

Dimensions and requirements of
**collaborative planning in
business transformation
projects**

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Abstract: Collaborative planning has proven to be effective in areas where complex problems are linked to multiple stakeholders and entities, like urban planning, military, and supply chain management. In project management, however, the concept has been less present, and few studies have explored its implications for an improved project planning process. This article uses a qualitative multiple case studies approach to explore the dimension and requirements of collaborative planning for business transformation projects. Two dimensions are identified: planning for collaboration and planning in collaboration. A set of requirements are also identified to enable both dimensions of collaborative planning.

1. Introduction

Business transformations are defined as complex and large change projects in organizations that alter how work is done and how value is delivered (Purchase, Parry, Valerdi, Nightingale, & Mills, 2011). Different studies show a high failure rate of such projects ranging from 40 to 70 percent (McKinsey, 2008; Nohria & Beer, 2000). Business transformations deal with a multitude of internal and external relationships that have a direct influence on their success. Hence, planning and collaboration of business transformations are two key success factors. In other fields of study, like supply chain management, collaborative planning has been proposed and used as a planning approach for a collaborative context. It is a set of processes and guidelines that facilitate the collaboration between involved parties to build a plan that is mutually beneficial (Kilger & Reuter, 2005). As mechanisms of information exchange and co-decision-making are developed, collaborative planning raises the level of engagement between collaborating entities and enhances the quality of the resulting plans.

Meanwhile, the development of collaborative planning for project management has been limited and for the few studies that address it, they have been specific to engineering and construction type of projects (Shelbourn, Bouchlaghem, Anumba, & Carrillo, 2005, 2007). The increasing collaborative nature of projects requires a closer look at the nature of links between collaboration and planning. And as the majority of studies focus on engineering and construction projects, the exploration of other projects’ contexts would enrich the understanding of such practices and its requirement (Besner & Hobbs, 2013). This article attempts to address this gap in the project management literature by exploring the nature of collaborative planning in the context of business transformation projects. Using a multiple case studies approach, it identifies the links between collaboration and planning and describes some of the requirements for an effective collaboration in project planning processes.

collaborative planning in business transformation projects

The remainder of this article begins with a literature review of collaboration in projects, specifically collaborative planning. A summary of the research approach will follow, where an overview of the cases data and organizational context will be presented. Observations on collaboration will first be described. Then collaborative planning specifics and characteristics will be illustrated. Finally, these results will be discussed in relations to the literature and relative to this study’s limitations.

2. Literature Review

2.1.Collaboration in projects

The need for collaboration in organizations is increasing and stems from the inability of a single entity to solve complex problems across multiple other entities (Gray, 1985). Whether it is intra-organization or inter-organization, collaboration requires effort and resources to facilitate it and ensure its effectiveness (Huxham & Vangen, 2005). Research on managing collaboration covers software and tools for collaborative work (Kurbel, 1994; Schmidt & Bannon, 1992), as well as organizational conditions and factors to facilitate it (Gray, 1985; Thomson, 2001). Projects are microcosms of organizational relationships and dependencies between different organizational units to deliver goods and services. As such, projects are becoming inherently collaborative as they bring together multiple disciplines and different organizations (Emmitt, 2010). Collaboration in projects has challenges around the proximity of teams (Bourgault & Daoudi, 2014; Knobens & Oerlemans, 2006), multi-disciplinary teams (Emmitt, 2010), collaborative tools and information systems (Kerzner, 2015; Wu & Hsieh, 2012). Even though other categories of projects have been identified (Archibald, 2013), the majority of studies on project collaboration have been for engineering and construction, and information technology (IT) projects (Dietrich, Eskerod, Dalcher, & Sandhawalia, 2010; Wells, 2012). In business transformation context, the changes required in organizations require solutions that involve customers and multiple stakeholders internally and externally (Purchase et al., 2011). Collaboration has then an important impact on business transformation projects. Collaboration is necessary to maximize the impact of any transformational effort (Nightingale & Srinivasan, 2011). In a global study conducted by McKinsey, collaboration across organizations was identified as a factor for successful transformations (McKinsey, 2008).

