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Developing a Reference Framework for Claim Management Office: A Multi-Method Approach of an International Construction Firm

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Abstract: A claim management office (CMO) is a new intra-organisation fit based on an organisational project management (OPM) approach and deals specifically with improving claim performance. However, CMOs are either misunderstood or often overlooked in construction companies, mainly due to ignorance of the OPM context but further exacerbated by a lack of real case study research on how to adopt CMOs in these organisations. To address this knowledge gap, this present study integrates organisational ambidexterity with X-inefficiency theory (due to organisation intra-firm irrational decisions when managing such claims) to generate a reference framework for the CMO by probing its implementation within an international construction firm. A multi-method approach, including a single case study (a firm which adopted a CMO) and internal and external expert panels, was used for sampling, data collection, analysis and validation of the framework. The reference framework provides new perspectives on how construction-related companies and practitioners can adopt a CMO structure, which enables them to improve claims performance by planning in three interrelated activities, viz. function-, process- and performance-based. Theoretically, findings also contribute to the X-inefficiency and organisational ambidexterity theories, specifically, how different influences among the reference framework's elements lead to better organisational claim performance as a plausible roadmap for future work.

Keywords: claim management office (CMO); organisational project management (OPM); built environment; project-based organisation (PBO); construction claim

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1. Introduction

A construction claim is defined as a compensation request for unanticipated risks which may escalate to a dispute if not agreed upon [1] or settled by fulfilment of the contract provisions and detailed technical documents/information [2]. Arguably, the claim requests are rooted in reoccurring conflict (as a root cause) [3] involving the contractual parties [4] (i.e., client, contractor and sub-contractor) [5]. Managing such claims represent specific challenges and a heavily gated process that has been extensively researched [6–8]. Barakat et al. [9] developed the all-encompassing claim and dispute timeline, drawing on six widely adopted standard construction contract conditions viz. the American Institute of Architects (AIA), ConsensusDocs, Fédération Internationale Des Ingénieurs Conseils (FIDIC), Engineers Joint Contract Documents Committee (EJCDC), the New Engineering Contract (NEC) and Joint Contracts Tribunal (JCT). Mayer [10] proposed 'conflict engagement' as a method for managing conflict and litigation. Considering the root cause and

unanticipated risks of requests, claim management can be defined as a complex conflict engagement decision to compensate cost implication of unanticipated risks, whether at the project or organisation level.

Several factors are perceived to improve claim management at the organisational level, including (1) considering the hard and soft categories of claims [11]; (2) directing the relationship between roles of the organisation's various units and the claim administration [12]; (3) focusing on the internal and external context in the organisation [13]; (4) relying on non-immediate resolution or understanding aspects of complexity [14]; and (5) considering distinct categories of business disputes: partnership, intellectual property and patent, contractual and employment [15]. Notwithstanding these, Locatelli et al. [16] state that the project manager (who sets the 'iron triangle' of time, cost and quality benchmarks) prioritises managing construction law professionals (e.g., claim specialists, lawyers and others); however, some of these may have other priorities and concerns. Hence, governance (of project management) has been suggested for influencing the decision-making of policy, strategy, tactics and operations levels on projects and in project-based organisations [17]. Miterev et al. [18] proposed the modified five-dimensional model, which stipulates the internal fit of project-based organisations (PBOs) to design their organisations. Müller et al. [19] introduced the onion model of organisational project management (OPM) with 22 elements in 7 layers and discovered how they are integrated. Accordingly, the organisational offices of PBOs can be developed by focusing on the approach level of the OPM context. This point concurs with Karim et al. [20], who confirmed organisational aspects and practices for improving OPM maturity.

In a PBO, the improvement of claim performance is notoriously problematic because it represents an inevitable result of paradoxes, complexities and uncertainties encountered when managing behavioural intra-firm claim decisions. The claim management office (CMO) concept contributes to managing organisational-level related claims [21]; however, the claim and project performance indicators differ from each other [22]. Due to this difference, the CMO functions must be separated from the project management office (PMO) and other organisational-related units. CMO-related functions (i.e., dispute resolution and organisational ambidexterity management) have thus received specific attention in the project management discipline [23–27]. Understanding the CMO-related organisational ambidexterity helps a construction company to improve its performance [28,29], particularly when managing conflicts and ambidexterity [30,31]. However, the performance dimensions and indicators with CMO-related levels and its intra-firm structure are yet to be fully understood. Some researchers [32,33] proffer that integrating organisational ambidexterity theory with X-inefficiency theory is relevant, resulting in more qualitative insights into intra-firms' behavioural dynamics. An unanswered question, however, is: how do PBOs design an OPM-based CMO approach for improving industry-related claim performance? A reference framework for understanding CMO structure and components (and inquiring about its impact on claim performance based on the organisational ambidexterity and X-inefficiency theories), therefore, remains elusive. This demonstrates a lacuna in the body of knowledge on implementing CMO within PBOs, particularly in large construction firms, integrating the function, structure/process and such specific indicators.

Against this contextual backdrop, this work integrates organisational ambidexterity with X-inefficiency theory, generating a reference framework for the CMO by probing its implementation in a large international construction firm. Concomitant objectives are to: (1) adopt the CMO functions and their subfunctions; (2) probe internal multilevel fit within PBOs for rational decisions when implementing CMOs; and (3) explore the claim performance indicators of PBOs for improvement. This reference framework will assist construction companies in devising plans for the early management of their claims to improve claim performance, particularly claims related to global industry concerns. Further, the framework can be used for participants of wider industries when considering their claims. This study makes contributions to both research and practice by garnering true insight into the CMO approach within the OPM context and the inefficiency and

organisational ambidexterity theories, setting a solid reference for the formulation of the hypothesis and developing a practical roadmap for future work.

2. New OPM-Based CMO Approach for Wide Industry-Related Claims

Since the CMO is an under-theorised concept within the approach level of OPM, it is less common in the project and organisational studies of PBOs. However, the different levels of the CMO maturity model are well documented [21]. Thus, to set the context for this present research in the wider body of knowledge, particular attention is given to (1) problems of managing built environment claims, and (2) theoretical foundations of CMO within PBOs. Based upon this synthesis of CMO-related literature, new basic CMO knowledge development within PBOs is generated.

