# THEORETICAL CONCEPTS ON SUPPLIER AGREEMENT MANAGEMENT

# Florina-Cristina FILIP, Vladimir MĂRĂSCU-KLEIN

Transilvania University of Brasov, Romania

Abstract. Within the scope of the process improvement program it is intended to select suppliers according to defined criteria, to establish agreements with the supplier, to control the progress and to review and accept the results/deliverables. This paper comprises the process description of the topic "supplier agreement management" and explains target and handling of the process. The process description addresses the project leaders, who have to manage the acquisition of products and/or services from suppliers. This process covers explicitly the supply of components/services by the projects customer, does not address arrangements in which the supplier is integrated directly into the project team, does not cover explicitly the acquisition of development tools and test environment and is placed under an obligation for all types of projects.

Keywords: supplier, process, agreement, requirement

#### **1. Introduction**

In order to survive in today's competitive most firms devote a considerable amount of time and effort to evaluation and selection of the "right" suppliers [1]. It is widely accepted that in order to compete and survive, firms must seek, build up and maintain relationships with capable suppliers and extract the maximum value through such relationships. First, with external spend accounting for up to 60 or even 70 per cent of the budget in many industries, firms have to work through suppliers to facilitate and realize significant cost savings and can no longer limit such efforts to their boundaries. Second. firm the specialized competencies residing with suppliers may have a substantial influence on the buying firm's innovativeness and ability to offer high-quality products. Third, the performance demonstrated by the supplier on a day-to-day basis (e.g. delivery time, delivery reliability, product quality) is influential [2].

The purpose of supplier agreement management (SAM) is to manage the acquisition of products and services from suppliers. The scope of this process area addresses the acquisition of products, services, and product and service components that can be delivered to the service's customer or included in a product or service system. This process area's practices can also be used for other purposes that benefit the service (e.g., purchasing consumables).

This process area does not apply in all contexts in which commercial-off-the-shelf (COTS) components are acquired but does apply in cases where there are modifications to COTS components, government off-the-shelf components, or freeware, that are of significant value to the work or that represent significant risk. Throughout the process areas, where the terms "product" and "product component" are used, their intended meanings also encompass services, service systems, and their components. The supplier agreement management process area involves the activities regarding determination the acquisition type, suppliers selecting, establishing and maintaining agreements with suppliers, executing supplier agreements, accepting delivery of acquired products and ensuring successful transition of acquired products [3].

Supplier agreement management is the formalization of a supplier-buyer arrangement where one party supplies a range of products/services (i.e. commodities) to the other, whereby the terms of business are documented in a structured document(s) that provides clarity on the legal obligations of each party. Management of this formalized relationship allows an organization a degree of control over the deliverables and performance requirements [4].

The responsibility for establishing a good professional supply agreement can lie with the supplier or the customer, although in the case of service agreements with private consumers there is a clear responsibility for the supplier to operate within the relevant consumer law, which stipulates that certain contractual obligations rest firmly with the supplier [5]. Connecting with reliable and trustworthy suppliers has become a key factor for successful organizations. Therefore, supplier decisions are important, but difficult, due to the challenges firms face in today's business environment. These challenges include the

increased competition from international as well as from domestic sources [6].

# 2. Roles and stakeholders in agreement management

The following roles are involved:

- department manager responsible for subordinate areas. Has to approve the request and order of products and services (or changes to them), which have to be acquired externally;
- project leader responsible for managing the acquisition of products and services from external suppliers within the development project;
- project team member has to support (as far as involved) the identification and definition of products and services to be acquired externally as well as the controlling of the supplier;
- project quality responsible responsible for definition of quality items within the requirements documentation which have to be agreed with the (possible) supplier and must not be independent according to the requirements for process and product quality assurance. Has to perform the defined measures and report the results;
- supplier has to approve later changes to the agreed requirements and contract and must support acceptance and transfer of products;
- purchase negotiates request for quotation (RfQ), chooses supplier and monitors supplier agreements.

# 3. Activities on supplier agreement management and flowchart

## 3.1. Collect and document requirements

Entry criteria: make-or-buy decision, requirements are complete concerning technical as well as commercial (budget), quality and organizational items.

Inputs: demand for external product or service, requirements for external product or service.

