Setting a Research Agenda for IT Project Management Offices

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Abstract
This paper recommends a number of research directions and themes to IS researchers concerning the planning, implementation, operations, and delivery of business value from IT Project Management Offices (IT PMOs). The recommendations are based on a review and analysis of academic literature on PMOs in which the authors noted that there were many challenges and tensions regarding PMOs that seemed unresolved. These formed the basis for a recommended research agenda that is presented in this paper. The research agenda is organized under three main themes: Up front planning and preparation for an IT PMO implementation, implementing and operating an IT PMO, and finally, delivering value from an IT PMO. These themes were then discussed with IT PMO managers in the context of their organizational environment, to establish whether they represented issues and challenges that were of genuine concern. It is intended that the research agenda will motivate and guide future research into IT PMOs.

1. Introduction

In Information Technology (IT), we can hardly claim a long and glorious history of successfully managing projects in organizations. While data would suggest some improvement in the rate of successful execution of IT projects over time, there are nonetheless disturbing figures around the numbers of systems abandoned or regarded as working failures [21]. While some may suggest that there have been improvements in project management (PM) knowledge and skill amongst IT practitioners [1], the complexity (both organizational and technological), the environmental volatility, and the competitive pressure for innovation [28], suggest an increasing need for best-practice IT project management (broadly defined) in challenging contexts.

There is considerable interest in industry about the potential of the Project Management Office (PMO) to develop organization-wide project capabilities through approaches such as standardizing project initiation, business case formats, PM methodologies, processes, and the like for projects, programs and portfolios, through training and mentoring of project managers, through monitoring, controlling and quality assurance of project performance, and for supporting organizational knowledge management and learning [2]. Supporters argue that PMOs are rapidly growing in number and influence globally, with the institution of a PMI-sponsored award for PMO of the Year acknowledging excellence and innovation as evidence that these offices are ‘here to stay’ [8]. Indeed, a recent industry study reported that despite the global recession, the percentage of organizations in the US with PMOs had risen dramatically from 43% in 2008 to 63% in 2010 [9]. This confirms the view that PMOs appear to be viewed as delivering value to the organization. By contrast, in the academic literature, concerns are being expressed about the long-term viability and contribution of PMOs [19]. For example Hobbs and Aubry [17:85] write that while a narrow majority of PMOs are well-regarded by their organizations and are seen as contributing business value, many of the others “are struggling to show value for money and some are failing, causing a high mortality rate among PMOs”. While there may be many PMOs being established, there are also many being closed and disbanded [17].

Given the prevalence of IT project-based initiatives in organizations, the concepts and logic surrounding PMOs have intuitive appeal. The motivation for this research thus arose from our view that in IT, the PMO concept is currently relatively under-researched. Our aim was to identify what we ‘know’ about IT PMOs as reported in both the academic literature, and perhaps more importantly, what we don’t yet know. We sought to identify areas and topics where there is little research or actionable advice reported in the academic research. Given our commitment to relevant research, we also sought the perspectives of IT PMO leaders in this regard. The outcome of this research is thus a research agenda to further our knowledge of IT PMOs,
derived from a review of the academic literature, and from interviews with key stakeholders in IT PMOs.

This paper is structured as follows: In the section that follows, we will provide a brief background to the concept of a PMO. This is followed by an explanation of our research approach, followed by a review of the key concepts in the academic literature, from which we identify key themes which seem relatively under-researched currently, and thus which warrant further rigorous research. The paper concludes with comments from leaders of IT PMOs supporting the research themes. Before proceeding, a word is required regarding terminology. The PMO concept extends well beyond IT [3]. In section 2 in particular, where we are broadly describing aspects of PMOs in general, we use the term ‘PMO’. When we are specifically referring to IT PMOs (as in parts of section 2 and in sections 4 and 5 for example), we specify ‘IT PMO’.

2. Background to the PMO concept

The fundamentals of the PMO concept are not especially new: The project office, which was associated with engineering, aerospace and defense-type projects, emerged in the 1950s as the scale and complexity of projects increased [13] [30]. However the popularity of this concept started to grow much more rapidly from the mid-1990s, with Dai and Wells’ [12] study suggesting almost exponential growth in PMOs since 1995. Some of this growth is attributed to Y2K projects, but more recently growth seems to have been driven by a desire to gain better control of project risks, to standardize and improve the use of project management methodologies, tools and techniques, to improve the monitoring of project performance, and to manage and disseminate knowledge of sound project management practice, especially in IT [13]. This seems to be occurring in response to concerns about the high rates of IT project failures and an increasing pressure to deliver value from IT projects [4]. Of interest however, is that despite reports of very rapid uptake, recent studies suggested that most PMOs have only been in existence for less than two years [18]. While the conceptual origin of the PMO may have been in engineering, now IT projects are a very significant concern for the PMO [6], and more recent research suggests that the largest incidence of PMOs is now in the ICT sector [17] [30].