2.1. Problems of Managing Project-Based Organisational Claims

A claim request is rooted in triggering events of risk and conflict. Kumar et al. [1] suggest that if the cost implications of unanticipated risks are not considered and agreed upon, claims formation and disputes occur. However, drawing on the industrial classification of construction businesses [34], reframing construction within the built environment [35] and the project and inter- and intra-organisational communication [36], such claims are complex and diverse. This is because (apart from construction companies) many firms from other industries may be involved in other services provided to the built environment sector's supply chain [37]. Consideration of the industrial diversity of construction businesses, in particular international construction and entry mode, highlights the need to pay more attention to the service-oriented built environment context with a specific managerial process [35,38–40]. Arguably, Alsamarraie and Ghazali [41] concluded that cost overruns, schedule delays and erratic project performance are common triggering events of any organisation, some of which may lead to claims in such PBOs.

Numerous studies [42–47] have suggested feasible alternatives to performing a claim management process, viz. artificial intelligence, software or online internet capabilities. Such alternatives, however, typically encounter inherent problems. For example, framework constraints provided by building information modelling (BIM) include the inherent complexity of a contract; different conditions of each contract; the necessity to use integrated project delivery (IPD) as a project implementation system; and a manual modification of the values due to the design change [46–49]. The dark side of projects accompanied by organisations' concerns [16,50,51] (in particular, the project claim management committee with no client-focused PBOs and their non-project works [21,52,53]), can also be considered as other problems in managing built environment claims. Notwithstanding these, Parchamijalal et al. [21] suggested CMO as a solution for implementing process management to control, reduce and improve a construction organisation's claims performance using five-pronged maturity levels, viz. preliminary, awareness, standard, integrated and advanced. However, the functions, intra-organisational fit and claim performance indicators remain undefined. By doing just these, a CMO can be used for managing the broad construction (as a built environment sector) claims rather than focusing on narrow construction projects in isolation. According to Müller et al. [19], the program and organisational office components are related to the organisational integration and OPM approach layers, respectively. Rijke et al. [54] believed that program management constitutes a more strategic focus rather than project management, drawing on its effective/timely decision-making and competencies [55,56]. Shao et al. [57] pointed out that the program context has two dimensions of types and characteristics, which the organisation's claims can be effectively managed under such programs. Gebken and Gibson [58] put disputed claims indicators into two categories; frequency indicators (i.e., company history and market environment) and severity indicators (i.e., direct, indirect and hidden costs). Seo and Kang [22] also proposed three frequency performance indicators of claim management: entitlement miss, time-bar miss and lack of substantiation. Notably, as the company history and market

environment are among the claim performance indicators, expanding the necessity for managing organisational ambidexterity will improve company performance.

Previous scholars [28,29] concluded that organisational ambidexterity, as an organisation- and management-focused theory, may affect the operational and financial dimensions of firm performance. The concept of organisational ambidexterity consists of [33]: levels (strategic, projects, organization and individual); dimensions (knowledge, technology, behaviour and process); and mechanisms (structural, learning, selection and communication). Although international construction company cases contribute to understanding the diversification of construction businesses [34,40], it is imperative to use relevant theories for generating a knowledge base of CMO.

2.2. Theories Foundations of CMO within Project-Based Organisations

Wu et al. [59] place indicators of project performance into five categories: (1) the project's overall performance (i.e., time, cost and quality); (2) the project's multiple goals (i.e., claim management); (3) stakeholders' satisfaction (i.e., client, contractor and subcontractor); (4) potential future collaboration; (5) capability enhancement. Similarly, Gunduz and Elsherbeny [26] highlighted that claim management is among the measures of core competency function as the main functions of the contract administration performance framework. Therefore, claim management is a core competency for managing construction claims, with its specialised indicators and two levels of project and organisation. Such levels are echoed by several researchers [60–62] who use five processes of claim management (i.e., identification, notification, documentation, presentation and resolution). Duodu and Rowlinson [28] claimed that the operational and financial dimensions of firm performance affected by the organisational ambidexterity are among the most important theories and constructs, which are organisation- and management-focused [29]. The concept of organisational ambidexterity includes [33]: levels (i.e., strategic, projects, organisation and individual); dimensions (i.e., knowledge, technology, behaviour and process); and mechanisms (i.e., structural, learning, selection and communication).

Recently, organisational ambidexterity and X-inefficiency theories have gained some traction as a theoretical foundation to explain intra-firm related phenomena [32,62–65]. This present study attempts to integrate the X-inefficiency theory with organisational ambidexterity theory as a plausible choice to improve organisational claim performance. This is because the X-inefficiency theory focuses upon the utilisation inefficiency of a firm's suboptimally claim performance [66,67] whilst simultaneously managing the exploration -and exploitation-related problems [68,69]. Notably, integrating organisational ambidexterity (i.e., the organisation behaviour and selection levels) with the behavioural dynamics of X-inefficiency theory (i.e., quality decision-making) helps uncover CMOs' functions for improving claim performance. These functions are managing closeout completion claims, ambidextrous program management and dispute settlement (e.g., alternative dispute resolution, litigation and ambidexterity management). 'Closeout' management, as a main element of the contract administration performance framework, can engender optimal performance [26]. However, managing its completion claim is complex and involves: (1) considering the rejected requests of project issue management—Shalwani and Lines [25] proffer that issue management (as a project control technique) as a solution for mitigating project challenges by using the issue log during execution for the remainder of the project; and (2) considering organisational project/program management [70,71]. In addition, some scholars [72,73] claim that process improvement of organisational ambidexterity is critical to understanding its conflicting aims and contradictory variations. 'Ambidextrous program management' (as a new type of multi-project management) bridges the project management and ambidexterity literature [30].

