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## Litigation management process in construction industry

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### Abstract

For an Engineering, Procurement and Construction Management contract, collaboration between the different actors is essential from the very beginning of the project to consider all the constraints. Working upstream reduces the occurrence of problems that could lead to claims. As long as trust and dialogue are present, disputes can be settled by agreement, but if dialogue is cut off, the negotiation phases are over. The solution is then to move to alternative dispute resolution methods involving outside third-party mediator. If, despite this, no agreement is reached, the last option is to proceed to legal proceedings. This paper develops a litigation management process for the construction industry in Quebec (Canada) to guide future litigation project managers, whether they are on the plaintiffs of the defendant's side of the claim. The proposed process links the litigation team members, lawyers and experts. The process divided into ten phases, contains sequences of activities, resources, input and output documents and deliverables. The process was validated in terms of standardization in order to assess its capability to support different construction types of projects and contracts. With this process, litigation managers will be able to oversee litigation through a better visibility of the activities to be planned and forecast costs.

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## 1. Introduction

The claims management process depends on the procedures set out in the contracts, the company's strategy, but also on the skills of the project managers in charge of the claim. According to Menassa and Mora [1], claims management extends throughout all phases of the project. Prevention is carried out in the pre-project phase, follows the detection and analysis of problems that may lead to a claim, and dispute resolution within the project team and by third parties is carried out during the execution of the project. The technical-legal analysis and legal proceedings are carried out after the project has been completed.

In the past, efforts to reduce the costs associated with claims have focused on finding alternative methods of settling post-construction disputes such as arbitration and mediation. Historically, dispute resolution has consisted of mutual concessions [2]. Given the complexity of projects, the construction industry is increasingly turning to the courts to resolve disputes. Among the various definitions found in the literature, some use the term conflict, dispute or litigation. The differences between the names can be found in the legal chronology of dispute management and represent a different way of managing disputes. Tochaiwat and Chovichien [3] describe the causal relationship between a conflict, a claim and a dispute. For the purposes of our study, we will use the term dispute to refer to a disagreement between two parties, a claim for the action of claiming a debt, and litigation to refer to a claim that has gone to court and is subject to trial. In practice, negotiations are undertaken to resolve the dispute, if not settled, the dispute turns into a claim where the parties can have recourse to alternative dispute resolution methods including mediation and arbitration [4]. If the parties do not reach an agreement, the claim becomes a dispute before the courts. The litigation manager must then work with a law firm to draft the statement of claim or defence.

Litigation is the highest risk and highest-cost method of resolution, yet project managers currently have no guidance on how to manage this type of project and no vision of the litigation process. This prevents them from planning the budget, schedule and resource allocation. The claims management process should be considered an integral part of project management [5], but one of the reasons why companies are losing interest in claims management is that it is difficult to generalize claims management processes and techniques to all company projects. This research attempts to address the difficulties faced by the litigation project manager. To achieve this, this research adopted a Design Research methodology (DRM) to develop a litigation management process to lead managers through the different phases to build a defence or an attack in collaboration with lawyers using the legal procedure employed in Quebec (Canada). The remainder of the paper is organized as follows. First, we review current litigation management processes in construction industry, in section 3, the research methodology is presented with a brief explanation of the validation process. Then, the proposed process is described in section 4. Finally, conclusions are drawn in the last section.

## 2. Brief Literature Review on Current Litigation Management Process

Levin [6] mentions that “a construction claim arises when a party to a construction contract believes that in some way, by act or omission, the other party has not fulfilled its part of the bargain.” He is considered one of the leading developers of claims management and one of the first to have developed a detailed claims management process for construction projects. He proposes a seven-step procedure, recalling the importance of using alternative dispute resolution methods (ADR). Building on past work, Kululanga et al. [7] propose a six-phase management process. Identification - notification - analysis - documentation - presentation - negotiation. Despite the existence of these phases, industries do not have a claim management process. They propose to build a structured method. For EJCDC (Engineers Joint Contract Documents Committee) type of contracts, Barakat et al. [8] propose a chronological process flow enabling managers to situate themselves and compare the different methods of alternative dispute resolution over time. For claims that are not under EJCDC contracts, Banwo et al. [9] provide a chronological claim process including the six phases, with the preparation phase itself containing all six phases and demonstrating a lack of claims expertise. Abdul-Malak et al. [10] have put in place a simplified procedure for analyzing claims submitted by a contractor that can be used by all parties involved. Finally, Stamatiou et al. [11] propose a supply-chain reference model containing five processes at strategic and operational level that can be adapted to the company's standards for claims management.

