

# Systematization of logistics outsourcing implementation through project management practices

## Sistematização da implementação de outsourcing logístico por meio de práticas de gestão de projetos

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**Abstract:** The logistics outsourcing, applied as one of the Supply Chain Management (SCM) practices, has proven to be effective for building competitive advantages within organizations. The academic literature has contributed to this initiative especially relating its concepts with Transaction Cost Economics (TCE) and Resource-Based View (RBV) theories. However, few papers discussed the effectiveness on the implementation of the partnership, in other words, the moment in which the partnership begins to work in practice. Through an exploratory study, this paper proposes a systematization of logistics outsourcing implementation. The proposition is based on Project Management knowledge and improved by a verification process conducted through interviews with professionals who have gone through or are going through the transfer of logistics processes in their respective businesses. The results indicate that the proposed systematization is applicable in the corporate environment, especially to aid the understanding of the involved professionals regarding the necessary work to be done.

**Keywords:** Supply Chain Management; Project management; Outsourcing; Logistics.

**Resumo:** O outsourcing logístico, aplicado como uma das práticas da Gestão da Cadeia de Suprimentos (Supply Chain Management – SCM), vem demonstrando ser efetivo para a construção de vantagens competitivas nas organizações. A literatura acadêmica tem contribuído com essa prática especialmente ao relacionar seus conceitos com as teorias da economia dos custos de transação (Transaction Cost Economics - TCE) e da visão baseada em recursos (Resource-Based View - RBV). Porém, poucos trabalhos têm abordado a efetiva implementação da relação, ou seja, o momento em que a parceria começa a funcionar de fato. Por meio de uma pesquisa exploratória, este artigo propõe uma sistematização para projetos de implementação de outsourcing de processos logísticos. A proposição é baseada nos conhecimentos da Gestão de Projetos (Project Management) e aprimorada por um processo de verificação realizado a partir de entrevistas com profissionais que passaram ou estão passando pelo processo de terceirização logística em suas respectivas empresas. Os resultados apontam que a sistematização descrita é aplicável no ambiente corporativo, especialmente ao auxiliar a compreensão dos profissionais envolvidos quanto ao trabalho necessário.

**Palavras-chave:** Supply Chain Management; Gestão de projetos; Logística; Terceirização.

## 1 Introduction

Along with the growth of Supply Chain Management (SCM) and global sourcing practices, logistics processes have gained great importance in the organization operations (Pires, 2009). Since this growth means complexity and costs increase in logistics processes execution, companies turn to outsourcing as a way of generating competitive advantages. The academic literature in this area has contributed greatly with the understanding of outsourcing aspects in recent years, especially for relate their characteristics to the theories of Transaction Cost Economics (TCE) and Resource-Based View (RBV). Through TCE

and RBV principles becomes possible to understand the reasons for outsourcing option, the best ways for partner selection, the necessary care during the discussion of the partnership and how the relationship monitoring should be conducted (McIvor et al., 2009; Farrell, 2010; Neves et al., 2014).

However, it is possible to note that just few studies have tackled exclusively and in a depth way one of the most complex stages of this process, which is the effective implementation of the partnership relation. In fact, Jiang & Qureshi (2006) support that there is a lack of research discussing issues related to outsourcing

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implementation, while Daugherty (2011) says that, to enrich literature in this area, it is still necessary to develop researches addressing guidelines for the establishment of logistics partnerships relations.

Concurring with this conclusion it is possible to verify that more and more companies start to manage their change efforts as a project. In other words, the necessary changes to the suitability of corporations to new parameters of their consumers are starting to be realized through a temporary effort undertaken to create exclusive product, service or result. Thus, a structured project management methodology can be used in any project, since the limits of performance and adequacy comply of the applied universe are respected (PMI, 2013).

Therefore, the objective of this article is to use the existing concepts of project management to propose a systematization of logistics outsourcing implementation, defining processes and deliveries that can assist managers both understanding the complexity and the management of the task in question. After this introduction, Section 2 discusses the theoretical framework that supports the proposition of the article. Then, in section 3, methodological procedures are detailed, including representation of the conducted research structure. In sequence, Section 4 approach the obtained results detailing the proposed systematization and, finally, section 5 presents the final considerations of this article and presents suggestion of research advancements.

## 2 Theoretical framework

### 2.1 Outsourcing aspects

Outsourcing is not a new topic in business, and discussions about the possibilities for its use, possible benefits and barriers to its adoption have worried managers since the creation of the first organizations. This decision, often called make-or-buy, offers alternatives to reduce costs and investments, beyond the possibility to maintain focus on the main business. Thus, the practice offers a way to increase the profit margin and business flexibility, allowing companies to transform fixed costs into variables and have access to scale economies (Ellram et al., 2008).

McIvor (2005) defines outsourcing as the supply of goods and services previously produced internally within the organization by external suppliers. Thus, outsourcing is a management approach that enables the delegation of operational responsibility and management components, processes or services to specialized and efficient external agents (Farrell, 2010). At the academy, two theories demonstrate to be influent in the study of outsourcing: the Transaction Costs Economics (TCE) and the Resource-Based View (RBV).

TCE basically specifies the conditions under which an organization must manage an internally economic exchange within their borders (hierarchies), and the adequate conditions for the management of external economic exchange (markets) (Williamson, 1985). Thus, a company tends to make decision for outsourcing based on reduction of transaction costs that will possibly be achieved by the practice (McIvor, 2008).

