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Article

Robust competency-based evaluation matrix for directive PMO services in construction projects

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Abstract: The interest in using project management office (PMO) services in organizations to manage their construction projects is growing in light of rising economic, technological, and social developments based on their ability to achieve organizational goals while avoiding risks. Accordingly, organizations use PMO services to manage their technical and financial project issues to periodically evaluate PMO performance and services in a scientific, practical, and measurable way to ensure successful project path via PMO. Therefore, this research aims to develop a performance evaluation system that enables organizations to follow up and evaluate the PMO performance to ensure that PMO manages the organizations' expectations and goals successfully according to certain quality, scope, and cost. The study builds on significant findings in PMO competence indexes as evaluation matrix, which includes five basic categories with 136 indexes covering the project life cycle. The matrix was developed based on literature analysis and supplemented with experts' interviews in construction management. The developed robust competency-based index (RCI) for directive PMO supports the organizations to conduct client satisfaction, correction, or partial/total change of the PMO's competence flow within five construction project life cycle and process, i.e. governance, portfolio, information, execution, and contract issues.

Keywords: project management office (PMO); directive PMO; PMO evaluation; evaluation indexes; construction projects

1. Introduction

Project management (PM) is the process of planning, organizing, monitoring, and controlling all phases of the project, aiming at achieve shared goals at specific time with certain budget (Radujković et al., 2017). Project management has evolved as a official formal sector within the last century with scientific management principles and project management techniques development, and it is widely used through industries field to plan and execute varying sizes and complexity projects. Public organizations rely on efficient and sustainable project management to achieve strategic objectives and maintaining project management competitiveness to ensure success, optimize resource allocation, achieve strategic objectives, improve productivity, and adapt to changing market conditions. Project management inside public organizations encompasses various challenges, including financial constraints, evolving technologies, industry dynamics, sustainability, and resource availability (Crawford, 2006; Crawford, 2006; Grandage et al., 2023;). The project management office (PMO) has emerged to support in enhancing project management effectiveness prioritizing

projects with respect to the organization's strategic goals, managing project resources and resolving resource-related issues, maintaining competencies, updating and reporting project data to stakeholders, maintaining the documentation for every project, overseeing progress on the organization's projects, supporting the teams and managers working on the projects by providing centralized oversight, support, and standardization of project management activities (Giraudo and Monaldi, 2015; Kerzner, 2017).

The establishment of a statewide PMO that uses industry standards to define project management guidelines, conducts oversight, and prescribes EVM. The PMO can also support project selection by advising on which projects align most closely with strategic plans. Identifying quantitative factors through the qualitative analysis as influencing EVM adoption and progression through the strategic framework included organizational spending, project type, and PMO maturity (Crawford, 2006). Evaluating the effectiveness of PMOs is crucial for sustainable and continuous improvement and addressing areas of enhancement for the organization to ensure project success, overcoming these challenges requires applying knowledge, skills, techniques, and tools (Fernandes et al., 2020).

The PMO, composed of people, processes, and tools, is pivotal in facilitating project management activities. Its functions include developing and implementing methodologies, policies, and procedures, providing training and guidance to project managers and teams, monitoring project performance, and ensuring compliance with organizational standards. There are several literatures discussed assessing the maturity of PMOs is essential to gauge their integration within organizations and the effectiveness of their functions. Several PMO maturity models, such as the organizational project management maturity model (OPM3) and (P3M3) maturity model, have been developed to evaluate PMO effectiveness and identify areas for improvement. These models provide a framework for assessing PMO effectiveness and promoting continuous enhancement (Project Management Institute, 2013a; Yaghoobi, 2015).

The PMO models and functions beyond standards and methodology varying from reporting function to participating in organization strategies as the facilitator for the owner portfolio management process, improve the resources' performance, control projects deliverables and achieve project success (Monteiro et al., 2016). The level of control the influence of PMOs on construction projects management depends on the type of organization structure and governance processes (Project Management Institute, 2013b). The factors affect in involving project management office PMO types as broad functional groups depend on the methodologies processes, tasks responsibilities, organizational project-management maturity level, and project complexity through the well-known triple constraint scope, cost, and time (Kerzner, 2017; Mahabir et al., 2022; Salato, 2018). PMOs investigate project management execution processes, facilitate proper practices, and select projects aligned with their strategic objectives (Harmantzis, 2018; Tohid and Nobari, 2015). PMOs prioritize projects, develop management maturity levels, apply standard templates, build methodologies, and provide training (Almansoori et al., 2021; Ntshwene et al., 2022).

This study builds project management evaluation for PMO performance in construction execution management in a public organization based on numerical

analysis to evaluate the level of incorporation processes between specific PMO functions, scope, and project output efficiency. This study draws on the knowledge arising from interviews with experts to identify the proper success indexes, and the proper approach framework fit for construction projects successful through partnerships between several agencies i.e., the university's client team, and private consultants' firms. Therefore, the main research questions are how to measure the performance and competency of PMO in construction projects? What is specific framework to measure the PMO performance in an organization? The next sections of this paper will be as follows: explaining the adopted study method and materials, results presenting of the proposed framework evaluation, discussion, the conclusion, and limitations of the study as well as opportunities for further research.

1.1. Project management office (PMO) benefits and types

Project management plans, organizes, monitors, and controls all project aspects, including safety, achieving project goals within the agreed schedule, budget, and performance criteria (Levy, 2018). The PMO's inability to achieve the construction organization objectives is attributed to obstacles i.e., unlogic objectives, setup and implementation weaknesses, and bad management of staff (Linde et al., 2016). The success of establishing a formalized PMO based on a methodology with specific processes and tools for the construction project proves more efficient than a traditional contractual arrangement according to implications to finances and quality at a particular time, cost, and quality adapted to project processes stages (initiation, plan, execution, control, and close). Moreover, PMO's methodology identifies and describes issues management processes and system tools (Alqahtani, 2019; Cunha et al., 2014; Linde et al., 2016).