Nevertheless, the integration of collaboration in business transformation frameworks is minimal. Most of the proposed business transformation frameworks focus on a descriptive approach (Ketinger, Teng, & Guha, 1997; Nightingale & Srinivasan, 2011) or a capability-based methodology (Uhl & Gollenia, 2013). The collaboration is identified in various forms as a component to be considered through stakeholders’ analysis or change impact evaluation. Collaboration in business transformation literature is not discussed as a different approach to organize and execute projects. More specifically, the links between collaboration and planning are not explored.

2.2. Collaborative planning

The challenges of complex situations with multiple stakeholders are also found in other fields like military planning and supply chain management (Dudek & Stadtler, 2005; Mccauley, 2011). In these areas of study, the concept of collaborative planning has been introduced as a planning approach that integrates the need to collaborate between various entities and ensure both engagement and planning quality. For the supply chain, collaborative planning is defined as a process for co-decision-making where two or more partners align their individual plans, coordinate their efforts, and optimize the results of the supply chain (Stadtler, 2009). Each partner in the supply chain represents a planning domain, and the objective of collaborative planning is to define a common planning domain across all partners with a globally optimized solution (Kilger, Reuter, & Stadtler, 2008). Collaborative planning approaches are influenced by the structure of the supply chain and the dynamics of its relationships. In addition, collaborative planning has challenges with the uniqueness of each partner’s specific information and decision-making process (Azevedo, Toscano, & Sousa, 2005), as well as human factors related to processes and practices like negotiation (Stadtler & Kilger, 2008). In military studies, collaborative planning is also referred to as joint military planning. The nature of military interventions has evolved influencing the nature of partners and stakeholders involved, and the type of planning approaches required to achieve the targeted military results (Mccauley, 2011). Here again, collaborative planning faces challenges of human and organizational nature that can have implications on the processes and technologies supporting military decision-making (McKerney, 2000).

Collaborative planning is then a potential solution in complex situations where multiple entities must interact to build a shared plan, make decisions and coordinate efforts. The values and challenges of such an approach have been explored in supply chain management and military, as well as in urban planning. Few studies have been concerned with collaborative planning for projects. One stream of research has focused on the development of collaborative tools and software for project work (Knotts, Dror, & Hartman, 1998; Kurbel, 1994; Ren, Anumba, Hassan, Augenbroe, & Mangini, 2006). In such works, the authors focus on the tools required for a collaboration to be effective during the project. Another research focus has been on the planning of collaboration as an effort and an attribute of project work. Shelbourn et al., (2007) propose a framework to capture and implement collaboration requirements for construction projects. Walter and Scholz (2007) explore the success factors for planning collaboration for urban transport projects. The literature on collaborative planning in project management has addressed the technological requirements of collaboration and the consideration of collaboration as an important factor to take into account during project planning. Contrarily to other research fields, in project management, the integration of collaboration in the planning process has not been explored yet. In addition, the majority of studies are for construction and infrastructure type of projects. Other categories of projects also require exploration of their characteristics (Archibald, 2013), and consideration of adapting project management practices to their context (Besner & Hobbs, 2013; Niknazar & Bourgault, 2017). There is then a gap in the project management literature about the nature of the links between planning and collaboration, as well as the exploration of other projects contexts than engineering and construction. In summary, collaboration is an inherent nature of projects. The links between planning and collaboration have increased the quality of plans in fields like supply chain management. However, in project management research, few studies have explored collaborative planning. For business transformations, the extent of collaboration and its importance to projects’ success warrants an exploration of collaborative planning in such a context.

