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Qualitative Research in Accounting and Manag

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Journal:	*Qualitative Research in Accounting and Management*
Manuscript ID	QRAM-10-2024-0207.R4
Manuscript Type:	Original Article
Keywords:	Public private partnerships, Innovation, Cultural political economy, Developing economies, knowledge-based economy, Management controls

Culturally and Politically Embedded Management Controls in Innovation Transitions of PPPs: Comparative Cases from a Developing Economy

Purpose – We explore how culturally and politically embedded management controls influence innovation transitions of Public-Private Partnerships (PPPs) in a developing economy.

Design/methodology/approach – The study relies on the cultural political economy perspective of management controls. Data were collected through in-depth interviews with senior executives from three knowledge-based PPPs operating in telecommunications, power and energy, and high-tech research industries in Sri Lanka.

Findings - We demonstrate how cultural political economy factors (e.g., semiotic and cultural; political and institutional; economic and structural) have influenced Western-led, formal management controls across various PPP models (e.g., labour, leadership, innovation, operational, market, neoliberal and bureaucratic controls), both enabling and obstructing the shift towards the state's professed 'knowledge-based economy' discourse. Management controls within telecommunications-based PPPs tend to be receptive to political interference, often supported by powerful, party-based trade unions, and primarily focus on innovation to cater to the local market. In contrast to traditional norms, both energy- and high-tech PPPs leverage management controls to resist political interference, promoting a strong, market-oriented approach to knowledge-driven innovation.

Practical Implications: PPPs with solid professional and managerial backgrounds are more likely to initiate innovation transitions through bottom-up approaches, whereas PPPs with considerable state and political influence tend to be predominantly driven by both top-down and bottom-up approaches. Nevertheless, evidence indicates a dialectical relationship between top-down and bottom-up approaches in all PPPs.

Originality – Cultural political economy redefines the complex interplay among the state's knowledge-based economy discourse, the innovation transition in PPPs, management controls, and development priorities as a co-evolving, politically negotiated process rather than a linear policy implementation. Our findings suggest that the success or failure of implementing a knowledge-based economy state project through PPPs depends not only on political policy priorities but also on the interaction of political power, professional leadership and management controls in practice.

Keywords: Public-private partnerships; innovation; knowledge-based economy; management controls; cultural political economy; management accounting; developing economies

1. Introduction

Exploring the distinctive ways in which management accounting and control systems operate in developing economies has been a continuing research agenda in the field, notably in teasing out the roles of contextual, organisational, and individual factors (see Hopper & Armstrong, 1991; Wickramasinghe *et al.,* 2004; Wickramasinghe & Hopper, 2005; Hopper *et al.,* 2009; Van Helden & Uddin, 2016; Alawattage *et al.,* 2017; Hopper *et al*., 2017; Alawattage & Wickramasinghe, 2022). Both academic and non-academic stakeholders (e.g., international organisations, investors, and donor agencies) continue to question whether mainstream Western-inspired formal management control systems (MCS) can be implemented or whether flexible, context-specific, and localised systems would be more suitable (e.g., Alawattage *et al.,* 2017). The debate has intensified further, as most developing economies adopt new public management (NPM) reforms to enhance the efficiency and effectiveness of public service delivery, while largely disregarding the suitability of existing MCS upon which NPM reforms can be built and extended (Mutiganda *et al.,* 2021; Knox & Sharipova, 2023). Yet, formal organisational-level MCS are often shaped by a country's norms, logics, and prevailing rationalities (Whitley, 1999). In developing economies, formal institutions are often weak and inconsistently enforced (van Helden & Uddin, 2016), while informal and culturally embedded controls serve as substitutes and complements to traditional formal control mechanisms (e.g., actions, results, and personnel controls). It is within this context that we adopt the notion of '*culturally and politically embedded management controls*' to reflect how cultural political economy (CPE) shapes and reshapes traditional, formal, and functionalist perspectives of MCS, with a focus on meaning-making, power, and the management of socio-political relations.

Much of the extant research has examined the role of conventional controls (e.g., budgeting and performance measurement systems) in the public sector, typically revealing attempts to address public financial management objectives, e.g., efficiency and public service delivery (Hopper & Bui, 2016; Grossi *et al.,* 2020). However, there has been far less emphasis on and understanding of the role of culturally and politically embedded management controls in strategic-level reforms and institutions aimed at improving national-level outcomes, e.g., innovation, research and development, patent development, and other forms of technological/knowledge advancement (e.g., Alawattage & Wickramasinghe, 2022). Importantly, little is known about how NPM reforms shape and reshape management control in developing economies (see Hopper & Bui, 2016; van Helden & Uddin, 2016). In this regard, public-private partnerships (PPPs) have emerged as a means for governments to implement NPM reforms while relying largely on private financing and market-based mechanisms. More generally, PPPs are intended to assist governments in reaching various socio-economic goals, especially in delivering public services, strengthening public accountability and transparency, reducing fiscal constraints, and promoting innovation, while avoiding large-scale public financing and investment (Caperchione *et al.,* 2017). Of particular interest to us in this study is to explore how governments in developing economies attempt to materialise the *'knowledge-based economy'* (KBE) political discourse by shifting innovation transitions in PPPs, and how culturally and politically embedded management controls influence the innovation transitions of PPPs within such economies.

We draw on the CPE framework to articulate the factors that influence and reshape conventional formal management controls, which in turn can enable or obstruct innovation transitions in PPPs. Jessop (2005, p. 2) presents CPE as an analytical, emerging, and powerful post-disciplinary approach that *"... adopts the 'cultural turn' in economic and*

political inquiry…" and "*helps to overcome some of the limitations of conventional approaches to economic analysis*". The CPE perspective indicates that, to create a KBE, a "cultural turn is just as relevant to scientific, technical, economic, and juridico-political orders…" (Jessop, 2005, p. 2). More specifically, CPE emphasises how cultural norms, institutional logics, and political patronage interact and influence economic practices and policies (Jessop, 2005; 2010). From the CPE viewpoint, the state's intention to materialise a KBE via PPPs is seen as a macro-level strategic political effort that reshapes management controls. In the CPE framework, the KBE is a key economic focus, shifting public policies towards emphasising knowledge and innovation. As the state's economic visions are embedded through PPPs, existing management controls need to be reshaped to go beyond financial efficiency and risk mitigation, instead promoting innovation, knowledge creation, and sharing. For instance, management controls could either facilitate innovation transitions in PPPs by encouraging trust and collaboration or hinder them due to political interference, inertia, and/or conflicting interests. An understanding of these multiple roles of management control is crucial for policymakers and practitioners seeking to improve PPPs' ability to meet their stated goals. Thus, the CPE offers a nuanced perspective on management controls, emphasising that they are not merely technical tools but are also deeply rooted in broader cultural and political contexts (Jessop, 2010; Wickramasinghe & Hopper, 2005; Van Helden & Uddin, 2016). Given the above, we raise the following research question: *how do culturally and politically embedded management controls influence innovation transitions in Public-Private Partnerships (PPPs) in developing economies?*

Sri Lanka offers an interesting setting for studying PPPs, given that they have been enthusiastically promoted in the country to transform the local economy into "an innovation-driven knowledge-based economy" (Institute of Policy Studies of Sri Lanka, 2018). In this study, we define innovation transition as the process of shifting from a traditional technological and organisational system to a KBE through the development, adoption, and dissemination of innovations. More specifically, innovation transition involves both structural and institutional reshaping that transform how products (e.g., energy products), services (e.g., telecommunications; research and development), or processes (e.g., MCS) are created and utilised within PPPs in Sri Lanka. Gradually, PPPs became the embodiment of the government's KBE discourse and a reflection of the country's leadership's political ambitions at the national level. In this study, we seek to enhance our understanding of how KBE political discourse is translated and materialised in PPPs and, in turn, how culturally and politically embedded management controls enable or hinder innovation transitions.

The remainder of this paper is structured as follows. The next section reviews the literature and proposes a conceptual framework informed by the CPE perspective. Section 3 presents the research methodology, including a brief background of three case organisations. Case findings are reported in Section 4. Finally, Section 5 presents a detailed discussion of the empirical findings, highlighting the study's contribution.

2. Theoretical foundations and background literature

2.1 Innovation transitions in PPPs in developing economies: a cultural political economy perspective

The CPE perspective expands upon traditional political economy by incorporating cultural and social dimensions, recognising that the economy is not solely founded on material relations but also embeds cultural and social constructs (Jessop, 2005; 2010). The theory is

therefore distinct from traditional political economy approaches, as propagated by scholars such as, Adam Smith and David Ricardo (Classical Political Economy), Alfred Marshall and Milton Friedman (Neoclassical Economics), Karl Marx, Ralph Miliband, and Nicos Poulantzas (Marxist Political Economy), Michel Aglietta and Robert Boyer (Regulatory School), and Susan Strange and Robert Cox (British International Political Economy/ Critical Realism) (see. Jessop, 2010, 2015; Sum & Jessop, 2013). Unlike these traditional political economy approaches, which often treat culture as secondary, CPE views culture as constitutive of economic and political life. In this way, "technical and economic objects are always socially constructed, historically specific, more or less socially embedded in – or disembedded from – broader networks of social relations and institutional enesembles, more or less embodied and 'embrained' in individual actors, and require continuing social 'repair' work for their reproduction" (Jessop & Oosterlynck, 2008, p. 1157).

CPE thus provides an alternative theorisation to understand how and why cultural meanings, identities, discourses, and social practices influence economic processes and their impacts on outcomes. The underlying assumption of this theory is the close integration of culture and economy, demonstrating how their coexistence and interplay shape reforms in such economies. Thus, we argue that the CPE is central to understanding economic and political life. As Jessop (2010, p. 336) argues, the "cultural political economy is an emerging post-disciplinary approach that highlights the contribution of the cultural turn (a concern with semiosis or meaning-making) to the analysis of the articulation between the economic and the political and their embedding in broader sets of social relations". Jessop (2010) identifies five distinct features that set CPE apart from traditional approaches: (i) complexity reduction, (ii) an evolutionary mechanism, (iii) understanding the semiotic and extra-semiotic, (iv) the use of technologies to consolidate hegemony and social relations, and (v) the critique of political economy. Cultural discourse, hermeneutics, narratives, semiotics, rhetoric, symbols, identity, reflexivity, and historicity are therefore central to understanding how economic practices and institutions are shaped and enacted within a particular context (Sayer, 2001; Jessop, 2010). From the CPE perspective, the cultural turn emphasises the intricate connection between meanings and practices, exploring how discourse and discursive practices shape and reshape social relations (Jessop, 2005). Jessop (2010) argues that institutions are not neutral, as they often privilege certain actors, strategies, and interests over others. As a result, economic practices are morally and culturally embedded and mediated by culture (Sayer, 2001). Such insights into how people use moral evaluations in everyday life, including economic decisions, are often dismissed in mainstream economic theories. According to Sayer (2001) and Jessop (2010), the political economy must recognise that people are evaluative beings who act on values, not just self-interest.

Jessop (2005) emphasises the role of CPE in understanding how the KBE has become a key meta-object of governance, particularly as a response to the crisis of Atlantic Fordism. Within this context, Jessop (2005, p. 144) defines the KBE as a "complex, heterogeneous, and variable assemblage of social relations, which are articulated to a distinctive set of subjectivities and mediated through material objects, and social institutions". Although no fixed number of CPE factors exists, the literature (see Jessop, 2005, 2010) indicates that elements such as semiotic and cultural, political and institutional, and economic and structural tend to influence and reshape KBE innovation transitions. Semiotic and cultural factors (e.g., discourses, narratives, framing, economic imaginaries) help develop a national strategic vision that promotes economic development through KBE innovation in PPPs. Political and institutional factors (e.g., political hegemony, policy reforms, governance and regulatory restructuring) shape the state's innovation aims by coordinating and

implementing initiatives across institutions such as PPPs. Meanwhile, economic and structural factors (e.g., institutions, state's bureaucratic structures, economic models and power relations) can either facilitate or hinder technological and knowledge progress toward national objectives. Given the distinct cultural, political, and economic contexts, as compared to those of mature and advanced economies, the CPE provides an appropriate theoretical lens through which to explore how culturally and politically embedded management controls shape innovation transitions in PPPs in developing economies and foster the states' transformation towards a KBE (see Jessop, 2005). Since the CPE framework allows us to examine how semiotic processes interact with material conditions, management controls embedded within cultural and political contexts function either as tools or results of these meaning-making processes. This interaction shapes the behaviour of individuals and organisations, influences decision-making, and drives institutional change in how the state's KBE discourse is either embraced or resisted through PPPs.

