A Psychological Contract Perspective of Vertical and Distributed Leadership in Project-Based Organizations

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Abstract

The primary purpose of this study is to examine the relationship between two leadership styles (vertical and distributed), conceptualized through types of decisions made (strategic and operational/tactical), and the state of psychological contract (fulfilment/breach) at three different levels of the organizational hierarchy in project-based organizations. The explorative analysis of eight organizations from India and Australia demonstrates the prevalence of distributed leadership: operational and technical decisions are usually entrusted to the project team and project managers, while strategic decisions are made by senior management. The study suggests that three factors facilitate a specific leadership style (vertical or distributed): organizational culture, knowledge sharing and project management practices, which in turn impact the state of psychological contract (fulfilment/breach). A flexible, collaborative organizational culture supports knowledge sharing and the adoption of agile methods, enabling distributed leadership and leading to psychological contract fulfilment.

Key words: vertical leadership, distributed leadership, psychological contract, psychological contract fulfilment, psychological contract breach, organizational culture

1. Introduction

Effective leadership in a project context has attracted the attention of many researchers in the past decade. This is because project-based organizations (PBOs) are becoming more prevalent in many industries (Bakker 2010; Bakker et al., 2016). Traditionally, leadership in projects has been conceptualized as vertical leadership (VL). It has been defined as "the interpersonal process through which the project manager influences the team and other stakeholders to carry the project forward" (Muller et al., 2018: 83). Since the 2000s, researchers have increasingly focused on distributed leadership (DL) in project teams as a form of leadership that is shared between people and co-constructed during social interaction (Bolden, 2011; Lindgren & Packendorff, 2009). DL emphasizes sharing leadership responsibilities and functions, such as, for example, making decisions, between two or more persons in suitable situations (Pearce, 2004; Sally, 2002; Spillane, 2006). How leadership is distributed is an important question to address as organizational members can have different views, agendas and expectations in terms of the distribution of leadership responsibility (Bolden, 2011). If their expectations on the distribution of leadership responsibility are not met, these misaligned expectations can have significant negative impact on organizational members' morale and behaviour. Employees' expectations from their engagement in an organization and the impact of misaligned expectations have been studied through the concept of psychological contracts (Robinson & Morrison, 2000; Rousseau, 1995).

According to research on psychological contracts, employees' expectations related to their engagement in an organization include transactional elements, such as salary and benefits, and bonus equity, or relational elements, such as support, fairness, job autonomy, decision making, supportive work culture and growth opportunities, among others. When organizations are unable to meet all the promises made (explicitly or implicitly) to their employees, this results in *psychological contract breach*. Such breaches can have detrimental effects on employees' attitudes and behaviour (Robinson & Morrison, 2000).

The centrality of (project) leaders as the primary psychological contract makers for project members is well documented (Dabos & Rousseau, 2004; Stanton et al., 2010). Immediate managers are considered as organizational representatives who speak on behalf of the organization. By virtue of what project leaders pay attention to, measure and control, they exert considerable influence over how project members direct their efforts, how well they perform, and the goals they pursue. Thus, the role of the project leader becomes critical to ensure alignment of employee-organization expectations (Lopes et al., 2016) influencing employees' psychological contract expectations and whether the contract is kept or broken (Rousseau,1995).

An important feature of the psychological contract is the type of leadership that project members expect and experience (VL or DL). In this study, leadership style is conceptualized through project members' involvement in decision making (Müller et al., 2017). There are different types of decisions that need to be made in projects at different hierarchical levels. These could be classified into strategic and tactical/operational decisions (Mok & Morris, 2010). The concept of decision making remains fluid and ill defined (Nutt et al., 2010) as to who in the hierarchy can take what type of decisions. This ambiguity, that is, decisions (strategic

and tactical/operational) in which project members want to be engaged in, compared with the types of decisions they are actually involved in, based on the style of leadership experienced, can create gaps in the psychological contract perceptions of team members and project managers, leading to potential breaches. Thus, examining expectations as well as leadership style experienced (VL or DL) and involvement in decisions can shed light on how project members' views on psychological contract (fulfilment/breach) are formed in the project management (PM) context. This is important because, as Zhao et al. (2007: 650) argue, a "psychological contract breach is a significant workplace event that triggers employee affective reactions" that could affect work attitude and behaviours.

In this study, two leadership styles (VL and DL) conceptualized through involvement in decision making at different levels of the hierarchy in PBOs, namely, at the level of team members, middle/project managers and senior managers, are analysed to explore any gaps between espoused and practised leadership styles (Argyris, 1985; Raelin, 2016) and the resulting breach of psychological contracts. This study aims to address the following research questions (RQs):

- How do leadership styles/involvement in decision making in projects affect psychological contract fulfilment/breach in PBOs?

- What factors impact how leadership practices, i.e., decision making, are distributed in projects thus influencing perceptions of psychological contract fulfilment/breach?

To the best of our knowledge, there are no studies examining leadership style in project teams (VL and DL) and decision-making using the lens of the psychological contract. This creates a significant gap in existing PM research due to the lack of understanding of how project leadership style, with respect to decision making, impacts the extent of psychological contract fulfilment/breach. Focusing on this gap is important as psychological contract breaches (PCBs) can significantly impact project members' satisfaction and performance. The present study overcomes this research gap by analysing how leadership styles and decision making in projects affect psychological contract fulfilment/breach in organizations and exploring the key factors impacting on how leadership practices and decision making are distributed in projects.

The structure of the paper is as follows. Section 2 reviews the psychological contract literature and research on leadership styles and decision making in project organizations. Section 3 describes the methodology adopted. Section 4 presents the insights from the within-case and cross-case analysis. Section 5 outlines the study contributions and presents a process model that outlines avenues for further research. This section also points to some limitations. Section 6 presents the conclusions from our study.

