HUMAN RESOURCE MANAGEMENT FOR PUBLIC-PRIVATE PARTNERSHIPS: LESSONS FROM PROJECT DRIVEN ORGANIZATION FOR MALAYSIAN PUBLIC SERVICE

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ABSTRACT

Public–Private Partnership (PPP) projects require specialised project management competencies; however, gaps remain between these requirements and the generalized support provided by centralized Human Resource Management (HRM) systems in Malaysia's public service sector. This systematic literature review, conducted in accordance with the PRISMA 2020 protocol, analyses empirical studies published between 2000 and 2024 and indexed in Scopus and Web of Science. Using ATLAS.ti 25 for qualitative synthesis, 25 articles were analysed, resulting in the identification of nine key themes that highlight the need for competency-specific HRM practices aligned with project management demands. The findings emphasize the importance of tailored HRM policies that support competency development for complex projects such as PPPs. While the review provides comprehensive insights into HRM and public sector project management, limitations arise from potential ambiguities in the level of analysis between organizational and individual competencies. Future research should adopt more targeted empirical approaches to strengthen HRM frameworks for PPP implementation in Malaysia.

Keywords: *Human resource management; public–private partnerships; project management; competency development; Malaysia*

1.0   INTRODUCTION

Human Resource Management (HRM) is acknowledged as a comprehensive and integrated method for managing an organization's most vital asset, its workforce. Effective HRM is essential for attracting, retaining, and developing talent, while ensuring alignment between employees and the organization's goals (Agustian et al., 2023). It comprises processes including recruitment, training, and performance management, designed to optimize talent for organizational success (Almohtaseb et al., 2020). By adopting the right mix of HRM policies, organizations can inspire employees to align with and contribute to organizational goals, fostering overall development. In today's globalization, the notion of 'projectification' has become prominent in the public sector, indicating a transition to project-based operations within organizations where a substantial proportion of duties is carried out via projects
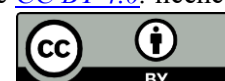
(Hodgson et al., 2019). In Malaysia, projectification is prominently reflected in major government initiatives, particularly within the Eleventh and Twelfth Malaysia Plans (RMK11 and RMK12), where numerous national priority projects are designated for implementation through structured projects and programs. These national initiatives require cross-jurisdictional collaboration and active Public-Private Parternships (PPPs) engagement, placing HRM at the core of workforce development in project-driven public organizations.

Examining HRM requirements for managing project-driven and temporary organisational arrangements is underpinned by an integrated theoretical framework drawing on Strategic Human Resource Management (SHRM), institutional theory, and contingency theory. SHRM provides the core lens for analysing how HRM systems must be strategically aligned with organisational objectives to support performance in complex governance settings (Boxall & Purcell, 2000; 2016). Project-driven organisations, as non-routine and time-bound arrangements, require HRM configurations distinct from permanent public organisations, particularly in relation to role specificity, continuity of expertise, and adaptive performance management (Huemann, 2015). Institutional theory situates these arrangements within the legal, regulatory, and normative structures of the public sector, highlighting how legitimacy concerns and administrative traditions shape HRM practices (DiMaggio & Powell, 1983; North, 1990), while contingency theory emphasises that effective HRM design must be context- and project-specific rather than uniform (Shenhar, 2001).

However, the shift from stable, permanent roles to temporary, project-specific structures presents challenges for public sector HRM (Irfan et al., 2021), especially in adapting to the transient and specialized nature of project work. Although theoretical advancements have emerged in HRM for temporary contexts, empirical research on hybrid and project-based arrangements remains limited (Huemann, 2015; Samimi & Sydow, 2021). As hybrid structures, PPPs blur traditional boundaries between public and private sectors, complicating governance and competency management (Matinheikki et al., 2021). Yet, prevailing competency assessment models often overlook the unique institutional conditions of public administration, failing to consider how these contextual factors shape performance expectations (Blixt & Kirytopoulos, 2017, Irfan et al., 2021).

Taken together, the literature underscores the growing importance of HRM in project-based and hybrid governance contexts but reveals persistent gaps. While projectification and PPPs are increasingly embedded in public-sector operations, there is limited synthesis of the specific HRM requirements needed to manage PPPs as projects or temporary organizations. Existing studies remain fragmented across project-based HRM, PPP governance, and public-sector HRM, with insufficient integration between these streams. Moreover, evidence from centralized administrative systems such as Malaysia's public service remains underrepresented, particularly regarding the alignment between established HRM practices and the distinctive demands of PPP governance. As a result, it remains unclear whether prevailing public-sector HRM systems are institutionally equipped to support the temporary, hybrid, and competency-intensive nature of PPPs. This study addresses these gaps by synthesizing HRM characteristics associated with PPPs as project-based arrangements and comparing them with current HRM practices in Malaysia's public service sector.

