

**ADVANCING TEMPORAL ORGANIZING:
THE CASE FOR A PRACTISING SCHOOL IN PROJECT-BASED ORGANIZING**

ABSTRACT

Navigating complexity remains one of the key pragmatic challenges that call for temporal organizing as a response. Whilst project-based organizing is established as an approach integral to deploying temporal organizing we still know little about the lived experiences of project managers as they enact it. It, therefore, merits academic study and attention to analyze further how project-based organizing is practiced and why it is practiced in unique ways that offer insights into the practical judgements that underpin project managers' action choices. We present findings from a study investigating the lived experience of 43 project managers from key sectors in countries around the globe. We use the empirical findings of this qualitative study to show how project managers embody and not only enact the dynamics of temporary organizing in the ways they navigate project complexities and form their judgements on an ongoing basis. This process of practising is marked by leaps of faith that can mark new measures of project success beyond the traditional parameters of project completion, namely time and budget. This paper makes a compelling case for a new school of thought in advancing temporal organizing that we will call the 'Practising School', which informs our understanding of the dynamics of project-based organizing and offers insights into how practitioners navigate the ongoing project complexities inherent in project-based organizing. We pave the way for advancing a practice-based perspective for studying projectification and extend current conceptualizations of temporal organizing.

Keywords: project complexity, temporal organizing, practice-based studies, practical judgement, projectification.

1 Introduction

The juxtaposition of temporary (project-based) and permanent (functional) forms of organizing continues to attract attention in management and organization studies (Morris & Geraldi, 2011). As temporal ‘objects’ (Tukiainen and Granqvist, 2016), projects are manifestations of project-based organizing that offer distinctive insights into flows of organizational change action (Sydow, Lindqvist and DeFillippi, 2004; van Marrewijk, Ybema, Smits, Clegg, and Pitsis, 2016).

That projects are typically initiated, executed, and managed within conditions described as volatile, uncertain and ambiguous is not new. Complexity is endemic to projects as temporary forms of organizing as the social dynamics they invoke add layers of social complexity that managers are unable to predict (Geraldi and Adlbrecht, 2007; Geraldi, Maylor, and Williams, 2011; Remington and Pollack, 2007). What makes the complexities of project-based organizing unique, is the simultaneity of multiple modes of project complexity (Maylor and Turner, 2017). This means that projects as a form of temporary organization, hold important insights into the inherent disruption to strategic objectives and goals both due to the external (i.e., ecological, social, economic, and geopolitical conditions) and internal (i.e., cultural, capability or capacity) forces being in ongoing interaction. Project managers are called to connect these forces and their interaction and in doing so, to pursue project managing (hereafter PM) as a practice guided by judgements that balance simultaneously competing priorities and interests of multiple governance structures and stakeholder groups in project-based organizing.

We believe that the existing theoretical lenses and empirical analyses of project complexity are insufficient in helping us understand how this disruption happens during project-based organizing and projectification. By seeking to unravel project managers’ lived experiences of disruption as inherent to their dynamic and multi-modal complexity, the study reported in this

paper sought to explore the following research question: *‘What are the lived experiences of project complexities, and how do project managers navigate through these and form their judgements?’*

Our findings make two key contributions. First, we extend the application of practice-based studies to rethinking PM as a practice, and in so doing introduce a dynamic view of *practising project managing* which validates existing theory (Antonacopoulou and Fuller, 2020; Gherardi, 2015). This perspective on project-based organizing explicates the conditions that make connections between different aspects of a practice possible. This means that in extending previous research that has focused on the micro-foundations of project managing – what project managers do when they manage projects and balance paradoxes such as exploration and exploitation (Turner, Swart, Maylor and Antonacopoulou, 2016) - we are now able to support project managers better in recognizing that the success of their projects is in the ongoing refinements they make as they become more confident whilst *practising project managing*.

Second, we show that the dynamism in PM practice can be largely attributed to tensions which project managers’ experience as they work with paradoxes and multiple complexities simultaneously. Therefore, a key finding from our research is that disruption as a form of multi-modal project complexity calls for project managers to form their judgements by simultaneously attending to multiple forces (internal and external). However, making good judgements is more than merely choosing between viable options based on a process of delineating between alternatives, which is how decision-making is typically understood.

Hence, this paper presents empirical findings from a study that examines project managers’ lived experiences of embodying and not only enacting the dynamics temporal organizing calls for. Our focus is on the ways they navigate project complexities and form their judgements on an ongoing basis. This process of practising is marked by leaps of faith that emerge as confidence

also grows, in the response that is deemed to serve better not only project goals but also the ‘common good’. The latter shifts temporal organizing to a new logic that extends beyond traditional measures of project success (e.g. completion on time and budget). This analysis casts a fresh light on established frameworks of project complexity and advances our understanding of temporal organizing increasingly recognized as integral to how we support agile organizations in the post-pandemic world.

We organize the discussion of these issues as follows: The introduction is followed by a review of the literature to account for the ways project complexity is hitherto understood and ways existing accounts of the dynamics of project as a practice can be accounted for. This is followed by the methodology elaborating our research design, data collection and analysis before presenting our findings in their discussion to mark more clearly our contribution in advancing project-based organizing. The paper concludes by outlining the implications for future research and the lessons we invite project managers to continue to explore as we promote greater co-creation drawing on our own experience in conducting the study and preparing this manuscript.