RBV, in turn, describes the company as a set of assets and resources that if used in different ways, can generate competitive advantages. From this meaning it is interesting that companies compare their skills with market and other companies in order to understand which their competencies are. From this analysis, RBV recommends do not outsource essential competencies or those that involve special skills or strategies that can mean a superior performance in relation to the competition (Rumelt, 1984). TCE and RBV combination can extend the potential relationship strategies available to an organization when outsourcing is considered an option. TCE provides a solid theoretical basis to investigate the market related to hierarchical mechanisms in outsourcing decision, while from the RBV perspective, inter-organizational collaboration can be used to access and develop complementary resources that contribute to competitive advantage (McIvor, 2005).

In the search for the definition of a functional approach that can be used by companies as guidance in establishing alliances with suppliers, several models have been identified in the academic literature in this area. Neves et al. (2014), for instance, indicate that outsourcing must be defined in two phases: an initial strategic phase based on the RBV, when the activities that must be carried out internally are identified, and a second phase, when are understood activities that can be performed externally and are identified those that can be outsourced based on both TCE and RBV. Chart 1 presents other researches that take into account aspects of these theories and its related authors.

To accomplish the objectives of this article, the model to be used is that proposed by Vernalha & Pires (2005). This model was chosen because it includes the main concepts of other proposals and is applied specifically in the logistics outsourcing, the main focus of the research. However, it is important to note that the proposed systematization will treat specifically of the implementation step (step 3) of the chosen model. That is because this stage is a finite effort, started when the partner begin to take over the logistics activities and ended when the operation is already under its responsibility. Naturally, the preliminary and subsequent stages to outsourcing implementation are extremely important for operations transfer success. However, these steps are not treated in this research, being assumed that have been or will be carried out satisfactorily.

**Chart 1.** Examples of outsourcing models found in academic literature.

Outsourcing model	Authors
Model with five consecutive steps for outsourcing: (1) preliminary stage; (2) identify potential partners; (3) select partner; (4) establish relations; (5) evaluate the partnership.	Ellram (1995)
Composed for four stages, being modifiable for specific industries: (1) planning; (2) development; (3) implementation; (4) evaluation.	Zhu et al. (2001)
Similar model to Zhu et al. (2001) in their steps, but including performance measurement forms and outputs expected in each phase of the process, connecting operational and tactical considerations to strategic planning.	Momme & Hvolby (2002)
Model defined by four steps: (1) internal benchmarking analysis; (2) external benchmarking analysis; (3) contract negotiation; (4) outsourcing management.	Franceschini et al. (2004)
Model with four sequential steps that consider important aspects of the implementation: (1) Motivation; (2) Decision; (3) Implementation and (4) Management.	Vernalha & Pires (2005)
By adding methods, systems and measurements developed by operations management literature, the model is composed by four phases: (1) process importance analysis; (2) Process capabilities analysis; (3) selection of sourcing strategy; (4) implementation and management of outsourcing.	McIvor et al. (2009)

Source: Developed by the authors.

2.2 Outsourcing of logistics processes

Since the consolidation of the SCM concept, the logistics processes gained more importance, being elevated from the situation of support activities to a central role in company strategies. More recently, the globalization of the economy linked to the concept of global sourcing has resulted in a growing demand for logistics services worldwide. Also is possible to note an increase in demand by customers related to the level of logistics services, arising from the increased amount of available information and the facility of performing comparisons among competitors (Figueiredo & Mora, 2009).

In this context, many companies began to consider the possibility of outsourcing their logistics processes. This because managing such operations has become a challenge given the wide range of logistics functions, the complexity inherent in handling large amounts of goods and stock keeping units, and the large capital investment required for these operations (Bourlakis & Melewar, 2011). Discussing other reasons why organizations consider outsourcing of logistics processes, Hsiao et al. (2010) demonstrate that companies also consider this option due the characteristics of their supply chains. Therefore, the more complex the logistics operations and more uncertain the demand, greater will be the importance of a partnership with a Logistics Services Provider (LSP). Several benefits of logistics outsourcing are reported in the literature, such as increased market coverage (Skjoett-Larsen, 2000) and more flexibility for new customer requirements (Lau & Zhang, 2006). In a compendium of these benefits, Bourlakis & Melewar (2011) point that logistics outsourcing reduces investments in facilities,

information technology and human resources. Likewise, hiring a LSP provides greater flexibility to adapt to environmental changes, faster responses to market requirements, an improvement in inventory turnover rate and a general increase in consumer satisfaction. In this sense, the services offered by a logistics partner tend to be more complex, since it must support the operations of global chains and support the growth of service level of several members such as suppliers, manufacturers and retailers.

Relating to theories that serve as base for discussion of outsourcing, they are also applied to describe the outsourcing of logistics operations. Zacharia et al. (2011) mention that TCE provides a well-accepted base for this analysis, since logistics outsourcing usually reduces transaction costs which include processing centralized applications, efficient use of assets and workload consolidation in a third company. These transaction costs can be further reduced by the standardized processes and improved coordination offered by the partner, and by the access to the best available technological resources.

Nevertheless, companies’ actions to reorganize its operations, outsource their activities to a partner and remain competitive cannot be explained only by TCE. Other relevant factors related to these decisions, evidenced by RVB, are the ability to focus on their core competencies and involve external companies to perform other operations of the organization.

In this sense, Wong & Karia (2010) defend that a LSP acquire or gain access to resources such as logistics centers, skilled workers, information systems and experience in logistics activities in order to achieve growth and provide a competitive advantage.