3. Research Methodology

As the objective is to explore the nature and requirements of collaborative planning for business transformation projects, a case study approach is suited (Yin, 2014). And as business transformation is a sensitive subject for organizations to share intimate knowledge about, the focus was first to partner with a company willing to share such information and where multiple cases of business transformations can be found. Once an industrial partnership was established, an embedded multiple case study was conducted (Noor, 2008; Yin, 2014). Such an approach provides an in-depth understanding of how a phenomenon takes place in the organization by comparing multiple cases. In this study, the interest is in the context of business transformation and how such initiatives were planned. Four business transformation initiatives were selected with the help of an internal team within the industrial partner’s organization. The cases were selected based on the scope and relative impact of the change to the organization, as well as data availability and accessibility. The data collection revolved around in-depth interviews with participants in each case. This initial set of data was then complemented by a selection of documentation available for each case. To support the understanding and interpretation of the data, some general organizational context documentation was gathered. The four cases selected for this study can be summarized in **Table 1**. The overall data collection was spread from October 2015 until June 2016 and the cases covered a period of six years from 2010 until 2016. The selected data was then analyzed using a thematic data analysis approach that codifies qualitative data and groups it into themes (Braun & Clarke, 2006). Nvivo 12 was used as a qualitative data analysis software to support the collection, structure, coding, and analysis of the different data sources (Bazeley & Jackson, 2013). A case-by-case analysis was performed followed by a cross-case analysis (Eisenhardt, 1989; Krippendorff, 2004; Yin, 2014). The industrial partner is a North American public company with a capitalization over 40 billion US dollars. Operating in the industry of transportation and logistics, it has a presence in both Canada and the United States. Counting more than 22,000 employees in all its locations, this company has witnessed steady business growth for the last 20 years. One of its business areas even performed a yearly growth of double digits for the last 10 years. The company is considered a leader in its industry with a strong position in its market, even with other products and services competing and putting more and more pressure around customer added value service through information technology and other innovations.

Case	Description	Number of interviews participants	Interviews total duration (min)	Number of documents selected
Case 1	It is a project at a departmental level that aimed to re-engineer a process end-to-end with the implementation of a new information system. The project was considered a success by all stakeholders as it finished on time, under budget and delivered the business results expected.	6	516	120
Case 2	It is a company-wide program that was initiated by the CEO to change the organizational culture and put more focus on customer service excellence. The program included projects that did teams' organizational design, processes reengineering, and information technology changes. The overall program benefits were considered achieved, even if some projects under it were considered failures by their stakeholders.	4	293	43
Case 3	It is a project at a departmental level that aimed to redesign how the department manages and executes on demand and opportunities. No information system changes were introduced. However, changes in behavior and mindset were considered high for employees. At the moment of data collection, this project just started its delivery or execution phase.	4	344	51
Case 4	It is a program that aimed to implement or enhance multiple new information systems for one business area of the company. The program had 5 information technology projects. The program overall was considered a failure by all stakeholders that translated into a financial right off to overcome its costs at its closing.	5	465	120
Context	General information about the organizational context and the links between different business transformation initiatives.	2	131	16
Total		21	1749	350

Table 1: Summary of cases data sets

Looking to sustain its leadership position, and evolve in its market, the company's leaders have initiated multiple business transformation initiatives to steadily shift the organization towards its new vision. These initiatives range from changes focused on a process end to end to a company-wide program with multiple projects under its umbrella. In this article, the industrial partner will be referred to as the company or the organization.

4. Results

Using the thematic analysis codification of the case studies, the findings will be presented in two groups:

- Collaboration in projects synthesizes observations about collaboration in all aspects of the project's delivery; and
- Collaboration and planning regroups observations about specific links between collaboration and planning.

4.1.Collaboration in projects

The literature on collaboration raises the challenges to reach a common definition of collaboration. Interviews' participants were asked to define collaboration and provide indications of its manifestation in their projects.

Participants' definition of collaboration varied. Some consider collaboration an equivalent to teamwork and an esprit de corps that builds in the project team. Others define it in terms of the amount and quality of information exchanged during the project for each member to effectively execute their activities. And others make co-decision-making the focus of collaboration. These different definitions of collaboration vary between cases, but also within each case. In Case 4, the business lead sees collaboration as the intensity of involvement in making decisions affecting the project. While the IT technical lead emphasizes the importance of efficient information sharing tools and mechanisms.