2.2. Shaping public sector management accounting in developing economies: a cultural political economy perspective

Unlike mature Western models, management accounting in developing economies often adapts to localised, complex, and unique socio-political contexts, resulting in diverse outcomes in accountability, efficiency, and innovation (Hopper *et al.,* 2009; Alawattage *et al.,* 2017; Alawattage & Wickramasinghe, 2022). CPE has often been employed to understand the implementation of Western-led new NPM reforms in developing economies (e.g., Wickramasinghe *et al.,* 2004; Wickramasinghe & Hopper, 2005; Hewage, 2011). Despite the significance of CPE in understanding the developing economy context, particularly in the execution of NPM reforms, its application has been relatively limited. Wickramasinghe *et al.* (2004) represent an early attempt to propose a framework for applying CPE to understanding reforms in developing economies. In their study of a partially privatised Sri Lanka Telecommunications company (for which a major Japanese company became responsible for its management), they explore how a Japanese manager's charismatic and patrimonial leadership managed to eradicate previous bureaucratic controls and political interventions from the former rule-bound government department and enabled the company to introduce new management control and reward systems and achieve commercial success. Despite these temporary successes, the frustrated employees, unsympathetic to the changes due to their exclusion from organisational affairs, allied with local politicians, which forced the government to remove the Japanese manager and restore formal bureaucracy (Wickramasinghe *et al.,* 2004).

Drawing upon Michael Burawoy's modes of production in a case study of a privatised state-owned textile mill with foreign ownership in a traditional Sri Lankan village, Wickramasinghe and Hopper (2005) offer a management accounting control CPE framework to explore how management accounting practices interact with local cultural, political, and economic contexts. Wickramasinghe and Hopper (2005) demonstrated how Western-led management accounting practices interacted with local cultural, political, and economic contexts, encountering local resistance. Both the newly emerging foreign ownership and management accounting practices, shaped by rational industrial values, were therefore resisted, and cultural conflicts deepened. The study is perhaps an example highlighting the recurring nature of culturally embedded controls in the context of shifting ownership and political influences. Within the context of a Sri Lankan subsidiary of a Japanese company, Hewage (2011) conducted an ethnographic study demonstrating how the integration of Japanese management practices and related work ethics has led Sri Lankan

employees to unlearn indigenous work values and embed Japanese practices. This acculturation process serves as a management control mechanism, highlighting the challenges and strategies of blending Japanese efficiency with Sri Lankan cultural norms.

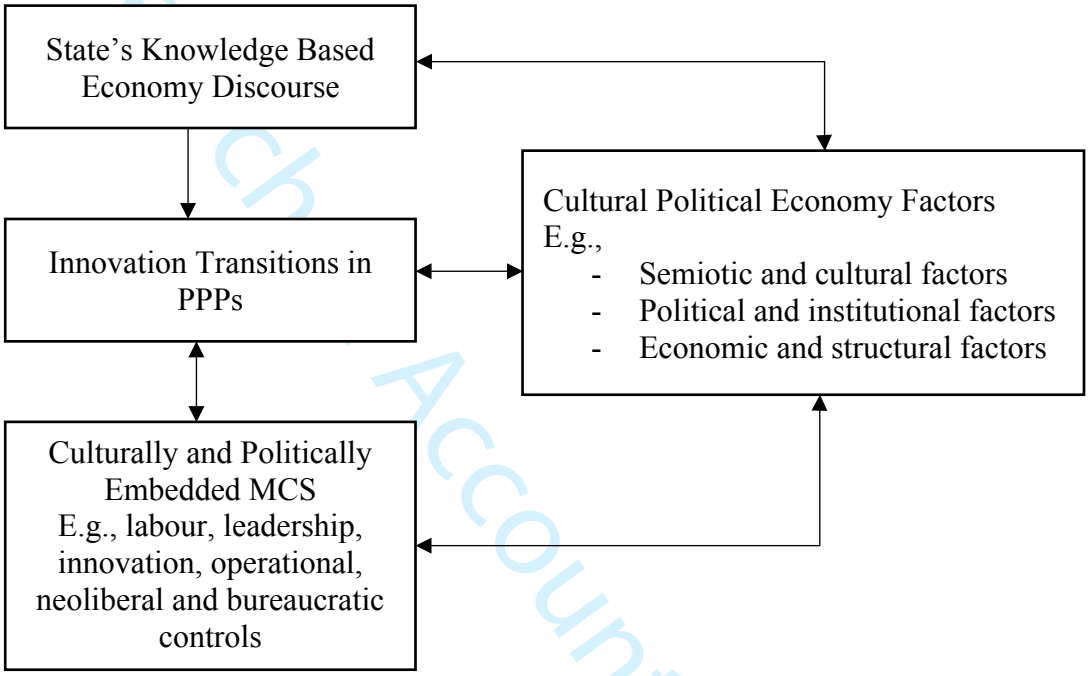
In a slightly different organisational context, Saliya and Jayasinghe (2016) explore how the enterprise lending and control processes in closely held banks are influenced by the distinctive cultural and political processes at both organisational and societal levels. Applying the lens of CPE theory, the study reveals how Sri Lankan cultural and political factors, embedded at both organisational and societal levels, have obstructed the rational enterprise lending and control process in closely held banks. The study has identified several factors shaping Sri Lanka's cultural and political processes, including egoistic motives, gift and reward traditions, and other cultural manipulations. In a similar strand of literature, Anderson and Lueg (2017) have used a systematic literature review of 99 empirical studies to synthesise the connection between management accounting and control practices and national and corporate cultures. They highlight that empirical evidence on the interaction between culture and MCS is highly fragmented, and many studies investigating organisational control systems tend to focus on only one aspect of culture at the macro, meso, or micro levels. The extant literature recognises that the conventional definition and scope of management accounting and controls are shifting away from the financially focused tools and techniques towards a broader range of controls and information types, including personal, informal, and societal controls (see Chenhall, 2003; Hopper & Bui, 2016; Otley, 2016; Akroyd *et al.,* 2023). In a recent study, Akroyd *et al.* (2023) introduced the notion of a *management accounting ecosystem*, arguing that management accounting research should broaden to examine the network of information sources within the context in which the organisation operates.

Although previous studies have focused on CPEs to examine management accounting implications across various contexts, little attention has been paid to exploring how culturally and politically embedded management controls shape PPPs and their approaches to innovation. While PPPs have been highlighted for achieving multiple socio-economic objectives (e.g., enhancing the efficiency and effectiveness of public service delivery, reducing corruption, and strengthening accountability and transparency), providing financial capital, fostering competitiveness and innovation, and adopting market-oriented management accounting systems to manage public resources effectively, most of the prior studies have focused on issues of institutional complexities, implementation challenges and stakeholder management ignoring the contextual (e.g., socio, political and cultural) differences (e.g., Caperchione *et al.,* 2017). Nevertheless, recent studies in public sector accounting have shown that the disregard of local contexts, including cultural aspects, has resulted in several unintended consequences and contributed to the further erosion of existing accounting and control mechanisms (Lassou & Hopper, 2016; Hopper *et al.,* 2017; Alawattage *et al.,* 2017; Alawattage & Wickramasinghe, 2022). CPE may therefore serve as a means, particularly in developing economies, to further explore such inconsistencies and the reasons for unintended consequences. Wickramasinghe and Hopper (2005, p. 474) argue that "theorising transition and accounting change in developing countries must be developed bottom-up, iterating indigenous data with a theory that incorporates the effect of changing MOPs [mode of production] and cultures upon social and political dynamics". In line with Wickramasinghe and Hopper's (2005) argument, this study draws on the CPE to explore the role of culturally and politically embedded management controls in innovation transitions in PPPs in developing economies. Empirically, the current study aims to contribute to this

strand of literature, facilitating a comparative study of three knowledge-based PPPs in Sri Lanka.

Figure 1 depicts the broader conceptual framework of the study. As illustrated, we argue that the state seeks to materialise its KBE political discourse by shifting the innovation transition in PPPs. In turn, as the internal drivers of innovation in PPPs, the traditional and Western-led MCS are likely to be influenced by CPE (a dialectical top-down and bottom-up relationship), resulting in 'culturally and politically embedded MCS' which would either enable or impede the innovation transition at PPPs.

Figure 1. Conceptual framework of the study.



Source: Authors' own compilation.

3. Methodology

3.1 Research design

The study employs a comparative case study approach (see, e.g., Eisenhardt, 1989; Miles & Huberman, 1994; Yin, 2009) to explore how the state's attempt to capitalise PPPs as part of promoting a KBE, and in turn the role of culturally and politically embedded management controls in enabling innovation transitions in support of these economic and political strategies in a developing country context. Our research is set in Sri Lanka, where the government has adopted a highly active PPP strategy. Since the early 2000s, Sri Lanka has secured more than US$6 billion in successful PPP investments across sectors (e.g., power, telecommunications, housing, education, health, innovation, energy, logistics), and such entities are accountable to Parliament. The PPP approach adopted by Sri Lanka has proven effective in reducing the country's long-standing government debt, and, to date, many PPP schemes have been successful. To explore this phenomenon, we approached three PPPs operating in the telecommunications, power and energy, and high-tech research industries in Sri Lanka. A representative sampling approach was employed to select these three PPPs (Miles & Huberman, 1994). Specifically, as Cooper and Morgan (2008) suggest, we refer to

'polar types' of cases, to study one phenomenon while allowing variation in other potential moderating variables. With a view to reflecting broader perspectives on PPPs, our sample represents: (i) small, medium and large-scale PPPs; (ii) local and foreign joint venture partnerships; (iii) private and public limited PPPs; (iv) mature and new PPPs; and (v) industrial diversity. The three organisations chosen are heavily driven by knowledge-based and high-skilled innovation. While the three PPPs operate in different industries, the majority of the knowledge-based workforce comprises engineering and high-tech employees. All three case study organisations have been investing extensively in and focusing on knowledge-based innovation as a key economic and strategic priority.

3.2. Data and analytical approach

A total of 26 semi-structured interviews (PPP1: 6 interviews, PPP2: 6 interviews, and PPP3: 14 interviews) were conducted with the senior management team and government representatives from the three PPPs. Appendices 1 and 2 provide the demographic profile of interview participants and the interview guide, respectively. We conducted face-to-face and online interviews in several stages, from March 2019 to December 2021. Each interview lasted between 24 and 90 minutes. In compliance with the relevant ethical guidelines, the case study organisations and the respondents remain confidential. With the participants' permission, all interviews were audio recorded. Additionally, field notes were taken to record the confidential documentary evidence. In addition to the semi-structured interviews, secondary data were collected from various sources, including annual reports, newspaper articles, documentary films, online publications, and government policy documents. The secondary documents were used to corroborate the evidence obtained from the interviews, including the evolving nature of the PPPs, the contributions of the PPPs to national development, and stakeholder involvement in such ventures. We employed within-case analysis (Eisenhardt, 1989; Miles & Huberman, 1994; Yin, 2009) on the interview data. Within-case analysis entails thoroughly examining a single case prior to comparing it with others in a comparative case study. Eisenhardt (1989) and Yin (2009) emphasise that this stage demands a detailed analysis of each case to identify key patterns, processes, and themes specific to that context. The aim is to achieve a deep understanding of the internal dynamics and causal mechanisms at play. The analytical approach is based on the underlying assumptions and themes derived from the CPE framework (e.g., semiotic and cultural, political and institutional, economic and structural). Within this framework, culturally and politically embedded management controls act as either tools or results of these meaning-making processes, influencing behaviour, decision-making, and institutional changes in PPPs. Our analysis consists of two stages. In the first stage, following the CPE, we begin by emphasising the state's focus on fostering a KBE and its efforts to translate political and economic strategies through PPPs. Specifically, we examine how the 'KBE' political discourse has been a central election manifesto, providing further justification for the transformation of public sector entities into PPPs. It should be noted that our pre-structured interview guide primarily concentrated on innovation rather than on culturally and politically embedded management controls. However, during the interview, many respondents expressed their views on culturally and politically embedded management controls and how CPE factors (e.g., semiotic and cultural, political and institutional, economic and structural) influenced them (see Figure 1 and Table 2). Accordingly, our second stage of analysis explores how CPE discourses have been shaping and reshaping traditional management controls, thereby enabling (or hindering) innovation in the pursuit of a KBE.