The various terminologies of PMO based on its structure support the organizations to standardize the construction project to governance processes, which facilitates the sharing of methodologies and resources according to its responsibilities, which vary from providing support management to directly managing with assisting all team members on strategic and functional levels throughout implementing project management practices (Cunha et al., 2014; Jalal et al, 2015). PMO is a documentation source that maintains the standards processes in the projects' execution guidance, metrics, and roles in program/portfolio or enterprise projects, therefore it can adopt highly effective communications between resources (Raharjo and Purwandari, 2020; Sajad et al., 2016). The selection type of the construction PMO type is a crucial process to manage organization portfolios, programs, and projects which depends on the project implementation degree and is affected by the organization culture nature, and calibrating terms members presenting effective project management processes using standards to improve organizations success cases (Kerzner 2019; Szalay et al., 2018).

The supportive PMO type is attributed to perform freely without control processes and managed by a project manager to support improving the teams' members' competence and skills through delivering training courses, mentoring schemes, providing project management methodologies textbooks library, facilitating knowledge sharing, managing lessons learned, and provide independent reports to the organization management (Horváth 2019; Reiling, 2014). The controlling PMO type

focuses mainly on managing activities using a specific methodology and its processes, procedures, and template documents, to comply with organization and governance procedures (Al Khoori et al., 2018; Pinto et al., 2019; Scott 2019). The directive PMO Type is the highest level of PMO to define the projects/programs/portfolios vision. It establishes standards processes, identifies approving projects authorities adjusts bids budgets account, and manages all project resources with a specialization in the structure/methodology/processes. It carries out all tasks directly monthly through the project life cycle, reporting to CEO board members, strategic vision alignment. It solves all unblock issues, deliver governance activities, ensure criteria standardization (Almansoori et al., 2019; Dietrich et al., 2010; Paton and Andrew, 2019, Reiling, 2014; Sanz and Ortiz-Marcos, 2019).

This study identifies the essential service role of PMO drawn on the literature review to compromise the performance framework standards with the organization objectives and requirements issues in five main issues. These five main issues governance issues, portfolio issues, information repository issues, execution issues and contract issues. **Table 1** shows main areas of PMO services in some international references and periodicals.

Table 1. The PMO services.

Main issue	Issues included	Sources
Governance Issues	Project governance, Strategic Priorities, and PMO functions in project-based firms	(Fabris, 2019; Harmantzis, 2018; Raharjo and Purwandari, 2020; Roden et al., 2020; Seeton 2022)
Portfolio Issues	Project portfolio management and Building a Project Management Office	(Fabbro and Tonchia, 2021; Giraudo and Monaldi, 2015; Harmantzis 2018; Koch and Lock, 2020; Roden et al., 2020)
Information Repository Issues	PMO Services and Defining Roles for IT Governance	(Fabbro and Tonchia, 2021; Kerzner 2019; Koch and Lock, 2020; Levy, 2018; Mahabir and Pun 2018)
Execution Issues	roles of a project management office (PMO)	(Almansoori et al., 2021; Seeton, 2022; Tohid and Nobari 2015)
Contract Issues	PM solutions, and Defining Roles for IT. Governance	(Fabris, 2019; Kerzner 2019; Levy, 2018; Mahabir and Pun 2018).

1.2. Success factors of PMO in construction project

The critical success factors are vital elements that drive the project management methodology to fulfill its success. The iron triangle model which include the schedule, scope, and budget was the first project management success model (Raharjo et al., 2018). Key performance indiators KPIs used as quantitative indicators to measure of the project's management success and owner's satisfaction, adopting the organization, achieving strategic performance goals, and express the effects of the used procedures and methods (Sergeeva and Ali, 2020). PMO inside organization focuses on establishing project's performance success procedures that achieves the required quality within the scope, time, and cost constraints by using specific elements and procedures that contribute to measure the project management's success include PM team skills (project manager-staff). PM methodology/techniques/processes, and organization/client (José et al., 2010; Kaul and Joslin 2018; Philbin 2018) (**Figure 1**).

