

# Service Level Agreements: Governance in Outsourcing Facility Management

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## Graphical abstract

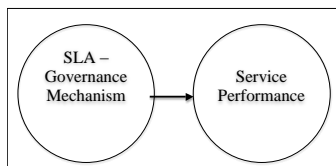


Figure 1.0: Conceptual Framework

## Abstract

Governance mechanism is playing vital role in service performance. Service level agreement is a governance mechanism to facilitate the performance management of the facility management services outsourced. Service level agreement is indispensable document to be referred to ensure that the facility management services delivery comply the quality standard stipulated in the agreement. The service level agreement elements represent the required service performance. Previous research indicates that one of the reasons for the agreement failure is due to unclear and confusing service level agreement elements. The aim of this study is to develop the service level agreement fundamental elements for facilities management services in outsourcing contract.

*Keywords:* Governance; service level agreement; performance; facility management; outsourcing

## Abstrak

Mekanisma tadbir urus memainkan peranan yang penting dalam prestasi perkhidmatan. Perjanjian tahap perkhidmatan merupakan mekanisma tadbir urus yang memudahkan pengurusan prestasi perkhidmatan pengurusan fasiliti yang disumberan luar. Perjanjian tahap perkhidmatan adalah dokumen yang amat diperlukan untuk dirujuk bagi memastikan penyampaian perkhidmatan pengurusan fasiliti mematuhi standard kualiti yang ditetapkan dalam perjanjian. Elemen perjanjian tahap perkhidmatan menggambarkan prestasi perkhidmatan yang diperlukan. Kajian terdahulu menunjukkan bahawa salah satu daripada sebab-sebab kegagalan perjanjian adalah disebabkan oleh elemen perjanjian tahap perkhidmatan tidak jelas dan mengelirukan. Tujuan kajian ini adalah untuk membangunkan elemen asas perjanjian tahap perkhidmatan bagi perkhidmatan pengurusan fasiliti dalam kontrak penyumberan luar.

*Kata kunci:* Tadbir urus; perjanjian tahap perkhidmatan; prestasi; pengurusan fasiliti; penyumberan luar

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## 1.0 INTRODUCTION

Governance mechanism is playing vital role in service performance. Previous research found governance mechanism positively related and highly impact to service performance [1], [2]. There are two types governance mechanism, which is contractual governance and relational governance. Contractual governance is stand for formal, legal and economic governance strategy, which is expressed as the degree to which the formal contract is currently established in outsourcing [3]. The other governance mechanism is relational governance refer broadly to mechanisms that enhance the building of trust and social identification [4].

Poppo & Zenger (2001)[5]view that formal contracting methods and relational issues complement each other and should be considered concurrently. Even these two governance mechanisms complement each other, the degree of relation and

impact to the performance is differently act. Previous study by Ferguson *et al.*, (2005)[3] discovered relational governance is the predominant governance mechanism compared to contractual governance associated with exchange performance. While the study by Lu *et al.*, (2014)[1] discovered giving more impact to the performance. These condition was discussed in other study where the factor that effect the performance arises due to Knowledge-based assets or Property-based assets in outsourcing [4]

In the outsourcing of facility management, contract play important role to described outcomes from the business exchange. According to Transaction cost economic (TCE) a contract between a buyer and a seller means the specific transactions, agreements, and promises, and the terms of the exchange are defined by price, asset specificity, and safe-guards, under the assumption that quantity, quality, and duration are all specified [6]. Service level agreements are part of contractual governance, as they are written, formal agreements between the service

provider and the service recipient. By being linked to the formal contract, they often contribute to more contract detail and contract flexibility [7]

## 2.0 OUTSOURCING IN FACILITY MANAGEMENT

Facility management (FM) is a new grassland compared to others field of management in research perspective [8]. However, facility management has been more widely recognized as a component of the business value chain and it is an indicator of the performance directly with the core business of which it is the success of organizational performance [9]. According to Alexander [10] Facility management is a function that enables organizations to communicate and maintain a quality work environment for human resources and physical needs therefore managers can accomplish core business objectives.