3.3 Case organisations

PPP1: PPP1 is one of the leading telecommunications providers in Sri Lanka. Established more than 160 years ago, the company has undergone several significant structural changes over this period. Before converting to a state-owned corporation in 1991, the organisation was a government department. In 1997, a joint venture partnership was established with a Japanese company, which transformed it into a PPP. Following the creation of this PPP, the company was listed on the Colombo Stock Exchange. In 2008, the Japanese partnership ended, with its shares being sold to a Malaysian-based company, which is a leading global telecommunications provider headquartered in the Netherlands. The Sri Lankan Government and the joint venture partner hold shares in PPP1 at a ratio of 49.50 per cent and 50.50 per cent (including the public holding 5.52 per cent), respectively. Most of the remaining shares are also held by government-owned enterprises and funds. With more than 10,000 employees, the company serves over 9 million customers nationwide. As a high-tech, engineering-based company, PPP1 has heavily invested in innovative digital technologies, including high-speed fibre, copper, and wireless access networks, artificial intelligence, and cloud services.

PPP2: PPP2 is one of the largest power and energy engineering companies in Sri Lanka. In 1980, PPP2 was established as a 70:30 per cent joint venture between the government and a leading power company in Europe. The company's business portfolio includes manufacturing transformers, investments, product development, engineering, procurement and construction, as well as the operation and maintenance of thermal and renewable energy power plants, grid substations and transmission lines. The initial purpose of establishing PPP2 was to produce transformers locally, as the government previously had to import different brands of transformers from various parts of the world, which caused significant delays in electrification. The company has built more than 50 per cent of the transmission sub-stations in the country and has completed over 20 projects worth more than 40 billion Sri Lankan rupees, adding 10 billion Sri Lankan rupees in value to the national economy. PPP2 manages overseas facilities located in more than ten countries in Africa and Asia. Beyond the local market, the company has also built and operates power plants in Nepal, Bangladesh, Uganda, Tanzania, Kenya and Ethiopia. Over time, its strategic horizons have expanded from being a transformer manufacturer to a complete energy solution providing engineering company. Consequently, the company has made significant investments in clean and renewable energy sources, including hydro, wind, and solar power plants. With its proactive market approach, the company has revolutionised the power and energy industry in Sri Lanka.

PPP3: In 2009, the Sri Lankan government established PPP3 by setting up temporary research labs and facilities with the support of the United Nations Development Programme. PPP3 conducts nanotechnology and advanced technology research in core areas including graphene technologies, energy, advanced agriculture, smart textiles, advanced materials, processes, engineering, industry intelligence and synthetic biology. Technological innovation in these key research areas has helped to address both long-standing and emerging sustainability issues in Sri Lanka. PPP3 undertakes three categories of research: strategic, bluesky and contractual research. Strategic projects are funded and monitored by the government. The bluesky projects are PPP3's own initiatives and involve funding projects that focus on scientific approaches. Contractual projects are undertaken in response to private sector demands. The company employs around 70 research scientists and 25 administrative staff. PPP3 is a 50:50 public-private partnership between the Sri Lankan Government and several local private sector partners. In addition to their equity contribution,

most of the fixed assets, such as buildings, equipment, land and all other infrastructure elements were funded by the government. Table 1 summarises the key features of the three PPPs.

Table 1. Key features of the three case study organisations

Characteristics	**PPP1**	**PPP2**	**PPP3**
Industry	Telecommunications	Power and energy	High-tech research
Ownership structure: Government vs Private	49.50:50.50	70:30	50:50
Private joint venture	Foreign	Foreign	Local
Nature of business	Public Limited	Private Limited	Private Limited
Board composition: Government vs Private	5:4	5:4	9:9
CEO/Chairman appointment	Government	Private sector	Private sector
Years in business	160 years	40 years	11 years
Number of employees	10,000+	800+	100+
Nature of PPPs	Joint venture partnership	Joint venture partnership	Joint venture partnership

Source: Authors' own compilation

4. Findings

As illustrated in the section below, our analysis begins with an overview of the state's dominant discourse on a KBE and of how this political and economic strategy has been translated and reshaped the PPPs' innovation. Jessop (2005) argues that the KBE is a complex, adaptable network of social relations, interconnected with particular subjectivities and mediated by material objects and social institutions, such as PPPs.

4.1 Reshaping PPPs' innovation through the state's 'knowledge-based economy' political and economic strategies

The public sector in Sri Lanka has faced ongoing criticism in the rise of NPM (see Wijethilake *et al.,* 2026). An underlying argument concerns that the traditional "resource-based industrial" approaches have been inadequate not only to meet the growing public expectations for efficient public services but also to foster economic growth. Long-standing inefficiencies, political interference, a lack of accountability and transparency, and corruption have all contributed to the erosion of public trust in public institutions. The introduction of knowledge-based industrial approaches has been envisaged as an alternative to address these criticisms (Institute of Policy Studies of Sri Lanka, 2018). Reflecting on national economic and structural reforms, a KBE is considered the future of economic development, as it contextualises the decline of key primary/secondary industries and justifies the need for workers to retrain. However, it has mainly remained a topic of political discourse, serving as a means of capturing votes in elections and thereby predominantly framing KBE as a state's hegemonic development project. As illustrated below, the state's KBE has primarily been expressed through a top-down approach, with PPPs attempting to reframe and recontextualise their innovation strategies accordingly (see Jessop & Sum, 2006; Sum & Jessop, 2013). However, as Jessop and Sum (2006) suggest in the dialectical relationship, there are occasions in which PPPs have influenced the state to pursue bottom-up approaches. Jessop (2005) argues that the state plays a distinctive role in meaning-making (e.g., semiotic moments) in the case for reforms. Here, the discourse of a KBE helps create a new framing of economic governance, facilitating the implementation of structural

changes in institutional frameworks and influencing strategic political reorientations. More specifically, Jessop (2005, pp. 16-17) commented that:

> *"…the state is actively involved through its own distinctive juridico-political powers in the discursive-material constitution of the globalizing KBE as an object of economic governance and in seeking to create and discipline the subjects deemed necessary to sustain it (e.g., flexible workers, 17 entrepreneurial subjects, respecters of copyright, lifelong learners)…"*

In Sri Lanka, PPPs are frequently emphasised in national policies, political rhetoric, and multilateral development strategies, mainly originating from the World Bank, International Monetary Fund, and Asian Development Bank, as mechanisms not just for attracting private investment but also for sharing technical expertise, strengthening institutional capacity, and encouraging sectoral best practices; components which are central to a knowledge-based development plan. In political discourses, a KBE has been a popular feature of almost every election campaign. For instance, in 2010, the former President Mahinda Rajapaksha launched his Presidential election with a political manifesto of "Mahinda Chinthana [Chinthana means intelligence, thoughtful, etc] – Vision for New Sri Lanka" which extensively promoted his commitment to a KBE. In 2020, the former President Gotabhaya Rajapaksha presented the government's policy statement of "Vistas of Prosperity and Splendour," reiterating that the economy should be transformed to embrace "the 21st Century, which is known as the Knowledge-centric Century." In support of this political agenda, the Minister of Technology and Research in Sri Lanka commented on the government's desire for an innovation-driven KBE:

> *"Obviously, one prudent strategy would be to transform our economy into an innovation-driven knowledge-based economy. We need to enhance our capabilities to develop advanced technology-based products and services. And this would be the only pragmatic way to enhance the national economic output in the face of current, advanced technology-led global competition."* (Daily FT, 28 May 2014)

Over the years, promoting knowledge-based innovations through PPPs has become a priority for the national government, with a focus on restructuring public institutions through public policy reforms, good governance, and internal operational mechanisms. For example, the Ministry of Power and Energy of Sri Lanka proposed a ten-year plan for developing the energy sector within a KBE, supported by PPPs (see Ministry of Power & Energy, Sri Lanka, 2015). For example, the ten-year plan proposes that:

> *"The financial health of the energy sector will be improved through efficient treasury operations by restructuring debt portfolios of the sector entities using innovative mechanisms and tools ranging from trade debtors and public-private partnerships in investments."* (Ministry of Power & Energy, Sri Lanka, 2015, p. 45)

As illustrated in the above example, reflecting on CPE's top-down approach, the Ministry of Power and Energy has sought to restructure operational mechanisms and to institutionalise the political discourse (see Jessop & Sum, 2006; Sum & Jessop, 2013). Meanwhile, the development strategies, funding mechanisms, and project frameworks of key international organisations - the World Bank, the International Monetary Fund, and the Asian Development Bank - highlight PPPs as means for policy advice, capacity enhancement, and engendering knowledge solutions. These international agencies often

viewed KBE as a means of achieving economic priorities and imaginaries through PPPs, thereby positioning it as a pathway to global competitiveness, access to the global market, and an efficient mechanism for fostering economic growth For instance, as highlighted below, the Asian Development Bank emphasises the critical importance of knowledge solutions to foster sustainable growth and build resilience in Sri Lanka through public sector mechanisms such as PPPs.

> *"ADB [Asian Development Bank] will prioritize knowledge support in areas that address Sri Lanka's economic challenges. These include knowledge solutions for (i) PFM reforms and debt management, tax administration, and SOE reforms; (ii) financial sector stability; sustainable finance; and structural reforms to enable PPPs, and boost trade and investment… ADB's Serendipity Knowledge Program will leverage the CMT [country management team] to deliver the knowledge solutions envisaged in the CKP [country knowledge plan] as One ADB" (Asian Development Bank, p. 15, 2024).*

Public policy and advisory agencies suggest that PPP units act as hubs of expertise, focusing on benchmarking, standards, and training. A policy analysis by the Oxford Business Group suggests expanding PPPs into sectors that require high levels of human capital, such as education, health, and urban services. In all these sources, PPPs are envisaged as a national-level macro strategic tool to support Sri Lanka's political agenda and promote a knowledge-driven economy.

> *"…This makes developing alternative sources of infrastructure delivery and financing a critical priority for the government [Sri Lankan], with PPPs offering the opportunity to leverage efficient service delivery under private firms and access new sources of capital, improve technological know-how and reduce risk." (Oxford Business Group, 2018).*

Reflecting on states' reorientation towards a KBE political agenda, all three PPPs we examined are shifting their institutional structures (e.g., structural moments, see Jessop & Sum, 2006; Sum & Jessop, 2013), towards a knowledge-driven innovation model. Framing KBE in PPPs as an innovation ecosystem, the state also set an agenda to prioritise as a pathway to a digital economy and a means to build social coalitions. For instance, PPP1 has been transforming its business model from traditional fixed-based telephone connections to modern wireless and fibre-based connectivity. The company has heavily invested in innovative modern digital technologies, such as Artificial Intelligence. PPP1 emphasises the company's strategic alignment with the government's KBE discourse:

> *"The national vision, then, seeks to create a knowledge-based, highly competitive social market economy that can lead Sri Lanka to become the hub of the Indian ocean. [PPP1] is committed to its role as the national ICT solutions provider to help the government transform Sri Lanka into a digital economy. [PPP1] supports the Government through deploying sophisticated telecommunications infrastructure and cutting-edge technology across the island that are vital to stimulating innovation, efficiency, and economic growth."* (PPP1, Annual Report, 2018, p. 25)

Jessop (2005, p. 3) suggests that CPE "can adopt both bottom-up and top-down perspectives and, ideally, should combine them". Reflecting on a combined approach, in addition to the political pressure, the intense competition between the leading private sector

telecommunications providers has also put PPP1 under immense pressure to invest in knowledge-based innovative technologies. PPP1's annual report highlights that the company has facilitated a significant digital transition for millions of households and businesses within the country and beyond.

> *"The [PPP1] has spearheaded innovation through strategic and farsighted investments into crucial digital infrastructure running into billions of rupees and introducing innovative propositions to enable the public of Sri Lanka, from all walks of life and from all parts of the country, to connect, communicate, share, be entertained and do business more effectively."* (PPP1, Annual Report, 2020, p. 40)

A significant proportion of resources has therefore been invested in modern digital technologies, such as fibre connectivity, the Internet of Things, cloud services, 4G networks, and Artificial Intelligence. PPP2 has transformed its business model from transformer manufacturing to providing comprehensive power solutions, encompassing transmission, distribution, and all other aspects of electrification. PPP2's Senior Manager 2 shared the following comment on the shift towards knowledge-based innovation:

> *"Our initial core business was manufacturing transformers, which was our core activity. Our new core business is knowledge. If you add everything up, contracting is now our major business. For instance, it will be a power plant, transmission line, or substation. Our added value would be the engineering, knowledge-based expertise, and financing-based inputs. That would be the value for the money we charge our clients."* (Senior Manager 2)

Several initiatives have also been undertaken to transform various resource-based practices into knowledge-based solutions, with a particular focus on the export market. Investment in digital innovative technologies has elevated the potential of increasing exports in the region. Emphasising the importance of the export market, Senior Manager 1 of PPP2 stated:

> *"When they encountered a problem in the past, the group developed innovative solutions including creating its own product or diversifying its supply chain. As [the company] looks to the future, it believes the marketplace will be export oriented. So, it's focusing on expanding into foreign markets for greater resilience."* (Senior Manager 1)

Other areas in which PPP2 has invested extensively include wind, solar, and hydro power plants. This provides evidence of the shifting priority from investment in traditional power plants to sustainable energy sources. A senior manager emphasised the necessity of continuing to invest in these sustainable energy sources.