Activity steps: review an existing make-or-buy decision and approve whether to purchase a commercial-off-the-shelf (COTS) product or to obtain products through a contractual agreement on development services. In both cases identify potential COTS products (at least to consider possible alternatives) and evaluate them against the associated requirements: functionality, performance and quality, warranty/maintenance and support, commercial feasibility (rough pre-evaluation), risk. Documentation of requirements and if necessary, clarify technical requirements with the possible supplier(s), but without discussion of topics concerning the commercial negotiations of the purchase department. As far as confidential contents are affected assure confidentiality by a valid nondisclosure agreement (NDA). After approval of starting the external acquisition propose the necessary information to the purchase department: required product or service and possible supplier(s) according to the site-specific definitions for supplier management (e.g. choose suppliers from the "preferred supplier list"), in the case of more than one supplier define project-specific selection criteria (in case of a new supplier assess suppliers ability to perform an order). If all necessary information are complete and if there is no need for further discussion of possible suppliers with the purchase department, document the request for acquisition of a product or service (in form of the site-specific purchase request).

Templates/checklists: specific site requirements template (if applicable), site-specific supplier agreement manual (if applicable), site-specific purchase request form (if applicable), site-specific supplier evaluation board (if applicable). Responsible: project leader.

Stakeholder (and involvement): project team member, project quality responsible, department manage, purchase.

Outputs: request to the purchase department for acquisition of a product or service.

Exit criteria: proposed supplier(s) is/are documented (if applicable), supplier selection criteria are documented (if applicable), content of acquisition is documented (e.g. statement-ofrequirements or product identification).

## **3.2. Evaluation of quotations**

Entry criteria: request to the purchase department for acquisition of a product or service.

Inputs: collected quotations and documented content of acquisition (statement-of-requirements or product identification).

Activity steps: perform technical evaluation of quotations collected by the purchase department and give feedback to the purchase department (if necessary), support negotiations of the purchase department with possible suppliers and update the documentation of requirements concerning necessary changes (if necessary). In case of acquisition of development services the purchase department will nominate the preferred supplier after negotiation of order and contracts and in this case the development project has to agree/comment the supplier selection according to the selection criteria. The project plans must be revised concerning the necessary tasks for supplier agreement activities, impacts and transfer of the delivered product into the responsibility of the project (refer to project management process) and concerning the test/acceptance planning (refer to the integration and test process).

Templates/checklists: site-specific purchase request form.

Responsible: project leader.

Stakeholder (and involvement): project team member, project quality responsible, department manage, purchase.

Outputs: comment on supplier selection done by the purchase department in beforehand (if applicable) and project plans.

Exit criteria: comment on supplier selection is documented (if applicable), contracts and requirements are agreed with the supplier, contract/order is released and accepted by the supplier, project plans are revised concerning impacts and new necessary activities, content of acquisition (requirements) is updated (if necessary).

#### **3.3.** Establish/control change management

Entry criteria: contracts and requirements are agreed with the supplier, contract/order is signed and accepted by the supplier, changes to contract/order or requirements specified.

Inputs: order of the purchase department, contract with the supplier, in further iteration steps (not initially), changes to the contract/order or the agreed requirements.

Activity steps: The following activity steps are typically relevant for the acquisition of development services but should be also considered in case of acquisition of COTS products.--If necessary, are detailed the change management agreement specified in the requirements or contract/order: identify who is responsible and authorized to make changes to the supplier agreement (project as well as supplier, ensure that agreed proceedings are in line with the internal change management process) and identify how changes will be determined, communicated and addressed. Continuous activities: changes to the requirements occurring during the cooperation with the supplier have to be documented according to the agreed proceedings (and, of course, according to the internal change management process); in case of changes with impact on the contract/order (e.g. increasing costs/ timing) document these changes according to the agreed proceedings as well, additionally these changes have to be approved by the department manager and communicated to the purchase department unconditionally.

Templates/checklists: site-specific template for documentation of change with impact on the contract/order (if applicable).

Responsible: project leader.

Stakeholder (and involvement): department manage, purchase, supplier.

Outputs: detailed change management agreement (if applicable), change request according to the change management process (if applicable), change of the supplier agreement (if applicable).

