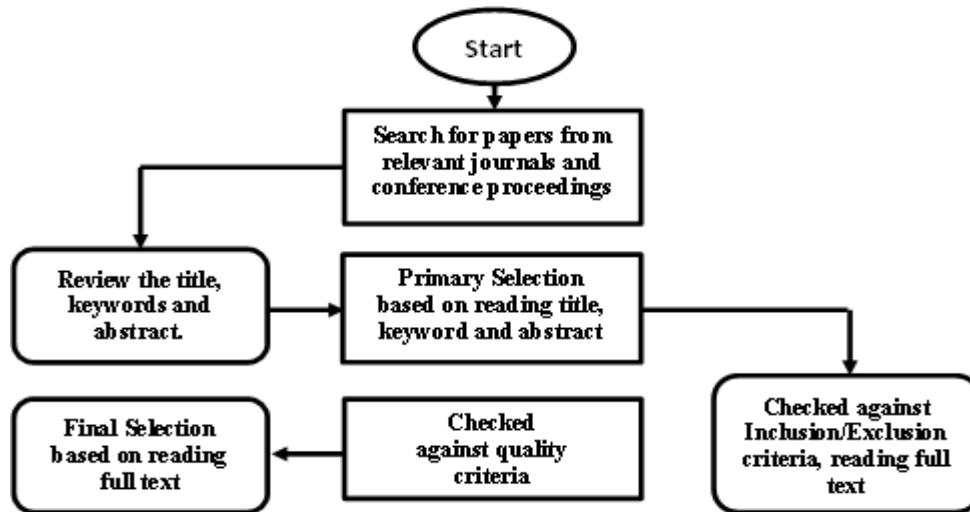- Publication Quality Assessment

Figure 4. Publication Selection Process

3.4.1. Inclusion Criteria: This measure is used to limit which technical reports, papers; thesis etc retrieved by the search string will be included for the data extraction.

3.4.2. Exclusion Criteria: This measure is used to limit which part of the literature (papers, technical reports, thesis etc) retrieved by the search string will be excluded from the final list of selected papers. Detail of the inclusion and exclusion criteria have been used for the relevant literature selection as shown in Table 1.

3.4.3. Selecting Primary Sources: The aim is to exclude only those results which have no relevance to the problem. Selection will be made as follow:

- Initial selection of primary sources will be performed by reviewing the title, keywords and abstract.
- This selection will be checked against the Inclusion/Exclusion criteria, by reviewing through full text.
- In case of any uncertainty, it will be forwarded to the secondary reviewer for guidance.
- The record of the Inclusion/Exclusion for each primary source will be maintained properly.

Table 2. Inclusion and Exclusion Criteria

	Inclusion Criteria
S.NO	**Criteria**
1	Studies that are reported in English language only.
2	Studies that describe factors/motivators for software/IS/IT outsourcing partnership building.
3	Studies that describe factors/motivators for software/IS/IT outsourcing relationship upgradation/promotion.
4	Studies that describe criteria for a successful software outsourcing relationships.
5	Studies that describes software/IS/IT outsourcing partnership.
6	Studies that describes issues in software/IS/IT outsourcing relationship.
7	Studies that describes issues in software/IS/IT outsourcing partnership.
8	Studies that describe criteria for an outsourcing relationships upgradation/promotion/conversion.
9	Studies that describe factors affecting the continuation/termination of the existing outsourcing relationship.
10	Studies that evaluate vendor"s capabilities for outsourcing partnership.
11	Studies that describe risks in promoting the existing outsourcing relationship to partnership.
	Exclusion Criteria
1	Studies that are not relevant to the research questions.
2	Studies that do not describe risks/problems in promoting to software outsourcing partnership.
3	Studies that do not describe the factors that cause continuation/termination of the existing software outsourcing relationships.
4	Studies that do not describe software outsourcing relationships.
5	Studies other than outsourcing relationships.