To effectively manage program conflicts, Wang and Wu [31] suggest the program conflict management model (PCMM), including conflict identification, prevention, resolution and feedback—with unique causes, impacts and alternative resolution strategies. Nevertheless, disagreement abounds among researchers about dispute-related issues. For

instance, some researchers [58,74] believe that conflict and dispute are two separate phenomena and that conflict cannot be avoided but instead should be managed and minimised. Hence, where conflicts lead to disputes, they should be resolved. In contrast, other researchers [75,76] believe that conflict itself should be resolved and that a spectrum of conflicts can occur and culminate (or intensify) into disputes. Notwithstanding these, when a dispute emerges, alternative dispute resolution (ADR) methods are commonly adopted. ADRs (representing non-binding negotiation to binding arbitration) are alternatives to avoiding litigation in disputes among contracting parties [77]. Haugen et al. [78] split dispute resolution strategies into two dichotomous categories: non-adjudicative (including negotiation, partnering, consulting and mediation) and adjudicative (such as arbitration and litigation). Surprisingly, Chaphalkar and Sandbhor [79] believe that although ADR methods seek to avoid litigation, their implementation creates conflicts in defining the procedure and resources required. Although the non-fulfilment of resolution clauses is among the major causes of litigation [80], there are some focus areas, people and behavioural factors and processes which decode a decision to pursue litigation and facilitate its management [23,24,81].

Consequently, based on the literature and contributing towards organisational ambidexterity and X-inefficiency theories, in a construction context, basic CMO knowledge development is uncovered (refer to Figure 1). Thus, adopting a CMO foundation among the three main components of (1) PBO design for OPM conflict engagement fit (functions and structure), (2) the organisational ambidexterity theory (PBOs' conflicts and ambidexterity of their programs) and (3) the X-inefficiency theory (intra-firms' behavioural dynamics), this present study, therefore, proposes a CMO foundation that utilises these three components and other PBOs' construction claims components (see Figure 1). Drawing on this foundation and using an international construction firm case, this work endeavours to develop a reference framework for a CMO.

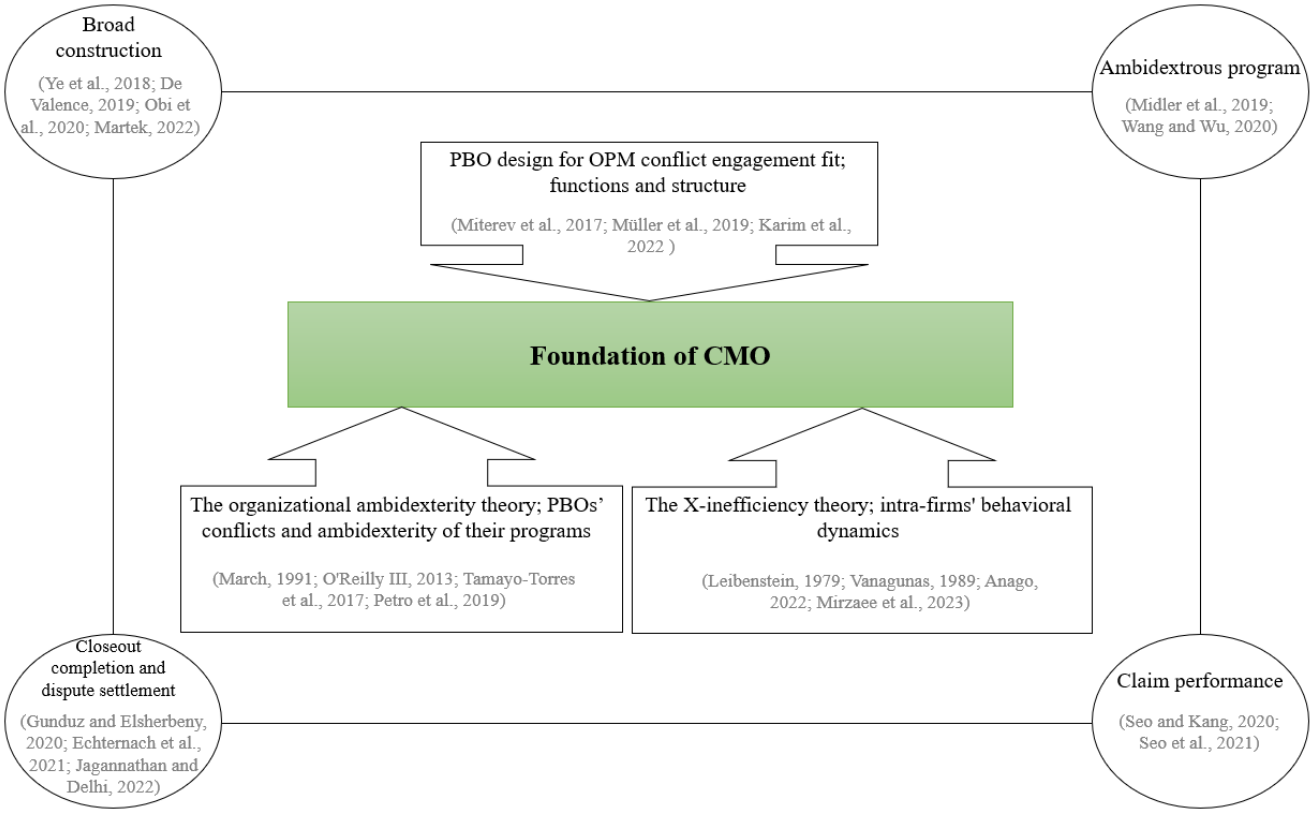

Figure 1. Basic CMO knowledge development and supporting literature [18–20,22–24,26,30–36,39,40,63,65–69].

3. Research Methodology

Underpinning philosophies adopted within this present study are interpretivism and postpositivism [82–84] to test theories proposed using abductive reasoning. Specifically, the research process adopted consists of four main steps.: (1) identifying knowledge base elements of CMO (see Figure 1); (2) sampling and data collection; (3) data analysis (root causes analysis); (4) multiple triangulation-based validation. The research undertaken was governed by a strict ethical protocol guiding this work that included: anonymising all participants' demographic details; holding all information in a secure location and neither disseminating nor divulging to any third party without their express permission in writing; ensuring all participants could access results in aggregate form post research completion [85–87]. Thus, these four main steps of the methodology followed in this research are shown in Figure 2, and further details and clarifications are demonstrated in the following sub-sections.