Based on the work of Zellner [12], a critical analysis identifies the limitations and weaknesses of existing processes by comparing them to the mandatory elements of a method, namely information model or phases, activities, results or

input/output, roles or stakeholders. A process is a type of prescriptive, applicable, understandable methodology reproducible by an external person capable of operationalizing it. We then define a process as a sequence of activities grouped in phases using input elements to produce expected outputs supported by human and material resources. According to these definitions, the process of Barakat et al. [8] is mapped with the ANSI formalism with some activities but does not include phases nor stakeholders, nor input and output documents. Banwo et al. [9] proposes a general process composed of phases only and Abdul-Malak et al. [10] proposes a process composed of activities. Only Stamatiou et al. [11] propose a process composed of phases, activities, input and output documents and the parties involved, using the Business Process Model and Notation (BPMN) formalism. We can conclude from this that no complete claims management process and especially no litigation management process exist for construction projects to lead litigation managers since they stop at the resolution or the beginning of the litigation. The work of Stamatiou et al. [11] will be considered as the base of our work to develop our process.

### 3. Methodology

Our main objective was to develop a litigation management process to lead managers through the different phases of building a defence or an attack in collaboration with lawyers using the legal procedure employed in Quebec (Canada). For this the Design Research Methodology approach, which rigorously structures the course of a design research project, was used [13]. This qualitative scientific research method is often used to develop empirical and technical models based on successive iterative validations with real cases or feedback. This methodology contains four iterative phases alternating between study phases and experimental phases: clarification of the research, a first descriptive study, a prescriptive study, and a second descriptive study. This paper reports the prescriptive study supported by a literature review and the analysis of an existing case, validated by feedback and supported by standardization indicators.

Our study is based on the following scientific hypotheses. Litigation takes place before the Superior Court of Quebec, the number of allegations is high, the litigation is initiated by the client with a contract of the Engineering, Procurement and Construction Management (EPCM) type, we do not take into account the relationship with the insurers, the budget or the deadlines.

The construction of the process was done iteratively with the analysis of the existing data and feedback. Information is retrospectively collected through monthly reports, daily meeting minutes, risk analysis, assignment of roles and draft litigation execution plan, a checklist of in-house counsel activities, and feedback from the project manager and in-house counsel. From the analysis of these documents, activities, deliverables, input and output documents, stakeholders and exchanges with the opposing party are extracted and classified in chronological order of elaboration. We map the process according to the BPMN formalism notifying as much detail as possible about the exchanges. BPMN was chosen because of its standardized formal structure, its ability to represent complex processes and its high level of adoption in scientific and practical circles [14].

The evaluation of the application of the process by its level of standardization is carried out through semi-structured interviews with four external counsels and one experienced project manager from a company specializing in dispute management in the field of construction between September 2019 and March 2020. For this purpose, standardization indicators were adapted to the field of mapping.

### 4. Model Construction

Our process uses the BPMN symbols, as shown in Figure 1. Following the DRM method and after several iterations between the first descriptive study and the prescriptive study, we built a claim management process based on feedback and analysis of data from a litigation case.