Furthermore, different LSP have different resource portfolios, and while some companies ground its resources on their properties, other has strongly knowledge-based services. Thus, in the logistics sector, resources are distributed heterogeneously across companies such as LSP, transport operators and users. Organizations then consider outsourcing to gain access to valuable resources and create more bundles of competitive resource, giving them advantage in the market (Wong & Karia, 2010). In a summary of these discussions, Chart 2 presents the theories fundamentals mentioned in relation to logistics outsourcing.

2.3 Challenges and activities in outsourcing implementation phase

In a study conducted with 2,342 executives from various industrial companies around the world, Langley (2013) showed that although most companies consider their logistics outsourcing process successful, in Latin America the success rate of the practice fell nine percentage points from 2012 to 2013. Confidence levels, technical challenges and risks needed to create evolved relationships with LSP, in addition to the recent recession impact in the market, are pointed as factors that contributed to this result. However, unrealistic expectations about the structure or the results of relationship also have a key role in logistics partnership failure rates. Corroborating this view, Wullenweber et al. (2008) indicated that in logistics outsourcing, relationships often fail due to lack of confidence, lack of commitment and scarce ability of communication between the parties.

Recently, Tsai et al. (2012) identified others reasons for a determined outsourcing of logistics operations does not prosper as planned. Initially, it is perceivable that the lack of common objectives and fundamental differences in the priorities of the partnership are the most significant reasons for relationship problems. This occurs, for instance, when the contractor seeks to attain a performance of uppermost delivery but the LSP has its internal activities aimed at operating

costs reduction. If both parties have different goals, the expenses may be underestimated, taking in a probable increase in transaction costs. The possibility of opportunistic behavior, another base of TCE, can take also to failure of the relationship. It is true that a well-done selection of the partner in the preceding stages to the implementation of outsourcing can reduce this risk. However, if there is not confidence and a well structured process to put the outsourcing in practice, opportunism gaps may arise and take to outsourcing failure. Tsai et al. (2012) also plead that inadequate utilization of human recourses and the risk in information sharing are the main problems related to resources, and therefore bounds to outsourcing logistics activities. This means that if the resources set offered by a LSP to its contractor, which in accordance to RBV can provide a competitive advantage in the market, is not properly utilized and seeking for common goals, the likelihood of dissatisfaction with outsourcing tends to grow. A failed relationship is considered as one of the main factors that contribute to the deviation and inefficiency of resources, proving necessary a correct implementation of the logistics partnership in order to mitigate the risks related to increased transaction costs and related to the correct utilization of available resources offered by LSP.

Therefore, in implementation phase of the logistics outsourcing project it is necessary set up a detailed SLA (Service Level Agreement) among the parties, namely a document that will guide the relationship. The SLA should mean the main tool for monitoring the outsourcing scheme, covering several topics as price and payment conditions, the form of the personnel transfer and resources, implementation time of services, penalties and responsibilities and issues related to contract rescission. The framing of this type of agreement requires that contracting company and the LSP develop deeper interaction, including process analysis and detailed mapping of workflow to establish the tasks involved in process execution, beyond the performance levels required (McIvor et al., 2009).

Chart 2. TCE and RBV fundamentals related to logistics outsourcing.

Theory	Fundamentals	Support for logistics outsourcing
Transaction Cost Economics (TCE)	Companies exist to maximize their profits through reducing their transaction costs.	Minimizes transaction costs once the more the LSP grows, more services are offered at low cost.
Resource-Based View (RBV)	Companies are constituted by resources sets that give them a competitive advantage.	Maximizes the capacity of a company to access resources variety, once the more the LSP grows, bigger is the possibility to offer a wide range of resources.

Source: Adapted from Zacharia et al. (2011).



After defined the terms in what it is intended the implementation process must occur, the operationalization of the relationship requires that involved companies unlearn and relearn several concepts about resource management. In this means, it noted that the suppliers companies and their customers would have to develop ways to envisage the new challenges that will arise in production planning, supply and distribution logistics and effective control of associated costs to outsourcing. For this intent, one of the basic tasks is to motivate employees to share information and abilities with new business partner (Vernalha & Pires, 2005). Although it seems clear that a logistics partnership claims the wide distribution of information, both operational and know-how, Diabat et al. (2013) point out that fear and distrust of contractor company employees are some of the biggest problems in the partnership implementation phase. This because, when a company chooses an outsourcing provider, their employees whom work directly in the conduct of logistics processes can become apprehensive about the function maintenance, inducing to discouragement and isolation. So, fear of cutting in staff due outsourcing ongoing can take current employees to sabotage the process, do not teaching or avoid sharing vital data to the LSP success.

Due to the various challenges that the implementation of logistics outsourcing imposes to the involved, Farrell (2010) propose this phase be divided into two distinct stages. The division would enable managers to worry, first all, with the acquisition processes and operational activities transfer. In a second moment, would be possible to give attention to management relationship and mitigation of the identified risks. Thus, the contractor company could understands more comprehensively the activities necessary to the operationalization of the partnership, reducing the challenges and handling with problems in a proactive mode.

## 2.4 Project management

On the actual competitive scene, it is increasingly important that projects be created and well-managed in order to help the companies adapt to the new markets parameters in which they operate. According to Kerzner (2013), a project is a finite effort that has specific goal and should be steered under certain specifications. Moreover, it should always count on strictly delimited beginning and ending, expend resources for its execution and is, by nature, multi-functional. Thus, a project is an important tool to conduct any change activity or creation of products and services, and involves various efforts to be fulfilled. For this reason, companies started to recognize the importance of project management for its future and present. This discipline includes planning, programming and

control of various tasks that must be integrated to attain their goals with success, creating benefits to the participants of project (Kerzner, 2010).