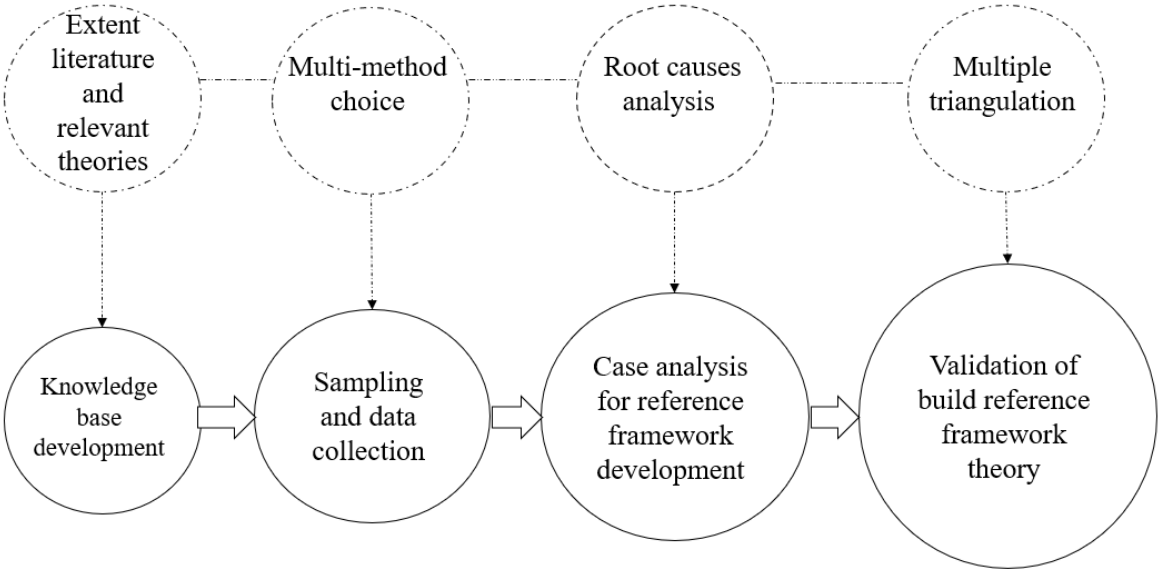

Figure 2. Research flow.

3.1. Sampling and Data Collection

Integrating an extensive review of extant literature and relevant theories resulted in the development of a knowledge base for CMOs (see Figure 1). A multi-method approach, including a single case study and an expert panel, was used for sampling and primary data collection. This approach is chosen because of its suitability for understanding complex and unique qualitative elements of a construction-related phenomenon [88]. Consequently, a case study strategy [89,90] is used for addressing the knowledge deficit on the specific problems of ambiguous intra-firm related phenomena and context. It should be noted that managing the sub-optimal and exploration and exploitation-related problems of PBOs is ambiguous, owing to their inefficient behavioural dynamics and organisational ambidexterity paradoxes, respectively. To this effect, a single case study focuses on phenomenon and context boundaries to clearly comprehend the dynamics existing within a single real-life context setting [91,92]. Moreover, to achieve a good outcome from a case study, in addition to its archival documents, the voice of its participants must be included. By doing so, the mid- and top-level managers' views of an international construction company were sought by forming a focus group discussion (FGD) consisting of the Chairman of the Board, the Director of the CMO Department, the Director of the PMO Department, the Director of the Legal Department and the Director of the Financial Department. FGD is a dynamic and widely adopted qualitative method; for this present research, it involves a group comprised of 5–10 participants, which is facilitated by a mediator (the researcher) to add dimensions of interactions among them [93,94]. FGD also considered a 'majority view' to

resolve any disagreements between participants. Previous research work [95] adopted a case study and its internal FGD for developing strategies in board-related construction. Thus, a multi-method approach has been used to discover the efficiency of adopting CMOs in construction companies to develop a reference framework.

3.1.1. Selection Criteria

As an international firm with experience in Iranian domestic and international construction, Company B was selected for the case study, and its intra-organisational structure in managing claims was reviewed based on the following criteria. First, managing an international construction business requires comprehending the sector players (including the involved case firms (as a provider of projects)) and their countries (of primary location (e.g., headquarters) and operation) [40,96]. Thus, both the global and the local context must be considered in an international firm. In this regard, Company B of Iran has been involved in building international projects in Iraq. Second, Company B has encountered extrinsic macro-economic risks in domestic and international dimensions. This is because an international construction company comprises diverse' risks and requires managerial best practices [97]. Third, Company B established a department for managing claims at the organisational level. Notably, the designed organisational structure for this department has fundamental differences from the PMO and legal departments, especially in terms of goals, strategies and organisational tasks. This point was echoed by Parchamijalal et al. [21], who noted that the CMO maturity model contributes to managing such claims. Finally, in shedding light on the 'selecting suitable case', particularly in the period of time available for the case and its internal FGD, this international firm case can optimise organisational learning [98].

3.1.2. Case and Its Participants Description

Company B has a registered head office in Tehran and is a 'first-grade' large (and general) contractor in six industrial fields: buildings and structures; water; power; industry and mining; facilities and equipment; roads and transportation. Established in 1992, company B has participated in 51 large national projects and five international projects—with a variety of project delivery systems, such as engineering, procurement, construction (EPC); build, operation, transfer (BOT); design, build, financing (DBF). Company B is also registered at four overseas 'branch offices' and a 'holding company' with five subsidiaries in design, trade, machinery, steel works and insurance services. Company B's manpower is divided into three main parts: staff (388 members), onshore (around 4000 members) and five main subcontractors. The company has had a five-year period (2011 to 2015) turnover of USD 216, 117, 129, 139 and 154 million, respectively. Projects completed since establishment include 54 km of underground tunnel and metro lines; 7500 MW (15 cooling towers) of power plants; construction of a 15,000 tons/day cement factory, 1.12 miles of bridges built; 700,000 M^2 building of building space; 600,000,000-L fuel tankers; 147,500 seat stadium; 5310 vehicle multi-story parking; 600 hospital beds. In 2021, a new department created in Company B named 'projects closing and follow-up' was established for managing organisation claims as a bespoke team with functions that differ from the contract's affairs office and PMO. Therefore, the decision to select this specific name demonstrates how the local context differs in this case. All members of the FGD—with 20 to 35 years of management experience—held main managerial positions within Company B and were somehow involved in settling the organisation's disputed claims. Considering these, Company B and its internal FGD participants' description meet the sample eligibility criterion for inclusion in this present research.

3.2. Data Analysis

Data analysis techniques adopted follow a root-cause analysis process [63,99,100]. Accordingly, based on the CMO foundations diagram (Figure 1), root causes and organisational claim performance in Company B were identified. Further, the FGD-based case

analyses (derived from Figure 1) were discussed regards developing a reference framework for CMOs, to improve the claim performance of PBOs.