Despite this variation in collaboration definition, the data indicates some shared factors of effective collaboration. They are applicable to all phases and processes of the projects. Two enablers of collaboration are the most recurrent across cases:

- Leadership buy-in and commitment: leaders and decision makers approve and stress the need for collaboration during the project. Leaders not only communicate their encouragement for the project team to collaborate but commit time and resources for required collaborative activities. They also display collaborative behavior. In Case 1, the project sponsor held various sessions with his direct reports and key stakeholders in the project to share his vision for the project and encourage everyone to collaborate with the project team. In steering committee meetings, he would display an openness to debate that was perceived as an embodiment of collaboration.
- Sustain stakeholders' engagement: keep participants in the project engaged with its activities and decisions. Most stakeholders have other priorities and usually, drift away from the project and its progress. The project team needs to actively seek to involve such stakeholders and keep them engaged throughout the project. In Case 2, the program team established routines to share progress and reach out to various stakeholders in the organization. They frequently met with executives in different departments to share the program objectives, and discuss in detail the impacts on their teams. This team has also used formal communication channels to announce key decisions and major milestones. And most importantly, the program sponsor, the CEO, personally reached out to different levels of the organization to get updates on progress and engage employees in the program's goals.

It is also important to link these collaboration enablers and requirements with the overall organizational context. During the period of data collection and analysis with the organization of study, two CEOs took the leadership. And both shared a commitment to increase the level of collaboration within the organization. They used messages like "cross-functional efforts", "acting as one team", and "huddle like rugby teams". It is recognized that the organization suffers from silos work, and many initiatives have challenges delivering results partly because of the lack of collaboration intra-organization. Such challenges are mostly visible in cross-departmental projects such as business transformations.

There is an influence of this organizational context and culture of collaboration on how teams and participants collaborate during business transformations. In Case 1 and Case 3, the animosities between the IT department and other business groups created few roadblocks for the leaders in the way to establish a collaborative atmosphere.

In summary, collaboration is defined differently between cases and even between participants within each case. Across cases, collaboration is mostly equated to teamwork, information exchange or co-decision-making.

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4.2.Collaborative Planning

When analyzing data about collaborative planning, both a directed codification and an exploratory review were conducted (Braun & Clarke, 2006). It allowed for the discovery of two dimensions of collaborative planning:

- 1) Planning for collaboration: data and observations pointing to collaboration as a cost for business transformation projects. Here collaboration is a subject of planning. Either considered as an effort or resources, collaboration should be planned for and taken into account.
- 2) Planning in collaboration: data and observations describing what collaboration during project planning looks like. Here collaboration is an attribute of the planning process that contributes to the generation of better and more engaging plans.

4.2.1. Planning for collaboration

For all cases, interviews’ participants identify collaboration as an additional cost to their projects. They describe it as a need for specific resources or an additional effort associated with collaborative activities. In all cases, members of the projects’ teams are identified as facilitators of collaboration for the duration of the projects. These roles are generally described as “teams’ coordination” or “integration”. In Case 4, two of the interviews’ participants described their roles in the program as integrators between business and IT teams. They define their efforts as “pulling people together to accomplish activities in the program”. In other words, they see their roles as custodians of collaborative work between teams involved in the program. In Case 1, process design workshops took longer than estimated. The project team and participants in those workshops put additional hours on the project to meet deadlines. It translated into additional costs associated with those activities. Despite this recognition of collaboration impact on projects’ resources and efforts, explicit consideration of collaborative effort during planning was found in two out of the four cases. In Case 2, the program team assessed the expected level of collaboration for each project within the program and planned in consequence. Mainly through meetings with team managers, they would evaluate the work intensity required for the project, as well as potential collaborative work or challenges. A member of this team summarized the idea by: “You get a sense early on that this might have a challenge here, so you plan the consequence.” Case 2 Program Manager.