It is not easy for an organization to manage all support activities, especially for organizations that have a thriving business and greatly competition. Management costs increase if the organization takes care of all support activities for business [11]. Therefore, outsourcing allows organizations to focus on function, given the scale of economic organization, minimizing investment and reducing the administrative burden [12].

However, FM is not only intended to reduce operating costs, but it also focuses on increasing the efficiency of the facility provided [13]. Outsourcing of FM is related to the coordination, management, monitoring and evaluation of the services provided [14]. FM outsourcing is the potential sourcing strategy to improve organizational efficiency and effectiveness of management [15].

Outsourcing has become a key in many area of business strategy in recent year and it also an approach to solve the business problems [16]. Organizations that execute various tasks of asset management have implemented the practice of outsourcing [17]. Non-core activities are usually carried out through outsourcing strategy in the organization including housekeeping, kitchen services, security and building setup, or interior and gardening services. It enables organizations to invigilator progresses in the increasingly competitive business. Focusing on all activities in the business indirectly giving anxious and costly to the management. Extremely in fluctuation economic reducing the operation cost is main agenda to maintain the profit. Outsourcing FM services not only releases the problems but supports reduce costs in the operation of organizations [11]. However, outsourcing cannot be seen as a method of cost savings, but it is a strategy to improve the management of the business.

Outsourcing strategies may also lead to higher costs but can improve organizational performance and enhance the company image in which management can focus on core activities [18]. Previous studies have indicated that outsourcing has its pros and cons [19]. Among the advantages of outsourcing is to improve service quality, reduce the cost of services for a long term, acquire expertise not available within the organization, and managers have more time to focus on important things in the organization. While the disadvantages of outsourcing can be seen from the aspect of losing control, transaction costs, supervision costs, security risks and the loss of know-how in-house. To overcome this problem in outsourcing, Service Level Agreement (SLA) is an important component in which it can be seen from the use of SLA in outsourcing. Empirical studies show that the growth in the use of the SLA is in line with the development of outsourcing [20]. It also a study proven that SLA being effective tools for managing outsourcing [21].

SLA has been considered as sufficient benefit to the company for its outsourcing failure in service delivery to complete performance benchmarks [22]. SLA is also recognized

as a practical and appropriate tool to achieve the quality of outsourcing [23]. SLA is not only used for outsourcing, it is also used in-house sourcing. Use SLA for in-house sourcing as a document of understanding [20], [23]. While the SLA is used in the outsourcing contract is treated as legally binding contract [23]. Larson, (1998) identify the understanding of differences in using of SLA based on their task shown in Table 1.0.

Table 1.0 Difference of SLA function [24]

Insourcing	Outsourcing
<ul style="list-style-type: none"> <li>Terminology is understood</li> <li>Not legalized</li> <li>Responsibility defined</li> <li>Service definition not precise</li> <li>Processes understood</li> <li>Cost rather than price, if at all</li> </ul>	<ul style="list-style-type: none"> <li>Terminology defined</li> <li>Legalized</li> <li>Responsibility defined</li> <li>Service definition precise</li> <li>Processes defined</li> <li>Price rather than cost</li> </ul>

## 3.0 SERVICE LEVEL AGREEMENTS

After reflecting the success of SLA in information technology (IT), SLA extended applications in other fields such as asset management, food services and security management [25]. Service Level Agreements (SLAs) are not only restricted to IT services but can also be used to specify other types of services because the practice of SLA has a positive influence in an organization both on the services provided and on the administration of those services [26]. However, different parameters used to achieve the objectives of the use of the SLA to get superlative results and quality of service [27].

SLA is an important document used to refer to an agreement between the two parties, namely the service provider (SP) and the service recipient (SR) by explaining the need for the services required [28], [29]. Numerous scholars refer to Hiles (1993)[25] to define SLA as a minimum service level to be provided by the SP and agreed by SR. Developments in the practice of the SLA led to the definition where it is an agreement that describes the services to be provided [20]. Moreover, SLA expended to ensure standards of quality, performance and time can be judged an acceptable level on a regular basis with the agreement known as performance-based [30]. Goo (2010)[28] portrays the SLA is a document that specifies the roles and responsibilities of the SR and the SP in the agreements, procedures, penalties and rewards. It is also used as a management tool to assess the quality, performance and value of the services provided [31]. Although various descriptions given to explain about the SLA, it can be concluded that SLA is an agreement to facilitate communication and governance between the SP and the SR to explain the scope of services, the quantity and quality of services required to meet the business needs of the organization.