Exit criteria: change management agreement is documented (e.g. by the supplier) change request is proceeded and accepted according to the regulations of the internal change management process, change of supplier agreement is documented (e.g. within a site-specific template), approved by the department manager and communicated to the purchase department.

#### **3.4.** Monitor supplier agreements

Entry criteria: contract and requirements are agreed with the supplier, reporting from the supplier according to the agreed definitions.

Inputs: contract and documented changes, requirements and reporting from the supplier.

Activity steps: In case of acquisition of COTS products the purchase department will monitor the supplier agreements until delivery. If the acquisition action is critical (e.g. due to delivery date or timecritical process at the supplier), the delivery date has to be obligatorily asked for confirmation in a timely manner. In case of acquisition of development services the responsible project has to monitor and control the supplier according to the supplier agreement by performing status reviews together with the supplier according to the definitions (milestones, intervals, etc.) as specified in the requirements and/or continuously evaluating the reporting of supplier. In any case the action shall consider: schedule and critical dependencies, effort and cost, development progress, quality and compliance of specific processes as selected and agreed with the supplier (see activity "regularly assure quality of delivered services and products"). The results of this evaluation must be tracked and reported according to the site-specific definitions for the project monitoring and control process.

Templates/checklists: site-specific template for review documentation (if applicable), site-specific template for tracking open items (if applicable), site-specific template for status reporting.

Responsible: project leader.

Stakeholder (and involvement): project team member, supplier.

Outputs: monitored delivery date, status information and metrics reported by the supplier. In case of acquisition of development services: reports for the technical and management reviews performed with the supplier (if applicable), open items list (if applicable).

Exit criteria: delivery date is confirmed (if applicable), review performed conformal to the definitions documented in the supplier agreements, (if applicable), open items will be tracked to closure (if applicable), status information and metrics are according to the site-specific requirements agreed with the supplier.

# **3.5. Regularly assure quality of delivered** services and products

Entry criteria: trigger conformal to definition in the supplier agreements and supplied products.

Inputs: trigger for quality assurance, e.g. products from the supplier, process compliance metrics reported by the supplier, quality milestone reached with the consequence of jointly performed process audit at the supplier and critical concern/quality loss.

Activity steps: In case of acquisition of COTS products the quality assurance will be realized by performing the defined verification measures after arrival of products. This activity will be combined with the general acceptance tests as defined in the following activity. In case of acquisition of development services a regularly (i.e. intermediate) quality assurance may be realized by performing process audits (according to site-specific criteria), evaluation of the reported compliance of specific activity "monitor processes (see supplier agreements"), performing verification measures (acceptance tests according to the project-specific test plan). The processes to be assessed as well as the agreed monitoring methods have to be documented within the supplier agreement (e.g. the requirements). The results of the performed audits have to be communicated to the purchase department. If necessary, define corrective actions to remedy quality losses or to close findings of process audits.

Templates/checklists: site-specific template for process audit reports (if applicable).

Responsible: project leader.

Stakeholder (and involvement): project team member, project quality responsible, purchase, department manager, supplier.

Outputs: quality assurance report (if

applicable), acceptance tests, corrective actions (if necessary).

Exit criteria: quality assurance measures performed and reported (if applicable), acceptance tests are performed according to the projectsspecific test plan.

#### **3.6.** Accept the acquired products/services

Entry criteria: products are delivered and/or services are performed, reports are delivered and quality assurance report is communicated (if applicable).

Inputs: products/services from the supplier, process compliance metrics reported by the supplier, quality assurance report (if applicable) and project-specific test plan.

Activity steps: perform acceptance tests according to the defined measures documented in the project-specific test plan as well as in the requirements agreed with the supplier, review the delivered products and/or services (together with the supplier, if applicable) against the requirements, obtain an agreement with the supplier concerning the results of the review and/or acceptance tests (if necessary), obtain supplier agreement on the action plan for any delivered product or service that has not passed the acceptance review or test, document results and track open item to closure (if necessary), document and report the supplier performance evaluation (if applicable). In case of acquisition of COTS-products inform the purchase department about the status of each delivery unconditionally. In case of acquisition of development services inform the purchase department according to agreed milestones with relevance for billing, if all necessary deliveries are accepted.

Templates/checklists: site-specific template for tracking open items (if applicable), site-specific template for acceptance review protocol (if applicable), site-specific template for supplier performance evaluation (if applicable).