For conducting the logistics outsourcing implementation process, the company can establish a project, which will define the deeds and responsibilities of each partner for the results be the expected ones. To do so, the responsible managers for this effort should understand and be guided by the knowledge established in project management discipline (Kerzner, 2010). The project management practices contain a wide range of processes defined and subdivided according by document that describes them. Although there are many research institutes whom worry about the establishment and dissemination of these practices, this research utilizes the set of knowledge described in the Project Management Body of Knowledge (PMBOK) guide, edited and published by Project Management Institute (PMI) based in the US. The choice of this particular document for this research is related to the fact this entity is one of the most important organizations in project management practices study. The knowledge of the project management described in PMBOK guide is divided into (PMI, 2013):

- Definition of project life cycle;
- Identification of five groups to project management processes;
- Processes division in ten knowledge areas.

The organization or project managers can divide their projects in different stages that jointly are denominated project life cycle to offer best management control and obtain appropriate links with ongoing operations. This life cycle defines milestones that connect the start of a project to its finale, and its phases are not equal to the five groups of project management processes. The transition from a phase to another, inside the project life cycle, normally is defined by some form of technical transfer or delivery as, for example, delivery of a product or the conclusion of a service step. There is not a best way to define an ideal life cycle for a determinate project. Some organizations establish policies to standardize all projects with one life cycle while others permit the project management team chooses the most appropriate life cycle for each project. The project management is realized through processes, using knowledge, abilities, tools and techniques that receive inputs and generate outputs. A process is an action set and interrelated activities, realized to obtain products pre-specified set, results or services (PMI, 2013). One of the basic tasks for all projects is that the project team selects the processes, inside the project management process groups, that are adequate to reach to the work objectives.

This does not mean these knowledge, abilities and described processes should be applied always uniformly in all the works. The project manager, in collaboration with his team, is always responsible by determining of the relevant processes to the project and its degree of accuracy. The PMBOK Guide describes, in its fifth edition, 47 processes that comprise five process groups in project management: (1) Initiating Process Group; (2) Planning Processes Group; (3) Execution Processes Group; (4) Monitoring and Control Processes Group and; (5) Closing Processes Group. All these 47 processes are still divided into ten areas of knowledge of the discipline, denominated project integration management, project scope management, project time management, project cost management, project quality management, project human resource management, project communication management, project risk management, project procurement management and, finally, project stakeholder management (PMI, 2013).

The five described processes groups have clear dependency and are executed the same way in all projects, since they are independent of application areas or sector focus. It is important underline that the process groups are also not project phases. The PMI (2013) highlights when big or complex projects may be separated in phases or distinct subprojects, as feasibility study, concept development, project, prototype design, construction or testing, all processes of the process group will be repeated normally for each phase or subproject. The project management process groups are connected by the objectives they produce. All ten knowledge areas and the five groups of project management processes are important to achieve of awaited objectives by the customer. Nevertheless, in the universe of this research, the knowledge area related to project scope management has greater importance. This is because, especially in logistics outsourcing implementation projects, the lack of a clear vision about what should be done and who is responsible for action can take to unnecessary and fruitless efforts. According some authors (Wullenweber et al., 2008; Tsai et al., 2012; Diabat et al., 2013), the not agreement on the objectives to be achieved and the relationship result are among the main causes of problems in logistics partnerships projects. Thus, the systematization proposed in the fourth topic of this work has a specific component related to project scope management.

The other knowledge areas in project management are not approached in this paper, and the project manager must develop them according to specificities of the universe in which the project applies. The necessities processes to guarantee that the project contains all activities for successful completion are included in the knowledge area relative to project scope management. This area integrates to other processes in knowledge

areas, so that the work result is the delivery of product scope or specified service. The scope management processes deal mainly with definition and control for what should and should not be included in the project, and are divided into Scope Planning, Requirements Collection, Scope Definition, Work Breakdown Structure (WBS) creation, Scope Validation and Scope Control (PMI, 2013).

The project scope control results can generate requested changes that should be approved and processed. If change requests affect the project scope, then the declaration of project scope will be revised and reissued to reflect the approved changes. The updated project scope statement becomes the new baseline of the project scope for future changes. Likewise, the WBS, its dictionary, the project management plan and all other documents concerning to scope should be restated to reflect these changes (PMI, 2013). The variances causes, the reasons that induced the corrective action chosen and other types of lessons learned from project scope change control should be documented and updated in the historical database of the organizational process assets. In the same way, corrective actions for the project as a whole should be defined.

### 3 Research methodology

The research methodology used to develop this paper helped the comprehension of the main factors relevant to the research, to know: the logistics outsourcing practice by organizations, the problems coming from poor implementation of this practice and the project management that is suggested to be used for the outsourcing effectiveness. Thus, in relation to the nature of conducted research, it was adopted the applied research since the goal of this study is to generate knowledge for practical application directed to solve a specific problem. As approach to the study of the problem, it was used the qualitative research, once qualitative methods emerge from phenomenological and interpretive paradigms, and bring as characteristics the fact that are interactive, intensive and involve a long-term compromise (Silva & Menezes, 2005). For this reason, and once the basic purpose of this research is to propose a systematization of logistics outsourcing implementation, the choice of qualitative research occurs naturally. This is because qualitative research underlies the development and refinement of the proposed model within the business environment.