2 Extending Temporal Organizing: The Complexities of the Process and Practice of Managing Projects.

There is a prevalence of project-based organizing in modern economies, with over a third of all business processes and activities in developing economies being structured as project-based (Schoper, 2018). According to Papke-Shields, Beise, and Quan (2010), organizations are increasingly using projects to achieve their objectives, and temporal organizing represents a vital area as the work is economically important (Biesenthal, Sankaran, Pitsis, and Clegg, 2015; van Marrewijk et al., 2016). To grasp the prevalence of project based-work, it has been estimated that project work in developed economies, before Covid-19, accounted roughly for a third of all

business activities and constituted for 22% of the world's gross domestic product (Schoper, Wald, Ingason, & Fridgeirsson, 2018). Moreover, a study of the contribution of PM and projects to the UK's economy and society concluded that PM represents 7.9 per cent of UK employment (FTEs) and 8.9 per cent of the entire UK Gross Value Add (GVA) (PwC Research and APM, 2019). With the turbulence of Covid-19, the move to project-based organizing is accelerating even further (Koch and Schermuly, 2021). Despite accelerated investment in PM processes, frameworks and 'tools', it is widely acknowledged that project outcomes often fall short of target goals (Andriopoulos, Lewis and Ingram, 2018; Holweg and Maylor, 2018; Pitsis, Sankaran, Gudergan, and Clegg, 2014; Turner, Maylor, Lee-Kelley, Brady, Kutsch, and Carver, 2014).

Projects as temporary forms of organizing have been studied using evolving theoretical lenses from an optimization and rationalization focus to more recently adopting contingency and comparative perspectives (Bresnen, Goussevskaia, & Swan, 2004; Söderlund, Hobbs and Ahola, 2014). Söderlund (2011) summarizes 7 PM schools of thought (the Optimization, Factor, Contingency, Behavior, Governance, Relationship, and Decision Schools) to account for the development in thinking and the growing emphasis placed on multilevel and relational aspects deemed critical to our understanding of managing projects. Inherently, these lenses lead to a persistent focus on the perceived value (Zwikael and Smyrk, 2012) of projects and the difficulty of assessing using traditional accounts of "'success' and 'failure' ... impostors", as Collins and Butler (2020, p.468) affirm.

An alternative theoretical lens is based on process theory, which shifts our attention to the unfolding, emergence and 'becoming' of projects (Bakker, DeFillipi, Schwab and Sydow, 2016; Söderlund, 2011; Tsoukas and Chia, 2002). In PM theory, the shift towards project-based organizations as the primary mode of organizing has been termed 'projectification' (Bredin and

Söderlund, 2006; Bergman et al., 2013; Hodgson et al., 2019; Maylor et al., 2006; Midler, 1995; Packendorff and Lindgren, 2014).

Considering the prevalence of PM and the challenges it faces, there is a compelling need to understand better the inherent dynamics in project-based organizing. This is consistent with Lalonde, Bourgault, and Findeli (2012) who emphasize the significance of re-examining the complex relationship between PM theory and practice, a point also promoted by Söderlund and Maylor (2012). We share in Cicmil, Williams, Thomas, and Hodgson's (2006, p. 684) assertion that "the understanding which drives much of the PM literature does not satisfactorily explain the richness of what actually occurs in project environments".

There remains a need for a resilient theory that accommodates the complexities inherent in temporal forms of organizing and projectification (Maylor, Meredith, Söderlund, and Browning 2018). This paper makes a compelling case for developing a new PM school of thought: the 'practising school'. We present this new perspective as a theoretical 'school' to inform PM, as a practice of dynamic organizing when the response to emergent complexity calls for practical judgements that serve the common good. We refer to temporality to go beyond issues of time to account for the dynamic nature of managing across organizational boundaries and relationships between people. We, therefore, extend McGivern, Dopson, Ferlie, Fischer, Fitzgerald, Ledger, and Bennett's (2017) appreciation that social groups see temporality in different ways and show how temporality as a mode of organizing can be advanced when placing the common good - what the authors of this paper consider to be societal, ecological, economic, and political wellbeing - as a guiding principle.

The common good promotes the social bonds that foster flourishing of every citizen in a just society acting both as a new economic system (Ostrom, 2009) as well as, more widely in civic and

political life promoting what Peterson and Civil (2021) explain as: "... recognising [and] encouraging civically-minded, active and responsible citizenship [where, in] the place of individualistic or meritocratic forms of human flourishing and social justice, an emphasis on the common good can help restore a politics of trust, dignity, respect, mutuality, service to others, and humility". Embedding this logic as a way of extending our understanding of the emergent nature of projects extends beyond changes and deviations from prescriptive project plans (Blomquist et al., 2010; Hallgren and Maaninen-Olsson, 2009), which has given rise to 'Agile' delivery, and hybrid combinations of Agile and traditional delivery methods (Bianchi, Marzi and Guerini, 2018; Conforto, Amaral, da Silva, Di Felippo, and Kamikawachi, 2016; Cooper and Sommer, 2016). The inherent complexity of projects has been a key area of concern for several authors (Dvir and Shenhar, 1998; Maylor, Vidgen and Carver, 2008). It has prompted research (Cicmil et al., 2009) to differentiate between the complexity *in* projects and the complexity *of* projects. The former relies on a complexity science approach, the latter on the managers' individual perspectives (i.e., a subjective view), knowledge and experience. This is in line with the 'lived experience' approach advocated by Williams (2005) and used by authors such as Maylor, Turner and Murray-Webster (2013), Shenhar and Holzmann (2017) and Turner, Aitken and Bozarth (2018).

The systematic literature review by Geraldi et al. (2011) identified five distinct forms of project complexity ('structural', 'pace', 'socio-political', 'uncertainty' and 'dynamic'). This was followed by Maylor et al. (2013) who created the *Complexity Assessment Tool* (CAT) and envision complexity as comprising three dimensions: *structural complexity* (including size, independencies, pace, breadth of scope, and number of locations and time-zones); *socio-political complexity* (including level of politics or power-play, stakeholder/sponsor commitment and conflicting priorities, and resistance to the work being undertaken) and *emergent complexity* (including

commercial and technical novelty, lack of clarity, and unforeseen changes that arise). These categories, therefore, allow different facets of ‘complex projects’ to be distinguished.