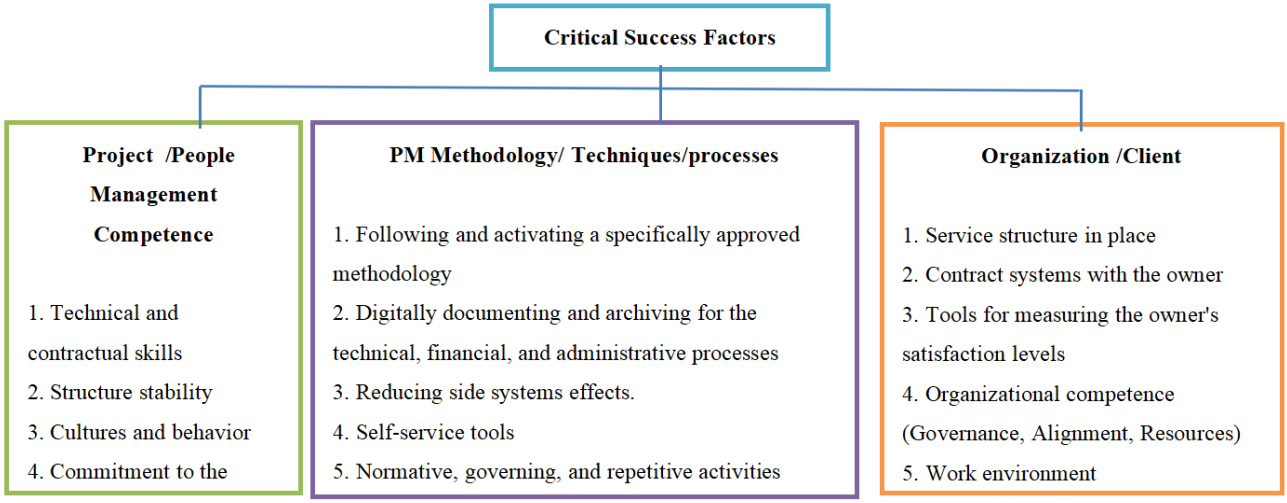

Figure 1. Project management success factors breakdown structure (Developed by authors).

Project management success factors breakdown structure include the following:

1.2.1. PM Skills (project manager - staff)

This level includes analyze to achieve the technical and contractual skills, structure, team cultures and behavior, commitment to ethics, team spirit, and motivations (Radujković, 2020).

1.2.2. PM methodology/techniques/processes

This level includes the required factors to fulfill the following and activating a specifically approved methodology; digitally documenting and archiving for the technical; financial and administrative processes; reducing side systems effects, using self-service tools; normative; governing and repetitive activities; focus on external and internal capabilities; valid decision-making mechanism; risk management plan; and support communication and I.T. processes (Sibiya et al., 2015).

1.2.3. Organization/client

This level includes achieving the following: service structure in place, fulfill contracting systems with the owner, tools for measuring the owner's satisfaction levels, organizational competence (Governance, Alignment, Resources), work environment, controlling culture of the organization, administrative and technical structure of the organization (Radujković, 2020; Sibiya et al., 2015). These levels enable establishing a measurement processes guideline for the PMO team member to provide methodologies, tools, and standards for supervising, managing, and implementing construction projects support organizations with high potential level to succeed and understand their capabilities in their projects (Gasemagha and Kowang, 2021). Whereas can discover trends, anticipate problems; offer better control over costs; reduce risks; improve quality; increase assurance to achieve the goals, and enable the PMO to accomplish and succeed in tasks (Ershadi et al., 2021). The success elements perspective of the effective measurement indexes differs between the organization's owner perspective and PMO team member perspective. The project success indexes from the owner's perspective include, characteristics of matters and characteristics of people. The value weight elements related to characteristics of matters i.e., scope, quality, cost, schedule. The value weight elements related to characteristics of matters

i.e., team spirit: productivity, absence, behavior, cooperation; owner's satisfaction: response, attendance, behavior, confidence, disputes, listening, disseminating information. **Figure 2** illustrates project success indexes from the owner's perspective (Fortune et al., 2021). On the other hand, the staff's reading of project success indexes focuses on the processes and activities accompanying the project's completion until the final handover and include: first managing issues of people i.e., quality of processes, compliance with standards, effectiveness. Second managing issues of things i.e., quality of processes, compliance with standards, effectiveness. Therefore, the staff's perspective success indexes include essential value weight elements related to each issue. The value weight elements related to issues of people i.e., scope, quality, time, cost, risks, team, schedule, integration, reports, contract. The value weight elements related to issues of things i.e., owner, staff, suppliers, and communications, **Figure 3** illustrates project success indexes from the staff's perspective (Obrochta and Finch, 2011).