To the point of view of research objectives, the form utilized was the exploratory research, in intuition to turn more explicit the theme through literature surveys, sample analysis that encourage its understanding and observation of factors that take to the occurrence of the problem. These procedures were conducted based on understanding of the literature and the researchers experiences, and supported their ideas for making the

systematization proposal. As for the research method, or the reasoning line, was used the deductive method because it came from general premises to particular conclusions (Lakatos & Marconi, 2010).

However, it was considered that only a definition of the systematization for the logistics outsourcing implementation management does not mean it is ready to be utilized by companies. The process of guidelines adaptation aims to confirm whether they are valid or should be adjusted to use. Thus, the research provides a proposal enhancement, taking it under the evaluation from professionals who are going through or have gone through the logistics outsourcing process.

Therefore, the initial systematization was showed to three expert professionals in logistics outsourcing process (two operations managers and one LSP relationship manager) whom have practical knowledge about the main problems and difficulties that an organization faces when start the jointly operation. The choice of these professionals occurred because all they all work in big multinational corporations operating in Brazil who have, or have had in the recent past, a logistics outsourcing project being made.

The opinion from these managers translates in significant contribution to the improvement of systematization proposal, since their experiences permit to refine the proposal through the corporate vision of the problem. In order to acquire a full comprehension about the developed systematization, the exhibition and explanation of the initial proposal was made for all. The full text of the proposal in electronic format also was sent for each professional. Then, it was asked them to analyze the initial proposal and register their comments and indications, by free form and without a standard check questionnaire.

It was understood that, this way, the professionals might contribute to the proposal more significantly, counting on the perception of the phenomenon under study from their experiences and realities and without prior delimitation for this analysis. Considering the suggestions and corrections identified in the systematization improvement process with

the managers selected, the proposal was adjusted, putting it in line with current business perceptions.

To this end, professional contributions were identified and applied to the original proposal, then building up an enhanced proposal to systematization of logistics outsourcing implementation. The next step of this work was resubmission the adjusted proposal to the same professionals for final validation. After agreement of these managers about the proposal final form, was considered that research objective was achieved. The adjusted guidelines represent the final contribution from this work to Operations Management area, but without intent to exhaust the subject or serve as a definitive guide to the projects of same technical character. Figure 1 illustrates the structure utilized in the realized search.

4 Presentation of results

This topic presents the proposal for the systematization of logistics outsourcing implementation projects based on project management discipline. The demonstrated proposal corresponds the work final version, i.e., it is the reviewed version that has passed through the analysis and adjustments of the professionals interviewed as part of this research. In order to achieve this goal, the presented conception covers all these important processes for project management being composed for the project life cycle, project division according to processes group defined in the PMBOK and scope management of the implementation project. Furthermore, it is important to approach the proposition assumptions, that is, what is being and not being considered for the model construction. Figure 2 illustrates the components of the developed conceptual systematization.

4.1 Life cycle of logistics outsourcing implementation project

In order to obtain better management control through great visibility, a project can be divided into distinct phases, known as the project life cycle. Therefore, the proposed systematization suggests the division

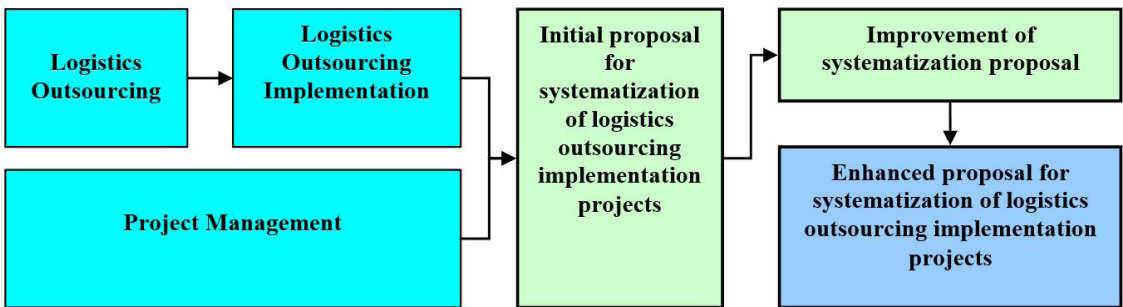


Figure 1. Conducted research structure. Source: Developed by the authors.

of logistics outsourcing implementation projects in four consecutives and unique phases that generate delivery packages in its finale. The phases are formed by activities that must be realized satisfactorily so that can be declared as finished. The proposal for project life cycle is composed by these following stages:

- (1)Pre-implementation: phase that deals with the planning of the implementation project, with relatives processes to the resource planning, information planning, project scope readjusting, schedule development, risk planning, among others;
- (2)Integration: it is the phase where the joint operation will start to be actually put into practice. Its processes aim for the integration of all necessary components for the work start between companies, as activities integration, information systems integration and both companies employees integration;
- (3)Ripening: phase that measures the partnership implementation progress, i.e., if the logistics processes are being executed satisfactorily. Its processes are related to service level monitoring, information exchange between companies monitoring, including systems, risks control monitoring, among others;

(4) Transfer: final phase of the logistics outsourcing implementation project, which aims to carry out the full transfer of contractor activities for LSP. Its processes include the relocation of the employees whom were assisting the partnership implementation and the effectuation of improvements identified in the previous phase of this project. It is important to note that in this phase, the work transfer will not be done in one turn, that is, the companies do not have an abrupt interruption of jointly work. Instead, the transfer will be done gradually, starting with less visible activities to final customer. This not means that the transfer has not an end, once the implementation has a start and finale well defined. Therefore, this phase should count on a date for finish that will represent the end of the logistics outsourcing implementation project.