3.4.4. Publication Quality Assessment

The measurement of quality will be performed after final selection of publications. For any paper to pass the initial phase, a quality assessment was done. The quality checklist contains the following question as show in Table 3.

Table 3. Quality Assessment

Criteria	Notes
Is it clear how the factors for establishing/building partnership between clients and vendors were identified?	Yes =1, No =0 Partially=2,NA=3
Is it clear how the factors for upgradation/promotion existing relationship between clients and vendors were identified?	Yes =1, No =0
Is the author seems biased to publish positive results more than negative results?	NA=2
Is it clear how the risks in promoting existing outsourcing relationship to partnership were identified in outsourcing relationship?	Yes =1, No =0
Has there sufficient data/sample size to support the findings?	NA=2
Is it clear how the factors for establishing/building partnership between clients and vendors were identified?	Yes =1, No =0

Each of the above factors will be marked as "YES", "NO", "Partially" or "N.A". A secondary reviewer will score a small subset for validation.

3.5. Data Extraction Strategy

The following sections are considered in the data extraction process:
- Primary study data
- Data extraction process
- Data storage

3.5.1. Primary Study Data: The following data will be extracted from each publication.

- Publication details (Title, Authors, Reference)
- Data that address the research question

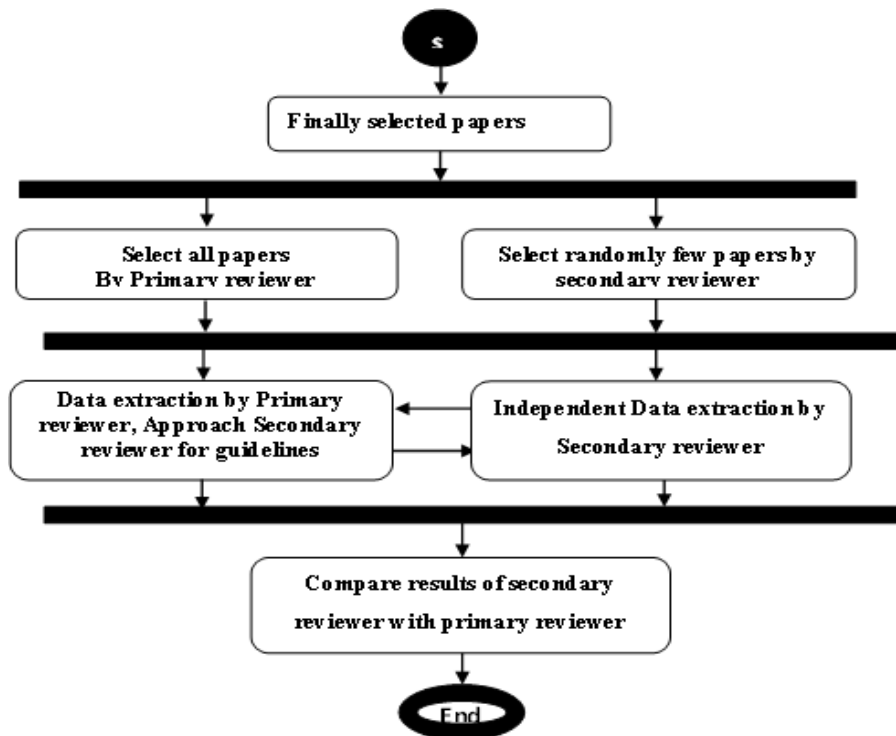**3.5.2. Data Extraction Process:** Data extraction process is shown in Figure 5.

Figure 5. Data Extraction Process

3.5.3. Data Storage: Will be stored electronically in MSword/Excel/SPSS.

3.6. Data Synthesis

During the SLR, the extracted data will be synthesized in a way suitable for answering the questions. The following data will be synthesizes.

Date of review, Publication details (Title, Authors, Reference), Database, Methodology (interview, case study, report, survey *etc.*,), Sample Population, Target Population, Publication Quality Description, Organization Type (software house, university, research

institute *etc.*,), Company size (small, medium, large), SPI Certification, Country / location of the Analysis, Year, Critical Success Factors (CSFs) and Critical Risks (CRs) in promoting/upgrading existing outsourcing relationship to partnership.