Maylor and Turner (2017) subsequently updated the Geraldi et al. (2011) literature review and showed (see Table 1) an underlying set of responses based on the CAT. They posited that structural complexities could be aided by *planning and control* tools (APM, 2019; Meredith and Mantel, 2015; PMI, 2017), socio-political complexities via a focus on *relationship-building* with key stakeholders (Park and Lee, 2014), and emergent complexities by enabling *flexibility*, including agile techniques (Dybå and Dingsøy, 2008; Highsmith, 2009). Some complexities cannot be solved or alleviated, and these must be ‘lived with’. They are referred to as ‘residual complexities’.

----- Insert Table 1 -----

Although Maylor and Turner (2017) demonstrate that these three forms of responses are used by project managers, their framework signals that we need to understand the unique complexities as they are experienced, by those who also contribute to creating them. This implies that project complexities experienced in PM practice demand an analysis that goes beyond accounting for the temporal aspects and as project-based organizing unfolds during projectification, a topic that has already commanded the attention of some scholars (Jacobsson, Lundin, and Söderholm, 2015).

We lack a comprehensive view of how project complexity is navigated, how complex situations are dealt with in practice and what impact the judgements that guide action have on the endurance and success of the project. In short, we need to account for the complexity of ‘managing’ projects and draw on established theoretical perspectives – process studies and social practice theory – to do so. The contribution of this paper is that it consolidates these debates to position PM

and managing projects as a critical aspect of the project-based organizing that we promote and seek to advance through a focus on practising PM.

2.1 Project-based Organizing: Beyond Process and Practice in Managing Projects

Scholars who have adopted a process orientation (informed by process ontology, Hernes, 2014) have acknowledged the temporality inherent in projects and the modes of organizing that demand cooperation, leadership and, most centrally, balancing stability and change (Karrbom et al, 2015; Packendorff and Lindgren., 2014; Söderlund, 2008). This work provides scope to capture the emergence of projects as various forces coalesce and create conditions affecting how projects unfold. In this context, the emergent complexity of the project is understood as the ongoing negotiation between forces of stability and change, and we can seek to understand how managers deal with this challenge.

Similarly, attempts to address project complexity have sought to account for the socio-political and structural complexity embedded in the practice of managing projects. Here, scholars who advanced a ‘project-as-practice’ perspective (Blomquist et al., 2010; Floricel et al., 2014; Hallgren and Soderhölml, 2011) focus on the interactions between project actors during project execution (Lalonde et al., 2012) to reveal a deeper understanding of the dynamics of managing projects.

We adopt a social practice theory perspective (referred to as practice-based studies – Gherardi, 2015) to extend the appreciation of managing projects as a collective and collaborative process where the complexities in projects are as much triggered by wider environmental forces as they are endemic to the practice of PM itself (Blomquist, Hällgren, Nilsson, and Söderholm, 2010; Floricel, Bonneau, Aubry, and Sergi, 2014). Such social theories extend beyond other prevalent behavioral, processual, and relational views present in project studies and offer a stronger

theoretical base of temporal organizing (Burke and Morley, 2016) because they expose how tensions constitutive of their dynamism are engaged with by project practitioners.

By focusing on the practical judgements project managers form, we explore how project managers navigate multiple, simultaneous, modes of complexity. Understanding the dynamism of project-based organizing and the way PM practitioners collaborate and interact, beyond negotiating their own interests, offers a fresh perspective in our efforts to capture the emergence of social practices and their ongoing reconfiguration (Vaara and Whittington, 2012) rather than merely their institutionalization (Gherardi, 2006).

A project-based organizing orientation is a direct response to calls for innovative approaches in PM research (Müller and Söderlund, 2014; Söderlund and Maylor, 2012), not least because it recasts the focus on the practise of practice and makes the case that *practising* is a key characteristic of all social practices as this helps us better understand how practices are continuously formed, performed, and transformed. We draw on Antonacopoulou's (2008) initial framing of practising as "*deliberate, habitual, and spontaneous repetition... because it entails - rehearsing, refining, improving, changing elements of one's practice and oneself ... [practising is about] creating new connections due to repetition not replication*" (Antonacopoulou, 2008, p.224-225). The focus on practise and practising introduces an exposition of the various aspects of a practice and the ways their interconnections reflect the complexity and dynamic reconfiguration of practices, which go beyond a focus on the powerful social forces that shape how practices are performed (Reckwitz, 2002). In short, this focus promotes an orientation towards practising as an act of innovating – a 'leap of faith' as Antonacopoulou and Fuller (2020) explain in relation to entrepreneurship - that seeks to go beyond performance targets and standards to bring the best in all those who contribute to the greatest possible outcomes from the project. This implies that

practising project managing is the capacity of extending beyond the here and now, the ‘me’ and ‘my perspective’, to create the conditions of harmony, despite the inherent disruption implicated when multiple and often competing perspectives across stakeholder groups are integrated especially when serving the common good. Therefore, our analysis draws attention to the relational power of actors (internal and external to the project) and the nature of their collaboration (not mere interaction but relationships formed) in achieving what the project sets out to deliver – the common good. We posit that a temporality lens orientated towards the common good, requires PM practitioners to elevate the purpose of their work beyond completing the project on time and on budget. It introduces additional ways of assessing the impact of project-based organizing beyond the criteria for assessing project self-efficiency and inward-looking success. This change in orientation is critical, because it provides the basis for extending the measures and criteria of project success beyond time and cost to include organizing capability, capacity and *enduring impact*.

3 Methodology

Recent studies have used complexity as a theoretical lens to study project-based organizing (Ahlemann et al, 2013; Boehme et al., 2021; Blomquist et al., 2010; Floricel et al. 2014) and have relied on longitudinal deductive, qualitative approaches to study practitioners’ PM practices across industries and regions, as well as situated actions taken. Our research question was drawn from gaps in existing literature and methodology that applies a processual and practice-based approach and enriched by the insights of different members in our collaborative team who have an active engagement with the world of business practice thus, providing our research the scope for co-creating knowledge for impact. Using a conversational, narrative-based interview protocol we engaged 43 project managers to address the research question: *‘What are the lived experiences of*

project complexities and how do project managers navigate through these and form their judgements?’