SLA should be developed in detail since it is a mechanism for performance measurement in service delivery. Matrix used in the SLA, such as quality, speed and accuracy of the service should be clearly stated that the monitoring of the performance did not reach the required standard will be penalized [18]. This monitoring method is used to maintain the performance and delivery of services. The SLA used to manage contractor's performance in maintenance and warranty management based on the real performance to avoid it dwindling below an objective. The performance of services preferred by SR is quantified in terms of service level objective to be accomplished over a number of time period [32].

Implementation of SLA in FM outsourcing enables the facility manager identify responsibilities that need to be carried out [10]. Establishment of SLA ensures that SR and SP understanding the level of services required and conditions of financial performance [33]. By way of a mechanism for governance, SLA can reduce misunderstandings and conflicts in which the duties and responsibilities of the SR and SP are clearly stated [7]. Other than that, SLA can use as performance measurement mechanism in evaluating performance of services [34]

**4.0 PURPOSE OF SERVICE LEVEL AGREEMENT**

The purpose of developing and using the SLA is to manage and analyzing the requirements of SR to a reasonable level of services delivered as well as the SLA has a positive influence on maintaining long-term relationships with service recipients [7].

There are four (4) main reasons in using SLA [20]:

- a. Learning process, where in the negotiations stage SR builds a cost comparisons and to ensure that no hidden costs that can result in additional costs.
- b. Proposal to outsource the services decided after existing operations assessed wisely. The function of a normal services that can be implemented solitary may be changed due to the changes in business requirements or technologies
- c. SLA affect the organization to identify the limited resources needed and overall results of organization to distribute the resources
- d. Specific definition of service requirements and methods of performance evaluation of service providers will be measured

SLA is also important in the context of the current trend to the outsourcing of facility, where an SLA is often an assistant to the legal contract [35]. Even SLA used in insourcing, the practice in outsourcing looks more rigorous [7]. Main objectives of implementation SLA in outsourcing shown in Table 2.0

**Table 2.0** Objectives of service Level Agreement [36]

Primary Objectives	Secondary Objectives
Determining customer needs	Controlling customer expectations Satisfying the customer
Defining the necessary processes	Efficiently allocating available resources Controlling costs
Implementing a performance measurement system	Measuring customer satisfaction Comparing performance with competitors Implementing employee rewarding system Justifying the budget of a department
Managing the relationship between customer and service provider	Avoiding conflict Increasing customer retention

In early discussion, SLA has been identified as a rigorous document to control outsourcing after the parties agreed to the contract [37]. This document not only for control the service

performance but also as governance mechanism [7]. The previous study revealed that structured SLA has positive relationship in governance relationship [38]. Even though many advantages in usability and significance, SLA does not provide an assurance to success in outsourcing where it also has weakness in practice [33]. Problems in terms of relationship, communication, organizational, resources and know-how may be occur when SLA not establish in outsourcing the services [39].

**5.0 PROBLEMS IN THE DEVELOPMENT OF SERVICE LEVEL AGREEMENT**

Issues related to governance are often left in the development of SLA elements [28]. The aim of an SLA is to correlate the gap between SR and SP. However, there exist many problems and unsolved questions regarding the specification and the quantification of SLA [40].