2.0 METHODOLOGY

A systematic literature review (SLR) applies a structured, transparent, and replicable methodology to identify, evaluate, and synthesize relevant studies addressing the intended research question, thereby minimizing bias and enhancing reliability (Paul & Barari, 2022). Guided by the PRISMA 2020 framework (Page et al., 2021), this study systematically reviewed empirical literature on global HRM practices in project-driven organizations and compared the findings with HRM practices in the Malaysian public service to assess alignment and identify gaps. The analysis includes a review of government HRM policy documents including several relevant circulars, Public-Private Partnership Master Plan 2030 (PIKAS, 2030) and academic literature to examine the centralized HRM structure in Malaysian public service and its alignment or lack thereof with the HRM requirement in project-based contexts. A qualitative comparative analysis was undertaken to identify convergences, divergences, and gaps between international best practices and Malaysian public service HRM features. This analysis was systematically supported by Atlas.ti 25, which was used to organize, code, and compare qualitative data, thereby enhancing analytical rigour and transparency. The dual-level analysis approach offers a

global-to-local perspective on HRM adaptability for managing PPPs as a project within Malaysia's context.

2.1 Research Question

The formulation of a research question provides a foundational framework for the study. To develop the research question qualitatively, the PICo technique—representing Population (P), Phenomenon of Interest (I), and Context (Co)-is employed (Stern et al., 2014). For this study, the population being examined consists of practitioners or managers within the Malaysia's public service sector. The phenomenon of interest pertains to the specific HRM requirements for managing PPP as a project or temporary organization, while the context is centered at the organizational and individual level without being confined to any particular geographical location. Consequently, the research question for this study is:

1- What are the HRM requirements necessary for managing PPP as a project or temporary organization, and how do these HRM requirements compare with current HRM practices in Malaysia's public service sector?

Existing literature on project-based organizations, temporary organizations, and PPP governance, therefore, suggests that managing PPPs as a project entails distinctive HRM characteristics that differ from those embedded in permanent organizational structures. Through systematic literature review, these characteristics can be identified and used as an analytical benchmark against which current HRM practices in Malaysia's public service sector may be comparatively examined.

2.2 Eligibility Criteria

Eligibility includes the criteria for inclusion and exclusion that define the study's parameters. The inclusion period spans from 2000 to 2024 to provide a comprehensive analysis of the evolution of HRM practices in project-driven environments aimed at public sector organizations. Limiting the study to articles published after 2000 ensures a focus on current HRM practices in project-driven organizations, aligning with the latest trends and challenges in the global and Malaysia's public service sector. Emphasizing current studies and exploring the connections between recent findings enhances the quality of insights and informs future research directions (Kraus et al., 2020). Table 1 delineates the criteria for inclusion and exclusion in the study.

Table 1: Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Publication Year	2000 -2024	Prior 2000
Keyword	Human Resource Management, Project, Public Service Sector, PPP	Other policy than HRM, programs, Non-project-based/oriented organizations, and non-profit organizations
Language	English	Non-English
Research type	Empirical	The exclusion criteria for this study include review-based, conceptual, theoretical, methodological, and technical studies
Type of Document	Journal Article	Book chapter, series, monograph, thesis, conference proceeding

2.3 Information Sources and Search Strategy

This study employed Scopus and Web of Science as two leading academic databases, selected for their comprehensive, multidisciplinary coverage and access to high-quality peer-reviewed sources (Zhu & Liu, 2020). Utilizing both databases minimized selection bias associated with single-source reliance (Wanyama et al., 2022). The final literature retrieval was completed on 5 January 2025. A structured search strategy was developed using Boolean operators to combine keywords such as "human resource management," "project management," "project setting," "project-driven environment," "public sector,"

"government sector," and "public administration," targeting empirical studies on HRM in project-based environments at both individual and organizational levels. Notably, in the Web of Science, broader extraction was facilitated by omitting public sector-specific terms, allowing for wider thematic inclusion while maintaining contextual relevance to HRM in public service settings. These terms were designed to ensure relevance to both public administration and project-driven organizations. Furthermore, these terms are aligned with the unique context of HRM the public service sector. The input phrases utilized are as follows:

Table 2: The Search Strings

Database	Search String
Scopus	(TITLE-ABS-KEY (human AND resource AND management) OR TITLE-ABS-KEY (hrm) OR TITLE-ABS-KEY (personnel AND management) AND TITLE-ABS-KEY (project AND management) OR TITLE-ABS-KEY (project AND setting) OR TITLE-ABS-KEY (project-driven AND environment) AND TITLE-ABS-KEY (public AND sector) AND TITLE-ABS-KEY (government AND sector) AND TITLE-ABS-KEY (public AND administration)) AND PUBYEAR > 1999 AND PUBYEAR < 2025 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English"))
Web of Science	TS=("human resource management" OR "HRM" OR "personnel management") AND TS=("project management" OR "project-based organization*" OR "project setting*" OR "project-driven environment*") AND PY=(2000-2025) AND LA=(English) AND DT=(Article)