2. Literature review

2.1. Psychological contract

In recent years, the concept of psychological contract has achieved considerable prominence as it advances our understanding of employment relationships. A psychological contract is a person's perception regarding the reciprocal exchange relationship that exists between an employee and an organization (Hui et al., 2004). Employees tend to think that their

organizations (as represented by supervisors and other leaders) make important promises to them regarding their jobs that are often not a part of formal written employment contracts. Employees' understanding of these promises form the basis of their psychological contracts (Rousseau, 1995). Organizational leaders create a context in which direct reports perform, and their behaviours play critical roles in shaping employee attitudes and behaviours (Aggarwal & Bhargava, 2010; Agarwal & Avey, 2020; Joo, 2010; Rousseau & Greller, 1994; Tymon et al., 2011; Whitener, 2001).

A PCB occurs when an employee perceives that their organization has failed to follow through on obligations that the individual is entitled to or expects. PCB is defined as 'the cognition that one's organization has failed to meet one or more obligations within one's psychological contract in a manner commensurate with one's contributions' (Morrison & Robinson, 1997). At an aggregate level, psychological contracts have transactional and relational contents, which vary in strength and generality (Rousseau & McLean Parks, 1993). Transactional psychological contract elements refer to obligations that may be considered to be 'economic' in nature. Transactional elements are largely based on remuneration, bonus, training and other short-term benefits to the employee that are publicly observable. Relational contract elements on the other hand involve long-term obligations based upon trust and are concerned with personal, socio-emotional factors, such as autonomy, training, decision making, fairness, respect and work-life balance, among others. Perceptions of under-fulfilment (i.e., PCB) have detrimental effects on many important attitudes and behaviours (Agarwal, 2019). Extant research suggests that PCB is the norm, not the exception (Robinson & Rousseau, 1994), and avoiding PCB is a difficult, perhaps an impossible, task for contemporary organizations (Rousseau, 1995). PCB significantly impacts an array of employee attitudes and behaviours, from job satisfaction, organizational commitment, and turnover intentions to actual turnover and performance (Rousseau, 1995; Rousseau et. al., 2011).

Project-based organizations differ from traditional organizational forms due to their temporary and uncertain nature (Hobday, 2000). These factors result in discontinuities in relationships among team members and the project leader that affects project performance (Jones & Lichtenstein, 2008; Manning & Sydow, 2011). Project managers have a major responsibility for managing relationships with team members and connecting to senior managers as well as external parties to the project (Meng & Boyd, 2017). Thus, the role of the project manager becomes very important to ensure alignment between team members' and organizational expectations (Lopes et al., 2016).

2.2. Leadership types in project-based organizations

Although traditionally the literature on PBOs has focused on vertical forms of leadership, DL is increasingly recognized as a form of leadership that plays an important role in projects.

Central to VL is the notion that leadership is enacted by leaders, who are distinct from the followers the leadership is enacted on (Gronn, 2002). In a project context, VL is defined as the interpersonal process through which the project or program manager influences the team and other stakeholders to carry the project forward (Müller et al., 2017).

Recent studies in PM have suggested the need for a more collective and systemic understanding of leadership as a social process (Barker 2001; Hosking, 1988). There has been an evolution of the notions of shared and distributed perspectives of leadership (Pearce, 2004; Parry & Bryman, 2006). The DL perspective points to the need to study leadership in terms of activities rather than individuals – that is, viewing leadership as something that is co-constructed in a team rather than exercised by a single person (Gronn, 2002; Parry & Bryman, 2006; Smircich & Morgan, 1982; Uhl-Bien et al., 2007). From this perspective, leadership is a collective activity (Pearce, 2004; Sally, 2002; Spillane, 2006).

The nature of DL depends on the specific context in which teams operate. Depending on the situation, teams can end up with different set of tasks that are distributed among team members and project leaders (Bolden, 2011). How leadership is distributed in a team, and what tasks are the responsibility of the vertical leader or are shared by team members based on the nature of the activity, are important questions to address, as team members can have different expectations in terms of the distribution of leadership responsibility and decision making (Bolden, 2011). Misaligned expectations about leadership styles as related to different tasks and decision-making contexts can create perceptions of PCB that can have a significant negative impact on the team's performance and project outcomes.

3. Research methodology

This study is part of a larger research project in which forms of leadership in projects were investigated. The larger project was conducted in nine countries using the same case study protocol and questionnaire. This paper uses data collected from two countries, Australia and India. The authors collected data through interviews with participants at three levels in the project hierarchy from eight PBOs, four in each country. In each organization, between three and seven interviews were conducted. A minimum of one interview with a senior leader, one or two interviews with project managers and with two team members were targeted per case, with the final number determined by access to interviewees provided by the organizations. The data analysed for this paper is based on 45 interviews.

The study was exploratory in nature and investigated a contemporary phenomenon, in which the researchers had no control over behavioural events (Yin, 2014: 9). The philosophical approach used in this study was interpretivism as the research aimed at studying the 'situated interpretations of the social life world' (Crotty, 1998: 68). The sampling approach was chosen with an aim of maximizing variety in order to capture the broadest possible set of cases as a basis for theory development for theoretical replication (Yin, 2014: 57). According to Yin (2014: p. 57), four to six case studies should be sufficient to pursue different patterns for theoretical replication. In this study four case studies conducted in India were compared with four case studies conducted in Australia to achieve theoretical replication.

Selection criteria for the organizations included: a) that they were both project-oriented and project-based in the sense of Miterev et al. (2017), which means they used projects as a way to conduct their business from a strategic as well as an operations perspective; and b) that there was variety in their size. The study aimed to balance the cases by having representation between one to three organizations of different sizes (small, medium and large) in each country. Table 1 provides details of the organizations included in the study.

The data was analysed from the perspective of the research objectives using a psychological contract lens. Thus, given the importance of assessing multi-party expectations in shaping the psychological contract state (fulfilment/breach), in line with suggestions in the literature, interviews were conducted at three levels of the project hierarchy: at the level of team members, project managers and senior management. The study then examined the expectations and experiences of interviewees with respect to leadership style and their participation in different types of decision making.

Table 1. Details of the interviews

Firm	Country	Firm size (No of employees)	Number of interviews		
			Team members	Project managers	Senior managers
Case 1: Power distribution company	India	2986	2	3	2
Case 2: Chemical plants construction company	India	<=250	3	2	2
Case 3: Information technology company	India	<=250	2	2	2
Case 4: Heavy engineering and infrastructure projects company	India	100000	3	4	
Case 5: Financial company 1	Australia	28,000	2	1	3
Case 6: Financial company 2	Australia	13,000	3	1	1
Case 7: Software services company*	Australia	< 250	1	1	1
Case 8: Construction company	Australia	>11,000	2	2	1

*= The senior leader provided views that were at both senior and project leader levels.