In Case 3, process design workshops represented an important portion of the project’s activities and were the driving element for schedule duration. The project manager leveraged the business teams’ representative to evaluate the difficulty of subjects to be discussed during each workshop and determine the number of participants. She then used this information to estimate the workshops’ duration by embedding the “time required for debates and discussions”. And in her opinion, this is how she took into consideration the impact of collaboration on the project’s overall effort. In both cases, the evaluation of collaborative efforts required for the projects takes place during planning. And it is based on an assessment of the projects’ participants and audiences. In many aspects, it is very similar to an audience and impact analysis performed for change management purposes. To understand the level of collaboration required, a proxy can be used to estimate the effort required. In workshop intensive projects, the expected level of conflict and debate can indicate the additional effort required for collaboration. In Case 3, the project manager considered conflict one of the indication of a healthy collaboration: “A collaborative team is one that argues all the time. There's a lot of conflict in a collaborative team. If there's no conflict, they're not collaborative.” Case 3 Project Manager. Collaboration is also recognized by participants as a work dynamic. For it to be effective, it requires preparation during project planning. Elements like establishing trust and engaging project team members require front-end build up. In Case 1, the project team was composed of members from three departments. At first, they were misaligned and were not able to collaborate fully. “Those three teams didn't necessarily work together prior to this type of project, so it was always disconnected.” Change Management Specialist 1 in Case 1. Then, with time, the team started to build trust and work together in a collaborative manner. “It was a challenge to start. I think as the project progressed, they became one team with the same goals working at the same pace” Change Management Specialist 2 in Case 1.

4.2.2. Planning in collaboration

The value of planning in collaboration is described by interviews’ participants in two ways. First, it guarantees the engagement of the project team and its ownership of the project plan. It ensures a level of truthfulness in the planning efforts and afterward in their tracking.

Planning in collaboration shares the accountability of plan execution. “Everyone has to agree to the plan of their activity because if I tell someone to do something they will be less accountable for it. If they say I will do it this way, it was their idea, they will be more accountable to it. They need to buy into their plan all the time” Project Manager in Case 2. Second, it is a process to empower project participants to make decisions and raise their level of engagement and commitment to the project’s results. “I feel when you involve them in the planning piece, the by-product of that is that you’re engaging them right away. You’re making them accountable, you’re making them part of the plan. They’re not just passengers, they’re not being told what to do, they’re being empowered to make key decisions on this plan.” Project Manager in Case 2. The case data was analyzed to identify characteristics of the project planning process in collaboration. Such characteristics can be synthesized as requirements for a collaborative planning process. In the data set, they were identified in relations to three dimensions of collaboration: information exchange, coordination, and co-decision-making. **Table 2** summarizes these requirements and provides examples from the case studies. To enable collaboration during project planning, the information exchange shouldn’t be one way from participants to the project planner, but also feedback the other direction with clarification of decisions made, and level setting on both the project context and planning approach. In addition, coordination is driven by a facilitative approach that links teams together and integrates otherwise disconnected areas of project planning. All of which should contribute to a more effective co-decision-making where clear governance is defined. In summary, planning in collaboration is characterized, in these cases, by a set of requirements on information exchange, coordination, and co-decision-making. The value of performing project planning in collaboration is driven by the engagement of project participants and their accountability to the results.

5. Discussion

The results from interviews about perceptions and definitions of collaboration are in line with the findings in the literature. Other studies have shown the difficulty to align collaborators on a unique and shared definition of collaboration (Gray & Wood, 1991; Huxham & Vangen, 2005). The success factors and requirements for effective collaboration are also very similar to what was identified in the literature. Furthermore, the success factors identified in this research’s context are solely for organizational dimensions. Compared to the literature, where other factors linked to technological tools and business processes have been identified (Kerzner, 2015), this study’s context seems to be focused only on organizational needs. The company’s challenges with collaborative work may explain such a focus. As in these cases, collaboration can’t be pinned to one definition, expectations for a collaborative project will vary between stakeholders. This adds to the difficulties of conducting business transformation projects. One avenue of solutions could reside in raising the collaborative organizational culture and that would translate into more collaborative projects. Another would be to build collaboration in project management processes to ensure it takes place, it is effective, and it is adaptable to the varying expectations. The latter solution has been explored in the literature through “collaboration engineering”, where different techniques to build collaboration processes are discussed in relations to other business practices (de Vreede & Briggs, 2005; Kamrani & Nasr, 2008). Still, and as indicated by the cases studied, it can be argued that collaboration in business transformation projects is highly dependent on the overall organizational collaborative culture. This may lead some practitioners to postpone business transformations until a more mature organization is ready to execute it. However, the premise and value of business transformations are to change how the organization works (Pellegrinelli & Murray-Webster, 2011). Which makes waiting for change to take place counterproductive. Another important factor of influence is the leadership of the projects (Lundy & Morin, 2013). The results indicate an important role for coordination and integration. It calls for leadership skills like facilitation and influence (Globerson & Zwikael, 2002). The findings from these case studies indicate that collaboration is a cost for business transformation projects. The literature on collaboration concurs with this result. Collaboration is a cost for organizations, and not managing it may be proved to be expensive (Cropper, Huxham, Ebers, & Ring, 2008).