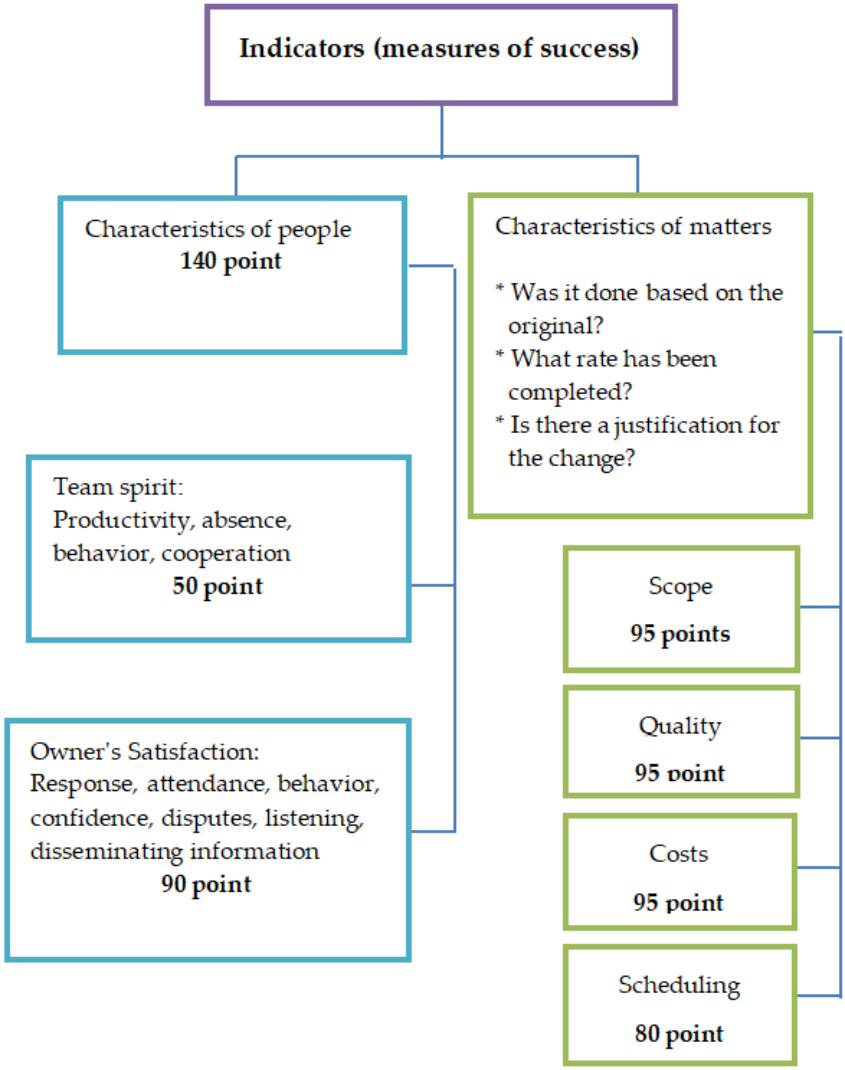

Figure 2. Project success indicators from the organization's (owner's) perspective.

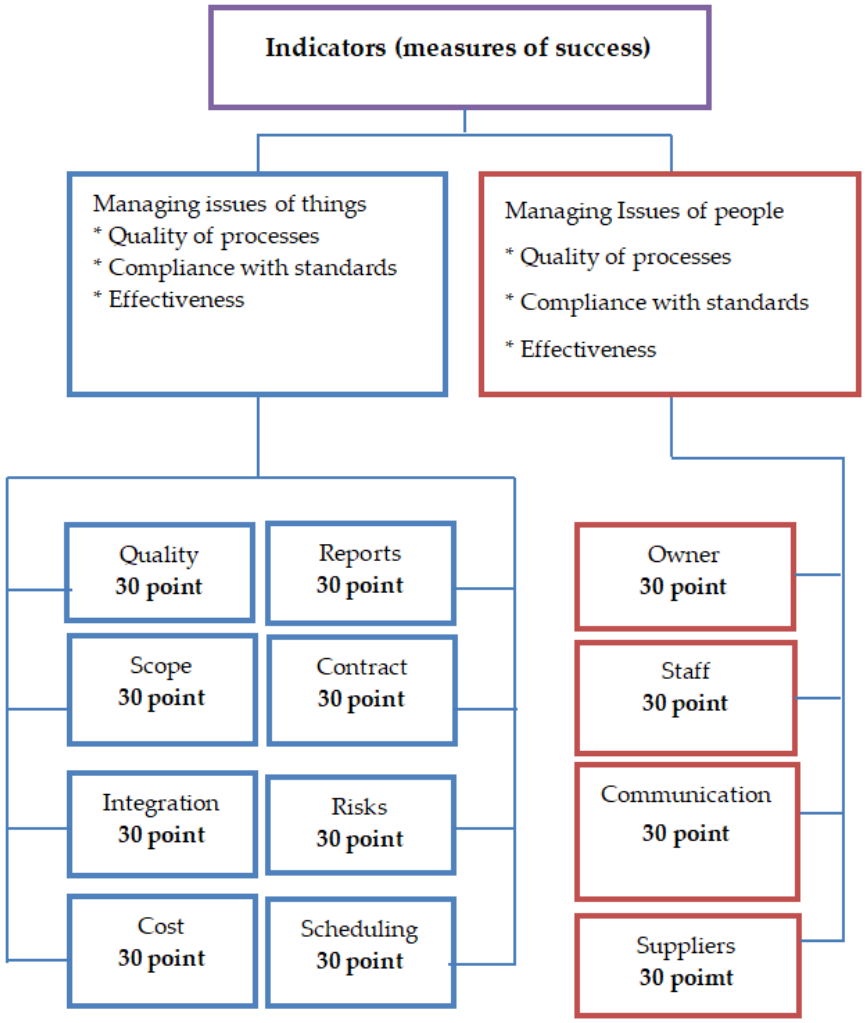

Figure 3. Project success indicators from the PMO staff's perspective.

According to review of related literature on project management maturity models there are many types has its own criteria and assessment methods which acting as frameworks support organizations assess the maturity of their project management practices, identify areas for improvement, and assess project management capabilities. The most commonly used PMO maturity models are: 1) Kerzner project management maturity model that focuses on supporting organizations achieve specific project management results through using project management knowledge, standard processes, integrating methodologies, benchmark, and information for continuous improvement. 2) as a important tool for standardizing project outcomes, emphasizing effective management practices importance, addressing the clear project goals, and balancing stakeholder satisfaction with optimized outcomes, identifying gaps, and continuously improving processes within organizations team member. 3) capability maturity model integration developed to assess software contractors and integrating with ISO 9001 standards can lead to improved quality, efficiency, and process maturity. 4) portfolio, program, and project management maturity model which is a critical tool for enhancing project management maturity, and contributes positively to project performance by improving processes and stakeholder communication (Alshabragi et al., 2024; Ershadi et al., 2021; Fortune et al., 2021; Fernandes et al.,

2013; Gasemagha and Kowang, 2021; Obrochta and Finch, 2011; Project Management Institute, 2013b; Radujković, 2020; Sibiya et al., 2015). This study focus on enhancing the PMO project management maturity models has identified many key gaps include a need for detailed guidance and simplified approaches to support organizations in adopting PMO practices, understanding applying methods for the project management principles through different organizational contexts, obvious frameworks and practical procedures details for project teams to form organization beneficial alliances, absence of procedures regarding to capability to manage change, lack on the influencing factors of the portfolio management methodologies successful, Regarding addressing comprehensive project management maturity assessment within project management offices PMOs, and the weak adoption in the construction industry, especially in construction consulting services and functions. By addressing these gaps this study provided more comprehensive and practical frameworks for organizations to assess and improve their project management offices PMO capabilities in achieving organizational success by establishing a robust competency-based evaluation matrix for directive PMO services in construction projects as rating system.