Data were collected through semi-structured, face-to-face interviews which lasted between 60 and 90 min each. The interviews were recorded and subsequently transcribed. Teams of two researchers conducted the interviews.

A case study protocol was developed upfront to synchronize activities across data collection in different organizations. The protocol outlined the aims and research questions and provided the researchers with questions or prompts that could be used as appropriate within interviews, rather than providing a fixed format for the interviews. Three blocks of questions were asked: a) general information about the interviewee and his or her role and tenure; b) examples of VL or DL participants had experienced and their involvement in different types of decisions; and c) the possible enablers of the distribution of decision making. Validity was ensured through search for multiple sources of evidence and multiple interviews per case. Reliability was assured through pattern matching and replication logic in the sense of Yin (2009). Ethical protocols included informed consent, voluntary participation and confidentiality. Additional material was collected on an as-needed basis. Human research ethics approval was obtained prior to starting the study.

Data was analysed based on Miles et al. (2014) process of initial coding, followed by a second-cycle coding for pattern identification. We followed the iterative cycle of data collection, data display, data reduction and conclusion finding. This was carried out by starting with within-case analysis of each case in order to capture examples of leadership styles experienced and explore cases of psychological contract (fulfilment/breach). This was then expanded to cross-case analysis to validate the findings from before and derive patterns that show the common factors enabling or inhibiting specific leadership styles.

Each transcript was read as a whole and repeatedly to capture core meanings of participants' experiences (Lincoln & Guba, 1986). The analysis was performed manually to ensure all meaningful qualitative data was captured (Weitzman, 2000). Each team of researchers analysed the interviews they conducted after which key codes were discussed and any discrepancies resolved. Following this, the researchers re-analysed the cases based on the agreed set of codes.

The findings in Section 4 reflect key insights on the nature of leadership styles expected and experienced by different organizational members and their participation in different types of decisions, and how these expectations relate to the state of psychological contract (fulfilment/breach) across the three levels of the project hierarchy.

4. Case Study Analysis

4.1 Within-case analysis

Case 1: Power distribution company

Project team members shared that in their organization, technical and operational decisions were taken collectively. Participative decision making was the de facto way, as one respondent stated: *"We are part of all decisions concerning projects. In fact, if my boss has to reply to a mail, which is critical for the future and may have implications, he calls 2-3 of us and checks with us about the content. Many times, we disagree and explain to him our perspective, which he respects and also accepts. Other times, he discusses why matters need to be looked [at] differently".*

This organization had purposefully adopted a team-based decision-making structure using the concept of cross-functional teams that were accountable to achieving milestones. Project-specific decisions like project acquisition, feasibility and risk assessment were taken by the cross-functional teams. Project managers did not intervene unless problems were unique. Participation in decision making gave employees an opportunity to partner in and experience decisions, as expressed by a team member: *"Earlier, senior management used to review projects and address issues. Now that the CFT [cross-functional teams] philosophy has been introduced, the ball is in the court of the teams, who have to specify where they need the senior management's intervention."*

On the other hand, team members believed that strategic decisions, which may have long-term implications and where the reputation of the organization is involved, should always be the prerogative of senior management, as expressed by a team member: *"The top management asked us for our views since we had been part of the team which executed the project. While they listened to us, they took the final decision of going ahead and commissioning the project,*

even though majority of us disagreed. In retrospect, they were right. Going back on our commitments would not have been fair and would have hampered long-term relationships as well as the reputation of the organization". Team members had a clear understanding of their strengths and limitations in decision making, thus aligning their expectation of DL with the experienced DL.

Project managers agreed that decision making was distributed based on the nature of the task or decision. Operational matters were completely delegated to teams. Complex issues such as resource decisions were brought to the project manager for resolution: *"Sometimes in projects the leader has to play a role. In any project, the civil and electrical [departments] won't see eye to eye. The resources are limited and needed by all. In such matters the project heads need to intervene proactively and not leave it to the wisdom of the teams. As a project head, I am expected to remove the bottlenecks".*

Commenting on the involvement of team and project managers in decision making, senior managers confirmed that DL is desirable. A senior manager used the term "reverse auction" in explaining how his decisions/viewpoints are openly deliberated and discussed among his team members: *"So ideas are nobody's monopoly. There's simply no embargo. Anybody can come and share ideas. I don't take decisions in my room. We take decisions when we are talking about it. Maybe there are differences in opinions ... but everyone in the team knows that these are the factors from which some decision has been taken. ... All my direct reports are involved in the decision."* Thus, team members, project managers as well as senior managers were aligned in terms of expected and experienced distribution of decision making leading to psychological contract fulfilment across the project hierarchy.

Case 2: Chemical plants construction company

In this company, team members explained that there was a clear delineation in terms of the decisions that can or cannot be made by them. Scope-related, customer-facing, financial and contractual decisions about the projects are taken by senior leaders, as expressed by this project manager: *"See, process or technical [decisions], they can take. They're allowed to take a decision, but if it comes at the cost or price or scope of the project with respect to the client, in such situations, they're not allowed to take the decision."* However, team members felt that their authority to make decisions was too restricted and expected more DL responsibilities: *"I feel it [decision making] should be collaborative because until and unless there's discussion with [the] project team, [team members] don't feel involved."* They expected equal opportunity to contribute to decisions. However, they experienced VL combined with favouritism as the CEO had created an in-group of decision makers, which created a perception of a lack of fairness and justice.

Project managers believed that the organization mainly practised DL. From their perspective, decisions were taken by project managers in discussion with team members. Day-to-day, operational and engineering issues were delegated to teams, as stated by this project manager: *"My style of execution is to delegate to them [team members]. Delegate to them, review and correct them if they're making mistakes."* Although project managers believed that they practised DL, this was not experienced by team members, who perceived a lack of decision-

making autonomy in relation to the tasks they were responsible for. This led to perceptions of PCB.