The verification process conducted by this research and made effective through specialized professionals in logistics outsourcing projects did not identify the need for changes in the proposed life cycle. The interviewed managers understood that the steps contemplate the work to be done in the right way, and provide an important division for the deliveries milestones in a logistics outsourcing implementation project. Figure 3 illustrates the proposed phases for the systematization

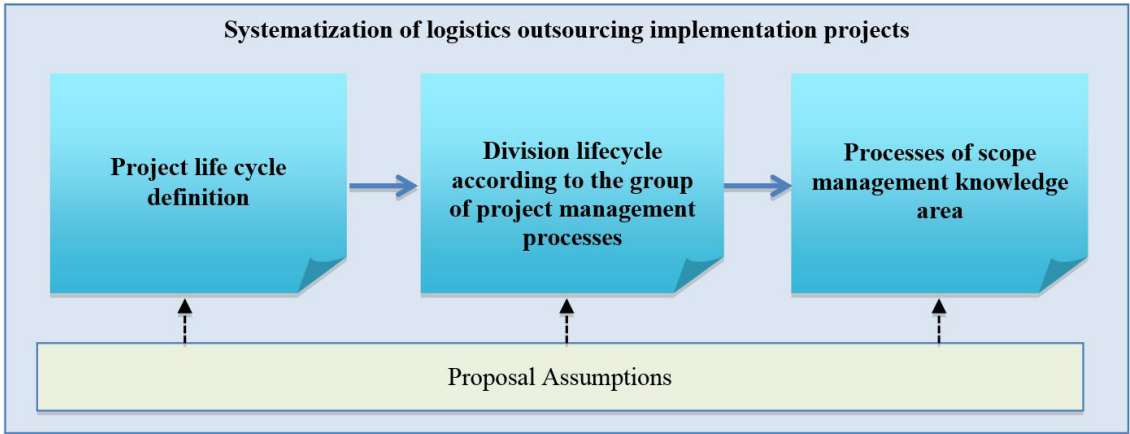


Figure 2. Components of systematization proposal. Source: Developed by the authors.

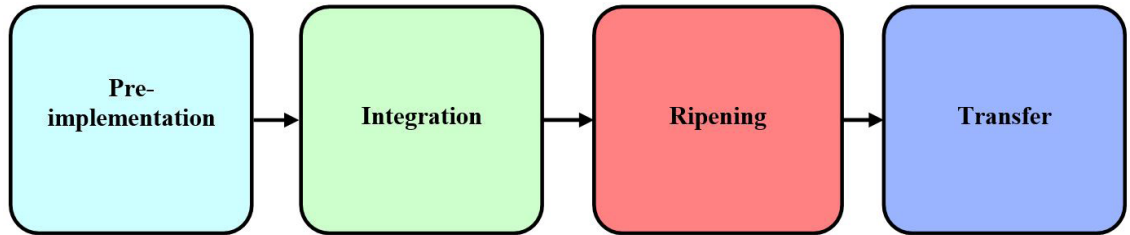


Figure 3. Life cycle of logistics outsourcing implementation project. Source: Developed by the authors.



of logistics outsourcing implementation projects, as well as their relationships.

#### 4.2 Division of the project according to the project management processes group

As previously mentioned, the project phases, or its life cycle, cannot be confused with the five project management processes groups. The process groups are associated with each other aiming an integrated objective, which is to initiate, plan, execute, monitor, control and close a project (PMI, 2013). For a logistic outsourcing project, the proposal is that project management processes are applied during life cycle in a non-isolated form. This means that a same processes group can be applied not only to a project phase, which can be repeated during work duration in any necessary phase.

Thus, in the project pre-implementation phase will be applied the procedures related to project initiation processes groups, for its effective establishment and starting, and planning processes groups that help the detailed actions to be taken in the sequence of the work. In the project integration phase will be utilized the group processes of the execution processes, once at this point already are defined the activities and goes on to effective action.

In sequence, execution, monitoring and control processes are utilized in the phase denominated ripening. This because, although this phase contains several relative processes to the monitoring of partnership, also are executed the necessary actions to identification of possibilities for improvements in the contracting company's operations. Finally, the transfer phase will rely on the groups of execution and project closure processes. The monitoring and control group processes are applied during all phases, especially in order to keep project activities according the planning done. The consulted professionals agreed with this division, highlighting its utility for the use of the proposal in logistics outsourcing projects of any magnitude.

#### 4.3 Processes knowledge area of scope management

One of the most important processes for the conduction of a project is the comprehension of its scope, i.e., the planning about what should and not should be done. Thus, an important item for systematization proposal is just the comprehension of the work scope. By performing the improvement of the proposal through the verification with the professionals interviewed, the managers mentioned that the work scope definition is performed before the implementation of the logistics outsourcing. When a company decides to go to the market to look for a

supplier, it must already have a document describing what will be the work to be done. Therefore, the systematization proposal presented in this paper addresses the scope management processes as a restructuring of the existing scope. In other words, it means that the proposal foresees a readjustment of the defined scope through the utilization of project management concepts and, this time, with the help of the chosen LSP. The importance of scope restructuring is justified once this action will permit effective control by project manager about the activities will be performed, a better comprehension for LSP about scope details, the discussion about any point that has not been clear, and even scope refinement in relation to the activities that the logistics provider has more domain.