2. Methodology

The purpose of this study is to develop numerical robust competence indexes RCI guideline as evaluation matrix to the organization decision maker for evaluating and rating the successful status of the PMO (directive type services, which is considered the highest level of PMO to execute and control all specific organization construction projects lifecycle. The methodology input data classified all essential contractual items of PMO directive type services, which are contractually committed to achieve within the organization's construction project lifecycle. All these items are officially written and involve narrative in main categories with specific items inside the official contract between the organization's representative and PMO office.

Clarifying the features of the two perspectives for the project success indexes in **Figures 2** and **3**.

Therefore, PMO directive type services include: projects/programs/portfolios vision, establishing standards processes, identifying and approving projects authorities, adjusting bids budgets account, managing all project resources with a specialization in the structure/methodology/processes, carrying out all tasks through the project life cycle, and reporting to authorized members. It also ensures strategic vision alignment, solves all unblock issues, delivers governance activities, and ensures criteria standardization in all execution processes. Accordingly, the study draws on several interviews with construction management experts. First stage was addressing all directive PMO services in comprehensive list. Second stage was classifying the PMO directive type services and functions comprehensive list into main categories. Third: Adopting the categories according to construction industry market knowledge and culture. Fourth: building the essential five services issues based on all available information and data in construction management projects directed and controlled by the PMO directive type as input data to the numerical robust competence indexes RCI guideline. The five categories' issues classification include; 1) Governance Issues; 2)

Portfolio Issues; 3) Information Repository Issues; 4) Execution Issues; and 5) Contractual Issues.

The Robust Competency-based Indexes (RCI) guideline for directive PMO is built to be used by the organization decision maker to measure the success status of the PMO directive type in its services within the construction project lifecycle processes, which include Initiating, Planning, Monitoring, Execution, and Closing processes. **Figure 4**. Illustrate design stages for RCI within the construction project lifecycle processes adopted with the construction project lifecycle processes which are designed in three stages; First input data includes services issues categories classification of PMO directive type, and the applying period for each category within the five main construction lifecycle processes. The second analysis stage from the experts using extensive brainstorming meetings using success factors and indexes from both the owner's and team's point of view, the international and regional PMO directive type services. Third identifying the numerical evaluation matrix RCI which includes 136 numerical competence indexes, covering all directive PMO services, which are organized as follows: 19 competence indexes in governance issues, 12 competence indexes in portfolio development, seven competence indexes in the information repository, and 91 competence indexes in execution issues within 14 sub-categories, and seven-competence index in contract issues. The weight classification of the numerical competence indexes is designed according to extensive meetings with specific experts certified in construction project management. Appendix **Table A1** illustrates the weight classification of the comprehensive competence indexes RCI guideline for directive PMO services categories.

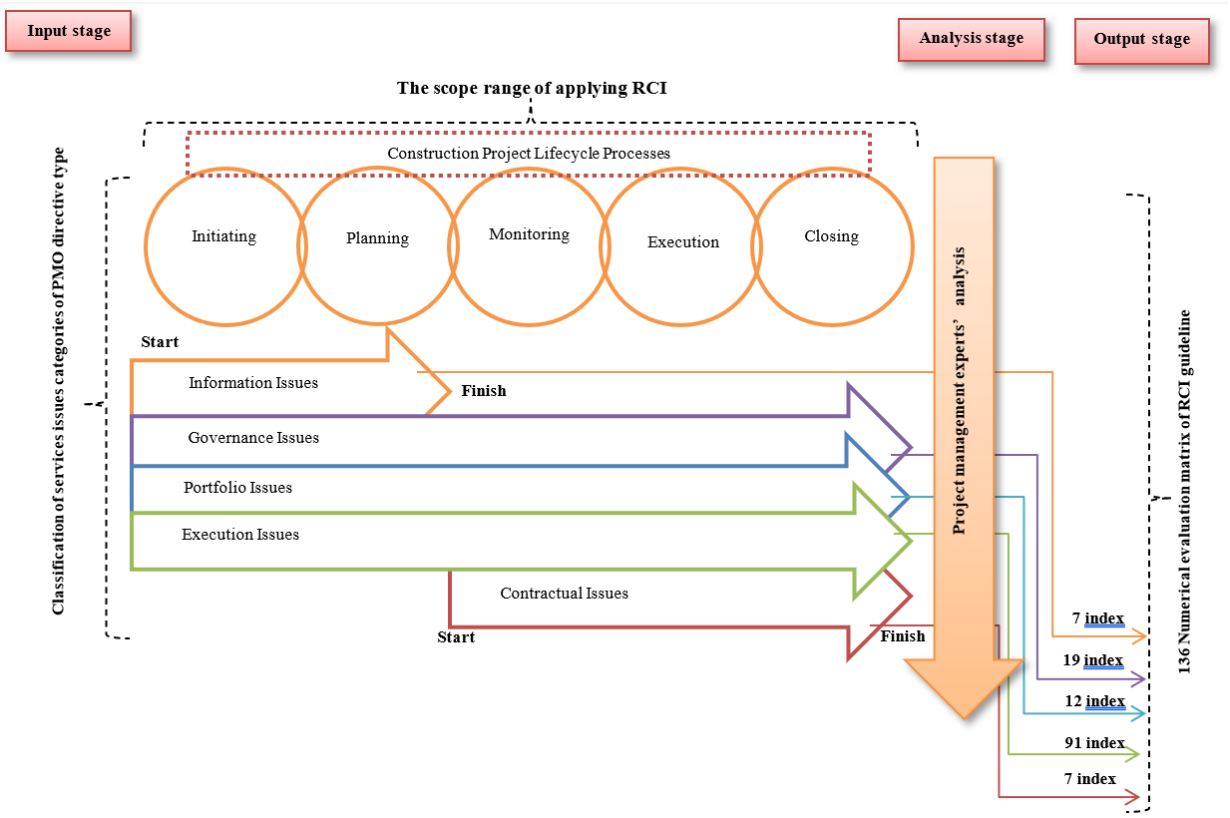

Figure 4. Design stages for RCI within the construction project lifecycle processes.