Our focus is to draw on project managers’ accounts of lived experiences of project-based organizing to explain how they spontaneously acted, responded to complexity, and consider the ongoing adjustments they had to make in managing projects. This approach arrests the practising that guides judgements affecting both how projects unfold, as well as how project complexity is ‘managed’. By exposing the judgements made we elaborate the embeddedness of tensions and paradoxes in organizing reflecting the inherent project complexity and account for the leaps of faith that form part of the extensions that managing projects is afforded when engaging with project complexities.

3.1 Research Design: Data Collection and Analysis

The qualitative research design explored ways project practitioners engaged in practising project managing. This meant that we sought to arrest the dynamics in project-based organizing focusing on how project managers understand and articulate what, how and why they do what they do as part of what constitutes the practice of project managing as a temporal mode of organizing. The conversational, narrative-based interviews were employed to capture stories of lived-experiences of collaboration in projects, including critical incidents (Flanagan, 1954) or what we would distinguish as crucible moments of project complexity. These crucible moments enabled us to identify the factors guiding project managers’ judgements. Interviewees were asked to focus on narratives of incidents of success and failure, their attitudes to the established PM routines, the models, frameworks, and standards that they use to manage projects effectively and efficiently, the emergent characteristics of modern projects that present core challenges and the ways collaboration impacts on their work.

The 43 interviews conducted were with experienced project managers, all of whom were also studying for an online-learning MSc at a major UK University. Each was responsible for one or more complex projects and could articulate the challenges faced and the responses to project complexity they considered and implemented. We used virtual communication platforms such as Skype and the interviews lasted typically 60-90 minutes. A stratified sampling method was used to cover different industries, thus providing access to a rich and varied group of PM practitioners across many key sectors and countries in the global economy including banking, IT, construction and oil and gas, and incorporating respondents from Europe, Middle East, Africa, Americas, and Asia.

The interview questions were structured to elicit the nature of project-based organizing as a practice, explicating aspects of dynamism in the complexities encountered. This gave informants the opportunity not just to reflect on their past and present experiences but to illustrate using real-life examples throughout their PM career how the emergent complexity of projects was navigated. All interviews were recorded, transcribed verbatim, and analyzed using NVivo. The transcripts were coded according to the qualitative approach proposed by Strauss and Corbin (1998) and Miles and Huberman (1994). To ensure coding consistency and validity, two researchers were coding independently to reduce bias (Neuendorf, 2016), and another two researchers were reviewing separately the themes and codes to enrich the rigor of the interpretations given. This independent reviewing process ensured that the codes were not oversimplified when they were extracted from the narrative occurrence, thus the insights from the interviews maintained their richness. Moreover, the rigour of our analysis was further enhanced by the critique of an independent scholar practitioner with expertise in this field, who we engaged in the study to guide our efforts to co-create knowledge for impact. This was an important dimension in our research strategy, which

greatly enriched the implications for improving project-based organized particularly when addressing multiple modes of complexity and change that temporal organizing calls for.

We analyzed our data through three different stages. First, we started our coding process by seeking to identify the nature of complexities facing the project managers. Using Maylor and Turner's (2017) typology, we clustered the three dimensions of project complexities (structural, socio-political, emergent) and three responses (planning and control, relationship development, and flexibility). Next, we scrutinized further our data to identify the forces that underpin the dynamics of these various forms of complexities. Here, we also paid careful attention to capture PM reactions to what they perceived as a complexity. We examined the data to understand how these complexities and their underpinning dynamisms and forces translated into challenges and issues for decision-makers, which we conceptualized as paradoxes shaping practical judgements not merely their reactions. Finally, we built upon the above analysis to link the different themes and subthemes emerging from our analysis and develop a process view for project-based organizing.

The data showed fundamental paradoxes that project managers are compelled to work with when engaging with these complexities, particularly when they are experienced simultaneously. Our analysis revealed two paradoxes as central to project managing. We derived these through comparing the responses of the participants and seeking to understand the major themes underpinning their challenges, looking for similarities despite their dissimilar contexts. This second-order coding enabled us to uncover higher-level themes within the data which we present in the findings section that follows.

4 Findings

4.1 *The Complexities Experienced in Project-based Organizing*

Using Maylor and Turner's (2017) categorization we coded for both complexities and responses and noted that many complexities could not always be associated with a specific response. Similarly, and interestingly, many activities could be understood as responses, but to pre-empt anticipated future complexities. In terms of complexities, we identified 99 structural, 77 socio-political and 41 emergent. These included examples of 'residual' complexities (Maylor and Turner, 2017) without clear solutions. In terms of the responses, our analysis coding showed 152 used planning and control, 118 used relational methods, and 44 invoked a 'flexibility' response.

Typical complexity examples are given in Table 2, and responses in Table 3. The instances of responses (314) were thus almost half as high again as the number of identified complexities (217) (including examples of 'ways to improve'). This reinforces the view that project managers' practice is to guard against complexities by putting in place solutions and frameworks before issues arise. The instances for which both complexity and response could be coded is indicated in Table 4.

----- Insert Tables 2, 3 and 4 -----

One might expect the responses to be primarily on the diagonal line, as per Maylor and Turner's (2017) initial view, but this is not always the case. Instead, there are nearly as many relational responses to structural complexities as planning and control ones, and more planning responses to emergent complexities than flexibility ones.