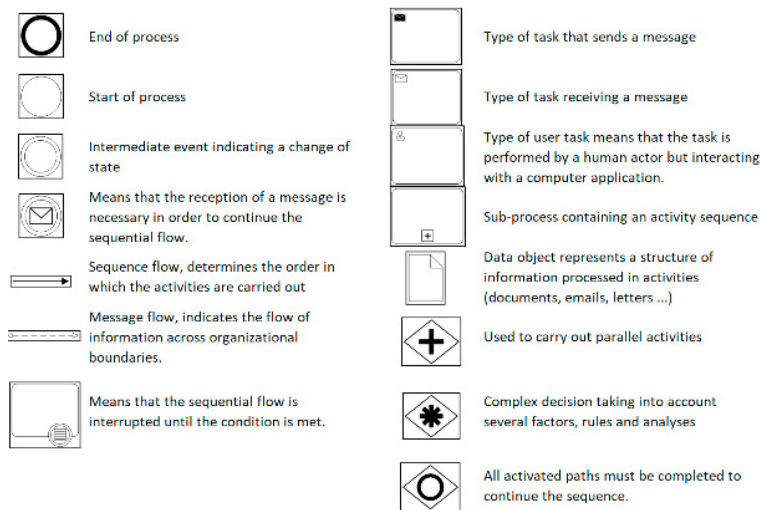


Fig. 1. BPMN legend

The process is broken down into ten phases with a start at the non-resolution of a claim and an end at trial in Figure 2. The ten phases are divided between the plaintiff and the defendant with the assistance of lawyers and experts. The process can be used by both sides. The first phase consists of the service of the formal notice and the filing of the application to institute proceedings in the Court. Upon receipt of the Court’s document by the opposing party, phase two is initiated. The sub-process "summary assessment and development of the defence strategy" includes the analysis of the allegations and risks and the party decides whether to pay or to contest. If the defendant contests, the history of the litigation is recreated, contemporary documents are collected and the legal strategic plan and project execution plan are drafted, experts are at last engaged. They are hired by the firm but work for outside lawyers. Phase 3 "Internet Documentation and Document Request to Plaintiff" includes the activities of document collection and sortation, expert analysis of the allegations, and the document request. Following this, phase 4 "interrogation of plaintiff’s representatives" prepares the interrogations for discovery of the representatives. As a result of these activities, counsels are able to draft the defence based on the expert reports in phase 5. The project team is responsible for determining the skeleton of the defence and its approval. Then, it is the opposing party’s turn to carry out these same phases, namely the "documentary request to the defendant" and the "questioning of the defendant’s representatives." Following these phases, the penultimate phase of "final review in case of an amendment" takes place. During this phase, all the documents necessary for the trial, including expert reports, allegations, counter-examination and defence, are finalized and collected. This is followed by the request for registration for investigation and judgment jointly by both parties. The last phase that we have not detailed is the preparation of the trial. Figure 4 represents one of these phases.

The process is supported by input and output documents and deliverables that are associated with activities in the different phases. These documents are essential for building a defence or an attack. An interrelated diagram of these documents is presented in Figure 3.