> *"Sustainability plays a greater role now than at any other time. Today, no corporation can aspire to be a sector leader without this fact of business, and it's a must-have to maintain such a scenario. Sustainability should be a strategy as well as being woven into the corporate culture."* (LMD News, 9 August 2019)

The Sri Lankan government established PPP3 with the aim of promoting scientific and technological knowledge as a means of contributing to national development. The Minister of Technology and Research appreciated the efforts made by PPP3 in enabling the government's innovation-driven, KBE agenda.

> *"In transforming our economy into an innovation-driven knowledge-based economy, we are certainly happy about the achievements of [PPP3], as a cutting-edge advanced technology research facility that has made some important initiatives towards generating high-tech knowledge economy outputs. I hope this conference will provide an opportunity to share the [PPP3] experience with a wider community.*" (Daily FT, 28 May 2014)

Reflecting KBE in PPPs as a means to foster upskilling and access to modern technology, capitalising on up-to-date knowledge, the state tends to set a political agenda to materialise its economic and socio-structural reforms. As in the cases of PPP1 and PPP2, the original purpose of PPP3 has also undergone changes over the last decade. There is a realisation that both the competitiveness and survival of the company could be threatened without a focus on commercialised knowledge creation. A senior manager of PPP3 explained:

> *Initially, our strategy focused on knowledge creation, which involved obtaining patents or publishing papers. But it isn't easy to survive just by doing that. It's been ten years. To tell you the truth, we've been running at a loss. Now our management has decided to go for profit making while creating knowledge. We need to survive and get funding for other developments. For example, we got 1 billion rupees for a biotechnology centre. With that, there is a lot of pressure on us to make a profit."* (Senior Manager 4)

Unlike PPP3, both PPP1 and PPP2 have been profitable companies for many years. Given its unfavourable financial performance, both the government and private sector partners have expressed concerns over PPP3's financial sustainability. Thus, PPP3 is in the process of shifting its focus from government dependence to self-sustainability through its recent strategic renewal. Several respondents informed us that, in line with the government's public sector reforms agenda, the "*culture of self-sustainability*" has become embedded in every aspect of intra-organisational operational strategies. Reflecting upon semiotic moments and meaning-making of CPE's bottom-up approach (see Jessop & Sum, 2006; Sum & Jessop, 2013), the discourse of public entities' "*self-sustainable*" culture has shaped target-oriented growth strategies as a primary goal that each employee should pursue regardless of their roles and status. This evolving self-sustaining culture of PPPs in Sri Lanka is similar to what Jessop (2005) calls 'meta-object of governance or meta-governance' of a KBE. More specifically, Jessop (2005, p. 144) argues that "new meta-object of (meta-)governance rests on an expanded notion of the technological and economic factors making for competitiveness, on increased valorisation of creative and flexible attitudes in an enterprise culture, and the potential contribution of lifelong learning to the dynamism of KBE as a mode of growth". The evidence shows the state's efforts to reconfigure the KBE as a regulated object and to shape the subjects involved in economic activity through PPPs (Jessop, 2005). More specifically, as reflected above, the Sri Lankan state's 'KBE' political and economic discourse has been translated into a meta-object of governance through PPPs, from both top-down and bottom-up approaches, thereby shaping and reshaping the culture of innovation (see Jessop, 2005). Overall, the state's framing of KBE innovation through PPPs is seen as a way to tackle inefficiencies, reduce public-sector bureaucracy, ease fiscal constraints, and promote private-sector innovation via mutually beneficial hybrid strategies. As discussed above, Table 2 summarises the CPE factors shaping PPPs' innovation transition towards a KBE and their influence on management controls.

Table 2: Summary of CPE factors shaping PPPs' innovation transition towards a KBE and the influence on management controls

CPE factors framing the state's KBE discourse	Influence on PPPs' innovation transition towards a KBE	Influence on management controls*
1. Semiotic and cultural factors		
Economic priorities and imaginaries	KBE in PPPs as a pathway to global competitiveness, access to the global market, and an efficient mechanism for fostering economic growth	- Market-based controls: local versus overseas economies - Bureaucratic controls
Discourses and narratives	KBE in PPPs address state inefficiencies, minimises public-sector bureaucracy, reduces fiscal constraints, and enables private-sector innovation through win-win approaches	- Leadership controls driven by political motives vs professional demands - Labour controls driven by party-based trade unions, corporate ownership, and performance
Frames and metaphors	KBE in PPPs as an innovation ecosystem, a pathway to a digital economy, and a means to build social coalitions	- Innovation controls driven by localised, industry and public value approaches
2. Political and institutional factors		
KBE as a state's hegemonic development project	KBE in PPPs as a driver of modern development enables sustainable growth, a hegemonic development project, a political manifesto, and supports state legitimacy and agency	- Market-based controls: local versus overseas economies - Leadership controls driven by political motives vs professional demands - Operational controls are influenced by political patronage, community culture, and formal management controls
Public policy reforms	KBE in PPPs enable the embedding of NPM reforms in the public sector, such as risk-sharing, sourcing private finance, enhancing efficiency, and knowledge production and sharing	- Efficiency focused neo-liberal control - Bureaucratic controls
Governance and operational mechanisms	KBEs in PPPs facilitate a hybrid governance mechanism to overcome state bureaucracy, shifting authority upwards to global standards and downwards to specific PPP projects	- Efficiency focused neo-liberal control - Labour controls driven by party-based trade unions, corporate ownership, and performance - Leadership controls driven by political motives vs professional demands -
Institutional	PPPs are large-scale, resourceful,	- Efficiency focused neo-

reforms and restructuring	capable, network-driven (e.g., urban-rural), and technical institutions, serving as a strategic agency for funding (foreign direct investments)	liberal control - Bureaucratic controls
3. Economic and structural factors		
Accumulation and growth agenda	KBE in PPPs transforms towards innovation ecosystems, digital transformation and the digital economy, building sustainable resilience, a self-sustaining approach, and knowledge-driven products and services	- Innovation controls driven by localised, industry and public value approaches - Efficiency focused neo-liberal control
As a regulatory mechanism	KBE in PPPs drives regulatory reforms towards intellectual property rights (patents), investment security, and knowledge assets	- Efficiency focused neo-liberal control - Bureaucracy controls
Capitalising knowledge, labour relations and controls	KBE in PPPs fosters upskilling, training and development, and access to modern technology	- Labour controls driven by party-based trade unions, corporate ownership, and performance - Innovation controls driven by localised, industry and public value approaches

*Illustrative examples are provided in Table 3.
Source: Authors' own compilation

4.2 The role of culturally and politically embedded management controls in knowledge-based innovation in PPPs.

Drawing on the CPE's 'economisation of culture', the application of economic values to cultural practices, and 'culturalization of the economy', the embedding of culture within economic activities (Jessop, 2003; 2005; 2010), the following sections illustrate how the conventional and formal management controls in these three PPPs have been shaped and re-shaped by CPE thereby enabling or hindering innovation towards a KBE. PPP1, which holds considerable state and political influence, tends to be shaped mainly by top-down approaches; however, PPP2 and PPP3, with strong professional and managerial backgrounds, are more inclined to initiate innovation transitions through both top-down and bottom-up approaches (see Jessop & Sum, 2006; Sum & Jessop, 2013).

4.2.1. PPP1: A case of a telecommunication business

(i) Innovation shaped by political interference and trade union dominance:
PPP1 has traditionally been a public sector organisation with significant political and trade union influence. The leadership team at PPP1 is often appointed by the political authority, allowing for considerable political interference in operations and strategic decisions. Currently, PPP1 is represented by 38 trade unions from various political groups within the workforce. Trade unions in Sri Lanka have often drawn criticism for representing national-

level political manifestos instead of genuinely protecting the interests of employees and organisational affairs. Reflecting upon the prevailing culture, several interviewees revealed how the trade unions have continued to exert pressure on management decision-making and expressed concerns over the company's politically driven leadership style and union-dominated culture:

> *"The CEO appointed by the Japanese company managed the vision and objectives effectively. However, as things currently stand, the CEO was appointed locally through an internal promotion. Therefore, I can't see a cultural change at present. During the Japanese era, there was a rapid cultural change. Cultural change is a significant driver of innovation and transformation of the company. Even though we are in a public-private partnership, it is not an effective partnership."* (Senior Manager 1)

Mentions were made during our interviews that, if it continued in the present form, the company would resemble more of a public enterprise in terms of inefficiency and ineffectiveness in operations. Implicit in the participants' views was the fact that excessive top-down political inferences have, over the years, weakened both PPP1's core competencies and its innovative potential. Accordingly, these top-down political material practices (e.g., structural moments) have been institutionalised within formal bureaucratic control practices, thereby creating culturally and politically embedded controls (e.g., Jessop & Sum, 2006; Sum & Jessop, 2013). As a result, PPP1's private sector rivals are often preferred by clients, as the following statement by Senior Manager 5 confirms:

> *"I'm not expecting a radical change within this political culture. Even the telecommunications regulators are not taking serious decisions about monitoring the industry. In that context, our future would be like that of a government organisation. Although we are not directly benefiting from the government, we are working as a government organisation. The main reason is the leadership and the political interference."* (Senior Manager 5)

Similar to Wickramasinghe *et al.* (2004), who observed that a Japanese manager's charismatic and patrimonial leadership eliminated bureaucratic controls, implemented new management controls and reward systems, and achieved commercial success, senior management was of the view that leadership from foreign or private sectors could greatly improve PPP1's performance. For instance, one of PPP1's senior managers remarked on how the company was performing during the Japanese leadership:

> *"During the Japanese partnership, they took very good management decisions. In the current situation, even if this is called a public private partnership, the strategic decisions are not taken effectively. There is a dilemma about whether we are actually in a public private partnership and who makes the important decisions."* (Senior Manager 1)

The above statements provide evidence of how the decision-making processes and the pace of innovation at PPP1 have been reshaped by the leadership styles, formal control practices, and governance structures favoured by various political groups and how these have adversely affected its performance (e.g., Jessop, 2005; 2010; Jessop & Sum, 2006; Sum & Jessop, 2013).

(ii) Struggling to detour innovation through multinational management culture

The private sector ownership of PPP1 has shifted over time among different global investors. In 2008, PPP1's joint venture partnership with a Japanese company ended, and a Malaysian company took over. During the partnership with the Japanese company, the CEO was appointed, and Japanese management culture had a considerable impact on the company's innovation direction and performance. The Japanese management team gradually incorporated the Japanese way of working into PPP1, resulting in profound cultural changes. The following excerpt of a Senior Manager serves as an example:

> *"One major milestone was that the traditional promotional system was abolished. The Japanese management introduced performance-based promotion systems instead of seniority-based promotions. They promoted people based on their merits. This made a big difference in the company."* (Senior Manager 4)

When the new joint venture partnership with the Malaysian company was established, the Sri Lankan Government was given overall authority to appoint the management team. Significant differences in company performance, cultural changes, and managerial decision-making were experienced following the establishment of the new partnership. Although the pattern of management remained to some extent similar, several structural changes were introduced by the new CEO, who was appointed politically. A senior engineer who had been working for PPP1 for more than three decades shared his experience of how the Japanese culture has elevated staff morale and developed talent, enabling them to take proactive and rational decisions to make the company more competitive:

> *"Being engineers, we were very motivated to explore new innovations. Engineers took the competition very seriously. The Japanese management culture drove this. The competition was seen as part of the bigger picture and staff understood that, if we didn't compete, the same thing would happen to the company as had happened to other loss-making state-owned enterprises."* (Senior Manager 5)

Concerns were raised about the political interventions on the company's overall performance. The importance of adopting a proactive and systematic approach driven by bottom-up drivers that could promote innovation and technical sophistication was therefore reiterated (e.g., Jessop & Sum, 2006; Sum & Jessop, 2013). Implicit in the views of participants was that the excessive political interference and unions' influence have resulted in the company (PPP1) compromising the strategic decision-making crucial for ensuring growth and resource acquisition. Confirming similar observations, Wickramasinghe *et al.* (2004) suggest that those employees frustrated by the changes and feeling excluded from organisational matters, partnered with politicians to advocate for the removal of the Japanese manager and the return to formal bureaucracy.