We did note in the coding that practical judgement was a consistent theme in the discussions, and the tacit knowledge required to manage effectively was evident as project managers accounted for ways of knowing and being, as opposed to bodies of knowledge or rules they rely on. This was

clearly captured in the persistent paradox of balancing the structure required for organizational functions, together with the necessary flexibility to deal with the practical day-to-day realities of co-existing complexities. This came through clearly in terms of how the managers used their judgement in deciding the best way forward in each of the circumstances they accounted for. This sometimes involved overriding or bypassing standard procedures:

“We also have an in-house methodology which I’ve used before which is, it kind of sucks, but it’s good for small projects, it doesn’t work for big projects like this.” (43)

This could be situational and based on their experience as to what would work best. ‘One-size-fits-all’ was not deemed appropriate:

“If I am managing a project, let’s say in the oil industry in Nigeria, the way I manage it will be quite different from the way I would manage it in, let’s say, Scotland, because of community issues. So, the PM style has to work specifically with where you find yourself” (30)

The relation-building aspect was deemed critical in managing projects, because working with multiple stakeholders with different agendas is an ongoing challenge, and the human dynamics are an integral part of any project. Collaboration was identified as a key to success – hard to instigate, though easy to derail.

“I would start off with a collaborative approach, although I do like the power of the project manager. I like to engender collaboration, also team-work, trust, honesty, and ethics” (3)

Building the social environment is conducive to successful knowledge integration, and managers developed their own techniques over time. As one succinctly put it: *“I’ve used cake” (43)*. Trust and collaboration take time to develop, yet these can be invaluable in building a team that can be utilized on future projects also. As one respondent noted:

“I keep a very short paper in my wallet which is a shortlist of people called ‘my heroes’ and I use them on the absolutely impossible things to do.” (24)

The practical judgement necessary in this context is central to operating under conditions of complexity. This was recognized in the discussions and through reflection, some of the participants identified the essence of what their role meant in these terms.

“Complex projects increase your level of thinking because they are a catalogue of problems flowing through your style of managing projects. So today I am meeting this challenge – you have to sit down, think, find a way out. So that act of trying to solve problems successfully each and every day will elevate you to another level. You won’t be like a person who meets a problem today and then runs away from it. You never run away from them, you just tackle them one by one and make sure that all of them are solved. So, solving different types of problems of quality makes you better by a million miles.” (31)

In summary, project managers’ experiences and perceptions of the complexity of managing projects is not only a recognition of multiple types of project complexity, but more fundamental is their recognition that as they navigate project complexity, they are propelling modes of organizing that hold the key in project success. This means that the ways of engaging and responding to project complexities call for recognizing and working with the emerging paradoxes and tensions project complexities create. Orchestrating these emerging paradoxes and tensions that in turn also provoke and develop practical judgements in identifying the optimal response under the circumstance marks a central feature of project-based organizing.

4.2 Practising Project Managing

Our analysis of the lived experiences of project complexity was extended to understand the way project managers perceive the dynamism of managing projects. Interestingly, a common initial response, when asked what they did, was to respond with the entrenched PM answer (i.e., ‘meeting time, cost, and quality goals’), and only after probing deeper did we uncover the complexities, as discussed above. Central to managing complexity are the forces that create the conditions for complexity as opposed to the types of complexity alone. These forces are multiple and across several levels and units of analysis, calling for dynamic organizing that catalyzes responses

founded on practical judgement and not mere reactions. Such dynamism is also shaped by several endogenous and exogenous forces. The most frequently identified external forces underpinning the perceived dynamism of project-based organizing were coded as *unforeseen changes* and *continuous amendments*. Among the internal forces of dynamism, we identified *competing priorities*, *technical difficulty* and *maintaining competitiveness* featured as the most frequently referred to reasons by most informants in the study.

By comparing project managers' accounts of their lived experiences of project complexity, we identified two sets of tensions as 'high-level' themes summarizing project complexities across contexts despite the dissimilarity of those contexts. The first tension inherent in the 'change-stability' paradox evolves because the practitioners are called upon to balance the need to have a plan whilst also needing to be adaptive, to the ongoing sociopolitical emergence of the relationships that govern project management practices.

"It's difficult to change things when many other changes happen at the same time ... you have to be dynamic on one hand, but you cannot actually afford to be very dynamic because you might actually create the opposite result and the people, they won't accept the new system at all." (9)

"Most of my time goes into keeping everyone in a kind of balance, I think that's the most difficult part ... they don't like the new system or they think the system is too slow, or the users they think the system is too difficult to learn, and the devices don't work and the people that are doing a certain way of things, and you have to convince them that you have to do it in a different way - and that's the way that I'm showing to you, it's much easier than it used to be." (19)

The second paradox is that of 'standards vs pragmatism'. This emanates from the friction between the standards adopted by project actors (what they 'should' do) and the practice of practitioners (what they do). The paradox arises, because stakeholders would not always share the same view about how the different complexity aspects should be managed.

"In the classical sense of it, the principles do not matter unless the project manager himself decides to go by them, apart from the ethical standards...there isn't much

emphasis on principles. It is dependent on the project manager... yes, the purpose has a direct impact on the customer's satisfaction. The procedures are more or less like the principles – it does not really have to be followed systematically or sequentially, like the code of ethics has to be applied.” (10)

Table 5 provides further evidence that shows how project managers navigate through the project complexities they experience and are called upon to exercise their judgement when balancing competing priorities that the tensions and paradoxes present them with. The analysis shows that project managers respond to these multiple complexities using a combination of technical and non-technical activity.

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Consistent with Maylor and Turner's (2017) framework, managers' technical capacity relies on key elements of the profession (e.g., planning, costing, control and change management, and procurement). This 'planning and control' aspect is complemented by the 'relational' capacity to engage internal and external stakeholders effectively. The 'flexibility' capacity supports both, with the ability to be adaptable in response to change and uncertainty in PM. We illustrate diagrammatically the process of 'managing' projects we are formulating from our analysis in Figure 1 and show through this the unfolding flow of practising project managing.