4. Preliminary Results

The SLR protocol is currently in the implementation phase and we have got results for some of the aforementioned sections of the protocol. These are Sections 3.2, 3.3 and 3.4.

After applying the aforementioned search strategy described in Section 3.2 on the specified digital libraries we found 6240 papers in total from the six digital libraries. The information of the primary and final selection for each digital library is given in the Table 3. Finally 111 papers were selected after applying the inclusion/ exclusion criteria. The list of these finally selected papers for data extraction is provided at the Appendix. 16 papers were repeated in the different digital library, which were omitted from the final list of papers to remove duplication.

Table 4. Search Execution

Resource	Total Results found	Primary selection	Final selection
IEEExplore	1,273	44	33
ACM	1,158	40	20
Science Direct	880	38	26
Google Scholar	2,209	40	24
CiteSeer	226	09	06
SpringerLink	194	09	02
Total	6,240	180	111

We have grouped the papers found through SLR into nine study strategies, which are commonly used in the empirical software engineering, as shown in Table 5. Most of the articles have used case study research method. These seven study strategies were initially identified by one of the researchers during the data extraction process. However, a second researcher has validated these study strategies.

Table 5. Study Strategies Used

Study Type	Count
Case Studies	45
Experience Report	01
Interviews	15
Survey	27
Literature review	16
SLR	01
Thesis	03
Experimental Study	01
Others	02
Total	**111**

Table 6 shows the countries where research was conducted for the papers included in our SLR study. Twenty studies were carried out in China, twenty in USA, thirteen in India, ten in Germany, nine in UK, six in Korea, four in Ireland and Canada, three in South Africa and Sweden and two in Finland, Malaysia, France, Japan, Norway, Thailand and Netherland and only one in Poland, Switzerland, respectively.

Table 6. Study Countries

Country	Count	Country	Count
China	20	South Africa	03
Australia	06	Finland	02
USA	20	Malaysia	02
Canada	04	Sweden	03
India	13	Norway	02
Germany	10	Thailand	02
Poland	01	UK	09
France	02	Netherlands	02
Japan	02	Korea	06
Switzerland	01	Ireland	04

5. Limitations

Because of the lack of the previous research of the subject we have drawn our research from other domains somehow related to the field of research, such as general management literature on outsourcing, specifically information systems and information technology outsourcing literature, strategic sourcing literature, strategic partnering literature, and marketing and management research on inter-organizational relationships.

6. Conclusion and Future Work

This paper presents the SLR protocol for the identification of factors for building or maintaining software outsourcing partnership between client and vendor organizations. The ultimate goal of this research is the development of SOPM. The SLR is the first phase in the development of the stated model. This paper contributes to only one component of the SOP Model, *i.e.*, Development of protocol a plan and some initial results. The eventual outcome of the research is the development of SOPM to assist outsourcing vendors in gauging their competence for software development outsourcing partnership activities. SOPM will also help in improving software outsourcing partnership development processes.

Acknowledgements

References

[1] S. Lee and G. G. Lim, "The impact of partnership attributes on EDI implementation success", Information & Management, vol. 42, **(2005)**, pp. 503-516.

[2] R. Kishore, H. R. Rao, K. Nam, S. Rajagopalan and A. Chaudhury, "A relationship perspective on IT outsourcing", Communications of the ACM, vol. 46, pp. 86-92, **(2003)**.

[3] G. Liu and W.-W. Ko, "An analysis of cause-related marketing implementation strategies through social alliance: Partnership conditions and strategic objectives", Journal of business ethics, vol. 100, **(2011)**, pp. 253-281.

[4] R. A. B. Srinivasan and T. H., "Supplier Performance in Vertical Alliances: The Effects of Self-Enforcing Agreements and Enforceable Contracts", Organization Science, vol. 17, no. 4, **(2006)**, pp. 436-452.