(iii) Rule-based and bureaucratic controls to enhance efficiency

The PPP1 has adopted a rigorous approach to cost control. Any deviations in returns and targets, as outlined in the business plan, are scrutinised along with the justifications sought. Systematic KPIs have been developed to reflect the organisation's vision and mission, and are used to evaluate both annual performance and the performance of individual projects completed. The timely completion of projects was particularly emphasised. Highlighting the importance of timely project completion to achieve the company's objectives, Senior Manager 6 stated:

> *"KPIs come from the top down. For example, the KPIs for system availability come to me. According to the KPIs, system availability is linked to corporate-level customer satisfaction. I have two engineers below me and I cascade down my KPIs to them, such as systems monitoring and clearing. We have both project-based and operational KPIs. For the projects, we have different types of delivery, such as triple factors: scope, cost and time."* (Senior Manager 6)

The interviewees particularly highlighted the importance of the annual business plan in balancing value pluralism between different actors, such as the government and private sector shareholders. Prior to the establishment of the joint venture partnership with the Japanese company, strong directives (e.g., in-depth analysis, calculations and required staff) for formulating an annual business plan were virtually absent. This often led to a deviation between the business plan and the company's overall direction, as Senior Manager 5 recalled:

> *"When the Japanese team came, the first thing they did was to prepare the annual business plan. They also calculated the average cost of providing a telephone connection to a customer. Specific financial measures were defined, and development targets were set in the business plan. That way the business plan included three targets: development, operational and financial targets."* (Senior Manager 5)

In the event of failing to meet the set KPIs, senior management has adopted a strategy of delaying the project. PPP1 has implemented several incentive schemes, both for executive and non-executive staff members. The incentives for executive staff are based on their performance plus a fixed percentage as decided by the board of directors. However, the continued political pressures exerted through trade unions have raised concerns about the fairness in rewarding staff members based on their performance. Claims were made during our interviews that the performance-based system has not been as effective as expected during the last couple of years. In particular, operational control was exercised by politicians indirectly through trade unions, which interfered in operational matters to gain patronage and political support benefits.

(iv) Exploring innovation to capture the local market demands

PPP1 enjoyed a monopoly in the industry until the late 1990s, as there was no competition in the telecommunications industry. Despite its historical pedigree and experience in the market, the interviewees acknowledged that the company is struggling to compete with its private sector competitors, who are relatively new to the market, as the following comment illustrates.

> *"From a competition perspective, we are struggling with the private sector. But it depends on the business activity. Our main competitor specialises in wireless, but we specialise mainly in fibre, cables and wire connectivity. In terms of fault clearance, we take a much longer time than our competitors, because wireless is easy to connect, and the signal strength is strong."* (Senior Manager 4)

Historical investments, the acquisition of fixed assets, government support, societal value creation, and customer loyalty have all contributed to the company's growth over the years. Predominantly supported by these top-down cultural and political influences, PPP1 has a well-established and robust distribution network that spans the entire country (Jessop, 2005;

Jessop & Sum, 2006; Sum & Jessop, 2013). The company is expanding its innovative investment strategies to serve local consumers better and compete more effectively with its private sector rivals. The company is cautious about its ability to recover the investments made. For instance, Senior Manager 5 shared his thoughts on the company's approach to investing in 4G and 5G networks:

> *"In the mobile sector, we have invested in 4G, and we are now in the recovery stage. Now, again, 5G is knocking on the door. If we try to invest in 5G, I don't think we will be able to recover the investment anytime soon. When it comes to 5G, the rates are very high, but the coverage is significantly less. To cover the entire city of Colombo, we may have to invest a huge amount."* (Senior Manager 5)

During the interviews, it was revealed that, although the company operates in the public sector, there is no requirement for government entities to buy products or services from PPP1. Although the government owns a larger share of the company, it still has to compete with private sector rivals to sell its products to government-owned institutions. Mentions were made that some government-owned institutions prefer to buy services from the private sector for various reasons, including political patronage. Senior Manager 4 explained the company's market position regarding cloud-based data centres.

> *"In terms of data centres, we are the industry leaders. We have become the first choice of both private and government demands for data centres. Around 80 percent of the cloud business we provide is for the government. We try to provide the best possible service, quality, and technology. The initial cost of establishing the data centres is very high."* (Senior Manager 4)

As discussed above, management controls at PPP1 have been evolving and are closely connected to top-down political patronage and bottom-up party-based trade union domination (Jessop & Sum, 2006; Sum & Jessop, 2013). In turn, the company's innovation culture has been hindered by these culturally and politically embedded controls, which are mostly reactive, bureaucratic and rule-based. Initially, forming the PPP with the Japanese partner led to the introduction of new accounting systems and achieved positive commercial results by replacing bureaucratic management with innovation. However, these changes were eventually reversed due to interventions, particularly the constant pressures exerted by their sister trade unions (Wickramasinghe *et al.,* 2004).

4.2.2 PPP2: A case of an energy business

PPP2 was formed as a joint venture partnership to manufacture transformers in support of Sri Lanka's electrification efforts. Before the establishment of PPP2, the government was importing different types of transformers from various countries, encountering recurrent issues related to quality control, incompatibilities, maintenance, and ensuring the availability of spare parts. To address these concerns, PPP2 was established to locally manufacture transformers. The company has produced over 40,000 transformers, making Sri Lanka the only South Asian country to be 100 per cent electrified. As illustrated below, PPP2's innovation transition and control practices have been predominantly influenced by bottom-up approaches driven by professional leadership and industry expertise (Jessop & Sum, 2006; Sum & Jessop, 2013).

(i) Innovation culture moulded by professional leadership and internal governance

As outlined in prior work (see e.g., Wickramasinghe and Hopper, 2005), it is customary in Sri Lanka for the political authority to appoint the leadership of public entities based on loyalty and personal connections, disregarding the appointees' professional qualifications, meritocracies and experience. When the political leadership changes, it is inevitable that the leadership of most public entities will change accordingly. However, it is not the case in PPP2 where top management leadership and professional industry expertise have challenged political influence from a bottom-up approach (Jessop & Sum, 2006; Sum & Jessop, 2013). Since its inception in the 1980s, PPP2's leadership has professionally guided the company with a clear strategic focus. Most of the interviewees commented that, to be successful, a company's management should encourage the personalities that exemplify specific personal and leadership qualities. The Director/CEO of the PPP2 shared the tone at the top:

> "*Especially higher management is highly motivated. They are motivated to make profits and not worry about salaries. There is no internal corruption. We do not just expect integrity from our staff, but we ensure it."* (September 08, 2019, The Sunday Times)

Managers reiterated that, since its formation, PPP2 has maintained a consistent leadership style, and the leadership has been able to uphold its professional commitment despite political changes. In so doing, PPP2 embodies a distinct set of shared cultural values that encompass a professional commitment to leadership, corporate responsibility, employee engagement, growth, and empowerment. As discussed in CPE, adopting a bottom-up approach, these semiotic moments have influenced employees (e.g., actors) of the PPP2 to interpret and develop the leadership culture as an organisational discourse (Jessop, 2005; Jessop & Sum, 2006; Sum & Jessop, 2013). All the participants emphasised that having exemplary leadership is of paramount importance to the business's success. Reflecting on the entrepreneurial resilience, the Director/CEO of PPP2 commented in the media:

> *"Entrepreneurship, productivity, eliminate fear of failure, constantly looking for opportunities and getting the timing right is what worked for us…egging participants to think out of the box, innovation."* (September 08, 2019, The Sunday Times)

The composition of PPP2's board structure has been influential in directing and supporting innovation aimed at corporate strategic renewal. Having board members from overseas and professionals has made a significant impact on fostering the stability of the company's strategic changes by avoiding political interference. As reflected in PPP2, from the CPE perspective (Jessop, 2005), the emergence of a new accumulation regime and its regulatory approach involves both a genuine 'cultural revolution' and a substantial transition in institutional change and innovation driven by bottom-up approaches.

(ii) *Empowering innovation through shared values, localised ideologies, and corporate share-ownership*

As discussed in the preceding section, sustaining professional leadership styles is rather unusual in public sector entities in Sri Lanka. However, following a bottom-up approach (Jessop, 2005; Jessop & Sum, 2006; Sum & Jessop, 2013), PPP2 has often embraced shared values, fostered a spirit of collaboration, encouraged collective decision-making, and emphasised teamwork, thereby creating a positive and engaging work environment for employees to be creative and innovative. One of the strategies pursued by PPP2 has been to

empower young engineers and managers, making them capable of dealing with the changes taking place in the industry with confidence. Unlike most public sector entities where appointments and promotions are often influenced by political patronage and personal connections, PPP2's leadership mainly emphasises development, empowerment, delegation, building trust, encouraging self-motivation, and providing guidance to subordinates. What is perhaps more striking is the company's endeavour to acknowledge and respect ethnic diversity in driving innovation. A Senior Manager commented on PPP2's localised way of thriving innovation:

> *"We see our strength in our people. Fortunately, we have a very young team of engineers and managers. Our recently commissioned power plant was entirely completed by a set of local engineers. I would say 100 per cent, except for a few instances of supervision, we never got anyone from outside. Every bit of engineering was done by us."* (Senior Manager 1)

PPP2 has transformed its cultural values in a way that is closely aligned with private sector best practices. In 2005, as a means of empowering employees, PPP2 offered 500 million Sri Lankan rupees worth of shares to employees rather than inviting external investors to purchase them. Senior Manager 1 explained that being part-owners of the company has made the employees highly committed and motivated to act in the company's best interests:

> *"We have cultivated a unique culture here…If you take [a fully government-owned public utility organisation], the sense of ownership of its employees is less because whatever they try to do will be changed by the people at the top. But none of these things can happen here because of our leadership. Our employees have a bigger say in the company's operations. Because of that, they also have a bigger responsibility. I think if you have the right structure where employees become shareowners, you can make a real difference."* (Senior Manager 1)

Due to its operation in the high-tech power and energy sector, PPP2's workforce primarily consists of highly skilled engineers and technical managers. This has proved to be another strength of the company. The interviewees revealed that the non-skilled labour force only represents around five per cent of the company's total workforce:

> *"…this is a knowledge-based company. We don't have very much unskilled labour. If you take all the employees, we have about 800 employees. Actually, out of 800, only about 190 are foreigners. The rest are all Sri Lankan."* (Senior Manager 4)

In contrast to the conventional public sector culture in Sri Lanka, employees at PPP2 are not permitted to join trade unions. Although senior management has promoted several initiatives to foster employee empowerment, the presence of trade unions is perceived as a hindrance, as it allows for political intervention in corporate affairs and stifles progress. Commenting on the politicalisation of trade unions, Senior Manager 5 stated:

> *"We don't have trade unions because we think that, at the end of the day, employees are much better off... and also when you have trade unions, you end up with tools of different political parties. They have different political agendas. So, we don't allow them."*(Senior Manager 3)

In addition, strict control mechanisms have been implemented to monitor employees' performance and achievements, ensuring that each one is fairly rewarded. Employees are often assigned challenging targets after their skills and job specifications have been assessed. As a result, employees are well adapted to the company's performance and reward systems. Senior Manager 3 remarked:

> *"We give people challenges; their performance is measured. Salary arrangements, perks and everything is based on their performance. They have to perform. We always look at their performance and we take action. If they are not performing well and are not able to provide value to the company, there is no point in paying them and keeping them on. They know that too. Because that culture has come in, they automatically adjust to the system. That's the real arrangement which we use."* (Senior Manager 3)

Attempts to promote the automation of activities have enabled the company to focus more on high-skilled labour forces. Most of the employees have a university degree and the company has been able to sustain continuous innovation and competitiveness in the international market. Senior Manager 4 commented:

> *"Less than five percent of our employees do not have a university degree, because we have automated as much as possible. If you go to our factories, you will see that most things, like transformer production, are done by machines. Human intervention is very limited...From the shareholders' perspective the best thing is to have fewer employees and make them more productive rather than being a sort of social organisation for the creation of job opportunities. That's not what we think of as our role."* (Senior Manager 4)

Based on the above statements, the company may serve as an example demonstrating how innovation and competitiveness can be maintained following a bottom-up approach thereby limiting political and employee intervention in everyday activities. In particular, as illustrated from a CPE perspective (Jessop, 2005; 2010), transitioning to new accumulation regimes typically involves public campaigns that encourage the adoption of new practices related to the body, production, and consumption, as well as shared visions of economic, political, and social life.