Although there is much evidence about the role and importance of SLA in the con- text of service management, SLA shows many shortcomings in practice. Previous research reveals major problems have been identified in SLA implementation [33], [41]. There are commons problem in developing and managing SLA:

- a. The specification in SLA indicates the effort compared to the results of the service performance [41]. Most agreements focus on efforts to solve the problem. It does not emphasize the results of the efforts can have an impact on business performance SR.
- b. Unclear and incomplete service specification [33], [41]. Things are not clear in the SLA is usually in the availability of services to be provided by the SP. Where availability is specified in the SLA cannot be measured clearly. While the specifications were left incomplete elements that do not take into account the needs of the services required which can lead to misunderstanding responsibilities of the SR and SP.
- c. Cost management [33], [41]. It is difficult to identify specific cost with unclear service specification. The complexity of the offered services also has a results the difficulty in defining an optimum price for each particular services.
- d. “Dead-end SLA” document [33], [41]. SLA is a document consisting of technical terms that are not understood by all employees in the organization. Therefore, evaluation and improvement of the document does not take place for the future resolution.
- e. SLA management for on-demand services [33]. Most of the SLA is a uniform document that monitors the level of service with specific sources. The problems arise when the SLA cannot meet the requirements of different services needed.

Developing a successful SLA is a heavy responsibility and it is not a solution to every problem. If the SLA established in the wrong way or for the wrong reasons, it may generate greater difficulties than those it is trying to solve [39]. However, most of the problems that arise in the SLA are due to the development of SLA not comprehensive [28].

**6.0 DEVELOPMENT OF ELEMENT SERVICE LEVEL AGREEMENT**

There are various elements of SLA proposed by previous researchers. To obtain more comprehensive SLA elements, this study takes into account the elements discussed from previous researchers. Guidelines for the development of SLA elements

based on research done Goo (2010) [28]. However, in his research focusing on information technology but this research concentrating in facility management area and focusing to building service.

At first stage, the researcher adopt the concept of Transaction Cost Economic Theory (TCE) [42]. In the theory debate the importance of agreement in the transaction, which is, it will influence the cost of the transaction and the quality of services or goods. Figure 1.0 show the conceptual framework of research where relation of SLA as contractual governance to service performance.

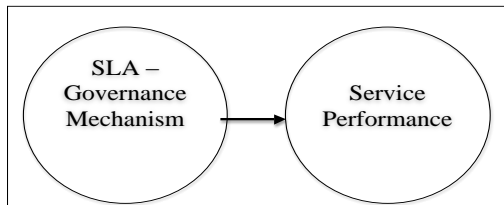


Figure 1.0 Conceptual framework

Agreement is needed to ensure that the transaction is profitable and beneficial to the organization. Benefits in outsourcing the facilities management measured in terms of time, cost and quality as service performance. Time, cost and quality are basic requirement in performance measurement that called as Key Performance Indicator (KPI) [43]. The majority of FM practitioners and organizations accepts performance measurement as a management strategy because they have realized the importance of performance measurement to their business success [43].

At second stages, from the theory of contract development, which is combination of Classical theory, Neo-classical theory and Relational contractual theory [44], the researcher expend the conceptual framework of research. Detailing of the contractual element based on previous items discussed by scholar and practitioner. Which is the development of the SLA elements grouped based on the function of the items.

- a. Description of Agreements. The agreement needs to describe the basic requirement, which is showing the purpose of the agreement. Its introduce contracting parties including scope of the agreement.
- b. Scope and availability of services. This element described the scope of services that SP shall deliver according to the contract requirement.
- c. Performance, Measurement and Evaluation of services. The performance required in the service and it should be measured and evaluated to ensure that the services provided to achieve an acceptable level.
- d. Feedback and Reporting. All the problems and complaints occur between the contract period, the parties in the contract shall follow the predetermine procedure.
- e. Payment. Outsourcing undertaken by the tradeoffs between the service provided and the fees charged. In this element, it described the payment process and the cost agreed between SR and SP.
- f. Change management and Renegotiation. These elements control the effects of changes within the organization and explain procedures renegotiation.
- g. Penalties. Services did not meet the agreed service levels will be penalized to the SP. In this element also describes procedures for penalty to be charged.
- h. Responsibilities and Rights in Agreement. Responsibilities of SR and SP will be clearly stated to make sure the outsourcing services deliver at the agreed level.
- i. Disputes and Termination. This element needed to resolve the dispute in the contract. The wrong termination process may occur costs the parties in the contract.
- j. Terms and Conditions of Agreements. This element described the limitation in the contract that giving the directions to both parties to ensure service delivery well performed.