2.4   Selection, Screening, Retrieval and Data Collection Process

A total of 223 records were retrieved from Scopus (n = 25) and Web of Science (n = 198). After merging duplicates and removing two retracted articles, 220 records remained. Relevance screening excluded 195 articles based on the following criteria: (1) studies focused on project development without HRM application, (2) emphasis on technical or theoretical project aspects, (3) non-empirical, or (4) articles misclassified as research papers. The remaining 25 articles were manually screened by the authors through titles, abstracts, and keywords, with full texts accessed via publishers or research-sharing platforms. The PRISMA 2020 flow diagram (Page et al., 2021) in Figure 1 illustrates the review process. A matrix was used to categorize the final articles by research design, country of study, and industry context. Thematic analysis was then conducted to identify and synthesize patterns (Clarke & Braun, 2017; Abdullah et al., 2022) related to project-driven HRM characteristics, with coding consensus achieved among the authors.

3.0   RESULTS

The descriptive analysis provides a transparent overview of key trends (Hiebl, 2023). Publication activity peaked in 2022, reflecting growing scholarly interest. Geographically, studies span Africa (South Africa), Asia (India, Thailand, Singapore, Vietnam), North America (USA), Europe (Sweden, Scotland, Norway, Russia, Ukraine, UK, Netherlands, Austria), and the Middle East (Turkey, Kuwait, Tehran), with Europe emerging as a central research hub. Methodologically, 16 studies employed qualitative designs, seven were quantitative, and two adopted mixed methods. This methodological and sectoral heterogeneity enhances the depth and scope of the research field (Hiebl, 2023).

4.0   FINDINGS

The systematic review identifies 9 key characteristics of project-driven HRM that might impact and influence competency-related matters in project-setting organizations. Table 3 summarizes the findings, and further explanation is provided below.
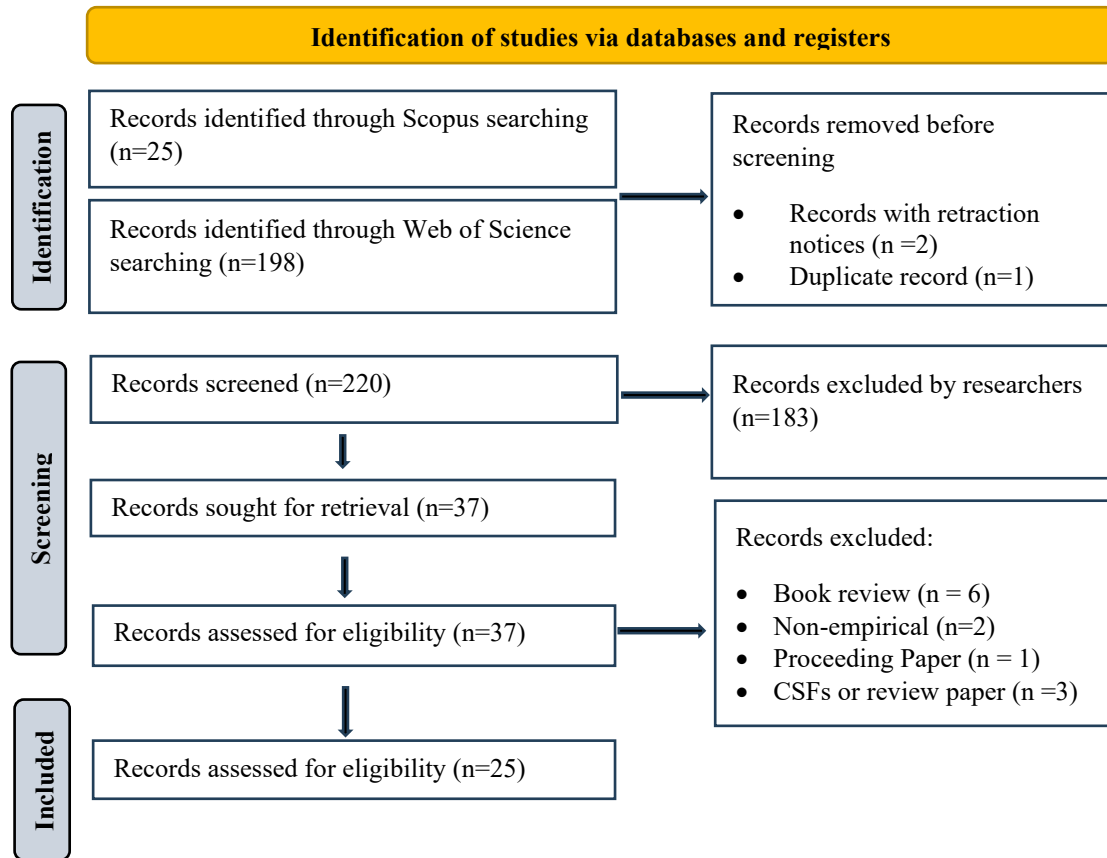
Identification of studies via databases and registers