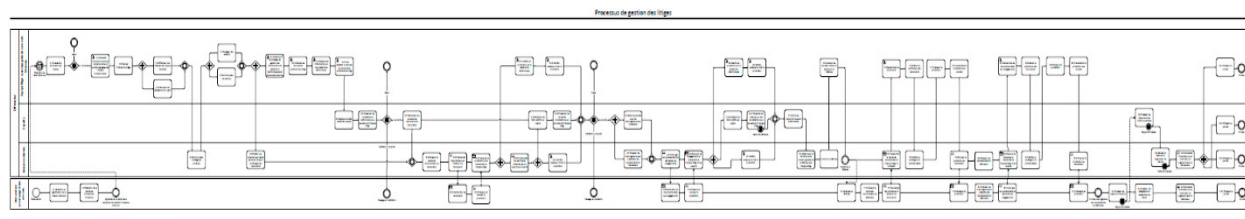


Fig. 2. Entire Litigation Process

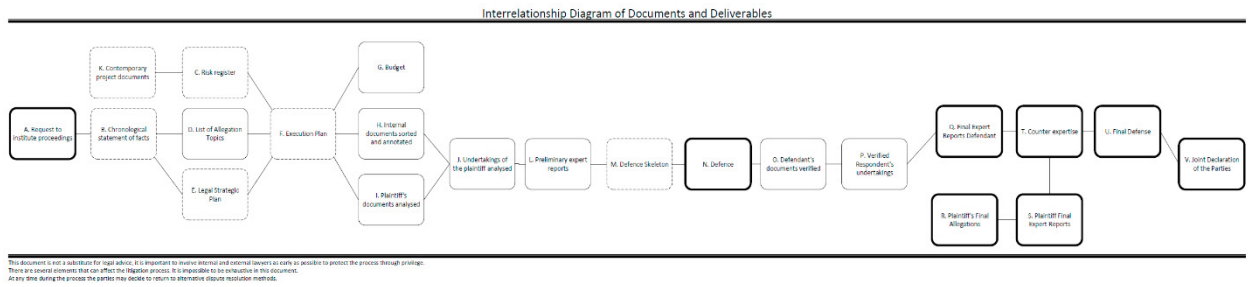


Fig. 3. Interrelationship Diagram of Documents and Deliverables

## 5. Validation

In order to validate the reconstructed process, we request semi-structured interview from four lawyers specialized in construction litigation and an experienced partner from a company specialized in dispute management in the field of construction. These interviews are based on our standardization indicators that allows us to compare the process established with the answers of the interviewees step by step, focused on the similarities and differences of roles, activities and their direct predecessor, vocabulary, inputs and outputs.

Our results indicate that he appears to be in agreement with the activities, roles, inputs and outputs present in our process. In terms of resources, the process is carried out by the same roles. However, two activities were not carried out by the same role. First, "assessing relevance, privilege and confidentiality" of the documents that we have assigned to the external lawyers have been separated into two activities. One carried out by the external lawyers for the "privilege and confidentiality" and one by the litigation team for the "relevance of the documents." Second, the "preparation of the trial" is carried out by all stakeholders. The percentage of roles performing the same activity is therefore 95%. As regards deliverables, two deliverables that we were not aware of were added, bringing us to 75% common deliverables. For activities, we obtain 83% of common activities. In fact, 12 on 72 activities are carried out in addition by the specialized company and 6 activities of our process are not carried out. This brings us to a percentage of 83% of common sequence. This is due, on the one hand, to the addition of activities, but also, on the other hand, to the difference in sequencing in the realization of common activities. The other interesting result is the percentage of terminology that differs by 4%, which indicates a strong appropriation of judicial terminology by the project management team.

Between our process and that of the dispute management firm, we can see that the same input and output documents are used to create the deliverables, but we lacked knowledge of two of them. For the activities, a score of 83% of similarity is very high since in a litigation project, the activities overlap and there are many opportunities for exceptions. This implies that beyond the exceptions it is possible to have a standardized process for managing litigation. The process approved by the project manager seems to reflect good litigation management practices since he has assumed a multitude of roles during his career in the construction industry and in dispute management. Moreover, the expert firm is not only involved in mining and metallurgy, but in all types of construction litigation. We can thus conclude that the process is also generalizable to litigation in the construction industry in Quebec.

## 6. Conclusion and Discussion

The review of the literature revealed shortcomings in the management of litigation. Very little work deals with litigation and none propose a process for managing litigation. Similarly, the diagnosis of the partner firm did not reveal the existence of any process to manage litigation. Our research allows us to contribute the field of claim management and make up for these shortcomings.