[5] F. Jia and R. Lamming, "Cultural adaptation in Chinese-Western supply chain partnerships: Dyadic learning in an international context", International Journal of Operations & Production Management, vol. 33, **(2013)**, pp. 528-561.

[6] J. N. Lee, M. Q. Huynh and R. Hirschheim, "An integrative model of trust on IT outsourcing: examining a bilateral perspective", Inf Syst Front, vol. 10, **(2008)**, pp. 145–163.

[7] S. A. Kumar and A. K. Thangavelu, "Factors affecting the outcome of Global Software Development projects: An empirical study," Presented at International Conference on Computer Communication and Informatics (ICCCI), **(2013)**.

[8] B. F. Yang, H. Zuo and Meiyun, "The Integration Mechanism of IT Outsourcing Partnership", **(2005)**.

[9] S. C. L. Yuan Sun, T. Chen Sun and Pei, "The Factors Influencing Information Systems Outsourcing Partnership – A Study Integrating Case Study and Survey Research methods", presented at 35th Hawaii International Conference on System Sciences, **(2002)**.

[10] J. N. Lee, Huynh, M. Q., Kwok, C. W. and S. M. Pi, "The evolution of outsourcing research: What is the next issue?", presented at Proceeding of the Thirty-third Hawaii International Conference on Systems Sciences, Maui in Hawaii, **(2000)**.

[11] J. G. Dibbern, T. Hirschheim, R and B. Jayatilaka, "Information Systems Outsourcing: A Survey and Analysis of the Literature", Database of Advances in Information Systems, vol. 35, **(2004)**, pp. 6-102.

[12] L. J. Jingyue, M. Reidar, C. Weibing, C. Junzhong, J. Chunnian and L., "A Survey on the Business Relationship between Chinese Outsourcing Software Suppliers and Their Outsourcers", Beijing University of Technology, Beijing 100022, China, Beijing.

[13] L. P. Currie and Willococks, "Analyzing Four Types of IT Sourcing Decisions in the Context of Scale, Client/Supplier Interdependency and Risk Mitigation", Information System Journal, vol. 8, **(1998)**, pp. 119-143.

[14] E.-l. Li, "Study of the Decision-Making Model of Outsourcing Service Provider Selection", International Journal of u- and e- Service, Science and Technology, vol. 6, **(2013)**, pp. 1-10.

[15] L. S. K. Roses, "Strategic partnership building in it offshore outsourcing: institutional elements for a banking ERP system licensing", JISTEM-Journal of Information Systems and Technology Management, vol. 10, **(2013)**, pp. 61-80.

[16] M. Kinnula, V. Seppanen and J. V. Warsta, Sari, "The Formation and Management of a Software Outsourcing Partnership Process", presented at 40th Hawaii International Conference on System Sciences, **(2007)**.

[17] M. Kinnula, "The Formation and Management of a Software Outsourcing Partnership", Department of Information Processing Science: University of Oulu, **(2006)**, pp. 187.

[18] B. L. L. Kedia and Somnath, "International outsourcing of services: A partnership model," Journal of International Management, vol. 13, **(2007)**, pp. 22-37.

[19] D. Bowersox, D. Closs and T. Stank, "How to master cross-enterprise collaboration", Supply Chain Management Review, vol. 7, **(2003)**, pp. 18–27.

[20] N. V. Oza, "An empirical evaluation of client - vendor relationships in Indian software outsourcing companies", School of Computer Science: University of Hertfordshire, UK, **(2006)**.

[21] I. Sehic and H. Gilani, "IT outsourcing: A strategic partnership between buyer and seller organization", Jönköping University, International Business School, JIBS, **(2010)**, pp. 105.

[22] J. W. Ross, M. R. Vitale and C. M. Beath, "The Untapped Potential of IT Chargeback", MIS Quarterly, vol. 23, **(1999)**.