Fig. 1: Flow diagram of the methodology processes, adapted from Page et al. (2021)

Table 3: Summary of HRM requirements in managing projects

Themes	Author(s) / Year
Addressing specific competencies	(Ambituuni et al., 2021); (Bredin & Söderlund, 2007); (Bredin & Söderlund, 2011); (Dainty et al., 2009); (Dotsenko et al., 2022); (El-Dash, 2007); (Huemann, 2010); (Keegan et al., 2011); (Ling et al., 2018); (Mathew et al., 2022); (Medina & Medina, 2014); (Medina & Medina, 2017); (Nesheim & Schou, 2024); (Nesheim, 2021); (Nguyen & Hadikusumo, 2017); (Popaitoon & Siengthai, 2014); (Raja et al., 2012); (Samimi, 2023); (Shahhosseini & Sebt, 2011); (Zavyalova et al., 2020)
Tailored recruitment, deployment and talent development	(Akbiyikli et al., 2022); (Ambituuni et al., 2021); (Bredin & Söderlund, 2011); (Clark & Colling, 2005); (Dainty et al., 2009); (Dotsenko et al., 2022); (El-Dash, 2007); (Huemann, 2010); (Keegan & Hartog, 2018); (Keegan et al., 2011); (Ling et al., 2018); (Mathew et al., 2022); (Medina & Medina, 2014); (Medina & Medina, 2017); (Nesheim & Schou, 2024); (Nesheim, 2021); (Nguyen & Hadikusumo, 2017); (Popaitoon & Siengthai, 2014); (Samimi, 2023); (Shahhosseini & Sebt, 2011)
Tailored HRM for flexibility, integration, and adaptability to PM	(Ambituuni et al., 2021); (Bredin & Söderlund, 2007); (Bredin & Söderlund, 2011); (Clark & Colling, 2005); (Dainty et al., 2009); (Desjardins et al., 2022); (El-Dash, 2007); (Huemann, 2010); (Keegan et al., 2011); (Keegan & Hartog, 2018); (Ling et al., 2018); (Mathew et al., 2022); (Medina & Medina, 2017); (Nesheim & Schou, 2024); (Nesheim, 2021); (Nguyen & Hadikusumo, 2017); (Popaitoon & Siengthai, 2014); (Raja et al., 2012); (Samimi, 2023) (Zavyalova et al., 2020)

Importance of specific training and capacity building	(Akbiyikli et al., 2022); (Ambituuni et al., 2021); (Bredin & Söderlund, 2007); (Bredin & Söderlund, 2011); (Clark & Colling, 2005); (Desjardins et al., 2022); (Dotsenko et al., 2022); (El-Dash, 2007); (Ghanbaripour et al., 2016); (Huemann, 2010); (Ling et al., 2018); (Nesheim & Schou, 2024); (Popaitoon & Siengthai, 2014); (Raja et al., 2012); (Samimi, 2023); (Shahhosseini & Sebt, 2011) (Zavyalova et al., 2020)
Addressing project-specific performance management	(Akbiyikli et al., 2022); (Bredin & Söderlund, 2007); (Bredin & Söderlund, 2011); (Dainty et al., 2009); (El-Dash, 2007); (Ghanbaripour et al., 2016); (Keegan et al., 2011); (Medina & Medina, 2014); (Mathew et al., 2022); (Nesheim & Schou, 2024); (Nesheim, 2021); (Nguyen & Hadikusumo, 2017); (Raja et al., 2012) (Zavyalova et al., 2020)
Promotes stakeholders communication and engagement	(Ambituuni et al., 2021); (Bredin & Söderlund, 2007); (Bredin & Söderlund, 2011); (El-Dash, 2007); (Ghanbaripour et al., 2016); (Keegan et al., 2011); (Nesheim, 2021); (Nesheim & Schou, 2024)
Addressing organizational support and resources	(Desjardins et al., 2022); (Huemann, 2010); (Keegan et al., 2011); (Nesheim & Schou, 2024); (Popaitoon & Siengthai, 2014); (Raja et al., 2012)
Enhance team dynamics and collaboration	(Ambituuni et al., 2021); (Bredin & Söderlund, 2011); (Dotsenko et al., 2022); (Keegan & Hartog, 2018); (Zavyalova et al., 2020)
Project-specific leadership	(Ambituuni et al., 2021); (Bredin & Söderlund, 2007); (Huemann, 2010); (Zavyalova et al., 2020)