3.3. Multiple Triangulation-Based Validation

Akin to previous studies [94,95], a *'multiple triangulation'* approach is used for validating the framework by developing an FGD and the case data (see Figure 2). According to Kimchi et al. [101], multiple triangulations can be fulfilled by developing an investigation triangulation and a data triangulation simultaneously. Notably, to avoid human bias and to provide greater confidence in the study's outcomes, the views of a new (external) FGD (a senior expert panel with higher experience than the internal FGD) are taken to ensure validity.

4. Root Cause Analysis: The Multi-Method Results

Notable claim performance observed in Company B were government-related penalties, actual ending deviation and abounding of some projects, bank guarantees tensions, dissatisfied clients and seven claims under legal matters (in the stage of arbitration or judicial proceedings) for projects and market development issues—particularly, in terms of domestic construction. These negative outcomes stemmed from entitlement miss and time-bar miss when handling its projects claims and ignoring its financial and operational dimensions. Although the 'projects closing and follow-up' was developed for managing such claims, Company B has encountered several disputed claims (e.g., lack of substantiation) and severity indicators (e.g., the direct cost of litigated cases). The causality diagram of knowledge depicts the claim performance of Company B (refer to Figure 3—as suggested by the internal FGD) and sheds light on extant literature and relevant theories of the CMO foundations. This diagram consists of three root causes: (1) special tasks and organisational ambiguities; (2) process-related problems of claim management; (3) inadequate PBO design for organisational claims and its solution. More depth, precision and validation details are clarified in the following sub-sections.

4.1. Special Tasks and Organizational Ambiguities

The scope of managing project claims within Company B, according to the archival documents (refer to Table 1), was divided into ongoing and closing categories with special tasks.

Although managing the issues and claims (in both the projects and company B's organisation levels) can be achieved comprehensively under these categories, the 'projects closing and follow-up' was faced with some organisational ambiguities, namely: (1) overlapping with other departments—the claim performance indicators have been neglected, as the time and cost deviations are related to the PMO's monitoring function. The balance of materials and contract status reports and staff complaints are also related to the contract's affairs and legal departments, respectively; (2) boundary between the issue and claim management. This is because issue management (as a promising project control tool) deals with the project's matters in which their request forms were agreed upon between contracting parties previously. Notably, such matters can be settled by claim management when the issues remain dissolved. However, 'performing other tasks assigned by the senior managers of the organization' has not been related to project claim management due to its organisational nature; (3) managing organisational ambidexterity. This encompasses paradoxical decisions for the chief executive officer (CEO) of Company B, particularly in the people-oriented and work-oriented imbalances and environmental dynamism for the company's survival. Some members of the FGD believed that the CEO is more work-oriented rather than economic-oriented, shedding light on the continuous discussion among them—the economic orientation replaced with people orientation. They concluded that work and economy are intertwined and inseparable categories, and an influencing factor of people is emotion (i.e., emotional intelligence) due to its closely coupled relationship with conflict. However, all the members agreed that the continuity of work harmonisation may affect entire projects' economic viability; (4) dispute resolution as a specific function of the

department. The FGD accepted that the 'managing completion closeout claims' can be considered as a specific function for the CMO, which may be complete with the dispute settlement. This is because actual ending deviation and abandoning of some projects were the main problems of Company B; thus, optimal closing of these problematic projects was a priority for handling. To this effect, the concept of managing ambidextrous programs was considered by the department. However, such closing of projects produced organisational paradox conflicts, some of which required the ADR and litigation method.

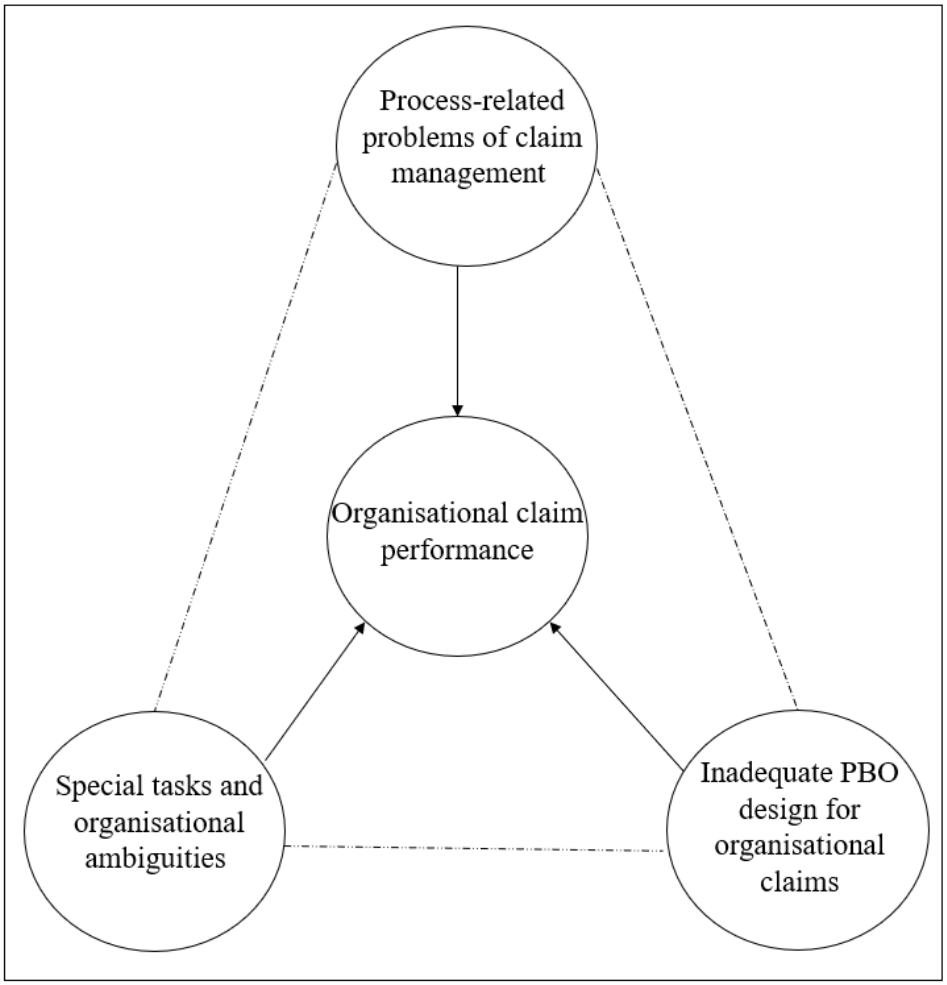

Figure 3. Causality diagram of claim performance in company B.