The flow of connections in our diagrammatical representation of practising project managing may appear linear, but this is not our intention. We seek to show that projects unfold as part of the complex process where practising entails deliberate, habitual, and spontaneous repetition that supports both the ongoing adjustments, as well as the new possibilities for action generated based on the practical judgements made (Antonacopoulou, 2008). Our treatment of 'managing' project complexity is not merely processual and temporal, but also relational and repetitive. This draws attention to the need to be aware of connections that are often hidden and not always fully

exploited. We illustrate the relational and repetitive character of project-based organizing through a closer analysis of the dynamism of practising project managing.

The forces underpinning the dynamism of project managing signal the endemic tensions that project managers in a range of sectors and countries experience as they navigate through the various types of complexity (i.e., structural, socio-political and emergent). We observe these tensions as common features of managing projects across contexts. How project managers simultaneously navigate through the complexities and make judgements defines their approach to project-based organizing.

This finding marks an important contribution to our understanding of complexity in temporal organizing, and project complexity. The dynamism of managing projects reflects the simultaneity of more than one type of complexity and offers an extension to previous conceptualizations of the responses to complexity. We recognize that ‘managing’ complexity is not a matter of simplifying issues to identify a more manageable course of action. Instead, it reveals the paradoxes and tensions that guide the responses, which in themselves also mark a balancing act in the judgements formed before action choices are made. These judgements often are leaps of faith that are founded on creativity and innovative responses to complexity, rather than following standard operating procedures. Framing this as *practising project managing* orientates our attention toward ongoing adjustments rather than a predefined course of action. These adjustments transform the tensions that competing priorities create into possibilities for impactful action rather than reactions to issues that have already emerged. A typical elaboration of practising project managing are captured in the following statements by project managers:

“There was a decision in a particular project in one company in the oil industry here in Nigeria, a company I know. They made a decision of carrying out a road project. When they made this decision, they had finished a lot of preparations to enter the site. I travelled to the site last week. The community came out to say, ‘You are running this road through

our land, we do not have food and you are taking all this expanse of land – how do we succeed/survive when you have taken all these things? If we have no compensation, we will become beggars.’ The women of the community lay on the route for the project and stopped the job. So, a key consideration in project management is considering the community.” (30)

“For example, we had a project. We had a certain scope which is in Australia. We had a project for a road, for a haul road, a quarry, and a sea bund. A certain amount of scope just to give you an idea of what we were supposed to do: 1km of road and 5 kms of sea bund, and a quarry, and a certain size quarry within two months. This was a tendered design, within a week it expanded to 6 kms of sea bund, 7 kms of road, so you have to constantly juggle and, of course, the standards would change, and the requirements would change, and material use would change, and also then the client demands. So, you have to have a dynamic team and you have to have a flexible team to be able to adjust to deliver and at any point.” [41]

“We had a project in Poland when the market collapsed, when we actually had invested for a completely new factory, and we had to just kind of shut it down and just decide what to build and what not to build, you know, in order to...the project was terminated, basically, and where do you stop then? So, the whole thing changed from being driven by the schedule to be driven by cost. And you could say the same here. At the moment, I have a project where they are starting to be a bit unsure if we want to continue to go ahead or should we stop, where we—where you don’t go in and yeah, trying, you know, the cost to complete and value of completing it versus stopping. So commercial, like financial, decisions really impact the way you can manage, basically. [19]

5 Discussion

The endemic complexities and unavoidable tensions and paradoxes these create are powerfully evident in our analysis of project managers’ accounts of the lived experience of project-based organizing. We approached understanding the dynamism of managing project complexities by building on process and practice theory to account for the emergence that practising project managing entails as a lived experience, placing at the epicenter of such practising the practical judgements (as Vaara and Whittington, 2012 advise) that we show empirically shape how practitioners approach project-based organizing.

We were interested in understanding the dynamism of managing projects, and how this best serves the common good. As such, we sought to capture thick descriptions of *what managers do*

when they manage projects, *how* they navigate ongoing complexities that paradoxes present them with and *why* they exercise practical judgements to restore a sense of balance in transforming tensions into extensions.

Examining the nuances of *how* project managers enact and embody project complexity through their judgements, we found that project managers in our sample dynamically adjust their action choices mindful of considerations such as:

- *governance* – the roles and responsibilities of governance bodies and individuals accountable for PM and the teams and individuals that support them.
- *specialisms*– the expertise, knowledge, and experience of those that are involved with PM, including those of contractors.
- *relationship*– the vertical relationships between teams operating at different layers of governance and the horizontal relationship between teams operating within the project-based organization and in the functional-based organization.
- *cadence*– the pace and frequency at which key events in the project’s life span occur, e.g., release of products, design review, integration workshops, reporting, governance meetings, project gateway reviews, release of funding, etc.
- and *methods*– the techniques and tools used to conduct PM, e.g., planning, performance reporting, assurance management, risk and issue management, costing and forecasting, supplier management, knowledge management, etc.

All five considerations reflect dimensions that both evolve over time as the needs of the project change in the course of its lifecycle, as well as, present critical moments that call for adjustments to the existing course of action. For example, the governance, specialisms, relationship, cadence, and methods that enable project funding and design early in the lifecycle of a project are different

than those needed to enable operationalization of project outputs later in the lifecycle. Moreover, the very nature of project-based organizing generates capabilities and the capacity to provide governance, expertise, relationship, cadence, and methods as the involved teams (e.g., programme and project offices) and individuals (e.g., team leaders and members) gain experience and learn by working together.

We noted that when invited to account for how their projects emerged in the process of practising project managing, project managers in our study expressed more openly and lucidly the unfolding choices made and judgements formed beyond merely balancing these considerations. The typical descriptions project managers provided account for the paradoxes that they sought to address or competing priorities they had to balance. This focus on practising project managing revealed the entrepreneurial mindset that is also called for in project-based organizing and which the project managers in our sample recognize and actively engage in as they navigate project complexities. This reaffirms Antonacopoulou and Fuller's (2020) account of practising and entrepreneurial action which fosters leaps of faith through sensing and anticipating.