4.1   Addressing Specific Competencies

Addressing project-specific competencies appears to be among the most significant attributes of an important and critical HRM function in project-driven environments, as emphasized across numerous studies (Ambituuni et al., 2021; Bredin & Söderlund, 2011). Competency requirements can vary significantly based on a project's nature, objectives, and context, necessitating tailored skills for successful execution (Bredin & Söderlund, 2011). Inadequate competencies can impede performance, resulting in delays, cost overruns, and diminished quality (Nesheim & Schou, 2024).

4.2   Tailored Recruitment, Deployment and Talent Development

The review indicates that an effective project delivery, particularly in PPPs, requires recruitment, deployment, and talent development strategies aligned with project-specific competencies (Samimi, 2023; Dotsenko et al., 2022). Competency-based approaches, such as ranking systems, can further enhance and facilitate more effective personnel recruitment strategies by integrating HRM into PM processes (Shahhosseini & Sebt, 2011) that focus on identifying candidates who possess necessary competencies in PM. Conversely, misaligned recruitment may lead to delays, cost overruns, and project conflict (Shahhosseini & Sebt, 2011).

4.3   Tailored HRM Supporting the Flexibility, Integration and Adaptability to PM

The studies indicate that customized HRM strategies are crucial for aligning human resource policies with the unique demands of project management, ensuring that employees possess the necessary competencies to navigate project-specific challenges effectively (Desjardins et al., 2022). By fostering

skill development tailored to both operational and project objectives, such strategies enhance workforce adaptability, mitigate performance gaps, and reduce tensions arising from dual responsibilities (Desjardins et al., 2022). Without tailored HRM interventions, organizations risk skill deficiencies, decreased project effectiveness (Desjardins et al., 2022), employee disengagement, and limited agility in responding to evolving project demands, ultimately undermining innovation and increasing the likelihood of project failure.

4.4   Importance of Specific Training and Capacity Building

Studies emphasize that training must cultivate core competencies, improvisation, decision-making, teamwork, and adaptability aligned with the complexities of project-based work (Samimi, 2023; Desjardins et al., 2022). Deficiencies in these areas undermine strategic agility, heighten role conflicts and team tensions (Desjardins et al., 2022), and elevate risks of project delays, cost overruns, and reputational harm (Ambituuni et al., 2021).

4.5   Addressing Project-Specific Performance Management

Several articles point out the tension between project outputs and recurrent operational activities. Performance management systems should be designed to balance these outputs, ensuring that employees are recognized and rewarded for their contributions to both project success and ongoing operational efficiency (Mathew et al., 2022). Without tailored performance management, projects may suffer from inefficiencies, inability to identify and address issues, inconsistent quality of deliverables (Mathew et al., 2022; Nesheim, 2021), and limited competence development (Mathew et al., 2022).

4.6   Promotes Stakeholder Communication and Engagement

Effective HRM in project settings requires collaborative engagement among stakeholders in resource planning and project prioritization. The article notes that misunderstandings can arise if communication is not handled properly, which can lead to larger issues within the organization, such as inefficient resource allocation (Nesheim & Schou, 2024), decreased team cohesion, limited knowledge sharing, hindered employee development (Ambituuni et al., 2021), and project failure (Ghanbaripour et al., 2016).

4.7   Addressing Organizational Support and Resources

Effective organizational support in project settings relies on stakeholder engagement, especially from frontline managers to identify HRM deficiencies and ensure optimal resource deployment (Nesheim & Schou, 2024). Collaboration between resource and project managers is vital for adaptability and conflict resolution, while inadequate support risks misallocation, stunted development, and coordination failures (Desjardins et al., 2022; Nesheim & Schou, 2024).

4.8   Enhance Team Dynamics and Collaboration

Few studies highlight the need for adaptive teams with functional redundancy and expert collaboration to enhance strategy development, resource management (Dotsenko et al., 2022), and quicker responses (Ambituuni et al., 2021). Poor collaboration can cause delays, errors, and job dissatisfaction, increasing emotional exhaustion (Dotsenko et al., 2022).

4.9   Project-Specific Leadership

Four studies highlight that effective leadership in project-based organizations requires balancing control with autonomy and stability with change to foster strategic agility (Ambituuni et al., 2021; Zavyalova et al., 2020). Failure to do so may demotivate teams and misalign HRM with agile practices (Zavyalova et al., 2020).