Each logistics outsourcing implementation project has unique characteristics related to the environment in which it is inserted, cultural, social, financial aspects, and manly, operations transfer extension. For this reason, it is not possible, due of conceptual and generic character of the systematization proposal, simulate all inputs, tools, techniques, and outputs for all project scope management processes. Given the importance of detailed knowledge about the work that should be realized, the systematization proposal suggests that project manager, his staff and representatives of the selected LSP concentrate exhaustively on the review of all scope management processes. The idea is create a scope management plan describing as the project scope will be defined, verified, controlled, and how the WBS will be created and defined. The next step is to redefine the work scope, i.e., develop a detailed scope statement. In the sequence, the project WBS should be created and performed the verification scope, that is, the formalization of the acceptance for deliveries suggested for the project. Finally, during all the implementation phase of the logistics outsourcing, the project manager should be concerned about the scope control checking its possible changes and acting for these changes do not affect the project as a whole.

Notwithstanding the fact that the research has a limitation about the universe that the logistics outsourcing project is being applied, the researchers identified processes that can be applied in most logistics outsourcing projects. Thus, the systematization divides these processes into the project life cycle and suggests deliveries for each of them, in the form of a WBS. Although for the creation of a WBS is necessary the scope management plan, the intention is to offer a sight of some process needed for implementation of the logistics outsourcing, helping the project manager and his team readjusting the suggested scope. Chart 3 presents this WBS proposal already with the changes suggested in the verification process with interviewed professionals. This completes the proposal of systematization of logistics outsourcing

**Chart 3.** Work Breakdown Structure for logistics outsourcing project.

<b>Pre-Implementation Phase</b>		
<i><b>Process</b></i>	<i><b>Delivery</b></i>	<i><b>Description</b></i>
Specification and testing of Information Systems (IS) interfaces	Interface specification document and test results	Specification and test to guarantee the correct functioning of the interfaces in the implementation
Definition of project organogram	Project organogram	Definition of the project leaders of the two companies and conflict mediators
Declaration of operation known problems	Intension letter containing known problems	Specification by the contractor of the existent problems to LSP prevention
Planning of employee relocation	Plan of employee relocation	Relocation planning to guarantee the contractor employees satisfaction
Establishment of intention letter.	Intention letter containing known problems	Written by the two companies, will provide understanding to scope adjustment
Resource planning	Plan resource	Estimation of financial and human resources
Information management planning	Information management declaration	Guarantee confidentiality and maintenance of information related to logistics activities
Common methodology definition	Declaration of methodologies that will be utilized	Definition necessary to avoid the utilization of distinct methodologies
Definition and sequence of activities	Project schedule	Definition of activities and their sequence in a timeline
Risk planning	Registration of known risks	Definition of the known risks that could influence the project success
Preparation of responsibilities document	SOD (Separation of Duties) document and SLA	Definition of the activities and responsibilities of each project stakeholder
Definition of the project communication strategy	Declaration of project communication strategy	Definition of project checkpoints and periodic execution checklists
Definition of control points and compliance	Control points and compliance	Definition to beacon the LSP about the quality of activities
Development of project opening term	Project opening term	Term that identifies the project start for all stakeholders
<b>Integration Phase</b>		
<i><b>Process</b></i>	<i><b>Delivery</b></i>	<i><b>Description</b></i>
Allocation of project full staff	Report of initial functioning of joint operation	Report containing information about the joint operation start
SI integration	Functioning confirmation	Verification throughout all the phase
Employees integration	Staff integration confirmation and activities	Verification of together work among employees of the two companies
Activities integration	Staff integration confirmation and activities	Verification of the degree of activities integration among employees of companies
<b>Ripening Phase</b>		
<i><b>Process</b></i>	<i><b>Delivery</b></i>	<i><b>Description</b></i>
Service level monitoring	Report of service level performance	Verification about the joint operational performance for customers
Definition of improvements	Requests of changes approved and rejected	After analyzed and defined by LSP, the changes proposed should be approved
Scope control, cost and quality	Project scope	Analysis of project progress regarding scope, cost and service quality
Schedule control	Schedule update	Analysis of project progress regarding deadlines in planning
Monitoring and risk control	Risk registers update	Analysis and monitoring of defined risks in the pre-implementation phase
Verification and control of customer satisfaction	Satisfaction control report	Definition of subjective criteria that will be verified to meet contractor satisfaction

Source: Developed by the authors.

Chart 3. Continued...

Transfer Phase		
Process	Delivery	Description
Improvements implementation	Service level performance report	After improvements implementation, verification of service level
Employee relocation	Service level performance report	Service level checking when activities are carried out only by LSP
Gradual transfer	Project closure term	After finalized the transfer of all activities to the LSP, the project is closed
Checklist of the intentions letter	Report of intention letter verification	Verification about what the companies proposed to do was accomplished

Source: Developed by the authors.

implementation with a WBS that can be applied in the majority of the cases according the opinion of the professionals interviewed. By adding this WBS to the proposed project life cycle and the project division according to the group of project management processes, the opinion of the managers whom participated in this research is that the proposal offers a great aid in comprehension and conducting of work to be done, especially when specifies deliverables and milestones in a logistics outsourcing implementation project.

4.4 Assumptions considered for systematization proposal

For developing the systematization proposed in this paper, some assumptions related to its effective use in a corporate environment were considered. Thus, the first item to be considered is that the logistics outsourcing implementation must be treated as a project, i.e., is necessary that the manager responsible by the activity establish a project team, and processes and knowledge from projects management discipline are applied in the execution of the work.