3. Results and discussion

This study through identifying critical project management success factors, PMO effectiveness types especially directive type, review existing literature on project management maturity models, analyze data and information using construction management experts interviews, developed a robust competences indexes as rating system for PMOs to facilitate organizations to monitor and rank the PMO services and functions. The significance of this study lies in its potential to address the gaps in the existing maturity rating models and the challenges associated with evaluating PMO effectiveness by establishing a standardized and objective approach that considers critical success factors. This approach would enable organizations to enhance their sustainable project management practices, improving project success rates and organizational competitiveness.

The considerations of this comprehensive manner as performance indexes framework evaluation for PMO in construction projects include: first; the three main PMOs types. Second; the four life cycle stages of the construction project are the strategy, planning, feasibility studies, and passing the implementation and control phases and ending with the project closure. Third; the balanced integration between the PM success factors and the PM success indexes from the owner's and the team's perspectives. Fourth; using the value weights measurement of performance that deviates significantly from the personal error or the theoretical assessment process. The study builds the robust competency indexes framework evaluation RCI for PMO in five categories as numerical indexes with a total of 1000 points. robust competency indexes include the following elements and as illustrated in Appendix **Table A1**:

a) Governance (190 points) includes 20 indexes in terms of the PMO's ability to support the bodies and organizations by setting the essential elements of government rules and requirements in construction projects among all the parties involved in the project with clarification of the risk areas, distribution of responsibilities, and communication means between those parties.
b) The ability to develop and manage the Portfolio Development (150 points) include 12 indexes in classifying projects, initiatives, and ideas, developing communication levels, solving problems and obstacles, and measuring performance in an integrated manner with the strategies, objectives, and business chain.
c) The information repository category (140 points) includes seven indexes describing and classifying reports and forms for the organization's assets, lessons learned, and all approved processes.
d) Execution issues (380 points) express the PMO's technical and administrative capabilities to achieve the project processes and include 14 categories with128 indexes. Three indexes to maintain scope; four indexes in quality required for the project by using specific processes; five indexes in schedule time; four indexes for specified project cost; three indexes in risk management processes; nine indexes in integration processes; four indexes in operations and means of report issues between the project parties; six indexes for suppliers cooperation in the project; four indexes for communication method and tools between all parties involved in the project; seven indexes in a healthy work environment; four

indexes for the subcontractor team; twenty indexes in teamwork in terms of technical, administrative and personal aspects, six indexes to support achieving stockholder and end-use goals and satisfaction.

e) The contract issues Management (140 points) includes seven indexes, including PMO experience in project management and resolving financial and technical disputes and claims according to the application of general and private contract terms.

The PMO performance indexes framework evaluation RCI applied to three consulting offices working on the King Faisal University campus with the same hierarchical organization in the technical and administrative capabilities and approximately the exact cost, area, and time required to project completion. The results and the particular corrective actions needed to evaluate and mentor each office to rectify and correct their work were different. The evaluation committee is formed to meet every three months to raise the evaluation results after one week.

Table 2 summarizes necessary details after implementing the performance evaluation system for each consultant firm and the corrective actions required from each office with a reasonable time limit to take official actions for one period after six months from the project's start date.

The study builds significant findings in PMO performance indexes framework evaluation RCI includes five basic categories with 136 indexes covering all concerned evaluation points according to literature analysis and more than 25 interviews with the construction management consultant and supervisor field experts. Applying the RCI approach in multiple PMOs working in KFU King Faisal University supports the KFU in making practical and applicable periodical performance evaluations, the KFU organization representative can take corrective or decisive action to adjust and manipulate any deviation from the project's completion success. **Table 2** illustrates the PMO performance indexes framework evaluation, used with KFU authority to evaluate three PMO offices with approximately 14,430,000 m^2, with a total consultant budget of 33.8 billion SAR. The scientific, practical, and measurable RCI guideline for demand PMOs supports the organizations to conduct client satisfaction, correction, or partial/total change of the PMO's competence flow within the leading five construction project processes and achieve a successful status in time, cost, and scope.

This evaluation process continues its assignment till the project's primary handover date. The three-consultant firm in general explaining has been assigned as follows:

- PMO 1: is a consultant firm for eight projects as academic buildings with an average of two floors and different plot areas and with a built area of 312.000 m^2;
- PMO 2: is a consultant firm for residential neighborhood projects with a built area and complete landscape of 833.000 m^2 in the first phase;
- PMO 3: is a consultant firm for 11 academic, service, administration, and infrastructure projects with a built area of 298.000 m^2 and a landscape and utility network with a site of approximately 425.000 m^2.

All following modules have legal procedures:

- Module 1: modify the job description;
- Module 2: change in employees hierarchy;
- Module 3: extend the contract period;

- Module 4: change in contract budget;
- Module 5: change in project scope;
- Module 6: intensive weekly or monthly procedures.