5.0   COMPARATIVE ANALYSIS AND DISCUSSION

The SLR findings imply that HRM requirements in temporary, project-based organizations differ markedly from those in permanent, traditionally managed institutions. Project environments demand greater HRM autonomy and the strategic involvement of HR personnel at senior decision-making levels to ensure responsiveness and adaptability (Onyoins, 2020). However, the literature seldom explores how public sector HRM frameworks influence PM, particularly in complex and hybrid project arrangements like PPPs. As PPPs emerge as a hybrid project model fostering long-term collaboration in public service delivery (Abatecola et al., 2020), governments increasingly encounter challenges in initiating and managing these projects (Zhang et al., 2023). Often, public entities must engage with more specialized private partners, creating knowledge asymmetries and operational imbalances (Nzau & Trillo, 2019; Sanda et al., 2022). Therefore, the distinct public-private sector approaches to recruitment, procedural fairness, and employment practices underscore the need for context-specific HRM strategies, especially in areas such as competency development, training, and motivation of public managers (Irfan et al., 2021). This reinforces the imperative to strengthen public sector capabilities to engage effectively and equitably with private actors (Irfan et al., 2021; Zada et al., 2023).

A persistent lack of project-specific competencies in the public sector has been linked to delays, disputes, renegotiations, and even project cancellations in PPPs (Amoah, 2020; Martin et al., 2017). Despite the strategic importance of PPPs, skills deficits among public managers remain a critical concern (Irfan, 2021; Umar et al., 2023; Zada et al., 2023), yet research on the competency profiles of government project managers and their influence on project outcomes remains limited (Ahmed et al., 2020; Irfan, 2021; Iriarte & Bayona, 2021). In Malaysia, the centralized HRM structure may constrain the agility required for PPPs, which demand tailored, project-specific competencies (Blom et al., 2018; Debella, 2019; Khaderi et al., 2019; Nzau & Trillo, 2019; PIKAS, 2030; Sanda et al., 2022; Umar et al., 2023). The prevailing generalist recruitment and deployment practices often fail to align with the specialized needs of PPPs, particularly in areas such as PM, contract negotiation, and multi-stakeholder coordination (Casady et al., 2020). This competency misalignment may undermine managerial preparedness for complex PPPs. While surface examination of current HRM practices in Malaysia public service sector appears inconsistent with current literature recommendations, a deeper inquiry is required to understand whether the non-differentiation of competency requirements shaped by the unique nature and logic of public sector HRM is contextually justified (Moradi et al., 2020).

The HRM environment framework, illustrated in Figure 3, has been developed to guide the proposed investigation into the role of public service sector HRM in managing PPPs within Malaysia's public service sector. HRM in the Malaysian public service sector can be described as a traditional or classical HRM structure that exhibits centralization of HRM, with a central authority governing the policy and the application of HRM practices to all public service sector employees. These configurations might be shaped by the organizational culture and historical development (Malik et al., 2022), which parallels the long-term establishment of the HRM framework in the government sector.

The standardized recruitment process, guided by the Human Resource Service Circular on Service Schemes and Positions (HRSC, 2022a), mandates general qualifications (typically a degree) without specialization. Similarly, the placement policy (HRSC, 2022b) provides rotation guidelines for sensitive posts (3–5 years) and non-sensitive posts (3–8 years) that include roles involving huge amounts of financial transactions. Given the financial scope of PPPs, roles within such projects may be deemed sensitive. For capacity development, the HRM Circular on Human Resource Development Policy (HRMC, 2022) emphasizes continuous learning, placing responsibility for professional growth on individual officers. However, this generic, non-project-specific approach may limit the readiness of public managers to effectively lead complex PPP initiatives.

In Malaysian public service, the Human Resource Development Panel (HRDP) led by department heads who, in this context, act as line managers in executing and enforcing employment policies and identify areas for competency development (Fu et al., 2018; Huemann et al., 2019). HRDP is mandated to develop assessment methodologies grounded in the Public Service Leadership Competency Framework, appoint evaluation panels, and provide managerial training aligned with the established methodology (HRMC, 2022). However, these responsibilities are implemented comprehensively, considering broader institutional needs and the training requirements of officers across ministries and departments. Since the number of managers directly involved in project