[23] M. A. Zviran and A. Niv Armoni, "Building outsourcing relationship across the global community:the UPS-Motorola experience", Strategic information System, vol. 10, **(2001)**, pp. 313-333.

[24] C. Koh, S. Ang and G. Yeo, "Does IT outsourcing create firm value?", Proceedings of the 2007 ACM SIGMIS CPR conference on Computer personnel research: The global information technology workforce. St. Louis, Missouri, USA: ACM, **(2007)**, pp. 87-91.

[25] S. Ren, Q. Bu, M. J. Zhou and C. H. Hu, "The Influence of Inter-enterprise Value Co-creation on Innovation Based on Resource Theories", Presented at the 19th International Conference on Industrial Engineering and Engineering Management, **(2013)**.

[26] B. F. Yang and M. Hongjiao Zuo, "A Case Study of Disaster Backup Outsourcing of SDB and Hi Sun", ICEC, Xi'an, China, **(2005)** August 15.

[27] S. M. Miranda and C. B. Kavan, "Moments of governance in IS outsourcing: conceptualizing effects of contracts on value capture and creation", Journal of Information Technology, vol. 20, **(2005)**, pp. 152-169.

[28] J.-N. Lee, "Exploring a Causal Model for the Understanding of Outsourcing Partnership", presented at 36th Hawaii International Conference on System Sciences, **(2002)**.

[29] M. Kinnula and V. SeppAnen, "Information Technology Requirements in an Outsourcing Partnership", Frontiers of E-Business Research, **(2003)**.

[30] S. B. C. Kitchenham, "Guidelines for performing Systematic Literature Review in Software Engineering", Keele University, U. K., **(2007)**.

[31] S. Ali and S. U. Khan, "Systematic Literature Review Protocol for Software Outsourcing Partnership (SOP)", IOSR Journal of Computer Engineering, vol. 2, **(2012)**, pp. 08-18.

Appendix: List of Finally Selected Papers

1 A Survey on the Business Relationship between Chinese Software Suppliers and Their Outsourcers.

2 The Evolution of the Corporate IT Function and the Role of the CIO at Texaco – How do Perceptions of IT's Performance Get Formed?

3 Trust in software outsourcing relationships: An empirical investigation of Indian software companies.

4 The impact of partnership attributes on EDI implementation success.

5 Global software development and collaboration: barriers and solutions.

6 Relative importance, specific investment and ownership in inter-organizational systems.

7 Strategic Out-Tasking: Creating ''win–win'' outsourcing partnerships.

8 Comparing Strategic Intents for Public-Private Partnerships, Outsourcing and Shared Service.

9 A Case Study of Disaster Backup Outsourcing of SDB and Hi Sun.

10 Towards partnership in software subcontracting.

11 Predictors of Formal Control Usage in IT Outsourcing Partnerships.

12 The Integration Mechanism of IT Outsourcing Partnership.

13 The Factors Influencing Information Systems Outsourcing Partnership – A Study Integrating Case Study and Survey Research methods0

14 It Takes Two to Tango: How Relational Investments Improve IT Outsourcing Partnerships.

15 The Impact of Information and Communication Technology Use on Inter-organizational Learning in an IT Outsourcing Collaboration.