(iii) Enabling innovation through liberal pricing in a neo-liberal market

As one of the leading companies in Sri Lanka's power and energy sector, PPP2 has taken proactive steps in making challenging decisions and promoting innovative solutions. For instance, when the Sri Lankan Government invited tenders for wind power suppliers, PPP2 challenged the existing market price of 22 rupees per KW by submitting a bid for 13 rupees per KW, which was the lowest price amongst all the bidders. Mentions were made during the interviews that the growth strategy the company has pursued, along with its commitment to adopting a fair and ethical business approach, has enabled it to offer innovative power solutions and deliver more affordable services to customers. The company has championed its liberal pricing strategy and the benefits it has brought to the general public, as well as its role in accelerating the development of the renewable energy industry in the country. Overall, the PPP2 has been able to set up the standards for the power industry that the competitors wish to emulate. The following statement by a Senior Manager serves as an example:

> *"When this tender came in in 2016, a lot of people came to us. They asked us not to bid less than 16 rupees. They wanted us to act as a cartel. We did not do that…We thought that if we got this tender, we could negotiate the equipment price as we knew that they were maintaining a very high margin. So, we offered 13 rupees. Then all our fellow competitors who offered between 15 and 16 rupees blamed us and claimed that we were destroying the market. Then all the equipment and engine suppliers started reducing their equipment prices by more than 20 percent."* (Senior Manager 3)

The submission of the lowest possible bids for tenders has enabled the PPP2 to win more project contracts than its competitors. In a press release, PPP2 also highlighted that the country's socio-economic needs have further driven the company's innovative culture.

> *"In 2002, under a build-own-operate model, the government issued a tender for a 100-megawatt power plant, for which we bid with the company [ABC]. Our lowest price secured the bid, which ultimately benefited the economy by 7 billion rupees during the 10-year project period."* (PPP2, Lankadeepa, 9 September 2018)

PPP2 claims that the company's bottom-up approach through localised innovations has not only delivered affordable public services as promoted by the state but also maintained profitability since its inception. Such perspectives are aligned with the CPE view, where Jessop (2005, p. 159) argues that "economic strategies and spatiotemporal horizons must be re-aligned with changes in the structurally inscribed strategic selectivity of modes of growth and their associated political regimes. This is reflected in the rhetoric of the enterprise culture, the KBE, and the learning society".

(iv) Exporting competitive innovation beyond local boundaries

PPP2 has adopted a proactive and bottom-up approach to expanding into the international market by utilising innovative technology across various sectors of the power and energy industry. In order to deliver a timely and effective service, the company has automated most of its production facilities. The company has also developed a flexible and cooperative strategy to deal with its partners by facilitating subcontracting and outsourcing certain aspects of the projects it undertakes. PPP2 was established in response to the local needs of producing transformers, galvanizing, generating renewable energy, and hydropower. Over time, the company has also begun exporting technology. The company's power business is based on physical assets, including transformers and power lines. However, it is now in the process of transforming its core competencies from relying on physical assets into intangible knowledge-based assets, as a senior member of staff explained:

> *"We cannot keep all the knowledge within our company. Our core competency is our knowledge. If we really need some specific expertise, we get it from foreign companies. When we do something, there will need to be bid management and interfacing, that will be the issue. We do the interfacing, management, and engineering aspects. Those will be the core competencies in any arrangement. Nowadays nobody does everything inhouse. That's the concept that we use."* (Senior Manager 5)

As the company faces increasing uncertainties and pressures from a diverse group of actors, the local market appears to be too small for the company to survive in the long run. Senior Manager 5 shared his vision of the company's future outlook:

> *"Our future is basically outside Sri Lanka. With the present arrangement, it is very difficult to do business in Sri Lanka. There are so many uncertainties, pressures and so many problems. If we wait for the industry to become mature, then we will end up with a big problem. Because of that we always look outside Sri Lanka. We have now taken over a fully owned company in Rajasthan, India."* (Senior Manager 5)

As a local company operating in the power and energy sector, PPP2 has had to face a number of challenges as a result of entering the international market. Senior Manager 1 elaborated on how the company's international collaborations have helped them enhance the quality of the transformers, and in turn, improve productivity:

> *"Our transformers are of very good quality. We have always used the technology that we got from a Scottish company. Presently we are investing lots of money in changing our equipment and then we will acquire new technologies that will really save costs and improve the product…If you are going for the global market, you have to work with technologies that give you a competitive edge*." (Senior Manager 1)

Hence, the company has refined its strategy, focusing more on international markets, and were therefore able to maintain a competitive edge. PPP2's shift in bottom-up approach and proactive response to market changes, along with its ability to balance the interests of multiple stakeholders, constitute one of the key factors that have enabled it to successfully establish its business beyond its existing geographical boundaries (see Sum & Jessop, 2013). As mentioned above, PPP2 exhibits evolving culturally embedded management controls that are proactive, outward-looking, and market-oriented, mostly driven by professional leadership. These controls have been shaped considerably by the company's bottom-up approach of integrating the state's KBE discourse into the innovation agenda (e.g., Sum & Jessop, 2013). From a CPE perspective, this resonance also highlights material contradictions and tensions in both current and emerging economic regulation and governance (Jessop, 2005, 2010). These issues impact top management leadership and organisational experience, while also challenging the validity of technoeconomic paradigms, accumulation strategies, and societal frameworks (Jessop, 2005).

4.2.3. PPP3: A case of a knowledge-intensive research enterprise

PPP3 was initially designed to promote nanotechnology research, enabling the most efficient use of national resources. However, during its first decade, PPP3 mainly focused on generating and sharing knowledge, such as publishing papers or applying for patents, rather than emphasising the achievement of its commercial goals. As a result, both public and private sector stakeholders began to question the sustainability of PPP3 and called for an urgent strategic shift to drive it towards commercialisation. As a new local joint venture partnership, primarily driven by a bottom-up approach (see. Jessop, 2005, 2010). , PPP3's culture has evolved over the past decade.

(i) Re-branding an innovative culture shaped by professional entrepreneurs

PPP3's governance and management styles have evolved into an autonomous cultural pattern with minimal influence from politics and trade unions. Political and administrative reshuffling is a common practice in Sri Lanka following a change in government. From its inception, PPP3 has consistently followed a bottom-up approach, with its leadership

predominantly driven by professional entrepreneurs and minimal political intervention or patronage. It is customary for key position holders in administration and state-owned enterprises to tender their resignation, as a matter of protocol, easing the government to make reappointments in such positions (e.g., Wickranasinghe *et al.,* 2004). Nonetheless, in the case of PPP3, the succeeding president typically reappoints the same employees and managers. A Senior Scientist shared that:

> *"Whenever there is a government change, there is a good impression of [PPP3]. They are not interfering with our operations. One important point is that our board is powerful. Our initiation holds great significance, reflecting the sacrifices made by the government to enable it. Despite changes in governments, the [PPP] proceeds smoothly."* (Senior Scientist 1)

According to the Articles of Association of PPP3, the chairman should be appointed from the private sector. Having been guided by these articles, an Executive shared during the interviews that the PPP has attempted to make political-free top management appointments.

> *"The minister is authorised to appoint public sector directors, but not private sector ones. Since the chairman is from the private sector, politicians are only involved in appointing directors and cannot influence beyond that. Regarding employees, personal contacts are not considered; our HR committee and established structures handle recruitment. We adhere to a standard process and will proceed accordingly."* (Executive 2)

What is interesting is perhaps the manner in which the PPP3 has ensured a balanced representation of public and private sector directors on the board to uphold the effectiveness of its governance and accountability mechanisms. Senior Manager 6 noted that:

> *"The board of directors have a lot of control here. The board is very powerful and there are eighteen members; nine from the private sector and nine from the government."* (Senior Scientist 5)

It was revealed that the balance on the board helped PPP3 resolve most of the issues related to bureaucracy and regulatory hurdles that prevent them from exploring new opportunities. For instance, the PPP3 was in a better position to exploit many opportunities funded and sponsored by the government with the support of private sector involvement. From the CPE perspective (Jessop, 2005), the balance between a bureaucratic regime and its regulation involves a genuine cultural revolution and a significant shift in institutional change and innovation, driven by bottom-up approaches.

(ii) *Empowering innovation through collaborative governance*

Interviewees shared that PPP3 has created a collaborative environment that supports learning, training and development opportunities for staff at different professional levels. Similar to top management appointments, all the respondents stressed that there are no government or political interventions in daily operations. A Senior Scientist shared his experience:

> *"I've attended meetings and observed that the organisational culture aligns with that of a private limited company, maintaining the private sector's influence. The*

> *government and politicians are not involved in recruitment, interviews, or dealings with consultants; their participation is entirely absent. For the projects, they are not intervening or assigning staff because our recruitment process needs board approval, which is managed by the private sector."* (Senior Scientist 1)

In addition to the standard and routine training and development opportunities, PPP3 also provides staff members with on-the-job training opportunities to develop their scientific research capabilities. A senior scientist commented on how the internal training sessions helped scientists to streamline their research ideas into market-viable projects and pitch them to senior management.

> *"We have a pitching session every other week. Then we analyse the pitches and fund them. We fund them to develop the idea to a more mature level. That gives them practical exposure to a certain extent. Initially we identify them as a bluesky project. Then, after submitting them to our Chief Research and Innovation officer, if he accepts, it's regarded as a bluesky project."* (Senior Scientist 4)

As part of the training process, interns are assigned directly to specific projects, where they receive guidance from the company's senior scientists. This has resulted in various benefits to both the participants and the company, including efficient use of resources, on the job training, time savings, and effective use of human resources, as the following interview excerpt illustrates:

> *"...sometimes we teach people to do basic things, such as an induction...but people learn by working on the project. After they have done one project, then we have a person specialised in... that's how we combine creativity, knowledge creation and profit making... The company even pays for our professional memberships."* (Executive 3)

Employees are provided with the opportunity to attend both local and overseas training. Given their interest in pursuing higher education, they are also offered the required facilities and financial support. The company's human resources policy has shifted from focusing on individual tasks to group-level, rotation-based tasks. Although challenging, job rotation has proven to be an effective mechanism for establishing strong links between multiple research projects, and in turn, improving group cohesion between scientists and the senior management team. Thus, PPP3's approach to training has changed in line with the company's market-oriented innovation. The company has also pursued a human resource policy prioritising the recruitment of experienced scientists and professionals who could contribute to innovations and growth. Senior Manager 4 described how a scientist's ability to perform the task is perceived within PPP3:

> *"Within the team, you have some knowledge sharing and networking. But, I think, rather than the research institute doing it [training], when you get the academic qualification, if you don't have the training, you cannot get the membership. That's mandatory. I don't know whether you can do it through a PhD or somewhere else. I think there should also be industry exposure to whatever you do academically."* (Senior Manager 4)

As reflected in this statement, the appointment of staff to leadership roles seems to have a profound impact on enabling the knowledge-based innovation in PPPs. To achieve goal congruence with external stakeholders, PPP3 has created a collaborative platform that

enables clients, scientists, and managers to share their views and proposals at various stages of projects. As shown in CPE viewpoints (Jessop, 2005; 2010), there are bottom-up shifts in organisational paradigms, with a new focus on networks, partnerships, stakeholding, and fostering good governance in the economic and political spheres. As illustrated above, new norms and expectations need to be developed to support emerging structural forms and social practices (Jessop, 2005; 2010).

(iii) Enabling innovations through collaborative networks

PPP3 receives a significant proportion of its funding from government research grants for national-level research priorities. The company/organisation has also established formal and informal networks with industry and public sector agencies by involving them in various national level projects. A Senior Manager 4 explained:

> *"...Partners can also be clients. But there are outside clients as well. Then we have other organisations that we are linked up with; research labs, universities, various private sector organisations who are not clients, but we are connected as well."* (Senior Manager 4)

Regular stakeholder meetings are organised to generate effective ideas. All these activities have proved to be an effective mechanism for addressing stakeholders' conflicting views and unrealistic expectations. For example, Senior Manager 4 highlighted how their attempts to share ideas with clients have substantially helped minimise the potential risks associated with the project delivery phase:

> *"...we even share our product ideas with customers at the very early stage. Even before coming up with the prototype, at the concept stage we share the idea with the assurance that we can make it. Sometimes, you think this is the concept required, but the client knows much better than us. When we speak to the client, we can fine tune our ideas. From that point onwards, it will be a joint initiative."* (Senior Manager 4)

Initiatives have been taken to identify projects with high commercialisation potential. Such projects are launched proactively coordinating both internal and external stakeholders. PPP3 proactively coordinates with its internal and external stakeholders to engage them directly in the project.