management, particularly in PPP, is relatively small, the extent to which their specific training and development needs are systematically monitored remains uncertain. This gap highlights the necessity for further research to ascertain the effectiveness of current practices and their impact on managers overseeing PPP projects. These line managers operate within a centralized HRM structure, which may be misaligned with the dynamic and temporary nature of PM, particularly in PPPs. Furthermore, the dynamic environment of PM characterized by continually evolving role configurations, often causing burnout, role conflict, and reduced job satisfaction due to unclear responsibilities and multiple roles (Huemann et al., 2007; Rau & Hyland, 2002; Zika-Viktorsson et al., 2006; Nesheim, 2019). In this context, misalignment of tasks and competencies of public service managers may lead to greater challenges and risks when the projects often involve significant amounts of capital and multiple roles, potentially resulting in poor decision-making that could harm the personnel and the government's reputation (Zada et al., 2023).
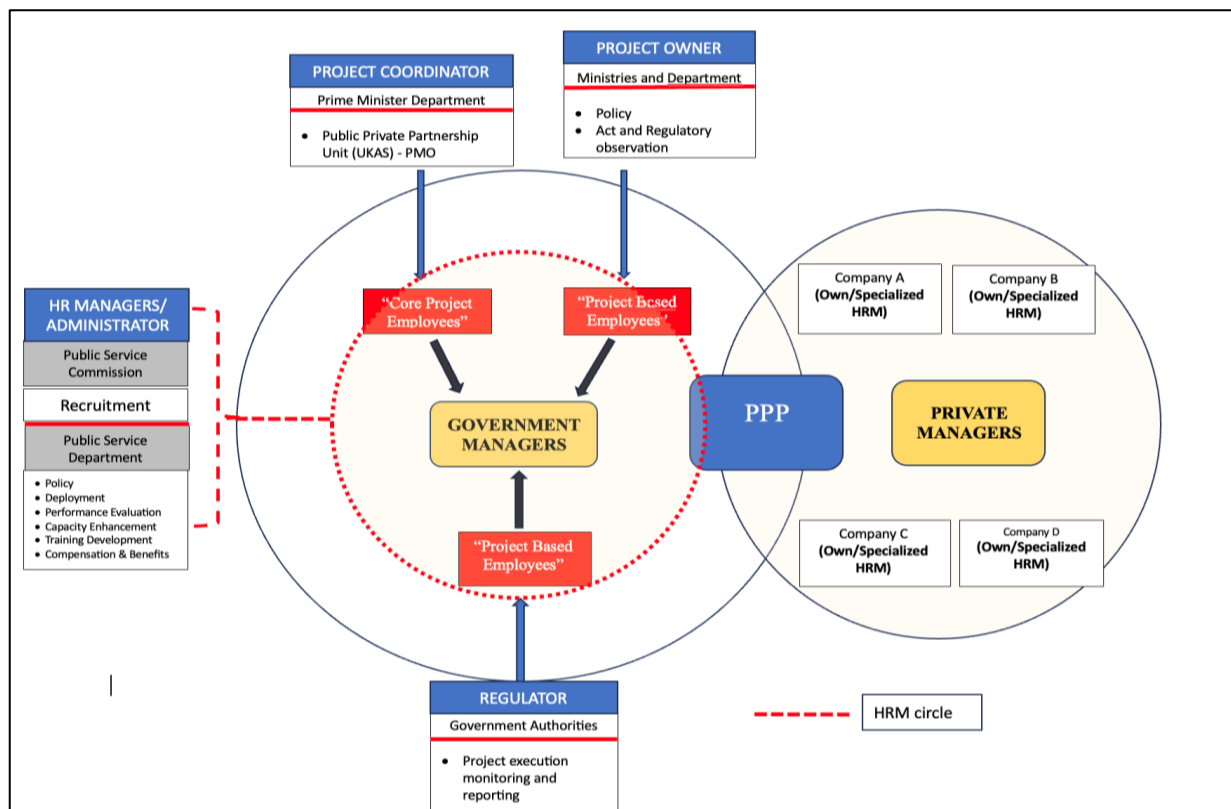

Fig. 2: HRM Environment in the Management of PPPs in Malaysia
(Sources: Author's Interpretation)

While projectification in public administration is well documented, its practical HRM implications remain underexplored (Fred, 2019). PPPs in government are complex, requiring managers to reconcile competing institutional logics and integrate PM principles within rigid bureaucratic systems (Matinheikki, 2021; Jensen et al., 2018; Ballesteros-Sanchez et al., 2019). This often leads to ineffective HR allocation, reputational risk, and poor PM performance (Battalov & Kangalakova, 2023; Blixt & Kirytopoulos, 2017; Huemann, 2015). Despite Project Management Offices (PMOs) being better suited to tailor HRM for projects, entities like the Public Private Unit (UKAS) in Malaysia remain constrained by centralized policies (PIKAS, 2030), limiting their responsiveness to project-specific needs. The extent to which traditional HRM practices are maintained for managers in PM and the widespread adoption of PM in government contexts have not been thoroughly examined (Jensen et al., 2017; Fred, 2019; Samimi & Sydow, 2021). In a broader HRM context, such as within government entities, the influence of PM on HRM can significantly enhance outcomes, steering the government towards more robust, competitive, and lower-risk staffing reforms. However, persuading the

government of these benefits may necessitate additional research, focusing on various project types and sector-specific findings differentiating the benefit of single HR practices or bundles and more decentralizing HR practices in providing more autonomy in PM contexts (Mathew et al., 2022).