Responsible: project leader.

Stakeholder (and involvement): project team member, project quality responsible, purchase, department manager, supplier.

Outputs: acceptance test protocol (if applicable), acceptance review protocol (if applicable), open item list (if applicable) and supplier performance evaluation report (if applicable).

Exit criteria: acceptance test protocol, acceptance review protocol and open item list is agreed with the supplier and communicated, supplier performance report is communicated to the purchase department.





#### **3.7. Transfer products**

Entry criteria: products are delivered and services are performed.

Inputs: products/services from the supplier.

Activity steps: all tasks planned for a smooth transition of the products and services must be started, typically concerning configuration management ("check-in" of the product), integration process (delivery of product to all stakeholders who need the product), maintenance

(assignment of responsibility within the company for future maintenance and support), training for using and maintaining the product (e.g. functionality and interfaces, restrictions, etc.) and activities concerning transfer into the organization (e.g. administration of products by IT department).

Responsible: project leader.

Stakeholder (and involvement): project team member, supplier.

Outputs: training (if applicable) and products/result of services.

Exit criteria: product is under appropriate configuration management, responsibility for delivered products is assigned, training is documented (if applicable) and products/services transferred.

## 4. Conclusions

goal supplier agreement The of the management process is to guarantee, that suppliers will work conformal to all internal and external contracted requirements to the development process and products. The product quality assurance process performs audits of the activities of the supplier management agreement process and of corresponding work products and reports the results conformal to the product quality assurance process.

Inputs involve demand for external product or service and requirements for external product or service.

Outputs involve request to the purchase department for acquisition of a product or service, revised project plans (if necessary), reports for technical, management and acceptance reviews performed with the supplier (if applicable), status information and metrics reported by the supplier, quality assurance report (if applicable), reports of acceptance tests, open item list (if applicable), supplier performance evaluation report (if applicable), training (if applicable).

Entry criteria involve make-or-buy decision and requirements who must be complete concerning technical as well as commercial (budget), quality and organizational items as far as necessary to start the business.

Exit criteria involve documentation on proposed supplier(s) (if applicable), documentation on supplier selection criteria (if applicable), documentation on content of acquisition (requirements or product identification) and agreed with supplier, received and accepted by the supplier of contract/order, reviewed project plans concerning impacts and new necessary activities, reviews are performed conformal to the definitions of the supplier agreements (if applicable), status report and metrics are according to the site-specific and agreed requirements, quality assurance measures are performed and reported (if applicable), acceptance tests are performed according to the projectsspecific test plan, acceptance protocol, acceptance review protocol and open item list is agreed with supplier and communicated, supplier the

performance report is communicated with the purchase department, product is under appropriate configuration management, responsibility for delivered products is assigned, training is documented (if applicable).

Acknowledgement: This paper is supported by the Sectoral Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number POSDRU/88/1.5/S/59321.

#### References

- 1. Ordoobadi, S.M., Wang, S. (2011) A multiple perspectives approach to supplier selection. Industrial Management & Data Systems, Vol. 111, No. 4, p. 629-648
- 2. Wagner, S.M. (2006) *Supplier development practices: an exploratory study*. European Journal of Marketing. Vol. 40, No. 5/6, p. 554-571
- 3. \*\*\* Supplier Agreement Management. A Project and Work Management Process Area at Maturity Level 2. Available from: http://www.sei.cmu.edu/cmmi/tools/cmmiv1-3/ upload/SVC-SAM-compare.pdf, Accessed: 21/01/2012
- 4. \*\*\* (2007) Supplier Contract Management, Finding the Right Balance. Available from: http://www.accountancysa.org.za/documents/ASA\_Septem ber07\_Pages28-47.pdf, Accessed: 15/01/2012
- 5. \*\*\* Service agreements and contracts templates. A quick simple free structure and template for creating service agreements, and management contracts for providing or outsourcing services supplies. Available from: http://www.businessballs.com/service\_agreements\_contract s\_templates.htm, Accessed: 24/01/2012
- Matook, S., Lasch, R., Tamaschke, R. (2009) Supplier development with benchmarking as part of a comprehensive supplier risk management framework. International Journal of Operations & Production Management, Vol. 29, No. 3, p. 241-267