Propositions of this paper are useful to all kinds of activities related to the implementation phase, independent of the logistics flow (inbound logistics, internal logistics or outbound logistics) intend to be outsourced. Nevertheless, it is important to reiterate that systematization proposed should be used only in the implementation phase, which begins when companies start to work together and closes when the logistics activities are under the total responsibility of the LSP. In this regard, it is also important to remember that the companies that participate in the project must carry out all work jointly. The goal is to have professionals of both companies involved until to obtain the certainty and the necessary confirmation that the partner is familiar with its client to take over the operations.

Regarding the proposed project life cycle, the duration time in each work phase will depend on the type of industry, the nature for outsourcing motivation

and the peculiarities inherent to the companies involved in the process. Thus, a phase as ripening can be long, if an extreme safety to the start of total transfer activities is required, or shorter, if the urgency of the contractor is very big. The inherent risks to fast duration of each phase should be taken into account on the project progress, once they can contribute to the appearing of future problems in logistics activities performance. Another aspect of the proposition is that not all processes and input and output documents from project management processes were related. This is because the intention was to detail only essential processes to the management of outsourcing implementation projects. This approach does not mean that these processes cannot or should not be used. This is a question for the project team, which must adequate their work to the environment characteristics in which is performed. Another important assumption is that the company intending to outsource its logistics services should have all their work processes formally documented. Beyond helping the creation of project scope, these procedures set will mark out the LSP activities in its implementation phase.

It is also considered that company should make a detailed description of a work scope before implementation starts, this is, before the start of the phase treated in this work. This scope will be utilized for LSP selection, and should have all activities that will be done by contractor’s company and the integration boundaries among these activities. After choosing the best service provider, this scope will be restructured according the systematization proposal presented in this paper and in set with selected LSP. It is noteworthy that this restructuring does not require the addition of activities to be undertaken, i.e., it is not a scope redefinition but only its suitability to the proposed systematization and verification by the parties of the boundaries of work.

As final premise, in the end of the implementation phase, when all logistics activities should be under the LSP responsibility and the operation optimized, the project for logistics outsourcing can be finalized

through project closure term. From then, the management processes of the partnership (maintenance) begin, monitoring the LSP performance through specific metrics and, consequently, the logistics outsourcing. The conduction of relationship management, in turn, will not be considered as a new project once this is an ongoing activity, understood as the partnership system maintenance, and for this reason this new phase is not part of this research scope.

## 5 Final considerations

SCM has expanding the possibilities of integration within the supply chain when it brings structured processes for relationships management, besides the use of practices and initiatives that potentiated this coordination benefits. One of these initiatives is the logistics outsourcing and several academic papers (Franceschini et al., 2004; Vernalha & Pires, 2005; McIvor et al., 2009) have addressed the required activities to successfully conduct an outsourcing effort, defining steps and recommendations to this work and taking into account the TCE and RBV theories. However, as noted by Jiang & Qureshi (2006) and Daugherty (2011), is still possible to note a lack in literature regarding works that specifically address the moment that the partnership is put into practice, step known as implementation of the logistics outsourcing. In the intention to contribute to minimize this academic lack, this article proposes a systematization of logistics outsourcing implementation projects, using the knowledge of project management discipline.

The proposed systematization was designed in order to be a reference structure (framework) for the management of this type of project. In this intent, it went through an improvement process aiming its adaption for corporate environment, being demonstrated to three experts professionals whom work or have worked in logistics outsourcing projects in their respective companies. The companies where these managers are working are large multinationals and, therefore, logistics outsourcing projects that these professionals have or had involvement are complex projects with many actors and processes involved, denoting hence the relevance of their participation in this research. It is important to notice that, although they have had contact with all the systematization items described in this paper, the professionals mainly helped in improving the proposal. This is because, in their opinion, the systematization already covered important aspects related to the main problems they face or have faced. Thus, the conclusion of the improvement done with these managers demonstrates initially that the proposal can be utilized in a corporate environment, since the necessary adjustments to each company and sector involved are respected. The interviewers also

highlighted that the contribution of the research is important to corporate world, once the systematization proposed helps in comprehension about the effort size required to implement an outsourcing process.

Thus, regarding the goal of research, it is understood that was possible to use successfully the contemporary methodology of project management to propose a systematization of logistics outsourcing implementation projects. By pointing processes, documents and specific deliveries within a division in phases to the project, project management practices demonstrated to be a very useful tool for the visibility of the work and organization of outsourcing efforts in the companies. As noted by Tsai et al. (2012), when the logistics outsourcing implementation is not done correctly, the risks of increased transaction costs and opportunistic behavior (TCE fundamentals) and inadequate utilization of available resources (RBV characteristics) emerge. Thereby, outlining a systematic framework that can provide to the LSP and the contractor strong bases for implementation of the relationship, the proposal has the potential to reduce risks involved in logistics outsourcing.

Finally, it is necessary to emphasize that this work does not have the intention of exhausting discussions about the best ways to implement logistics outsourcing in organizations that purport to this challenge. This research represents only a proposal for the task conduct, and for its practical application, is necessary a more comprehensive empirical investigation to test the components described in the systematization. However, this work can contribute both to corporate and academic environment as a starting point for broader discussions on the subject, presenting a structured form and based in a functional methodology for the successful completion of logistics outsourcing implementation.

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