5.1   Measurable Impact of HRM Factors on Competency Requirements

To this extent, to assess HRM's influence on competency development in project-driven public service contexts, several measurable indicators can be utilized. Training effectiveness can be evaluated by examining availability, post-training competency acquisition, and alignment with project-specific needs such as risk management and stakeholder engagement (Nukić & Šuvak, 2013). Recruitment and retention metrics, including time-to-hire and turnover rates for project roles, reflect HRM's capacity to sustain a competent workforce (Dessler, 2013). Training effectiveness can be assessed by evaluating whether employees acquire project-specific competencies such as risk management or stakeholder engagement, which are critical for PPP success. Similarly, retention rates of project-specific roles can provide insights into the effectiveness of recruitment and retention strategies. The alignment between project tasks and employee competencies further indicates the robustness of competency mapping strategies (Zhang et al., 2023). Lastly, the adaptability of HRM policies, assessed through the frequency and relevance of policy updates, reveals institutional responsiveness to dynamic project environments (Becker & Huselid, 2006). Collectively, these dimensions offer a holistic framework to evaluate HRM's role in supporting effective competency development for managing PPPs in the public service sector.

6.0   RECOMMENDATION

Neglecting the distinct HRM requirements of project contexts risks overlooking the dual impacts of project-based work on individuals (Huemann et al., 2007). Nevertheless, limited research exists on the implications of integrating PM with permanent structures within an organization and their impact (Huemann et al., 2019; Samimi & Sydow, 2021), and there is even less clarity and evidence on why HRM practices should vary within the project setting (Samimi E, 2023). While towards this development, tailored HRM-PM practices seem to be more essential for enhancing the effectiveness and sustainability of PPP as a project, yet there is a need for further research and comparative study to support these arguments considering various implementation practices and sectoral differences (Blaskovics, 2023; Zavyalova et al., 2020).

It is recommended that the Malaysian public sector develop a specialized HRM framework for PPPs, with a focus on project-specific competencies. Additionally, decentralizing some HRM functions would allow for greater flexibility in recruiting and training employees with the necessary skills for complex projects. Further research could explore specific HRM practices that are needed to enhance competency development within public service organizations managing PPPs, particularly in relation to skill gaps identified in this study. Moreover, the expansion of research opportunities can be further promoted considering each government in each country has different HRM policies and practices. Additionally, examining HRM in this context can reveal the "safeguarding mechanism" of the success of various PPP projects, or if the perceived success is merely rhetorical, even promoting HRM heterogeneity in project settings might create more ongoing paradoxical tensions (Mathew et al., 2022).

7.0   LIMITATION

The findings of this study should be understood in light of certain limitations. First, the focus on organizational-level HRM requirements and their conceptualization to support individual-level competency needs poses challenges, particularly in accurately determining the research's level of analysis. This may lead to potential biases or ambiguities during the identification and screening phases. Furthermore, within Malaysia's public service sector, there exist various service schemes, and in the context of PPP management, several of these schemes are involved. In this regard, the extent to which the effects and implications of human resource policies and practices may differ necessitates a more in-depth exploratory study. This includes examining how the implications on one service scheme could potentially influence other schemes that are also involved in managing projects such as PP. Future studies are encouraged to explore alternative methodologies or more rigorous techniques to enhance

accuracy and reduce bias. Second, the selection of studies was restricted to two databases, limiting the breadth of sources included. Expanding future research to encompass additional databases and registers, including gray literature, could provide a more comprehensive and diverse understanding of the topic.

8.0 CONCLUSION

Despite limited existing research, the intersection of HRM and PM holds substantial theoretical and practical relevance, particularly in contexts where temporary and permanent structures coexist. Understanding this paradox is critical to sustaining competencies across organizational levels and necessitates multi-level investigation into HRM's broader impacts in project-based environments. This study systematically synthesizes evidence from 2000 to 2024 to examine HRM requirements in project-driven contexts, with particular attention to HRM policy and practices on managers administering PPPs in Malaysia's public service sector. The findings underscore the necessity for adaptive, competency-based HRM practices aligned with the dynamic nature of PM and should consider sectoral and industries differences. Notably, on surface investigation, Malaysia's public service sector centralized HRM framework lacks the flexibility to support project-specific competencies essential for PPP success. These insights provide strategic guidance for policymakers and practitioners seeking to reform HRM systems and improve PPP implementation. Future research should focus on developing context-sensitive HRM strategies tailored to the specific sectoral demands of PPPs management as a project in the public sector.

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