Senior managers advocated for a context-specific leadership style, which they called situational leadership, as stated by this respondent: *"Leadership style again varies on what you're doing and also with whom you're going."* Like project managers, senior managers also believed that distributed decision making is encouraged by giving a lot of leeway to project teams when needed. As senior and project managers' expectations and experience of leadership styles were aligned, this led to psychological contract fulfilment for project managers.

Case 3: Information technology company

This organization was perceived as entrepreneurial, and everyone was responsible for the survival as well as the growth of the organization: *"In this organization we believe that we are not working in a 9-5 job. We are entrepreneurs and are working for the organization and holding ownership."* The status of projects as well as the challenges and even the company's financial information were openly shared with team members: *"I am involved with [the company owner], whether small or big, ... whatever decisions need to be taken and how we have to further carry it. So, he gives all the decision-taking power to us as well as discusses with us."* Such empowerment in decision making created a sense of belonging and ownership among team members leading to psychological contract fulfilment.

Similarly, project managers emphasized that the culture was built to promote trust and flexibility and the reporting structure was not rigid. They trusted the competency of team members by allowing them to make decisions and stepped in only when required: *"We don't believe in the culture of over guiding. Employees are encouraged to identify areas of growth and dive deep. Managers and seniors guide them with their knowledge and experience whenever they seek [it]."* Project managers took ownership and responsibility of nurturing team members. This reveals a shared experience of distributed decision-making, supported by mentoring team members, leading to team members' psychological contract fulfilment.

Senior managers believed in DL and explained that it was important for team members to be involved in business decisions under the mentorship of project managers. They believed that it was top management's responsibility to make sure that all stakeholders' interests are taken care of. Senior managers were seen as respecting the technical competency of team members and project managers and, vice versa, the senior managers were respected for their deep knowledge by team members and project managers. This created an environment of mutual appreciation leading to psychological contract fulfilment at all levels.

Case 4: Heavy engineering and infrastructure project company

This organization was process driven. Deviations from Standard Operating Procedure (SOP) were not encouraged. Operations-related decisions were made by the head of operations and contracts-related decisions were made by the contract manager. Team members' role was to provide required help only if and when asked, as one respondent stated: *"The basic operations-related decisions are taken by the operations engineer. We just help the operations engineer."*

Although team members were involved in decision making, if managers disagreed with team members' views, they vetoed their decisions, sometimes without providing proper justification. As stated by one respondent: "*First he [the senior manager] takes the team's opinion and then he decides. If he disagrees with the team, then he decides.*" This modus operandi created a feeling of lack of appreciation for team members' expertise. VL was seen as prevalent in the organization, which led to perceptions of a PCB as team members expected more distributed forms of leadership.

Project managers expected that leadership responsibility would be distributed in terms of their interactions with senior managers. However, they too experienced VL. Business decisions and decisions involving high costs were made by senior managers at headquarters. There was a strict approval-related hierarchy. This created a restrictive environment, which project managers felt was constraining in situations when immediate actions were required. As one project manager explained, "*He (the MD) does not delegate and so people below him also don't believe in the need to create a collaborative and participative decision-making culture. But all this is impacting the overall performance of the organization in the long term. […] given the changes in the external environment, we need more diverse ideas and prompt decisions.*"

On the other hand, senior managers claimed that they created an environment for cooperation and expected project managers to do the same with team members. Overall, it emerged that the leadership style practised in the organization was vertical at all levels. Gaps between expected and experienced leadership styles led to PCB across the project hierarchy.

Case 5: Financial company 1

In this organization, leadership was distributed with decision making taking place on different levels based on expertise and experience. Team members explained that they were considered technical experts in their own domain of specialization, and hence were responsible for technical decisions: "*What I'm accountable for is [to] make sure IT's decisions are made. Not only that, because I can make a lot of these decisions myself, it's making sure the IT decisions are also approved and endorsed.*" There was a collaborative environment in which the opinions of others in the project were considered. As pointed out by one of the team members: "*You occasionally get an architect who will suggest a different way of doing things and you have to consider that […] you have to listen to what they have to say.*" In cases where there were several options available to deliver a project, the project managers decided on the options. Once an option was selected, the team carried out the project based on that option and made the necessary decisions to implement it.

Project managers supported the view of shared responsibility for decision making based on one's level of expertise: "*From a project management point of view, the best decisions made by project managers are those that are related to running the project itself. Examples would be timings, deadlines, various submissions, [and] resourcing.*"

Senior managers were responsible for strategic decisions. They expected that decisions at the project delivery level were made by those who were responsible for running the project with escalation only taking place when needed: "*If it is a small development, the delivery [person] makes [the decision], but it is also escalated if it involves higher level decisions*" (senior

manager). These findings show that the leadership style experienced by project managers and team members were aligned with their expected view of distribution of decision making, leading to psychological contract fulfilment at all levels.

Case 6: Financial company 2

In this organization, DL was the norm. As one of the respondents stated: "*We don't have a lot of top-down decision making other than our strategic direction. Each team is the expert in what they do, so the team that does integration brokers, they are all brokers*". Team members felt comfortable making decisions because they were supported by project and senior managers if they had to change direction later on: "*Sometimes we have to reverse things and the leadership team is in support of that. If we find that a decision we made is just fundamentally incorrect, we will stop and change the direction.*"

Project managers confirmed that DL was expected: "*We seek [that] the teams […] make their own decisions and control their own destinies about what we do.*" The role of the project manager was to support team members. Trust in the expertise of team members was important for distributed decision making to work, as explained by a project manager: "*My approach is that you come in when you're starting with the team with a position of trust, and you come in with a position that these people have their own skills and knowledge, and you rely on their skills and knowledge to get the job done.*" They exercised their authority only when exceptional circumstances, such as resource constraints, required them to do so.

Strategic decisions were carried out at the top level: "*My decision making is specific, which is not architecture related but resourcing. I assign social architects to a given project, or reallocate, or reassign.*" This confirmed that DL was the prevalent form of leadership in this organization and VL only had a role in specific strategic or extraordinary decision contexts. Organizational members were aligned in their expectations and experiences of DL leading to a psychological contract fulfilment across the project hierarchy.