(iv) A client-centric and commercialised approach to innovation

The significance of client-centred coordination and operational approaches introduced by the company/organisation was reiterated during the interviewees.. In particular, PPP3 has emphasised the importance of promoting market-based applied research to mitigate the effects of potential competing stakeholder perspectives. This has led to the creation of an environment that encourages external stakeholders to negotiate and become actively involved throughout all the stages of a project. Senior Scientist 1 explained:

> *"There is an evaluation process. Even after a client becomes engaged with a research project, we have monthly review meetings. We always encourage clients to bring their finance teams, marketing teams, and R&D teams and other parties to the meeting. Only in that way can we be sure that everything is happening in the right way and in the right order."* (Senior Scientist 1)

The company's flexibility in negotiations has created proactive avenues to resolve potential conflicts. For instance, a senior executive commented about PPP3's entrepreneurial and innovation culture:

> *One of the core tenets of [PPP3] is its entrepreneurial culture, which underpins everything we do. Therefore, we aim to not just do research, but to do research which solves a need in the market. Today, we have a portfolio of research projects with us, and we would like to provide aspiring entrepreneurs the chance to execute these projects and launch those products to the market".* (Roar Media, 11 January 2019)

Mentions were made during the interviews that the senior management team has restructured the institutional setting as part of the company's innovation strategic renewal. Formal rules, policies and new procedures have been integrated with group level tasks. Research process has been restructured through the introduction of formal procedures and control systems. The pursuit of the flexible approach has enabled the company to avoid creating rigid hierarchical structure. For instance, Senior Scientist 3 noted how the project manager's role is linked with organisation-wide automated systems:

> *"Let's say if someone works for ten hours or twenty hours. The project manager should certify that this person has worked this number of hours. Our finance department does the calculations. We use certain levels of scientists' time…then it automatically goes to the finance department, and they can calculate the chemical consumption of the project. Regarding the analytical instrument usage, again they can work out the number of hours, number of samples, and overheads used for each project."* (Senior Scientist 3)

(v) Innovations through tight controls

Interview participants mentioned PPP3's attempts to implement various formal internal controls, such as cost-volume-profit analysis, budgeting, performance evaluation systems, and internal and external auditing, to monitor and control the research process. New strict evaluation procedures have been introduced to replace the previous, more ambiguous control mechanisms. Senior Manager 4 remarked:

> *"Now we are very strict: we have a management committee at the company. They evaluate potential projects rigorously and then they only allow a certain number of bluesky projects to go ahead. We currently have some extremely promising bluesky projects going on."* (Senior Manager 4)

Following the company's commercialisation objectives, PPP3 has also initiated effective project screening practices to ensure the commercial viability of the research ideas. For instance, scientists are required to present their initial ideas to a diverse group of people, including senior managers, their fellow scientists, other employees, and private sector partners. If the audience is not convinced by the initial idea, either the proposal should be rejected or revised based on the suggestions provided. Senior Scientist 2 elaborated that:

> *"...when a scientist comes up with an idea, he can't just go and do the work. He must submit a two-page proposal and present it on one slide. If that's accepted, it will go ahead, or sometimes, it will be rejected at that level…we don't have money to waste."*

(Senior Scientist 2)

What is distinct, compared to previous management, is a shift in focus from informal and flexible decision-making practices to more control-oriented mechanisms and procedures. The new management has introduced control-focused research practices at every stage of the project. This led some scientists to express concerns about the extent to which innovations can thrive in such settings. Senior Manager 3 explained PPP3's new approach as follows:

> *"You can take whatever resources you have consumed. You can put all the overheads on top of that…Now what we are doing is that we have some strict monitoring procedures; financial monitoring on a monthly basis. Project cost information will be ready by the 15th of next month…Based on these evaluations, we'll decide whether to carry out the project or not. If there is a progressive development, we'll continue. But if there is no progressive development, if we are not satisfied with the performance, we'll be cutting it down."* (Senior Manager 3)

These formal controls are designed to monitor both human and physical project resources with a clear focus on engendering commercial outputs. PPP3 conducts continual, formal performance evaluations at the individual, project and organisational levels. Key performance areas are communicated to all the relevant stakeholders in each project. The performance evaluations are carried out by a management committee so as to ensure the transparency of the evaluations. Senior Manager 4 commented:

> *"We evaluate the KRA [key results areas]. At the beginning of the year we arrange them individually. We have criteria for each level of scientists and engineers. Let's say a research scientist should be involved in at least one commercial project, one bluesky project, at least one paper publication, and another extra activity. The next level of scientist may have to carry out two client projects, one or two bluesky projects, two paper publications, conferences, and extra activities. We set targets for different levels. That's standardised now."* (Senior Manager 4)

From an employment perspective, all the employees are recruited on two-year contracts, subject to renewal, based on formal performance evaluations. The interview participants had mixed views regarding the positive and negative outcomes of such practices. However, members of the senior management team emphasised that the contractual nature of the job motivates scientists to perform effectively and achieve their targets. At the operational level, all important decisions are made by a management committee comprising divisional heads and senior scientists. From the CPE perspective, empowering and strengthening micro-level management would facilitate recontextualising institutional structures to support innovation driven by a bottom-up approach (Jessop, 2005; 2010). In addition to the management committee, separate scientific committees are appointed to conduct individual project evaluations. Some interviewees expressed the view that PPP3 has maintained well-organised procedures, using an internal code of conduct to guide and monitor the performance of scientists and administrative employees. Overall, Table 3 summarises the key findings of the three PPPs.

Table 3. The role of culturally and politically embedded management controls

	PPP1	PPP2	PPP3
Transition towards a knowledge-based innovation	From transformer manufacturing to knowledge-based complete power solutions (contractual management)	From traditional fixed telephone connections to digital telecommunication	From publication-based research to commercialised innovation
The nature of adopting the state's KBE discourse	Driven by a combination of both top-down and bottom-up approaches. However, dominated by top-down political influence	Driven by a combination of both top-down and bottom-up approaches. However, dominated by bottom-up professional and managerial leadership.	Driven by a combination of both top-down and bottom-up approaches. However, dominated by bottom-up professional and managerial leadership.
The role of culturally and politically embedded management controls			
Leadership controls driven by political motives vs professional demands	• Leadership appointed by the political authority • Political patronage and seniority-based promotions	• Private sector leadership • Top management commitment and professional appointments	• Private sector leadership • Top management commitment and professional appointments
Labour controls driven by party-based trade unions, corporate ownership, and performance	• Powerful political party-based trade unions • Employment security	• Employee share ownership • Employee empowerment • Performance-driven employee culture • Trade unions are not allowed	• Employee empowerment • Performance-driven employee culture • Employment based on short-term contracts • No trade unions
Innovation controls driven by localised, industry and public value approaches	• Public value-driven innovation	• Localised innovation culture	• Innovation driven by industry collaborations
Market-based controls: local versus overseas economies	• Focuses on the local economy • Responding to intense private sector competition	• Focuses on the overseas market • Overseas knowledge sharing	• Focuses on the local economy
Operational controls are influenced by political patronage, community	• Rule-bound operations influenced by political interventions • Social and community welfare	• Continuous improvements • Adaptation to change • Setting industry trends	• Collaborative risk-taking • Individual and group entrepreneurial culture

culture, and formal management controls	• Driven by the status quo		• Adaptation to change • Effective industry collaborations
Efficiency focused neo-liberal control	• Efficiency through rule-based compliance • Prioritising political agenda	• Efficiency through automation and systematic controls • Liberal pricing strategies • Shareholder value focus	• Efficiency through systematic controls and process improvements • Productivity enhancement • Social value creation
Bureaucratic controls	• Flexible performance evaluation and monitoring • Defined key performance indicators • Flexible internal controls	• Strict performance evaluation, monitoring and rewarding • Defined key performance indicators • Strong internal controls (e.g., budgeting, investment appraisal, variance analysis)	• Strict performance evaluation and monitoring • Defined key performance indicators • Strong internal controls (e.g., budgeting, investment appraisal, variance analysis)

Source: Authors' own compilation.

As summarised in Table 3, innovation transitions towards a KBE in PPPs are not merely driven by traditional, technically designed tools, processes and practices, but are largely shaped and reshaped by culturally and politically embedded management controls. From the CPE perspective, these controls reflect semiotic and cultural factors (e.g., economic priorities, NPM reform discourses, leadership narratives), political and institutional factors (e.g., institutional and policy reforms, power relations, governance, operational controls) and economic and structural factors (e.g., efficiency and growth, ownership structure, labour relations). For instance, depending on contextual factors such as the incentive package and institutional design (e.g., decision-making autonomy), the impact of private-sector leadership on innovation transitions would be positive or negative. CPE factors, such as risk sharing and performance assessments linked to innovation outputs, would encourage private-sector leadership to promote innovation; on the other hand, factors such as performance assessments linked to short-term outcomes, excessive political influence, and inflexible contracts would hinder perceptions of innovation. Similarly, efficiency-focused neo-liberal controls will promote innovation transitions by disciplining cost controls, ensuring performance transparency, and imposing competitive pressure. In contrast, these controls will have a negative impact if they undermine context-specific social and environmental conditions and drive innovation solely through cost savings. Thus, culturally and politically embedded management controls influence innovation transitions in PPPs, both enabling and obstructing the shift towards the state's professed KBE discourse in the developing country context.

5. Discussion and conclusion

Drawing on the CPE perspective of MCS (Wickramasinghe et al., 2004; Wickramasinghe & Hopper, 2005), we have explored the role of culturally and politically embedded management controls in innovation transitions within PPPs in developing-economy settings. In the Sri Lankan context, we have delineated how the state's KBE discourse has been materialised through PPPs and the role of culturally and politically embedded management controls in enabling or obstructing the state's economic and political strategies. As summarised in Table 2, CPE factors (e.g., semiotic and cultural, political and institutional, economic and structural) redefine the complex interplay among the state's KBE discourse, PPPs' innovation transitions, management controls, and development priorities as a co-evolving, politically negotiated process rather than a straightforward policy implementation. Our findings suggest that the success or failure of implementing a national-level KBE strategic project through PPPs depends not only on political policy priorities but also on the interaction of political power, professional leadership, and MCS in practice.

As summarised in Tables 2 and 3, PPP1 has adopted the state's KBE discourse through a top-down approach. In contrast, both PPP2 and PPP3 have adopted a more consistent approach by combining top-down and bottom-up mechanisms (Jessop, 2005). These differing approaches have been supported by evolving culturally and politically embedded management controls shaped by CPE factors (see Tables 2 and 3). For example, management controls (e.g., labour, leadership, innovation, operational, neoliberal and bureaucratic) at PPP1 reflect flexible, reactive, and rule-based bureaucratic characteristics. These culturally and politically embedded discursive management controls within PPP1 have further solidified the state's KBE and political discourses, which (re)define subjects and identities and materialise politics-driven public-sector power dynamics (e.g., Jessop, 2005). In turn, management controls at PPP1 have become more susceptible to political influence, are frequently backed by influential, party-aligned trade unions, and often struggle

to keep pace with private-sector innovation. For instance, when Japanese management took over PPP1, influential trade unions (around 38 politically driven trade unions), supported by politicians, succeeded in ousting the Japanese managers and re-establishing political authority over company operations. These observations are consistent with those of Wickramasinghe et al. (2004), who observed the reappearance of bureaucratic controls.

In contrast to PPP1, PPP2 and PPP3 do not permit trade unions, as part of their efforts to limit political interventions. This deliberate avoidance of politically motivated trade unions has facilitated strong market-based management controls and enabled the development of a knowledge-based, innovation-oriented approach. More specifically, management controls (e.g., innovation, market, leadership, neoliberal, operational controls) at PPP2 and PPP3 tend to be proactive, strict, and market-oriented, shaped by professional and managerial values. Therefore, the appointment of top management professionals from the private sector, the absence of trade unions, and resistance to political interference have all contributed to both PPP2 and PPP3, thereby cultivating market-based controls that are well aligned with knowledge-based innovations. The evolution of controls at both PPP2 and PPP3 demonstrates how different forces are continually balanced and counterbalanced to facilitate the state's KBE strategic discourse, in line with corporate priorities and the interests of private-sector shareholders (see Jessop, 2005). More specifically, PPP2 and PPP3 illustrate how leadership-level counterforces challenge established routines and politicised institutions, promote new identities and social dynamics, and pursue innovative projects and strategies (see Jessop, 2005, 2010). In contrast to conventional public sector entities in developing economies, both PPP2 and PPP3 have been able to foster a professional environment that drives innovation in a KBE. In particular, independent top management leadership, supported by industry expertise and professionalism, appears to have a strong influence on the development of controls that align with innovation priorities. These culturally and politically embedded management controls are sensitive to market demands and commercial priorities, thereby supporting private-sector investors in ensuring their returns on investment in PPPs. From the CPE perspective, the culturally and politically embedded management controls at PPPs emphasise the complex relationship between meanings and practices, illustrating how discursive political and cultural practices influence and modify controls (Jessop, 2005). As demonstrated in these three PPPs, Jessop (2010) contends that institutions are not neutral, as they often favour certain issues, such as political rationalities, professional leadership, commercial strategies, and/or public interests over others. Consequently, we show how the formal, technocratic and Western-led management controls are morally and culturally rooted and shaped by the local context (Sayer, 2001; Hopper & Bui, 2016; Van Helden & Uddin, 2016).