Table 3.0 shows the summary of SLA elements. The developed element is used as constructs used in this study. Which is the construct may affect the service performance in facilities management outsourcing.

Table 3.0 Elements of service level agreement

ELEMENT OF SLA	ITEM	REFERENCE
1. Description of Agreements	Purpose of SLA, Parties in the agreement, period of agreement, and area to be covered, Signature of contract.	[20], [25], [30], [45]–[51]
2. Scope and Availability of Services	Type and service description, specification of services, objectives of services, Service level, availability of services and service warranty	[20], [22], [24], [25], [28], [30], [45]–[51]
3. Performance, Measurement and Evaluation of services	Service Level Measurement, Key Performance Indicator Performance Target and Evaluation of Services	[20], [22], [24], [25], [28], [45], [46], [49]–[51]
4. Feedback and Reporting	Service Level Reporting, Management Review, Helpdesk and Problem Management	[25], [28], [51]
5. Payment	Pricing and Schedule of Contract and Payment Procedure	[20], [24], [25], [45], [48], [49]
6. Change management and Renegotiation	Change Monitoring and Control, Process and Procedure of Renegotiation	[20], [25], [45], [46], [48], [49]
7. Penalties	Evaluation of penalty and Calculation of Penalty	[20], [22], [25], [46], [47], [51]hi
8. Responsibilities and Rights in Agreement	Responsibilities and Rights of SR and SP	[20], [28], [45], [49]–[51]
9. Disputes and Termination	Arbitration, Termination Procedure and Dispute Resolution	[20], [28], [45], [48], [50], [51]
10. Terms and Conditions of Agreements	Limitation in The Agreement, Future Planning in Contract, Statutory Requirement, Security and Safety of Information and Intellectual Property	[20], [24], [28], [30], [45]–[47], [51]

## 7.0 CONCLUSION

This paper describes the development of SLA elements. Ten fundamental elements of SLA are identified. SLA affecting outsourcing facilities management whether in a relationship or delivery of services [52]. The precise SLA facilitate effective service partnerships, whereas the incorrect SLA or SLA without the appropriate support infrastructure can be as detrimental as a lack of SLA [53]. As a result, the resources were not available for detailed analysis of the persistent problems or the identification and implementation of significant process improvements.