By focusing on practising, we found that a key characteristic in their accounts of navigating project complexity lies in the finer capacity to make connections. These connections are integral to what distinguishes project-based organizing, because the focus shifts on the character and not only competence (Shove, Pantzar and Watson, 2012) that underpins the way practices are performed. By shifting the focus on character and not only competence, we want to attend to the less visible aspects that colour both practices and the ways these are performed, thereby shaping the purpose of managing and organizing more broadly. The practical judgements that inform the action choices project managers in our study describe from their lived experiences of project-based organizing, show that in addressing people, relationship, and task issues, they cannot rely only on

technical capabilities, valuable as these may be in addressing structural complexities. We note instead that, to build and maintain relationships with other project stakeholders and address the socio-political complexities, they need to place other priorities (such as the common good) as a guiding principle. This means that they cannot organize the work nor manage the dynamic complexity only by staying focused on the considerations of governance, specialisms, relationship, cadence, and methods and the alignment of project objectives and outcomes. The value they add in practising project managing lies in the character principles and values that their approach to project-based organizing reflect. This point extends Zwikael and Smyrk's (2012) thesis of enhancing organizational value by embedding values as central to the way practising project managing is performed.

When we examined *why* practitioners exercise practical judgements to restore a sense of balance in transforming tensions into extensions, we found that practitioners valued negotiating a unifying approach whilst retaining pragmatism in dealing with uncertainty as critical for successful delivery. This co-existence demands practical judgement from PM practitioners. They must achieve common good for stakeholders in a way that navigates complexity in a dynamic environment, rather than simply focus on delivering on budget, on time and to specification. We also observe that the structure and flexibility paradox extends beyond the project into the wider ecosystem. This appreciation adds to our understanding of the intricacies of balancing priorities by engaging with the tensions experienced.

It also adds to our understanding of how project managers make practical choices and judgements and the impact these have. This study begins to unveil the way project complexity is navigated as a central aspect of the lived experience of practising project managing. The practical judgements made by project managers reveal the ethos that underpins the relationships they form

with different stakeholders and the ways they seek to transform their work from merely ‘projects’ to be delivered on time and budget (the two most prominent measures of success) to platforms for *enduring impact* that embed the common good as a guiding principle, thus ensuring that the wider ecosystem is served. The latter is evident especially among projects which demand the engagement of the community, such as rural infrastructure development.

What emerges as an important determinant of the practical judgements project managers make while managing projects, is the recognition of key stakeholders they identify as bearing a direct or indirect influence on the project itself. This brings to the fore the relational orientation we have recognized in our analysis of PM practice that extends beyond a mere focus on social interactions. The relationships formed between project stakeholders are varied but they are governed as much by negotiation in addressing individual interests as they are also shaped by the emerging trust that extends the potential tensions of self-interest into a pursuit of the common good. Thus, the character of PM practice is shaped by the varied stakeholders, who interdependently deliver the project itself and constitute the temporal organizing that our study examined. Recognizing the individual contribution of different stakeholders to project complexity and success is one thing. Effectively mobilizing beyond interdependencies the connections between them, is the more critical priority. This enables us to provide a more thorough appreciation of the importance of partnering for impact in project managing.

6 Conclusions

This study set out to address one of the enduring challenges in temporal organizing; the lived experiences of project complexity and the way managers of projects navigate through this when practising project managing. Our analysis advances understanding of project-based organizing as a complex practice due to the variety of endogenous and exogenous forces that shape the diversity

of project complexity and the simultaneity of multiple forms of complexity that characterizes projects and the practical judgements that also shape the leap of faith that practising project managing represents. As such, we have demonstrated the validity and utility of the Maylor and Turner (2017) framework and moved their argument forward and beyond project managing in understanding the complexity of temporal organizing.

In our analysis of practising project managing, we reveal that ‘managing’ exposes tensions and paradoxes like stability and change, standards and pragmatism which call for practical judgements that connect different aspects of project managing afresh. This process of connecting aspects of project managing reveals the centrality of practising as integral to project-based organizing. Hence, this study proposes a new perspective in navigating the complexity and centrality of connectivity in project-based organizing when positioning the common good as a key principle. This means that project managers engage in project managing by embracing the dynamism of their practice as they recognize the need for both stability and change. Standards are maintained, yet pragmatism informs their course of action and the ongoing adjustments to their action choices. This recognition is not given ex-ante and it is not defined by adherence to rules alone. Instead, it is developed while practising, making connections between aspects of the practice informed by practical judgements that express the character of the practice and not only the competence to perform. Judgements are practical because they balance competing priorities, they engage with tensions and identify through the connections fostered new possibilities. This is where practising has the potential to contribute to new and innovative modes of project managing and by extension temporal forms of organizing.

This study advances our understanding of complexity in general, by highlighting relational temporality in practices (such as projects) and the ways it affects other aspects of the practice of

managing. The key actors engaged in any practice are not merely interacting. They are negotiating and collaborating; they are learning and adjusting. Therefore, to support dynamic managing in practice, it is critical to cultivate practical judgements that can enable managers to navigate the simultaneity of multiple complexities in ways that serve the common good.

If we acknowledge the power of connectivity among project stakeholders in co-creating ideas, we can begin also to advance new ways for fostering collaborative innovation as a key dimension and measure of the enduring impact of social practices and in this analysis also of project success. Project dynamism is a practical reality of working life, as our analysis has shown. It is also embedded in the collaborative character of projects and the connections and practical judgements that the actors form collectively as they serve the common good when innovation becomes a common priority (Mishra, Chandrasekaran and Maccormack, 2015).