Given the distinctive contextual settings in developing economies, implementing market-based NPM reforms through Western-led, formal and technocratic management controls has often proved challenging (e.g., Hopper & Bui, 2016; van Helden & Uddin, 2016; Alawattage *et al.,* 2017; Alawattage & Wickramasinghe, 2022). For example, Hopper *et al.* (2009, p. 470) argue that, in this context, management accounting systems directly influence governance, planning, employment, and quality of life. However, implementing them can be challenging: local politics and cultural factors might transform them into tools of coercion or sources of external legitimacy, rather than promoting rational control and democratic accountability. Similar to Hopper *et al.'s* (2009) conceptualisation of '*politicised state and market capitalism'*, as shown in the three comparative cases above, the state has, through PPPs, attempted to bypass these usual challenges (Jessop, 2005). By contrast, this strategy has yielded more promising outcomes than Hopper *et al.* (2009) expected. Interestingly, the

varying approaches of different PPPs highlight emerging trends in management controls shaped by cultural and political contexts, thereby supporting NPM reforms in developing economies. Our findings suggest that delivering macro-level public policies (such as KBE innovation in our case) through PPPs is not a linear process in such economies. Although Wickramasinghe *et al.* (2004) claim that modes of production, management accounting, and controls are closely linked, and tend to develop in unexpected and sometimes surprising ways, our case evidence shows that a strategic- and managerial-level understanding of these cultural and political issues can also lead to potentially more positive outcomes. The findings also reinforce recent literature advocating research into the changing management accounting ecosystem, suggesting that management accounting studies should expand to analyse the network of information sources within the context in which the organisation operates (Akroyd *et al.,* 2023).

Our study also highlights several policy implications. First, the findings deepen our understanding of the operational challenges PPPs encounter when interacting with CPE. Although it is generally assumed that the state's role in fostering a KBE is influenced by long-term national strategies, policymakers should be aware that narrowly focused political motives might significantly undermine national interests. This indicates that the state's capacity to support a KBE is constrained not only by bureaucratic, regulatory, and institutional hurdles but also by broader issues of navigating the political environment, particularly as social cohesion issues emerge during innovation (Jessop, 2005). Second, as shown in PPP2 and PPP3, empowering independent and professional leaders can help resist political patronage. Consequently, culturally and politically embedded management controls serve as tools that support PPPs in enabling the state's KBE discourse. Finally, our research deepens insight into how operational responses are shaped by culturally and politically embedded management controls, helping to manage tensions arising from national-level strategic projects, such as innovation transitions towards a KBE through PPPs within developing economies. Such a broader understanding may help policymakers redesign internal controls and assess PPPs effectively in developing economies.

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Appendix 1. Demographic profile of interview participants

Position	Representation	Time Duration
PPP1		
Senior Manager 1	Finance	90 minutes
Senior Manager 2	Operations	57 minutes
Senior Manager 3	Overseas business	65 minutes
Senior Manager 4	Engineering	44 minutes
Senior Manager 5	Engineering	35 minutes
Manager 1	Operations	33 minutes
PPP2		
Senior Manager 1	Operations	55 minutes
Senior Manager 2	Operations	72 minutes
Senior Manager 3	Engineering	45 minutes
Senior Manager 4	Government business	44 minutes
Senior Manager 5	Engineering/operations	55 minutes
Senior Manager 6	Operations	35 minutes
PPP3		
Senior Manager 1	Operations	47 minutes
Senior Manager 2	Operations	37 minutes
Senior Manager 3	Operations	58 minutes
Senior Manager 4	Operations	43 minutes
Senior Scientist 1	Research	51 minutes
Senior Scientist 2	Research	70 minutes
Senior Scientist 3	Research	42 minutes
Senior Scientist 4	Operations /Research	32 minutes
Senior Scientist 5	Operations /Research	33 minutes
Executive 1	Operations /Research	59 minutes
Executive 1 (Follow-up interview)	Operations /Research	42 minutes
Executive 2	Research	24 minutes

Executive 3	Operations	28 minutes
Senior Administrative Officer	Government representative	32 minutes

Source: Authors' own compilation.

Appendix 2: Interview guide – broader areas of the inquiry

Could you please briefly explain the main functions of [the case organisation]?

Can you explain the organisational structure of [the case organisation]?

As a PPP, how do you position your organisation in the industry?

What innovation have you introduced/are you working on?

Could you please explain what/who drives innovation at [the case organisation]?

How do you manage competing forces or demands that drive innovation?

How do you balance the multiple forces that drive innovation?

What are the limitations that demotivate innovation?

What strategies have you adopted to overcome those barriers?

Culturally and Politically Embedded Management Controls in Innovation Transitions of PPPs: Comparative Cases from a Developing Economy
QRAM-10-2024-0207.R3

Authors Response to Reviewer 1's comments

Comments:
Dear Authors,
Thank you for submitting a further revised version this Manuscript which focuses on how PPPs in a developing economy (Sri Lanka) transition towards a knowledge-based economy. I appreciate your revisions and have a few final remarks which relate to how coherence between stated aim/purpose and results and convincingness of theory/analysis could be further enhanced.

Response:
Dear Reviewer,
Thank you so much for your constructive comments and for your very careful consideration of our manuscript. We sincerely appreciate the invaluable time and great effort you have invested in our paper. Your careful and thoughtful observations have been instrumental in developing the paper. Below, we outline how we have addressed the comments you suggested.

Comment:
Section 2, figure 1 summarizing the framework, mentions the three CPE factors. This is an addition after asking you to explain what those factors meant. However, those factors are only listed in the figure and not explained in the text. I would recommend you provide a short definition/explanation to help the readers and prepare them for the upcoming discussion in section 5, but also for some sentences in the findings (e.g. reflecting on semiotic moments …. on page 14, lines 19, 20).

Still concerning the figure 1, box "Innovation transitions at PPPs": the preposition "at" is not aligned with other text in which "of" or "in" is used. Intentional? I know this may sound picky, but the used prepositions have different meanings.

Response:
Thank you very much for highlighting this important observation. We agree that, in the findings, although these factors (e.g., Semiotic and cultural factors, Political and institutional factors, Economic and structural factors) are discussed with examples, these terms were not explicitly highlighted. We also acknowledge that there is no fixed number of CPE factors, and their nature largely depends on the socio-cultural context in which the organisation operates. As you have suggested, we have now added the following clarification to illustrate the CPE depicted in Figure 1.

Please see Section 2.1 (paragraph 3)

> *Although no fixed number of CPE factors exists, the literature (see Jessop, 2005, 2010) indicates that elements such as semiotic and cultural, political and institutional, and economic and structural tend to influence and reshape KBE innovation transitions. Semiotic and cultural factors (e.g., discourses, narratives, framing, economic imaginaries) help develop a national strategic vision that promotes economic development through KBE innovation in PPPs. Political and institutional factors (e.g.,*

political hegemony, policy reforms, governance and regulatory restructuring) shape the state's innovation aims by coordinating and implementing initiatives across institutions such as PPPs. Meanwhile, economic and structural factors (e.g., institutions, state's bureaucratic structures, economic models and power relations) can either facilitate or hinder technological and knowledge progress toward national objectives.

As you've suggested, we've now explicitly highlighted these CPE factors in Section 4.1 to better explain how they shape and reshape KBE during innovation transitions in PPPs. Please see the revised Section 4.1. Further, we've also highlighted these factors in Section 3.2, which outlines the data and analytical approach to guide the analytical strategy. Please kindly refer to the revised sections.

Figure 1: Thank you so much for highlighting the inconsistent use of prepositions. In line with your suggestion, we have now changed the Figure to "Innovation transition in PPPs".

Comment:
Top of page 27: it seems like something is missing in the beginning of the sentence.

Response:
Thank you very much for highlighting this important observation. We've revised the sentence below that links to the previous quote. "*The company's flexibility in negotiations has created proactive avenues to resolve potential conflicts.*"

Comment:
Table 2 lists the role of seven culturally and politically embedded management controls in the 3 PPPs. I would be nice to read a little text under the table because those controls are never explicitly discussed in the text preceding the table. You could explain in what way the cells explain the influence of those controls on the innovation transition of the 3 PPPs (which would be the real answer to your RQ). How is, for example, private sector leadership indicating a positive/negative effect on innovation transition? In other words, could you tie Table 2 to the interesting findings you presented earlier?

Response:
Thank you very much for highlighting this important observation. To support Table 3 (after reordering the tables), we have added the following discussion with examples. Please kindly see the last paragraph in section 4.

As summarised in Table 3, innovation transitions towards a KBE in PPPs are not merely driven by traditional, technically designed tools, processes and practices, but are largely shaped and reshaped by culturally and politically embedded management controls. From the CPE perspective, these controls reflect semiotic and cultural factors (e.g., economic priorities, NPM reform discourses, leadership narratives), political and institutional factors (e.g., institutional and policy reforms, power relations, governance, operational controls) and economic and structural factors (e.g., efficiency and growth, ownership structure, labour relations). For instance, depending on contextual factors such as the incentive package and institutional design (e.g., decision-making autonomy), the impact of private-sector leadership on innovation transitions would be positive or negative. CPE factors, such as risk sharing and performance assessments linked to innovation outputs, would encourage

private-sector leadership to promote innovation; on the other hand, factors such as performance assessments linked to short-term outcomes, excessive political influence, and inflexible contracts would hinder perceptions of innovation. Similarly, efficiency-focused neo-liberal controls will promote innovation transitions by disciplining cost controls, ensuring performance transparency, and imposing competitive pressure. In contrast, these controls will have a negative impact if they undermine context-specific social and environmental conditions and drive innovation solely through cost savings. Thus, culturally and politically embedded management controls influence innovation transitions in PPPs, both enabling and obstructing the shift towards the state's professed KBE discourse in the developing country context.

Comment:
Table 3 in the Discussion section is new. Once again, those factors have not been explained in the text and the remaining parts of the Discussion have not been revised. My point is that the paper has not been explicitly written around those factors.

Response:
Thank you very much for highlighting these valuable observations. In revising the findings section, we have now explicitly articulated these CPE factors throughout the paper. In particular, we have changed section *4.1 Reshaping PPPs' innovation through the state's 'knowledge-based economy' political and economic strategies,* to frame the findings. Similarly, we have revised the discussion section by incorporating these factors and aligning them with the paper's revised positioning. Please kindly refer to the revised sections.

Comment:
Anyway, I wonder about the headings of column 2 and 3 of Table 3. I am not sure they fully reflect the content of the cells. I believe that the heading of column 2 should be "Influence on PPP's innovation transition towards a KBE", while the heading of column 3 should be "Influence on management controls".

Response:
We sincerely appreciate your highlighting these important observations. As you have suggested, we have changed the headings to better reflect the content of Table 2 (after reordering the tables). Thank you so much for these suggestions. Please kindly refer to the revised Table 2.

Comment
Plus, I am not sure the two columns reflect the aim/purpose "to explore how governments in developing economies attempt to materialise the 'knowledge-based economy' (KBE) political discourse by shifting innovation transitions in PPPs, and how culturally and politically embedded management controls influence the innovation transitions of PPPs within such economies." (Introduction, middle of page 2) or "We explore how culturally and politically embedded management controls influence innovation transitions of Public-Private Partnerships (PPPs) in a developing economy." (Purpose in the Abstract). In sum, the table does not express how management controls influence the innovation transition. I believe that Table 2 provides more answers.

Response:

Thank you for highlighting these important observations. As you have correctly observed, the purpose of Table 3 (after reordering the tables) was to reflect the role of culturally and politically embedded management controls in innovation transition, and Table 2 (after reordering the tables) depicts how the CPE factors shape PPPs' innovation transition towards a KBE. As per your suggestion, we believe that reordering the tables helps clearly identify the purpose of the summary table linking to the research objectives.

Comment

Maybe, Table 3 should be placed before Table 2. That is, the current Table 3 explains how the identified CPE factors reflect how the state's KBE discourse shapes/influences/shifts PPPs innovation transition (column 2) and the types of management controls that prevail (column 3) – which would correspond to the first part of the aim stated on page 2. Current Table 2, instead, shows how the management controls influence the innovation transition – which would correspond to the second part of the aim stated on page 2 and the purpose mentioned in the Abstract. Also, this is the Table that, in my opinion, best answers your research question (see page 3).

Response

Thank you so much for highlighting this very important observation. We agree with your suggestion. In revising the paper, we have now placed Table 3 within the first half of the findings section. Please kindly refer to the revised tables.

Again, please accept our heartfelt thanks for your great contribution. Thank you so much!!!