Table 2. Applying PMO performance indexes framework evaluation RCI.

Consultant firm	**Contract period**	**Periodical evaluation period**	**Consultant Budget**	**Built Area**	**Assessment**	**Legal Corrective Actions**
No.	**Month**	**Month**	**Million**	**Thousand m^2**	**Points**	
PMO 1	36 months	6 months	35	312	735	Module 2- Module 3 – Module 4 Module 5
PMO 2	36 months	12 months	19.6	833	875	Module 2- Module 5 – Module 6
PMO 3	24 months	6 months	9.2	298	682	Module 2- Module 5 – Module 6

This study findings are significant value in theory and practical context. The theory context includes adding empirical evidence to the existing body of knowledge, gap solution for existing literature review, future insight for specific organizations success factors. The practical context includes robust competency matrix for directive PMO services in construction projects for the organizations and practitioners in construction field as valuable guidance to improve project management effectiveness and success. The issues categories of the robust competency matrix covered the majority of the gap in literature review, which discussed the PMO maturity in construction field. The result of the study is very essential and investment benefit guidelines for the project management institutes, i.e., PMI, Axelos, and all levels of public and private organizations client's construction management department. Based on the research findings, many recommendations are proposed which enhances organization decision-making processes and performance through applying the robust competency-based evaluation matrix for directive PMO services in construction projects with periodical strengthening alignment among PMO team members and organization vision and goals, contributing in organizational culture, monitoring roles and responsibilities within the PMO team member, using efficient decision-making processes. Encourage developing problem-solving skills investment. Enhancing effective reporting in dynamic environments mechanisms, maintains high-quality deliverables and effective communication channels including stakeholder coordination.

4. Conclusion

Organizations that rely directly on project management offices' PMO services to apply management processes through the project lifecycle till project handover to achieve the objectives of success, strategic alignment, and owner satisfaction of their construction projects in a growing and rising trend, especially as Project Management methodologies are constantly evolving and updated. That requires a precise scientific, practical, and measurable performance indexes evaluation to support the project's client and stakeholders to monitor and evaluate the effectiveness of PMO not based on personal considerations. PMO performance indexes framework evaluation RCI includes 5 essential categories with 136 indexes covering all concerned PMO performance evaluation points. The framework contains 20 indexes in governance, 12

indexes in portfolio development, 7 indexes in the information repository, and 14 sub-categories, including 96 indexes in execution issues and 7 in contract issues. The numerical measurement weights help organizations and bodies conduct satisfaction, correction, or partial/total change of the PMO's performance path. Applying this PMO RCI in KFU campus projects through 3 PMO consultant firms to supervise 20 projects containing buildings and infrastructure support the designated committee to fulfill comprehensive and legal evaluation followed by correction actions to achieve a successful status in time, cost, scope, and client satisfaction determinants.

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Appendix

Table A1. Competence index for the PMO services.

Competence Index for the PMO Services	**Max points (1000 points)**	**Achieved points**	**corrective/preventive actions**
Criteria 1. Governance Issues	190		
PMO Model Selection compatible with project size	10		
The Project Governance model complements the organization	10		
Risk and Issues Management	10		
Accountability, Roles, and Responsibilities of Project Team Matrix.	10		
Stakeholder Engagement and Communication	10		
Assurance Process (defines the metrics, ensures effective management of risks and issues)	10		
Meetings and Reporting with Stakeholders	10		
Project Management Control Processes	10		
Technical and Administrative PMO Structure	10		
Pursuit and Achievement of Stakeholder Requirements	10		
Solving escalation Processes to complex issues	10		
PMO Code of Ethics regulations	10		
Assessment of end-user requirements and satisfaction	10		
Documentation system Efficiency	10		
Integrative processes between contract conditions and Stakeholder requirements	10		
Advice system to high authority level	10		
PMO Guide (Manual) contains a set of processes, procedures, policies, and templates for the project lifecycle	10		
PMO Guide (Manual) matching with the project type, environment culture, and investment type	10		
Participating in Strategic planning	10		
Criteria 2. Portfolio Issues	150		
2-1 portfolio development capabilities			
Complex Filters for Ideas/Initiatives presented from the Strategic unit	15		
Aggregation Similar initiatives and projects	10		
Arranging and Ranking Similar initiatives and projects	10		
Balancing initiations with portfolio targets and financial matters	15		
Identify communication and service levels for the project	10		
Follow up the project process sequences	15		
2-2 Portfolio Management capabilities			
Manage performance metrics with an organizational plan	15		
Capability to coordinate between portfolio projects	10		
Capability to manage the benefits of projects after handover	10		
Study Risk impacts with portfolio project goals and internal relationships	15		
Manage the portfolio resources and assets	10		
Capability to manage issues, problems, jobs, resources, and obstacles	15		

Table A1. (*Continued*).