Table 1. Special tasks for managing project claims of Company B.

Row	Ongoing	Under Closing
1	Continuous monitoring: • Review of contract status and material balance reports from PMO and contract affairs units. • Follow-up to finalise invoices from the Clients in order to reduce and release the guarantees. • How to behave in partnership agreements. • Documentation for referral to dispute resolution authorities. • Drivers' insurance for labour complaints and project all risks. • Follow up on health and safety-related documents.	Closeout management: • Document and record management. • Verify physical work completion. • Timely issue taking over certificates. • Notify the employer about due payments. • Site dismantling and machinery transferring. • Timely release retentions. • Timely processing of the final account. • Document lessons learned and best practices.

Table 1. *Cont.*

Row	Ongoing	Under Closing
2	Intersection and/or termination in coordination with the legal and contract affairs departments.	Alternative dispute resolution management.
3	Document evaluation by using a document control center (DCC) system.	Follow up on insurance and tax issues.
4	Performing other tasks assigned by the senior managers of the organisation.	File a lawsuit and litigation management.

4.2. Process-Related Problems of Claim Management

In the 'projects closing and follow-up' department, different processes were involved in different group levels with multi-levels within each group: (1) *claim phases and timeline*. Documentation (i.e., quality and completion records) and presentation (i.e., ill-presented and soft claims) were the main concerns when managing organisational claims. The FGD disclosed that in some projects, the shop and/or as-built drawings were not submitted to arbitrators, which was a root cause for their unfair decision when the votes were announced. Arbitrators also encountered some limitations (such as delayed payment, tax and insurance penalties) because of poor statements of claims and legal remedies for soft claims. (2) maturity model. This model within Company B was identified under preliminary claim management due to a lack of clear planning towards claims, and its transition stage was based on the organisation's awareness of claim management. However, the FGD claimed that by supporting the board of directors and CEO, the claim submission strategy should be promoted. To this effect, the financial resource and authority were the main problems in implementing this strategy since these are prerequisites for upgrading the level of maturity even to the advanced level. (3) business context. The internal FGD within Company B highlighted the crucial role of the business context process, as some of which operated outside the international (not domestic) market. Drawing on how the company claims can be comprehensively identified, the business levels were intra-organisation (four foreign branches and a holding company with five subsidiaries), inter-organisation (clients, subcontractors and government institutions) and trans-organisation (global construction and national culture) levels. According to the FGD, these multi-level processes were identified as the potential process in a broad construction perspective, in particular, international entry mode. (4) intra-firm structure. Some functions of the 'projects closing and follow-up' are implemented through coordination with other internal departments (see Table 1), e.g., contract affairs, PMO, and financial and legal offices. Although outputs of such offices in claim-related issues were finalised by the 'projects closing and follow-up' office, the FGD prescribed an insightful understanding of the PBO design framework to facilitate rational decision-making.

4.3. Inadequate PBO Design for Organizational Claims and Its Solution

Although structure and process were considered as the main aspects in the PBO design of Company B, the FGD members suggested that the strategy, behaviour and human resource aspects also should be considered for achieving a fit design. As a first stage towards providing a solution, Figure 4 outlines the FGD's comments for improving the root causes of claim performance in Company B, drawing on its causality diagram (see Figure 3). To address these commitments, as a refined and final stage, the reference framework for the claim management office (RFCMO) is presented in Figure 5. The developed basic knowledge, causality diagram, and initial solution outlined for the CMO, intertwined with its functions, processes and claim performance dimensions/indicators are the basic components of the framework.

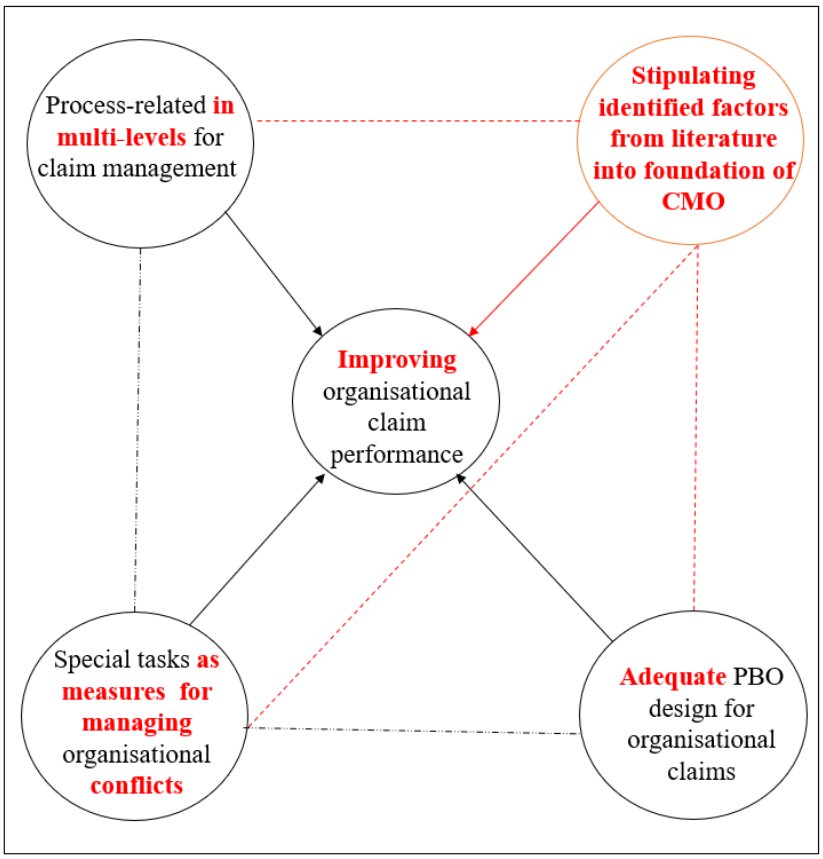

Figure 4. Primary solution framework for improving claim performance in Company B.