Case 7: Software services company

In this company, team members were responsible for technical decisions: "*In general, the big decisions come from upstairs, from the higher leaders. We don't have control of the resources or any changes. […] In the general technical decision, that kind of thing, between the team members we decide how to go forward and handle the situation.*" However, interviewees explained that many team members had refused to make decisions that were expected of them. As stated by the project manager: "*The business analysts make decisions but the developers and the testers, they simply refuse; they say no, this is what it is. […] [team members] are very unwilling to take decisions. I take decisions on their behalf. […] While I try to be democratic, in the end, I just have to make the decisions for them.*" While team members preferred DL, they felt restricted in their ability to make decisions as they perceived taking the responsibility for decisions as too risky. For project managers, this was a difficult situation. They felt that even when they wanted to make decisions together with their team, the team was reluctant to do so, reverting to VL: "*Staff gave me half a dozen reasons to hold off decisions when a situation arose when I had to make a clear decision.*"

Senior leaders expected team members and project managers to make technical decisions: "*More technical decisions get taken at the team level. There are operations decisions, if there are issues on the day they get taken by the operations team.*" They expected team members to be autonomous and proactive: "*I talk to them [team members] by exception, not by rule. I don't want to know all the goal details of how it played. Those details should stop at the program plan.*" Strategic decisions, especially those with financial implications, were taken by a steering committee: "*The program steering committee actually has the financial authority for any approval. That has not been delegated at the program level to me or to anyone in the team.*" In other words, VL prevailed in the organization with pockets of DL for some of the operational decisions. This was misaligned with the expectations of team members and project managers, hence they experienced PCB.

Case 8: Construction company

Team members were responsible for decisions at the technical level. As one team member explained: "*My responsibility is to do the right thing by enterprise architecture and not by what [the project manager] says we should do.*" This was confirmed by the project manager, who explained that technical decisions were expected to be made by team members who have the right expertise and are close to the project: "*Decisions on a very specific level, for example, architecture decisions, design decisions would best be made by a respective social architecture [expert].*" However, project managers had the right to override team members' decisions when team members lacked specific insights or understanding. In one case, an issue arose because the IT team members did not have a sufficient understanding of other stakeholder needs. The project manager intervened to change a decision made by the team: "*The technical people kept trying to tell us what data retention requirements should be ... And they were right on a purist perspective, right? I was the only person dealing with the business, and the business had a different view and a different requirement. I had to continually make a decision that met the business requirement, not the purist IT need.*" This indicates that DL was prevalent with organizational members accepting that the person with the best information and insights should make the final decision.

In terms of operational decisions, the organization had gone through a recent change, which enabled more distributed forms of leadership: "*The previous leadership team were very strict around process, governance, ticking boxes around deliverables, which was quite restrictive. It probably slowed us down. With a new leadership, [name omitted] came in and said, "Right, well some of the feedback that was happening we're too slow or too prescriptive in the way that we do things. So, we then pushed that aside and said, let's give the PMs a little more freedom*" (senior leader). Operational decision-making responsibility was delegated to the project managers, which was aligned with their expectations. Strategic decisions were taken at the senior leadership level. Overall, DL seemed to work well after the change in leadership. This was aligned with the expectations of team members and project managers signalling that psychological contracts were fulfilled across the organizational levels.

To sum up, while DL was practised in most organizations, in case 2, 4 and 7 VL was practised despite expectations of DL at team member and/or project manager levels, leading

to perceptions of a PCB. In all cases, operational decisions, such as project scheduling and execution, and technical decisions were entrusted to team members and project managers with varying degrees of senior management involvement. In some cases, the senior leaders' role was restricted to consultation; in other cases, senior leaders were involved more intensively in these decisions, from approving to a full involvement depending on the leadership style adopted. Critical decisions such as customer-facing, financial, resource allocation and project portfolio decisions were always the prerogative of senior management. Table 2 summarizes the key insights from the within-case analysis.

Table 2: Findings of within-case analysis

Case	Senior managers	Project managers					Team members			
	Type of decisions made	Expected Leader-ship style	Experienced Leadership style	State of psychological contract	Type of decisions made		Expected Leadership style	Experienced Leadership style	State of psychological contract	Type of decisions made
Case 1	Strategic	DL	DL	Fulfilment	Operational and strategic		DL	DL	Fulfilment	Primarily operational with input sought also on strategic decisions
Case 2	Strategic	DL	DL	Fulfilment	Operational and strategic		DL	VL	Breach	Operational/technical
Case 3	Strategic	DL	DL	Fulfilment	Operational and strategic		DL	DL	Fulfilment	Primarily operational with input sought also on strategic decisions
Case 4	Strategic	DL	VL	Breach	Operational		DL	VL	Breach	Operational/technical
Case 5	Strategic	DL	DL	Fulfilment	Operational		DL	DL	Fulfilment	Operational/technical
Case 6	Strategic	DL	DL	Fulfilment	Operational		DL	DL	Fulfilment	Operational/technical
Case 7	Strategic	DL	VL	Breach	Operational		DL	VL	Breach	Operational/technical
Case 8	Strategic	DL	DL	Fulfilment	Business Requirements		DL	DL	Fulfilment	Operational/technical

4.2 Cross-case analysis

Our analysis revealed that three key factors facilitated a specific leadership (VL or DL) style as conceptualized through distribution of decision-making responsibility, which in turn determined whether psychological contracts were fulfilled or breached: organizational culture, knowledge sharing and PM practices.

Organizational culture

Organizational culture emerged as an important factor in the creation of psychological contract perceptions in all the cases studied. A number of different approaches have been used to conceptualize and measure organizational culture in the context of PBOs. Most of these focus on operationalizing organizational culture primarily in terms of organizational values (Giritli et al., 2013; Livari & Livari, 2011; Wiewiora et al., 2013).

Our analysis showed that case 1, 3, 5 and 6 exhibited cultures that valued flexibility, cooperation and discretion. We found that the organizational culture in these organizations was built on trust and delegation and was supported by the presence of cross-functional teams where project members had an opportunity to share their views and take the initiative. This encouraged DL. In these cases, senior and project managers played a very important role in creating a safe space where team members felt empowered and trusted to share ideas and contribute to decision making.