Competence Index for the PMO Services	**Max points (1000 points)**	**Achieved points**	**corrective/preventive actions**
Criteria 3. Information Repository	140		
Strategy Plan Report	20		
Portfolio Performance Indexes Report	25		
Record the project portfolio risk list	20		
Portfolio Enterprise Resources Utilization	15		
Lesson Learned documents	25		
Organization Process Assets (OPA)	15		
Environmental Information Scan	20		
Criteria 4. Execution Issues	380		
4-1 Scope	30		
Commitment processes with original Scope	10		
Project handover within the original Scope	10		
Justification list about change in original Scope	10		
4-2 Quality:	40		
Quality submittals, tools, and processes	10		
Applying accurate and efficient Quality processes submittals	10		
Quality Assurance list (requirements, references, standards, etc.)	10		
Quality Control list (requirements, references, standards, etc.)	10		
4-3 Schedule Time	20		
Capability to schedule evaluation in a technical and logical manner	4		
Follow up the schedule path with progress and achievement ratio	4		
Follow up the schedule for procurements (purchase – installation).	4		
Justification for submittals, Procurements, progress status	4		
Submit delay causes reports and ways to address them	4		
4-4 Cost	20		
follow up on the actual quantities at the project beginning and handover	5		
Commitment with Project Original Cost	5		
Justification record for positive and negative variation orders	5		
Technical and financial observation of the international and local market cost	5		
4-5 Risk	15		
Manage and apply risk database	5		
Risk forecasting procedures	5		
Risk manipulating procedures	5		

Table A1. (*Continued*).

Competence Index for the PMO Services	Max points (1000 points)	Achieved points	corrective/preventive actions
4-6 Integration	40		
Changes submittals according to standards.	5		
Follow the suitable submittals within the project lifecycle	4		
Experience with previous Lessons learned in project stages	4		
Efficiency Career in Contract Conditions Management	4		
Auditing with checklist and questionnaire	5		
Planning Deliverables and projects and programs handover	5		
Coordination between project procedures	4		
Promote and enhance project management portfolio within the organization	5		
4-7 Reports	20		
Time Taken to raise the report to organization staff	5		
The report document covers all the organization's requirements	5		
Report items are to the requirements of the institution	5		
The report reflects the reality follow-up for all project items.	5		
4-8 Support	30		
Training PMI Talent Triangle	3		
leadership strategic and business management technical management	3		
PMs coaching, Mentoring, and Knowledge Transfer	3		
Manage and benefit from the lessons learned	3		
Clarify the benefits of management	3		
Excellent utilization of Explicit and tacit experiences	3		
Guide for Optimization of the processes to achieve the goals	3		
EPM and PM Technical Support	3		
Develop the employees' competencies	3		
Plan and operate database system project	3		
4-9 Suppliers	25		
Commitment to dealing with the organization's vendors list	4		
Follow the documents for each supplier/manufacturer/subcontractor	4		
Check the documents required at the delivery time	4		
Ensure the efficiency and conformity of the delivery procurements to the technical specifications	4		
Adapted all deliverables, materials, and systems processes to the local and international standards	4		
Technical Support in the process of new vendor approval	5		
4-10 Communications	20		
Approved communication path between teamwork	5		
Approved communication documents between teamwork	5		
Suitable communication time response matching with the technical and financial submittals	5		
Communication tools and methodology adapted to local and international standards	5		

Table A1. (*Continued*).

Competence Index for the PMO Services	Max points (1000 points)	Achieved points	corrective/preventive actions
4-11 Work Environment	20		
Project Documents has reasonable and efficient search procedures	3		
All possibilities and equipment inefficiency status	2		
Clean spaces, facilities, and mobile and fixed furniture	3		
Accessible and efficient communication between team members	3		
Personal disputes between teamwork	3		
Follow the required conditions of work hours legally	3		
Ethics of the Profession Efficiency	3		
4-12 Subcontractors	20		
Support technically subcontractors' registration documents	5		
Ensure the effectiveness and professionalism of all the subcontractors' team	5		
Work approval according to the organization's reliable and approved submittals	5		
Work monitoring achieved in a professional manner	5		
4-13 Team Work	50		
Applying the project documents in an integrative manner	2		
Working with project information in a safe, secure, and professional way	3		
The team's experience and skills work with project documents in an efficient electronic and technical manner	3		
Responsibilities and job description for each team member is explicit	2		
Not assigning the Contractor new items without prior approval from the organization's client	3		
Commitment to project scope tasks	2		
Document all correspondences between all teams, contractors, client	3		
Follow up on all technical tests running in the project	2		
Review and approve all monthly invoices as done on-site	3		
Review and approve all submittals, samples, T.Q., and shop drawings.	3		
Periodic meetings between consultants, contractors/sub-contractors according to engineering standard	3		
Coordination between all disciplines according to project management methodology standard	2		
Time accuracy for Shop dwg., RFI, according to project management methodology standard	3		
Communication tools about issues, disciplines interference, items conflicts	3		
Coordination between the project team and head office in all technical and financial matters of the project	2		
System of Hiring, evaluation, and salary rates according to job scope	2		
Allocate the resources between projects according to actual and realistic needs	2		
Advance review of the project	2		
Periodic mentoring from head office to the project manager	2		
Manage the As-Built documents of the project	3		

Table A1. (*Continued*).

Competence Index for the PMO Services	**Max points (1000 points)**	**Achieved points**	**corrective/preventive actions**
4-14 Stakeholder	30		
Following up on achieving the end-user satisfaction of the project	4		
Follow up on the institution's internal committees' requirements	3		
Effectiveness in arranging contractual documents required for internal committees	3		
controlling the contracting conditions and the institution's internal committees' requirements	3		
Advice to high-level management	3		
Adjust project financial issues with the organization's economic policies	5		
Achieve and apply special/general conditions of organization polices	5		
Participate in strategic planning	4		
Criteria 5. Contract Issues	140		
Obligation to follow the legal and financial conditions of the contract	20		
Integration and compatibility between public works contracts and FIDIC international contracts	20		
Commitment to finalize invoices and change orders matters	20		
Develop and implement a uniform methodology throughout the life cycle of the project	20		
Methodology of management of Claims and disputes	20		
Team Efficiency in Claims and Disputes management	20		
professional manipulation of Claims and Dispute documents	20		
Total Points	1000		