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### References

- [1] P. Lu, S. Guo, L. Qian, P. He, and X. Xu. 2014. The Effectiveness of Contractual and Relational Governances in Construction Projects in China. *Int. J. Proj. Manag.*
- [2] S. Leimeister. 2010. *IT Outsourcing Governance: Client Types and Their Management Strategies*. 1st ed. Germany: Springer.
- [3] R. J. Ferguson, M. Paulin, and J. Bergeron. 2005. Contractual Governance, Relational Governance, and the Performance of Interfirm Service Exchanges: The Influence of Boundary-Spanner Closeness. *J. Acad. Mark. Sci.* 33(2): 217–234.
- [4] G. Hoetker and T. Mellewigt. 2009. Choice and Performance of Governance Mechanisms: Matching Alliance Governance To Asset Type. 1044(September 2005): 1025–1044.
- [5] L. Poppo and T. Zenger. 2001. Substitutes or Complements? Exploring the Relationship Between Formal Contracts and Relational Governance. 314.
- [6] O. E. Williamson. 1996. *The Mechanism of Governance*. New York, New York, USA: Oxford University Press. 448.
- [7] R. G. Berbée, P. Gemmel, B. Droesbeke, H. Casteleyn, and D. Vandaele. 2009. Evaluation of Hospital Service Level Agreements. *Int. J. Health Care Qual. Assur.* 22(5): 483–497.
- [8] R. Cigolini. 2004. 5 Facility Management, Outsourcing.
- [9] F. Becker and F. Steele. 1990. *The Total Workplace*. 8(3): 9–14.
- [10] K. Alexander. 1993. Identifying and Managing Facilities Needs. *Facilities*. 11(3): 18–21.
- [11] M. K. Kurdia, a. H. Abdul-Tharim, N. Jaffar, M. S. Azli, M. N. Shuib, and a. M. Ab-Wahid. 2011. Outsourcing in Facilities Management-A Literature Review. *Procedia Eng.* 20: 445–457.
- [12] J. M. Downey. 2008. Facilities Emerald Article: Risk of Outsourcing - Applying Risk Management Techniques To Staffing Methods Risks of Outsourcing—Applying Risk Management Techniques to Staffing Methods.
- [13] N. E. M. Nik-Mat, S. N. Kamaruzzaman, and M. Pitt. 2011. Assessing The Maintenance Aspect of Facilities Management through a Performance Measurement System: A Malaysian Case Study. *Procedia Eng.* 20: 329–338.
- [14] B. Drion, F. Melissen, and R. Wood. 2012. Facilities Management: Lost, or Regained? *Facilities*. 30(5/6): 254–261.
- [15] D. I. Ikediashi, S. O. Ogunlana, and G. Udo. 2013. Structural Equation Model for Analysing Critical Risks Associated with Facilities Management Outsourcing and Its Impact on Firm Performance. *J. Facil. Manag.* 11(4): 323–338.
- [16] N. Beaumont and A. Sohal. 2004. Outsourcing in Australia. *Int. J. Oper. Prod. Manag.* 24(7): 688–700.
- [17] R. Cigolini, G. Miragliotta, and M. Pero. 2011. A Road-Map for Outsourcing Facilities-related Services in Smes: Overcome Criticalities and Build Trust. *Facilities*. 29(11/12): 445–458.
- [18] C. Taylor and F. Booty. 2009. Outsourcing. In *Facilities Management Handbook*. First Edit. Elsevier Ltd. 256–273.
- [19] M. a. Hassanain and S. Al-Saadi. 2005. A Framework Model for Outsourcing Asset Management Services. *Facilities*. 23(1/2): 73–81.
- [20] N. Beaumont. 2007. Service Level Agreements: An Essential Aspect Of Outsourcing Service Level Agreements: An Essential Aspect of Outsourcing. *Serv. Ind. J.* 26(4): 381–395.
- [21] C. D. Huang and J. Goo. 2009. Rescuing IT Outsourcing: Strategic Use of Service Level Agreements. *IT Prof.* February: 50–58.
- [22] J. Huai. 2010. Design Service Level Agreements in Outsourcing Contracts. In 2010 International Conference on Management and Service Science, 1–4.
- [23] M. Blackwell and J. Dixon. 2003. Service Level Agreements: A Framework for the Quality Management and Improvement of Central Support Services. In Annual International Conference Of The Higher Education Research and Development Society Australia (HERDSA).
- [24] K. D. Larson. 1998. The Role of Service Level Agreements in IT Service Delivery. *Inf. Manag. Comput. Secur.* 128–132.
- [25] A. N. Hiles. 1993. *Service level Agreements: Measuring Cost and Quality In Service Relationship*. 1st Edition. London and New York: Chapman & Hall.