In the organizations with such a culture, participation in decision making was encouraged: "*We are part of all decisions concerning projects. In fact, if my boss has to reply to a mail, which is critical for the future and may have implications, he calls 2-3 of us and checks with us about the content. Many times, we disagree and explain to him our perspective, which he respects and also accepts. Other times he discusses why matters need to be looked [at] differently*" (project team member case 1). Similarly, the project manager in case 6 explained: "*[Our culture] is very collaborative. We don't have a lot of top-down decision making other than our strategic direction. Each team is the expert in what they do, so the team that does integration brokers, they are all brokers […]. It's a very democratic model, so the decision is made as close as possible to the person who is implementing the change, so as much as possible we don't need to seek authorization.*" A tolerance for mistakes was appreciated: "*People in our organization are not pulled up for wrong decisions and there is delegation with some flexibility in allowing [them] to do what people think best with proper reasoning. Of course, project heads sit and talk to teams and go through the reasoning of how [a team member] arrived at that decision*" (team member, case 1). Role-modelling this behaviour by senior leaders was important: "*It comes from the top because if my boss does that to me [tolerates mistakes], I'll also be more tolerating and willing to let others do what they thought was correct*" (project manager, case 1).

The organization in case study 8 was in the process of cultural change towards a more participative culture, triggered by the appointment of a new CIO. A senior manager explained that the previous hierarchical process "*used to hold up and frustrate the business significantly*" but since the change, decision making has sped up and cooperation has improved. The cultural change included increase of delegation: "[*We give project managers*] *a little more freedom*

[…]. We don't prescribe what they need to do. We tell them what the outcome is, as in what we actually expect the project to deliver. Then the expectation is that within that gap they will manage that themselves" (senior manager, case 8). This indicates that embarking on a cultural change towards a more flexible and trusting culture leads to a change in organizational expectations on leadership styles and participation in decision making.

In contrast, organizations with cultural values focused on stability and control, such as in case 4 and 7, were less conducive to DL because participation and delegation were not encouraged, and there was a culture of blame: "*The team of senior management here are learned but autocratic. The top man has great business sense but listened selectively only to his selected lieutenants. Project heads were only used for blaming and passing the buck if things didn't work out*" (project manager, case 4). This led to treating project managers as scapegoats: "*Many of them [senior managers] consider [the] project head as […] someone who could be pushed unnecessary work, using him as a punching bag to blame [for] things which go wrong, which are not happening.*" As a result, project team members and project managers perceived organizational calls for cooperation as disingenuous: "*I don't take decisions, basically the style of working here is that you have to … [have] a very low [self-]esteem here, you have to be thick-skinned – people here are not accustomed to the project management style of managing things. There are pretentions of collaborative decision making*" (project manager, case 4). Such an environment made team members and project managers wary of making decisions: "*Here people are very held back, they don't want to make decisions and there is this mentality of 'if I make a decision I'll be blamed', which is very unfortunate … Here people are reprimanded for … for taking decisions*" (project manager, case 7). In this environment, even though senior leaders seemed to support DL, team members and project managers did not feel comfortable making decisions and reverted to VL. These misaligned expectations led to a PCB.

The organization in case 2 seemed to exhibit a flexible, collaborative culture, as viewed by project and senior managers: "*People in our organization are not pulled up for wrong decisions and there is delegation with some flexibility in allowing [them] to do what people think best with proper reasoning. Of course, project heads sit and talk to teams and go through the reasoning of how [they] arrived at that decision*" (project manager, case 2). However, team members experienced a culture that was based on favouritism and lack of opportunities to contribute, which was conducive to VL. This case indicates that a mismatch between espoused cultural values and enacted cultural values creates an uncertain environment in which DL is inhibited. This can lead to a PCB (Howell et al., 2012).

Knowledge sharing mechanisms

We found that knowledge sharing practices empowered both team members and project managers to take decisions. In line with existing research, this study shows that organizations with flexible organizational cultures that encourage delegation and trust also encourage knowledge sharing, whereas cultures that focus on stability and control discourage knowledge sharing as people withhold knowledge as a way to safeguard their careers (Wiewiora et al., 2013). For example, in case 7, even though team members were asked to document their work on projects and deposit these documents in a central repository that served as a knowledge management system, many refused to share their knowledge: "*They [the team members] are*

not happy to share the knowledge; because of job security, they try to keep as much as they can" (team member, case 7).

In the cases where knowledge sharing was supported, it was achieved through two key mechanisms: communities of practice and mentoring. Mentoring by senior managers was an important factor that led to greater mutual understanding between the different hierarchical levels and enabled the adoption of shared goals. In case 3 team members were encouraged to identify areas of growth and seek guidance from project and senior managers with relevant expertise: "*We don't believe in the culture of over guiding. Employees are encouraged to identify areas of growth and dive deep. Managers and seniors guide them with their knowledge and experiences whenever they seek [it]*" (senior manager, case 3). Regular advice, counsel, feedback, and support from senior managers were considered important elements of delegating operations decisions. A team member from case 3 elaborated that they naturally gravitated to experienced project leads who were willing to share their knowledge and mentor them.

Knowledge sharing also took place through communities of practice. They were particularly prominent in case 6. Knowledge sharing communities help project managers and team leaders to solve problems collectively thus fostering DL: "*There are a number of different communities; so the project managers […] they solve each other's problems. We encourage this project management community to do that and the team leader community does exactly the same […]; we strongly encourage [these communities of practice] as that means the problems are getting resolved; it's quick and it's close to the source*" (project manager, case 6). There were also communities supporting team members: "*If there is something we think deserves wider input from the whole team we will raise that as a topic of discussion in that forum […]. More informally, we have a group chat*" (team member, case 6). Such knowledge sharing empowered team members to participate in decision making. Similarly, in case 8, forums for knowledge sharing were used to seek help or gather feedback from a larger group of experts: "*Within the architecture team we have fortnightly forums where everybody says what they're working [on], what they're doing, asking people's opinions. […] 'I'm doing this, can anybody help' […]? any feedback is appreciated.*" The presence of communities of practice enabled project managers and team members to draw on their collective experience, which increased participation in decision making and helped DL.

In summary, there is a positive relation between knowledge sharing and organizational culture focused on flexibility, trust and cooperation, and both enable DL.