16 Critical Success Factors for Information Systems Outsourcing Management: A Software Development Lifecycle View.

17 An Empirical Investigation of Information Technology Sourcing Practices: Lessons from Experience.

18 The Untapped Potential of It Chargeback.

19 Organizational Learning and Inter-firm Control: The Effects of Partner Search and Prior Exchange Experiences.

20 Effective IT Outsourcing Arrangements.

21 Coping with cultural and maturity inequality in offshore outsourcing: is minimizing interaction the solution?

22 Outsourcing the State? Public–Private Partnerships and Information Technologies in India.

23 Insourcing / Outsourcing / Smart Sourcing - A new paradigm for innovating the IT Supply chain

24 Strategic alliances in the high-tech industry.

25 Simulation of Distributed Manufacturing Enterprises: A New Approach.

26 Modeling strategic partnerships using the e3value ontology A field study in the banking industry.

27 Critical Factors in Establishing and Maintaining Trust in Software Outsourcing Relationships.

28 The Internal Factors Influencing the Competence of Software Outsourcing Enterprises.

29 Trust in Software Outsourcing Relationships: An Analysis of Vietnamese Practitioners Views.

30 Knowledge Transfer for Effective Outsourcing Relationships.

31 'Trust' as a Foundation for Strategic Alliances in Global Software Outsourcing.

32 Examining the determinants of outsourcing partnership quality in Chinese small- and medium-sized enterprises.

33 A study of the risks in an information system outsourcing partnership.

34 Exploring ASP as sourcing strategy: theoretical perspectives, propositions for practice.

35 Small- and Medium-sized IT Firms and Non-local Service Partnerships: An Assessment of Facilitators.

36 The formation and management of a software outsourcing partnership.

37 IT outsourcing: A Strategic Partnership between buyer and vendor.

38 Exploring Relationship Types In Information Systems Outsourcing Arrangements: Proposing A Typology For Is Outsourcing Relationships.

39 Market Entry Strategies of Application Service Providers: Identifying Strategic Differentiation.

40 Supply chain performance improvement through partner relationship management in the high tech industry.

41 Outsourcing as Open Innovation: Exploring Trust as A Precondition For The Open Innovation Model In The Process Industry.

42 Strategic It Partnerships in Transformational Outsourcing as a Distinctive Source of It Value: A Social Capital Perspective.

43 IT Outsourcing E Past, Present, and.

44 Strategic IT outsourcing: opportunities and challenges for the pharmaceutical industry.

45 Technology-driven efficiencies in financial markets.

46 Examining client perceptions of partnership quality and its dimensions in an IT outsourcing relationship.

47 Research report in partial fulfillment of the requirements for the degree of Master of Business Administration.

48 A Survey on the Business Relationship between Chinese Software Suppliers and Their Outsourcers.

49 The Management of Global Sourcing Partnerships: Implications For The Capabilities And Skills Of The Is Function.

50 Determining the current and preferred maturity level of Business IT-alignment in an outsourcing situation.

51 Investigating the Differences between Success Factors of Conventional IS Outsourcing and Quasi-Outsourcing.

52 A Governance Model for Managing Outsourcing Partnerships a View from Practice.

53 Empirical Study on IT Outsourcing Partnership with Relational Exchange Theory.

54 Determinants of IT Outsourcing Relationships: A Conceptual Model.

55 Managing Software Outsourcing Relationships in Emerging Economies: An Empirical Study of the Chinese Small- and Medium-Sized Enterprises.

56 The Evolution of Outsourcing Research: What is the Next Issue?

57 Understanding Outsourcing Partnership: A Comparison of Three Theoretical Perspectives.

58 Exploring a Causal Model for the Understanding of Outsourcing Partnership.

59 Lessons Learned from a Workshop on Relationship Building.

60 Market Entry Strategies of Application Service Providers: Identifying Strategic Differentiation.

61 Why Do Complementors Participate? An Analysis of Partnership Networks in the Enterprise Software Industry.

62 The Formation and Management of a Software Outsourcing Partnership Process.

63 Managing Complex IT Outsourcing – Partnerships.

64 Managing an IT-Outsourcing Partnership in Asia Case study: the Relationship between a Global Outsourcing Company and its Global IT Services Supplier.

65 Information Technology Outsourcing: Conceptualizing Practice in the Public and Private Sector.

66 The Trend Analysis of HRM Outsourcing Relationship Based on Game Theory.

67 Instant Messenger in Offshore Outsourced Software Development Projects: Experiences from a Case Study.

68 The Effects of Power and Partnership on Application Service Provider.

69 Towards a Conceptual Framework for Understanding Strategic Alliances in E-Commerce.

70 Identifying e-Business Readiness Factors Contributing to IT Distribution Channel Reseller Success: A Case Analysis of Two Organizations.