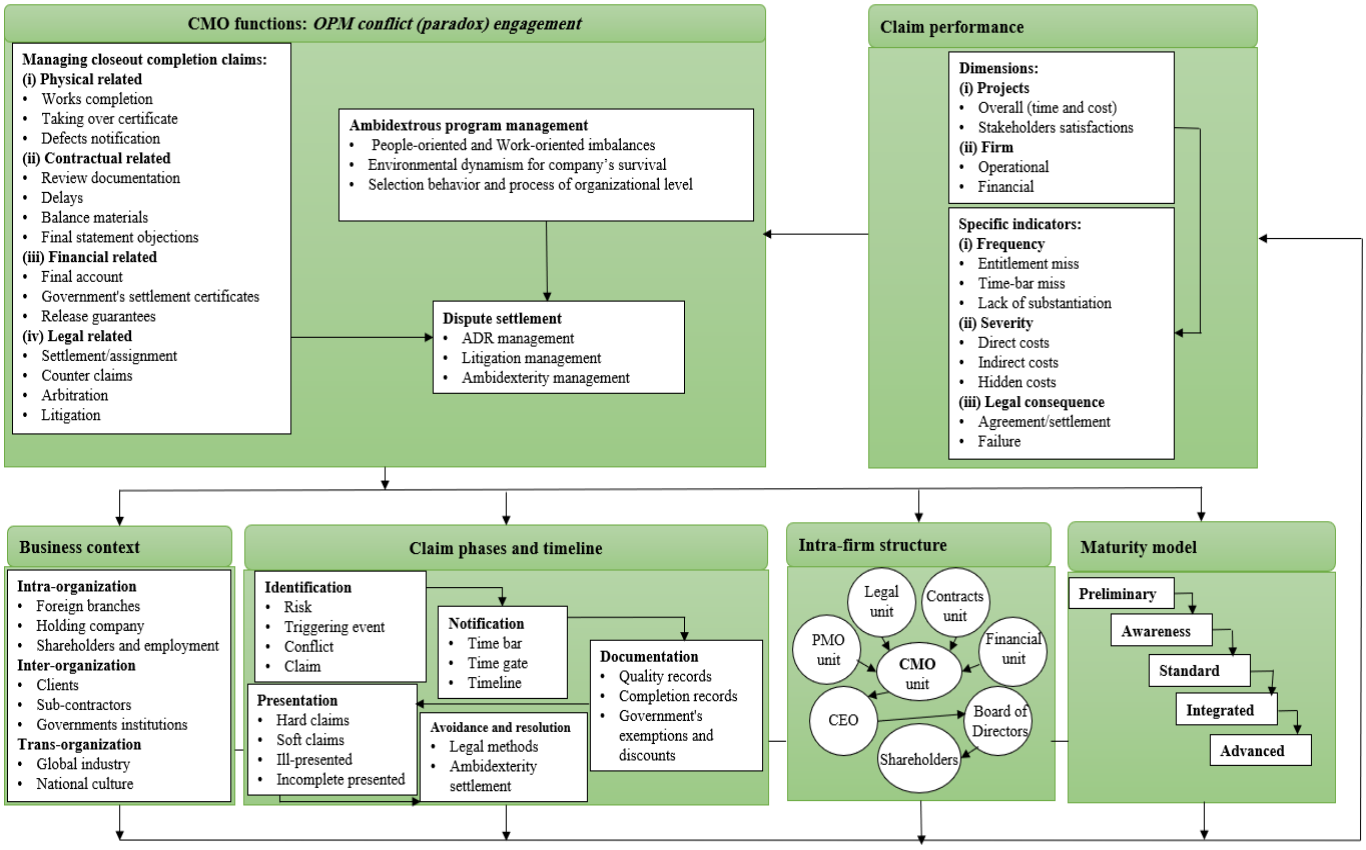

Figure 5. Reference framework for implementing claim management offices.

Validation of the Framework as Build Theory

The case study (with its internal FGD) reaffirms the framework's validity as a data triangulation element within a multiple triangulation approach. In this regard, for validating the reference framework, all of the basic components (including the knowledge base, causality diagram and primary framework) were considered by an external FGD from four high-ranking national organisations, including: (1) two of the three members of the Supreme Technical Council of Iran's Construction Industry, who deal with arbitration of disputed infrastructure projects; (2) the CEO of the construction companies syndicate of Iran, who deals with all contractors affairs; (3) a board member of the Iran Technical and Engineering Service Exporters Association, who deals with international firm issues; (4) the CEO of a large Iranian construction company with more than 35 years managerial experience.

Regarding the stages of development of this senior specialist panel, at first, the CEO of Company B was requested to recommend panel members and then obtain their final informed consent by following up. The CEO of Company B has accrued significant managerial experience in all of the four mentioned organisations and is still an active and well-known member of them—hence, their input was invaluable. Expert feedback received suggested minor improvements in the CMO context and generality of the framework as follows: (1) adopting CMOs for managing projects and 'guild' (or contracting guild/or union) claims of PBOs. Notably, akin to the 'projects closing and follow-up', the 'guild' claim is also rooted in the local context, highlighting how the local context may differ in some cases. That is, the project claims are specific for a project managed by the company, but the guild claims are general for all contractors (i.e., insurance and tax issues); (2) as the framework contributes to large international companies, it should be customised for SMEs; (3) claim performance also may be affected by emotional conflict among the claim team; thus, cumulative emotional intelligence within the team should be fulfilled in the maturity model of the framework (as a required resource when upgrading to higher levels of the maturity model). Notwithstanding these, this FGD fully affirmed the consistency and comprehensiveness of the framework and its inputs. Thus, taking advantage of this investigation triangulation and the data triangulation proved valuable and validated the RFCMO for managing projects and guild claims of a large contractor.