### Elaboration of the defence strategy

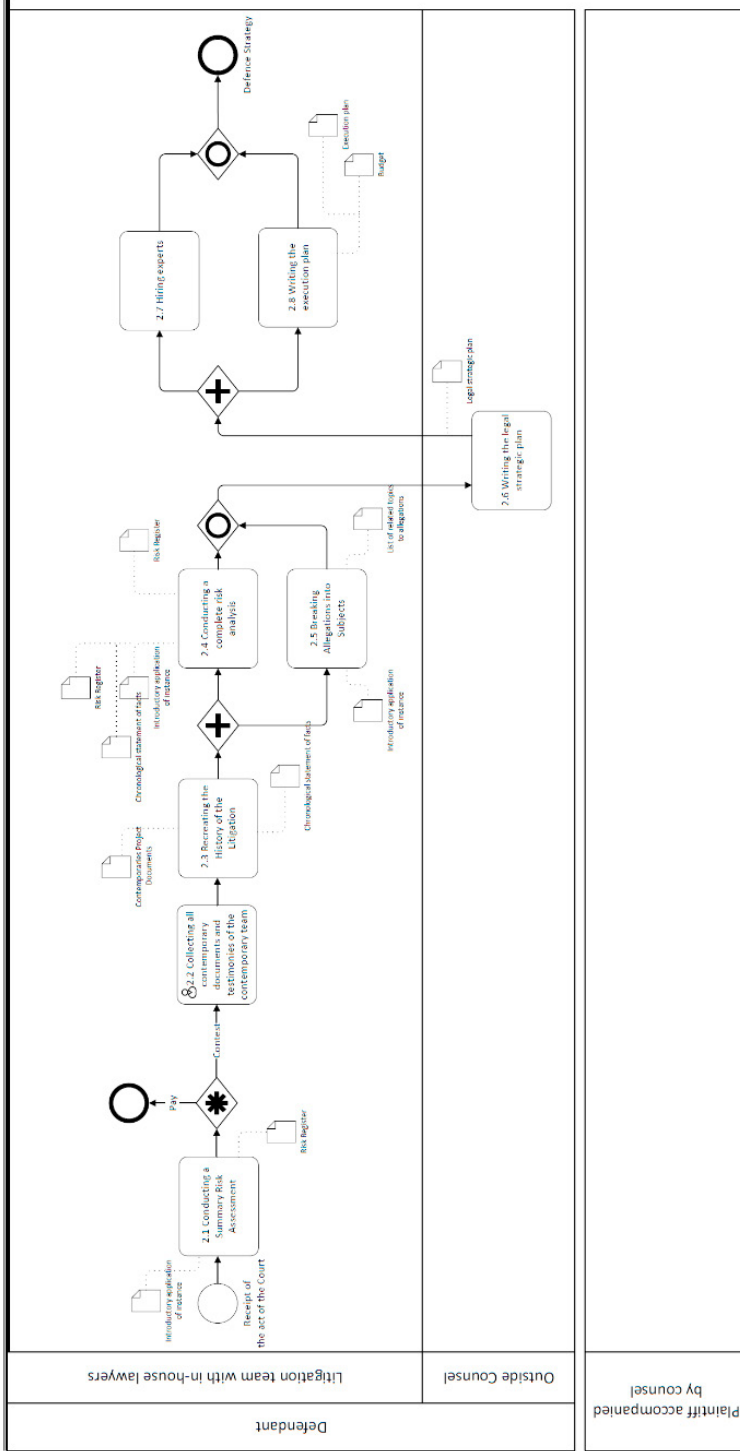


Fig. 4. Phase 2

This document is not a substitute for legal advice, it is important to involve internal and external lawyers as early as possible to protect the process through privilege. There are several elements that can affect the litigation process. It is impossible to be exhaustive in this document. At any time during the process, the parties may decide to return to alternative dispute resolution methods.

Scientifically, this article contributes to the improvement of litigation management by proposing a first process presenting good practices in terms of chronology, content of activities and documents to be carried out. Putting on paper this knowledge held only by a few experts will facilitate its dissemination and exploitation by the scientific community. Moreover, in view of the literature, this process is the first contribution linking project management and the field of law. As the latter has very precise procedures and a great many specificities, it is indeed difficult to establish a standardized process. Our model allows this link by considering the coordination of judicial activities and those of the manager during a construction litigation.

The process constructed is intended to facilitate litigation management for project managers or litigation contacts. Moreover, companies will be able to easily adapt this process to their organizations since we have detailed and organized the activities by phases and roles. Managers now have at their disposal a tool for monitoring the progress of the process and a long-term project plan with a better visibility of the activities to be planned and forecast costs. However, companies should start to consider litigation management as a project management function in itself, especially since litigation is both the ultimate and most expensive solution to dispute resolution. It is preferable, indeed, to avoid this legal route and focus on improving alternative dispute resolution methods.

This research therefore suggests different research perspectives. We focused on the litigation of an EPCM project between the client and the contractor. It would be interesting to study the variations, if any, between different project types and actors. One of the major contributions that this work could make is the study of the costs and duration of the different phases depending on the dispute, thus allowing companies to know, in advance, the costs of the dispute and thus control them. This would require access to or the creation of a large database of disputes.

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