71 Successful Global Development of a Large-scale Embedded Telecommunications Product.

72 Service Analytics Framework for Web-Delivered Services.

73 Effective Leadership for Culturally Diverse Technology Projects.

74 Communication Metaphors-in-Use: Technical Communication and Offshore Systems Development.

75 Beyond Opportunism: A Resource-based View of Outsourcing Risk.

76 A Comparison of Chinese Domestic Outsourcing Management with Western "Best Practice" a Multiple Case Study.

77 Preparing for utility computing: The role of IT architecture and relationship management.

78 The Sourcing of e-Business Projects: Research into Practice.

79 Research on Decision Model of Software Outsourcing Alliance Based on Game Theory.

80 A Framework of Business Process Outsourcing Relationship Evolution Model.

81 Whom to ask for what knowledge? A comparison of exchange partners and their impact on knowledge types.

82 Forging an Outsourcing Partnership that Works.

83 The strategic decision of fuzzy TOPSIS on partner' choice in IT outsourcing projects.

84 Co-operative Partnership and 'Total' IT Outsourcing: From Contractual obligation to Strategic alliance?

85 Vendors' perspectives on trust and control in offshore information systems outsourcing.

86 The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success.

87 An investigation of factors that influence the duration of IT outsourcing relationships.

88 The 18C's model for a successful long-term outsourcing arrangement.

89 Knowledge management in client–vendor partnerships.

90 Strategic Out-Tasking: Creating ''win–win'' outsourcing partnerships.

91 Developing a decision model for business process outsourcing.

92 A longitudinal examination of partnership governance in offshoring: A moving target.

93 Stakeholder analysis is key to client–supplier relationships of global outsourcing project success.

94 Developing a decision model for business process outsourcing.

95 Building outsourcing relationship across the global community: the UPS-Motorola experience.

96 Buyer–supplier partnership quality and supply chain performance: Moderating role of risks, and environmental uncertainty.

97 Entrepreneurial alliances as contractual forms.

98 Outsourcing versus joint venture from vendor's perspective.

99 Promoting the integration of users and developers to achieve a collective mind through the screening of information system projects.

100 Commercializing the Back Office at Lloyds of London: Outsourcing and Strategic Partnerships Revisited.

101 Outsourcing and strategic alliances for product development: a case of Banta Digital Group.

102 Inter-organizational relationships and knowledge sharing in green supply chains— moderating by relational benefits and guanxi.

103 Cooperating for service excellence in multichannel service systems An empirical assessment.

104 E-Governance & government on-line in Canada: Partnerships, people & prospects.

105 With agility and adequate partnership strategies towards effective logistics networks.

106 The impact of supply chain management practices on competitive advantage and organizational performance.

107 Reconsidering outsourcing solutions.

108 Optimizing partners' choice in IS/IT outsourcing projects: The strategic decision of fuzzy VIKOR.

109 Partner selection and governance design in inter-firm relationships.

110 Trust Facilitating Good Software Outsourcing Relationships.

111 How Corporate E-Source: From Business Technology Project to Value Networks

Authors

Sikandar Ali, is MS software engineering student at University of Malakand Pakistan. He is also a member of Software Engineering Research Group (SERG) University of Malakand. His research interest includes software outsourcing partnership, Software Outsourcing relationship, Systematic literature review, Qualitative and quantitative analysis, Global software development, Software requirement engineering, Green computing and cloud computing.

Dr. Siffat Ullah Khan, is Assistant Professor in Computer Science & IT Department, University of Malakand, Pakistan. He holds a PhD in Computer Science from Keele University, UK. He is the founder of SERG at University of Malakand. His research interest includes Software Outsourcing, Empirical Software Engineering, Systematic Literature Review, Software Metrics, Green computing, Cloud Computing, Requirements Engineering and Green Computing.