Collaborat ion Dimensio n	Requirement	Example
Informatio n Exchange	Clarify project management processes to the project team and stakeholders. A specific explanation of how work will be planned and executed should be adapted to the context of the project.	In Case 4, the program team failed to define and share with the associated projects the planning and control process. It led to misalignment on objectives, and in a series of conflicts when monitoring of progress started.
	Share a common vocabulary. Develop and share a glossary of terms and concepts that are key to understanding the project's context, and exchange with other members of the team.	In Case 1, the business analyst built and maintained a glossary of both business terms (specific to the business area impacted by the project) and technical terms (mostly related to software development).
	Level set and train key project participants on the various business and technical areas of the project. Relatively to the project duration, the key participants should be brought to a productive level of knowledge and understanding about the project's business and technical context.	In Case 4, the program team built an introductory material to onboard all program participants on both the business aspects (e.g. processes, concepts) and technical (e.g. software development approach). They held multiple information sessions where this knowledge was shared.
	Train project participants on the planning processes and tools required for the project. Assuming that all participants share the same level of understanding of how planning will be performed, and how to use specific tools is counterproductive. The project leads need to ensure all participants are trained on any process and tool required.	In Case 4, the program team documented the program planning and control guidelines and organized information sessions with all projects teams to share them.
	Summarize and share key decisions with the project team and any team or group that may be impacted. Share information with potentially impacted teams or groups, even with preliminary information, allows them to be prepared and plan well ahead of time when the change is expected.	In Case 1, the project team started sharing key decisions from the project's design with IT teams so they are prepared to support the project and the future information system as well.
	Leverage a structured documentation management and sharing platform.	In this organization, SharePoint is the collaborative platform of choice. Almost any project would have a SharePoint site to share documents and communicate with wider audiences.
Coordinati on	Favor and facilitate in person communications and discussions. The proximity increases the level of collaboration and is perceived to be more engaging.	In Case 1 and Case 3, the teams were encouraged to meet in person and were provided dedicated space like "war rooms".
	Facilitate cross-teams problem-solving. It helps build cohesion in the project team that transcends the organizational silos and brings all assigned resources to think as one team.	In Case 1, team members helped each other solve problems on the project outside of individual responsibilities and tasks.
	Assign and clearly identify resources responsible for coordination. Resources that will actively integrate the various teams, and project-specific elements (e.g. processes, technology)	In Case 4, the program had an assigned IT integration lead that ensured the coordination between different IT aspects. Also, the business analyst acted as a coordinator and facilitator between teams.
Co- decision- making	Implement a governance model for decision-making early during planning. Planning includes a series of decisions that rely on governance for effective decision-making.	In Case 1, the project governance was defined before planning started. It allowed the early involvement of the steering committee in planning decisions.
	Document and track planning decisions. Decisions can be lost in translation in planning. Proper documentation and tracking guarantee a minimal amount of consistency.	In Case 4, planning decisions were not documented. It led the program team to lose perspective on why specific decisions were taken. The consequences were in the likes of rework to reach the same decision or contradictory actions.
	Facilitate discussions and feedback about planning decisions. Planning decisions should rally all impacted teams. Which requires a high level of interaction, both inputs, and feedback that will alter and improve the plan to maximize such teams' engagement.	In Case 3, the project manager acted as a facilitator in planning discussions with the steering committee and the project team.
	For critical decisions, specify a clear process for decision-making. In some projects, there may be similarities in the decisions required. Defining a clear process on how inputs should be presented, what criteria to use and how to select the decision helps to improve the planning quality.	In Case 1, software customization was expected and the objective was to minimize it. The IT architecture team defined a process detailing how each request for customization will be evaluated and prioritized, with different levels of escalation when required.
	Define guidelines or principles for decision-making relevant to the project's context. These guidelines help project participants and collaborators during planning on reaching faster decisions by sharing the same criteria of evaluation.	In Case 2, the core team defined a list of program principles that each project should follow when initiating and planning.
	Ensure all decision makers consult the same facts for a decision and they understand it the same. In a transformation context, most planning decisions lack data and facts. The few inputs available should be optimized by decision makers.	In Case 3, the business lead would meet the steering committee members individually before each committee session to ensure they consulted the prepared inputs for decisions, and clarify any misunderstanding.