In conclusion, this study marks the next chapter in temporal organizing such as PM practice by introducing the *Practising School*. This orientation has important implications in project research as it shifts the focus on the connections between different aspects of PM practice. The *Practising School* introduces a greater focus on how practically to work to address complexity in project-based organizing not by simplifying it, but by learning to embrace the powerful connections central to maximizing the impact of a project and ensuring its success. This study is relevant to project managers actively seeking to balance the tensions they might experience and do so collaboratively with other actors. We have used these concepts with managers in executive education classes and the feedback is that it exposes a valuable area of consideration and for reflection. The study invites project managers to engage with project complexity by learning to collaborate and learning from collaboration to create ideas that extend the possibilities of the project to serve a common good – a higher purposes of societal, ecological, economic and political

wellbeing - recognizing that projects have enduring impact beyond their otherwise temporary nature and lifespan.

Our hope is that this analysis can also mark a new chapter in our efforts as organizational scholars to understand the complexity of the practices and processes in organizations we study to realize their enduring impact and in doing so to reaffirm the value of managing and organizing in shaping a better world.

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**TABLE 1:
Complexities and Responses (from Maylor and Turner, 2017, p. 1086)**

	Structural Complexity	Socio-political Complexity	Emergent Complexity
Planning and control response	Initiating, planning, and monitoring (e.g. applying Earned Value systems). Using an Integrated Master Schedule.	Develop a communications plan. Establish project board of stakeholders	Apply risk management and change control processes.
Relationship development response	Prioritize communications with stakeholders. Conduct project outreach activities	Engage in teambuilding activities. Invest in social capital.	Socialize changes. Increase informal communications
Flexibility response	Embrace changes from process. Anticipate change. Enable parallel development.	Manage expectations of change. Engage in joint look-ahead planning with major stakeholders.	Use Agile project management approaches. Encourage entrepreneurial project management.

**TABLE 2:
Examples of project complexities**

<p>Structural Complexity</p>	<p><i>“You have a few major suppliers but if you go one level behind them you may see that they have a myriad of small business as supply chain and you have to, you know, you have to anticipate whether these observe quality, whether these people, you know, can provide material on time. OK I mean you are outsourcing this problem to someone else but it is your problem at the end of the day as well.” (24)</i></p>
<p>Socio- political Complexity</p>	<p><i>“So we have the end users pushing for something which they feel is very important for them and the sponsors think otherwise. As project manager you need to decide how to bring the sponsor and end users together in order to have some level of agreement in order to proceed.” (6)</i></p>
<p>Emergent Complexity</p>	<p><i>“Yes, you have to be very aware of things external that are going to hit you whether its organization changes or strategy changes or competitor changes. Whereas I think the traditional view of project management is quite insular, you get a brief and you perform to that brief. That doesn’t work.” (43)</i></p>

**TABLE 3:
Examples of complexity responses**

<p>Planning and control</p>	<p><i>“A particular organization will write their own procedures, so you will have a procurement procedure, a certification procedure, quality assurance procedures. A lot of them are fairly standard in the industry; it’s making sure they’re applied and how they are applied is the key.” (3)</i></p>
<p>Relationship development</p>	<p><i>“Agreement between the key players is not realistic, but the project manager should be able to manage this issue by discussion and remove any misunderstanding between the key players.” (2)</i></p>
<p>Flexibility</p>	<p><i>“As you’re working with people, even if they follow the procedures as they are, there’s always improvement or a better way to do that, and you have to be flexible enough to understand that people can find the proper way of working and working a better way.” (7)</i></p>

TABLE 4:
Complexity responses from the data

	Structural Complexity	Socio-Political Complexity	Emergent Complexity
'Planning and Control' response	27	15	17
'Relational' response	23	22	4
'Flexibility' response	13	1	8

**TABLE 5:
Analyzing the dynamism in PM practice**

Forces of dynamism		How dynamism emerges (ongoing change)	Exemplary evidence
External	Unforeseen changes	Uncertainty in the macro environment including economic instability/volatility (inc. government spending), power inequality between funding bodies and suppliers, and weather (e.g. in marine projects).	<i>We always have changes in construction, for sure, yes, it's just daily life on our project. The changes because of the clients, because of sub-contractors, because of technical aspect that was not foreseen at the beginning, and we need to adapt all the time. We need to adapt our schedule (4)</i>
	Continuous amendments	Given the nature of projects and the initial assumptions and expectations, adjustments/modifications are regularly requested by project stakeholders	<i>For me dynamism in project management is being able to adapt to the changes that may appear on the project in the schedule of in the pricing or the design itself of the project. For example, if the client requests something else to do in the project you need to be flexible and react properly to this situation. (29)</i>
Internal	Competing priorities	Due to the competing priorities of project stakeholders, changes may be expected. Difficulties require coordination between different parties who may have conflicting agendas.	<i>We brief the communities, we tell them the implication, people will know that now they will have to lose their properties, they will have to plan alternative resettlement, they have to know the time frame and all that. We advise them where they are relocating to, what resources will be required ... Even though you have timeframes, there are things that, even within those timeframes, because of the sensitivity you find that at the end of the day you are unable to really marshal and control all these issues within the timeframe that was allotted for it. (17)</i>
	Technical difficulty	The project can have inherent technical difficulties that require a high level of coordination between various actors/department.	<i>It's a software project so you don't start with a known, you know broadly how it's going to look at the end but of course the day-to-day detail emerges as you find out more (18).</i>

	<p>Maintain competitiveness</p>	<p>In order to remain competitive in the market, some practitioners seek continuous development (i.e., to remain in status of continuous change) to optimize their resources to match or outperform competitors.</p>	<p><i>I always thought that the best, most dynamic project managers were those people who were selective about use of other people's time and I think that sometimes we can misjudge that term 'dynamic' in that we see it as a project manager who is running about doing 15,000 things. But the project manager who achieves what was needed to be done without having 50 people in a meeting, without sending emails out to 100 people, they are the good project managers who are selective and make their presence felt (3)</i></p>
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FIGURE 1:
The Practising Project Managing