Project management practices

The PM methodology adopted is relevant because it results in specific routines (e.g., reporting mechanisms) or practices (e.g., schedules or stand-up meetings) that impact the roles and responsibilities of project team members and project managers. In accordance with existing research that investigates the relationship between organizational culture and agile methodology (Strode et al., 2009), we compared the PM methodology used in the eight case organizations with their organizational cultures and leadership styles identified. The results are somewhat mixed. While the Australian organizations all used some combination of Waterfall and agile methods, the Indian organizations predominantly used traditional PM methodologies.

Traditional PM methodology implies that project initiation and planning are controlled by senior and project managers. In case 2 and 4, broad activities were divided into specific tasks which were executed based on SOPs developed by senior managers. Although adherence to SOPs avoided the need of project and senior managers' involvement in decisions related to granular-level tasks, which were executed by team members, team members were not empowered to participate in decisions that went beyond what was covered by the SOPs. In case 1 and 3, the prevalence of cross-functional teams and a collaborative culture ensured that the use of traditional PM methodology did not hinder DL.

Analysis of the cases that used agile methodologies alongside other PM methodologies, such as Waterfall, demonstrated that agile methods enable DL. Agile with its rituals (stand-ups, Kanban, discovery and delivery) and rhythms (iterations), if used in the true agile spirit, creates an environment where project members knew what they were expected to do and made decisions in a timely manner. For example, stand-ups with sharing of what everyone is working on and openly discussing any issues or concerns enabled cooperation and a participative decision making: "*People are coming in and sharing their problems as well and you get a good collaboration, it's the collaboration that is solving most problems*" (senior manager, case 6). The agile methodology also encouraged experimentation through "*regular iteration planning, considering backlogs and planning to resolve the backlogs to fit those iterations*" (project manager, case 6). In contrast, organizations with cultural values focused on control and stability struggled to implement agile methodology, as exemplified by case 7: "*Well, it is all Waterfall here. I have attempted to bring in agile, but this place is not conducive [to agile methods]*" (project manager, case 7).

In summary, the study suggests that agile methods enable DL. At the same time, the use of traditional PM methodology, when combined with flexible and collaborative culture, does not hinder DL. In alignment with other studies, we conclude that the connection between organizational culture and agile methods is reciprocal (Livari & Livari, 2011). Thus, the impact of PM methodologies on DL is not independent of organizational culture.

5. Discussion

The aim of the study was to investigate the relationship between two leadership styles (vertical and distributed), as conceptualized through the types of decisions made (strategic and operational/tactical), and the state of psychological contract (fulfilment/breach) as perceived by project members at different hierarchical levels in PBOs. Based on the analysis of eight cases across two countries the study showed that strategic decisions were mostly made by senior managers whereas operational and technical decisions were made by project managers and team members. DL was the prevalent leadership style and was also the prevalent expected leadership style. As research on PBOs has shown, these organizations face increasingly complex and dynamic environments that are better addressed through shared and distributed forms of leadership (see for a review in the context of construction firms, Graham et al., 2019).

This study argues that when project members' expectations of the leadership style and distribution of decision-making responsibility are aligned with their experiences, they perceive

a psychological contract fulfilment. Research on psychological contracts argues that such fulfilment has a number of positive results on employee performance (Turnley et al., 2003).

The study showed that, in some cases, the experienced leadership style and distribution of decision making did not align with the expectations of team members and/or project managers, leading to a PCB. Breaches occurred when team members and project managers expected DL but experienced VL. Such breaches have been shown to have significant negative impact on project team members' attitudes (e.g., job satisfaction and commitment to the organization) and behaviour (e.g., in-role performance, turnover and organizational citizen behaviour) (Zhao et al., 2007), which can negatively affect project outcomes.

The second aim of the study was to explore what factors impact leadership styles and distribution of decision making in projects. The study suggests that DL is enabled in organizations with flexible, collaborative organizational cultures that support knowledge sharing. In contrast, organizations with cultures focused on stability and control where knowledge sharing is less prevalent inhibit DL. Agile methods seem to support and reinforce DL, but their absence does not prevent DL practices. Based on the above insights, we propose a model depicting the relationships that emerged out of the analysis (Figure 1).

Figure 1: Relationship between factors enabling/hindering distributed leadership and psychological contract fulfilment/breach
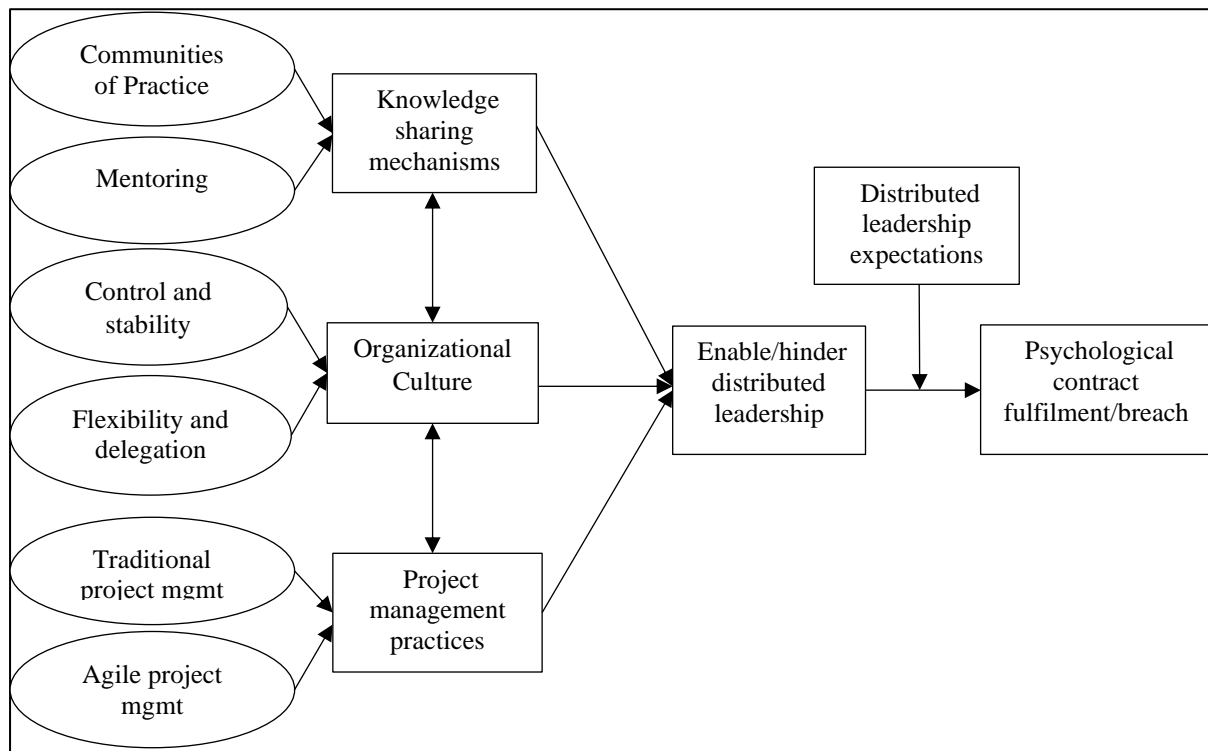
5.1. Theoretical and practical implications