Table 2: Requirements for effective collaboration during project planning

In business transformation projects, this cost can be planned for as an impact on the duration of collaborative activities, or as an additional cost of resources to facilitate collaborative work. And looking at project delivery measures of scope, schedule and cost, the scope element is not represented in the data at hand. Collaboration seems to be taken into account as a cost and impact on schedule, but there is no indication of how it impacts the scope of work.

Most references on project management emphasize the importance of communication and information sharing for a successful delivery (International Project Management Association (IPMA), 2015; OGC, 2009; Project Management Institute, 2017). In this organization's case studies, the information exchange alone has proven to be ineffective. Most employees are busy and business transformations are generally considered on top of day-to-day activities. People are either flooded with information and do not check it, or they are distracted. It puts the burden of sharing and level setting the information on the project team (e.g. manager, business lead, planner, etc.).

Collaborative planning has also an integration component with the overall business plan of the organization. Decision makers are influenced by other business objectives and pressures of the overall organization, not only by the project. The project deliverables are linked to business results that the management team is accountable to achieve (Patanakul & Shenhar, 2012). A project planning process should integrate with the overall business plan, and align expectations.

Planning in collaboration can be a selective approach to be used when conditions are favorable and participants are responsive. Otherwise, it would be counterproductive by breaking trust in the project team and disengaging its members. The requirements for effective collaboration during the planning process are defined separately from the planning process itself. To facilitate the integration of these requirements to the planning process, leveraging Engineering collaboration could a potential avenue. In addition, theoretical concepts of collaborative planning, like planning entity or unit, have been used in other fields of research. These concepts were not identified with the explorative research used to analyze these case studies. They may be opportunities to continue the theoretical development of collaborative planning for project management. As well as, they can be used to propose new models for project planning where collaborative requirements are embedded.

6. Conclusion

In supply chain management and military planning, collaborative planning has been developed as a planning approach to address collaborative situations with complex problems and relationships. The literature in project management has limited coverage of this concept and the few references on the subject are specific to engineering and construction contexts. This article focused on the context of business transformations. Using multiple case studies, this study analyzes the characteristics and requirements of collaborative planning in a specific organizational context. The results point to two dimensions of collaborative planning. The first is the consideration of collaboration as a project cost during planning. Collaboration is an object of planning for business transformation projects. The second is the integration of collaboration as an attribute of the planning efforts. Collaboration is represented as a set of requirements to be embedded into business transformation planning processes.

The first contribution of this article is methodological, as the use of qualitative multiple case studies is leveraged to explore a concept in a specific organizational context for business transformations. Then, the exploration of the dimensions of collaborative planning provides a starting point for further research that can transpose approaches and findings from other research fields to project management. Furthermore, the identification of collaborative planning requirements can be used to propose a new model of project planning for business transformations that integrates collaboration in the planning processes. Finally, the findings discussed in this article are still limited to the organizational context of this study. Any generalization of these results requires a more extensive coverage of other organizations and more business transformation cases.

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