- [26] K. Weyns and M. Host. 2013. Service Level Agreements in Municipal IT Dependability Management. *IEEE 7th Int. Conf. Res. Challenges Inf. Sci.* 1–9, May.
- [27] N. Beaumont. 2006. An Overview of Service Level Agreements. In Outsourcing and Offshoring in the 21st Century: A Socio-Economic Perspective, H. Kehal and V. Singh, Eds. IDEA GROUP PUBLISHING. 302–325.
- [28] J. Goo. 2010. Structure of Service Level Agreements ( SLA ) in IT Outsourcing: The Construct and Its Measurement. *Inf. Syst. Front.* 12(2): 185–205.
- [29] M. Alhamad, T. Dillon, and E. Chang. 2010. Conceptual SLA Framework for Cloud Computing. *4th IEEE Int. Conf. Digit. Ecosyst. Technol.* 606–610.
- [30] F. Zammori, M. Braglia, and M. Frosolini. 2009. A Standard Agreement For Vendor Managed Inventory. *Strateg. Outsourcing An Int. J.* 2(2): 165–186.
- [31] C. K. Chan, U. Chandrashekar, S. H. Richman, and S. R. Vasireddy. 2004. The Role of Slas in Reducing Vulnerabilities and Recovering from Disasters. *Bell Labs Tech. J.* 9(2): 189–203.
- [32] L. Liang and D. Atkins. 2013. Designing Service Level Agreements for Inventory Management. *Prod. Oper. Manag.* 22(5): p. n/a–n/a, Jun.
- [33] P. Fitsilis. 2006. Practices and Problems in Managing Electronic Services using SLAs. *Inf. Manag. Comput. Secur.* 14(2): 185–195.
- [34] C. D. Huang and J. G. J. Goo. 2009. Rescuing IT Outsourcing: Strategic Use of Service-Level Agreements. *IT Prof.* 11.
- [35] N. Dib, J. Freer, and C. Gray. 1998. Service-level agreements at the Huddersfield NHS Trust. *Int. J. Health Care Qual. Assur. Inc. Leadersh. Health Serv.* 11(2–3): 96–101.
- [36] P. Gemmel and D. Vandaele. 2004. Service Level Agreements: een literatuuroverzicht. *Tijdschr. voor Econ. en Manag.* XLIX(1): 137–68.
- [37] E. P. Rondeau, R. Kevin Brown, and P. D. Lapidés. 2006. *Facility Management*. United States of America: John Wiley & Son, Inc. 503–504.
- [38] J. Goo, R. Kishore, H. Rao, and K. Nam. 2009. The Role Of Service Level Agreements In Relational Management Of Information technology Outsourcing: An Emperical Study. *MIS Q.* 33(1): 119–145.
- [39] N. Karten. 2003. How to Establish Service Level Agreements.
- [40] J. J. M. Trienekens, J. J. Bouman, and M. Van Der Zwan. 2004. Specification of Service Level Agreements: Problems, Principles and Practices. *Softw. Qual. J.* 12(1): 43–57.
- [41] J. Bouman, J. Trienekens, and M. van der Zwan. 1999. Specification Of Service Level Agreements, Clarifying Concepts On The Basis Of Practical Research. In *Software Technology and Engineering Practice*, 169–178.
- [42] O. E. Williamson. 2011. The Economics of Organization: The Transaction Cost Approach. *Am. J. Sociol.* 87(3): 548–577.
- [43] X. Meng and M. Minogue. 1981. Performance Measurement Models In Facility Management: A Comparative Study. *Facilities*. 29(11/12): 472–484.
- [44] I. R. MacNeil. 1985. Relational Contract: What We Do and Do Not Know. 4(1983): 483–526.
- [45] P. Tonks and H. Flanagan. 1994. Positioning the Human Resource Business Using Service Level Agreements. *Health Manpow. Manage.* 20(1): 13–7.
- [46] N. J. Muller. 1999. Managing Service Level Agreements. *Int. J. Netw. Manag.* 9(3): 155–166.
- [47] L. Jin, V. Machiraju, and A. Sahai. 2002. Analysis on Service Level Agreement of Web Services Analysis on Service Level Agreement of Web Services.
- [48] L. Cooper. 2003. Public Service Agreements: Costing and Linking Slas to Business Planning Processes. *IMF Healthcare*. 3–6.
- [49] S. Godbolt. 2003. Key Components Of Service Level Agreements. *IMF Healthcare*. 7.
- [50] R. Colman. 2006. Service Level Agreements: A Shared Services Cornerstone. *CMA Management*. 7–10.
- [51] Y. Li. 2010. Managing Enterprise Service Level Agreement. *Int. J. Appl. Logist.* 1(3): 18–43.
- [52] J. Goo, C. D. Huang, and P. Hart. 2008. A Path to Successful IT Outsourcing: Interaction Between Service-Level Agreements and Commitment. *Decis. Sci.* 39(3): 469–506.
- [53] K. L. Hartley. 2005. Defining Effective Service Level Agreements For Network Operation And Maintenance. *Bell Labs Tech. J.* 9(4): 139–143.