5. Discussion and Contributions

The RFCMO is based on integrating ambidexterity theories with X-inefficiency and the case study, generating a reference framework for adopting CMO. As demonstrated in Figure 5, the suggested framework encompasses comprehensive areas of the CMO concept. The RFCMO has six main parts, namely: (1) CMO functions; (2) claim phases and timeline; (3) maturity model; (4) intra-firm structure; (5) business context; (6) claim performance outcomes that tailor theories, strategies and lessons learned for improvement of claim performance. The RFCMO (refer to Figure 5) suggests that the functions (as main responsibilities) of the CMO manager include: 'managing closeout completion claims', 'ambidextrous program management' and 'dispute settlement'. Each of them was subsequently classified into several distinctive sub-functions. Namely, sub-functions of the managing closeout completion claims are: physical-related (i.e., works completion); contractual-related (i.e., delays); financial-related (i.e., release guarantees); and legal-related (i.e., counterclaims). Such organisational sub-functions, in addition to the program-related requirements, should be implemented where some of the contract issues may not be impossible to manage by a project team. The sub-functions of ambidextrous program management are economic-centric and obligation-centric imbalances, environmental dynamism for the company's survival and selection behaviour and process at the organisational level. In this part, such paradoxes can result in better (constructive) task and process conflicts instead of destructive relationship conflicts as a method for managing the organisational claims of firms. This point was echoed by Mayer [10] as the conflict dialectic—better paradoxes bring better conflict. The ADR, litigation and ambidexterity management are

also identified as the sub-functions of dispute resolution. Hence, a CMO manager should focus on the sub-functions of the other two parts, where some of the contractual issues and/or the firm's paradoxes may result in destructive conflicts. More importantly, the reference framework (refer to Figure 5) provides three main functions, along with 20 sub-functions, which can be used systematically by firms considering the multiple-level groups. Moreover, if the results are compared with other studies and the difference is described, some of the parts in Figure 5 remain true to previous studies concluded: (1) closeout claims [26]; (2) improvement of organisational ambidexterity [31–33,72,73]; (3) dispute settlement [23,77,79,81]; (4) claim phases and timeline [9,61,62]; (5) CMO maturity level [21]; (6) claim performance indicators [22,58]. However, as previous scholars have reported on OPM-related decisions [17,19,20], past research has not figured out how all of these behavioural-based concepts can be integrated into the design structure of CMO in firms' organisations. Notably, the X-inefficiency and ambidexterity theories-based framework contributes to addressing the ambiguous intra-firm related phenomenon due to organisation intra-firm irrational decisions when managing the disputed claims. To this end, 24 sub-levels under 13 levels, when undertaken in an intra-firm structure with five elements, facilitate the intra-firm decision and behaviour necessary to improve frequency, severity and legal consequence indicators of claim performance.

5.1. Contributions to Theory

This study's principal contribution is that integrated X-inefficiency and ambidexterity theories [32,63–65] (which capture the intra-firm irrational managerial decisions, particularly in international firms) can improve claim performance [22]. Specifically, this research contributes to current CMO literature by developing the reference framework on how different influences among the reference framework's elements lead to better organisational claim performance. That is, previous research focused on how to design a maturity model to effectively claim management process [21], ignoring the CMO functions—particularly considering its specific performance indicators [22,58]. This study extends the CMO literature by exploring the reference framework, which has not yet been investigated in an OPM context [19,20]. Hence, this study tailors theories, strategies and lessons learned to understand how the claims performance of firms can be improved. By doing this, the RFCMO establishes a solid foundation and a road map for future empirical research in the CMO context.

5.2. Practical Implications

This work offers significant implications for five groups of PBOs managers and teams, including top managers, program managers, project managers, claim managers and claim teams. The developed knowledge base, causality and primary solution diagrams (as presented in Figures 1, 3 and 4) will inform these five groups of international construction firms to choose a CMO approach for managing OPM-based conflicts [31]. These diagrams act as guidelines to motivate top managers of large construction firms for rational claim decisions, shedding light on the RFCMO (see Figure 5). The proposed framework can help the project and program managers gain a true understanding of claim performance [22,36], accompanied by its four dimensions and six specific indicators, to clarify the dark side of project management [16] and ambidextrous programs [19,31]. According to the reference framework, the claim managers and teams of PBOs are involved in three main groups of practices (in six parts)—function-, process- and performance-based activities—all of which are crucial for improving claim performance [21,22]. While these practices are specific to large international construction firms within the construction industry, a large international construction firm serves as a recognised proxy of broad construction [34,35,39,40] and thus can be considered to provide lessons broadly across the PBOs of other industries for improving industry-related claims performance.

6. Conclusions

This study develops an OPM-based RFCMO for PBOs to improve their claim performance. For this purpose, ambidexterity theory was integrated with X-inefficiency theory, and the multi-methods of an international construction firm applied, as the theory building based on RFCMO. Emergent research findings reveal that the suggested framework includes 'managing closeout completion claims', 'ambidextrous program management' and 'dispute settlement' along with 20 sub-functions. To implement CMOs with optimal claim performance within PBOs, five group levels with 24 sub-levels under 13 levels were proposed by improving the four dimensions and six specific indicators of claim performance. That is, it facilitates rational intra-firm decisions to improve claim performance by the function-, process- and performance-based activities. Further, a new perspective at six parts enables managers to determine how to design an organisational structure for adopting an OPM-based CMO in their PBOs, particularly in international construction firms. This would enable them to clarify the dark side of project management/ambidextrous programs, thus helping them to make rational claim decisions.

There are some limitations associated with this research. First, as the managing closeout completion claims are project-and program-based, the research findings require future projects and program case studies. This is because 'program closeout' may improve firms' claim performance and has specific indicators when considering their local context. Second, as the FGD noted, the current level of the CMO maturity model can be promoted by equipping financial and team emotional intelligence resources. Third, Wang and Wu (2020) developed a program conflict management model with specific elements, some of which are under the CMO functions. In this regard, the 'program conflict (paradox) engagement' aspects remain unknown. Fourth, the FGD highlighted findings contribute to specific large contractor firms; other contractor firm types (i.e., SMEs) may need some changes in the framework. The CMO structure also shows the consensus on the effectiveness of contractors' firms. Considering these, the clients, consultants and construction law firms, in addition to the other types of contractor firms, will need additional case studies. Further, the average practitioner may be unfamiliar with the scientific instruments adopted in the framework. Hence, future work is required to develop a graphical user interface (GUI) front end and relational database backend to create user-friendly software that enables practitioners to use the developed framework and predict the risk level posed in practice. However, the framework could be performed for other (types of contractors) firms and industries to boost PBO managers into improving claim performance. By using the RFCMO and appointing a director of CMO, they will also be able to select a specialist dispute review board or arbitrator(s) as conflict specialists when PBOs want to settle their disputes professionally and efficiently.

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