Research has revealed that project-based work is typically "fast-paced and dynamic, [as] projects require constant alignment with organizational strategies while also balancing competing concerns for schedules, budgets, stakeholder satisfaction, and quality" (Pinto et al., 2014: 578). This high-pressure environment implies that finding the right balance between VL

and DL is important as it affects project members' relationships and performance (Muller et al., 2017). This article suggests that the psychological contract concept can provide important insights towards understanding the impact of leadership practices on project members' performance. When project members' expectations of leadership style and decision-making responsibility differ from their experienced leadership style and decision-making distribution, this results in a perception of PCB.

The study found three key factors that enable or inhibit DL practices and thus affect perceptions of psychological contract fulfilment/breach: organizational culture, knowledge sharing mechanisms and project management practices. This study extends research that found a positive relationship between organizational cultures focused on flexibility, trust and cooperation, and participative and consultative leadership styles within PBOs (Giritli et al., 2013). Such leadership styles enable DL practices as they include project members in decision making. This study adds to extant research by arguing that when cultural profiles and leadership styles are aligned and consistent with project members' expectations, they perceive that their expectations have been met, which leads to psychological contract fulfilment. On the other hand, cultures focused on stability and control do not support DL practices. In PBOs where project members tend to expect some form of DL, such misalignment leads to PCB.

In line with existing research on the relationship between organizational culture and knowledge sharing (Wiewiora et al., 2013), and organizational culture and agile methods (Livari & Livari, 2011), this study suggests that organizational cultures that focus on flexibility and cooperation foster knowledge sharing and are more conductive to the application of agile methods. The study shows that an alignment between these factors enables DL practices. On the other hand, attempts to implement agile methods without having a supportive culture in place do not foster DL. As the study by Berger in a project-based context argues, inherent work practices and protocols associated with a risk-averse blame culture undermine agile methods and prevent DL (Berger, 2007).

The study contributes to management practice by suggesting that senior and project managers' leadership styles play an important role in the organizational members' perceptions of psychological contract fulfilment/breach across the project hierarchy (Zhao et al., 2007). Thus, preventing breaches of psychological contracts is important in order to keep team members and project managers motivated to perform. This is critical in PBOs as they are time-bound temporary organizations where time available with the managers to establish psychological contract fulfilment is limited. The project manager is expected to be "*a good shepherd*", or a steward who enables DL while supporting the team when needed and intervening in the case of difficult decisions. Furthermore, senior and project managers need to be aware of the impact of organizational culture, knowledge sharing mechanisms and PM practices on leadership practices. While organizational culture is difficult to change, by supporting cooperation, establishing avenues for knowledge sharing and promoting agile principles of working, senior and project managers can commence a change journey that increasingly supports DL practices, as evident in one of the organizations studied.

5.2 Limitations and suggestions for further research

This is an exploratory study based on eight cases across organizations in two countries and from different industry sectors. Therefore, it is not possible to generalize from this limited sample. More studies are required across different contexts and cultures using the conceptual model proposed to further investigate the relationship between factors enabling DL practices and impacting psychological contract perceptions.

Furthermore, the study did not investigate how psychological contract fulfilment/breach impacted project performance in the eight organizations studied. Although prior studies have argued that psychological contract fulfilment/breach impact the attitudes and behaviours of employees, which then impact their performance (Bolden, 2011), Pate et al. (2016) argue that contextual factors are key to understanding the impact of psychological contract fulfilment/breach. For example, job insecurity could diminish the negative impacts of PCB on employees' behaviours. More research is also needed to investigate what types of DL work in what contexts to achieve positive organizational outcomes (Bolden, 2011). Research has shown that employees might put different weight on specific dimensions of the psychological contract (e.g., pay, benefits, leadership practices, etc.) (Turnley et al., 2003). Further studies should investigate how important perceptions of DL and distributed decision making are to project members in PBOs as well as how these perceptions differ in different contexts.

One unexpected result of the study was that national culture did not seem to play a role even though the study was conducted across two countries with quite different cultures. On reflection, it was observed that the managers and team members interviewed in Australia came from different cultures. Several of them were of an Indian background as the IT field is dominated by Indian engineers and programmers. To examine the impact of national culture on psychological contract fulfillment/breach as related to the type of leadership, future research could examine cases from countries with homogeneous cultures.

6. Conclusion

The key contribution of this study is unpacking the relationship between leadership styles (VL and DL) as operationalized through types of decision making (strategic and operational/tactical) and the state of psychological contract (fulfilment/breach) as perceived by project members at different hierarchical levels in PBOs. Based on an exploratory study of eight organizations across Australia and India, this study argues that DL is the prevalent leadership style expected in PBOs. When project members' expectations are aligned with the leadership style experienced, this leads to perceptions of psychological contract fulfilment. The study found that DL is enabled by three key factors: flexible and collaborative organizational culture, knowledge sharing mechanisms and agile project management methods. Where the cultural values of the organization are focused on stability and control, knowledge sharing is restricted and agile methods are difficult to establish. In such contexts, VL prevails and project members experience a psychological contract breach.

Acknowledgement

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