The PMO is far from being a unitary concept, with considerable variation evident in the way it is defined and conceptualized in the academic literature [18], particularly in terms of the responsibilities and tasks undertaken, their location within the organization, and the authority and resourcing that are attached to the PMO. There is also a wide range of activities and functions attributed to the PMO, hence different goals and objectives, and different measures of success. Hobbs and Aubry [17] identified some 27 functions of PMOs, which they grouped into five categories (of descending importance), comprising the monitoring and controlling of projects, including the critical reporting of project status to executives; developing project management capability (training and mentoring, standardizing on project management methodologies and processes); management of programs and portfolios of projects, prioritizing and selecting new projects, and allocating resources across projects; the roles and functions associated with strategic planning; and learning, including post-implementation reviews, project audits, implementing and managing a lessons-learned database, and monitoring and controlling the performance of the PMO [17].

The PMO concept has spawned a large number of practitioner books and web sites that provide largely anecdotal evidence as to the value proposition of PMOs. In contrast however, there is not yet a substantial academic literature on PMOs. Much of the extant literature could be described as internally focused: There is research into what sorts of structures seem appropriate, what sorts of roles and activities should be undertaken and driven by the PMO [12] [17], and what sorts of challenges organizations may face in implementing PMOs [29]. The purpose of this paper is to think about what is currently not explicitly evident in both literatures about IT PMOs, and why this may be problematic for advancing both knowledge and practice regarding IT PMOs. In this study, the authors supplemented their review of the academic literature with an analysis of the issues and tensions in contemporary IT PMOs taken from a series of interviews with IT PMO leaders. This was used to determine a research agenda with the aim of broadening topics and encouraging interest amongst researchers, with the ultimate aim of contributing to more sophisticated understandings of IT PMOs that are of real significance to IT PMO leaders.

3. Research approach

The research reported in this paper is the outcome of a two-stage approach: The first was a review of the academic literature to identify both current interests and gaps in the research, and the second, interviews with managers of IT PMOs to gain insights into their perceptions of the major challenges relating to the IT PMO. From these two stages, we were able to articulate a research agenda.

The objective of the literature review was to gain knowledge of the current academic literature on PMOs
to determine gaps in the literature, and thus to identify potential topics deserving future research. Academic papers were found through a search on EBSCO Host.

The search was restricted to peer-reviewed academic journals, and papers found classified as ‘academic’ on the basis of the review process, irrespective of whether they were authored by academics or practitioners. It is interesting to note that no publication was found prior to 2000. Using a concept matrix\(^1\) [30] as the basis for review and analysis of the literature, each researcher was allocated papers which they independently read and then completed the concept matrix. Assessments were then compared, and where differences were evident, discussions and further examination of the literature took place to resolve these. In order to ensure relevance of any research agenda that was proposed, the second stage of the research, a series of interviews with IT PMO managers was conducted to identify their perceptions of the major challenges and knowledge gaps they had encountered in their organizations that might benefit from rigorous research. A total of twelve, semi-structured interviews, each lasting between 45-60 minutes, were conducted in six organizations across five different industry sectors (health, finance, education, transport services, and consulting). The interview protocol for these interviews was somewhat open-ended (e.g. Tell us about how key stakeholders across this organization perceive your PMO?), but also had questions targeting some of the themes that we had identified as largely being ignored in the literature (e.g. How do you demonstrate the business value delivered by your PMO to senior executives?). These interviews were then transcribed and analyzed using a direct approach to interpretation [10]. We used the themes that emerged as potentially important for future research from the literature review to categorize the interview transcripts, but we also sought to identify also other issues of concern to these managers. The major deliverable of this paper, the research agenda (see Table 2), is based on the gaps identified in the existing academic literature and also on the evidence of support from managers that research into the identified topics would be relevant and helpful to them.

### 4. Outcomes of the literature review

From our analysis of the literature, it became apparent that the PMO concept is rather fraught with tensions and challenges. Rather than provide a detailed analysis of what is discussed in the literature, we present here some of these tensions and challenges, suggesting that research is needed to help better understand and resolve some of these. We attempt to highlight issues that typify and are indicative of the underlying challenges and contradictions. These issues are grouped into three broad themes and presented below.

#### 4.1. Theme 1: Planning and preparation for PMO implementation

Very little of the literature reviewed reported research or discussed issues associated with the planning involved prior to the actual establishment of a PMO. This seems to be a critical omission given that much of the literature suggests that PMOs are established in response to organizational needs. Arguably, an organizational innovation such as a PMO needs both a clear rationale and careful planning and analysis around the nature of the business, environmental pressures (both internal and external), its culture, maturity (in terms of capabilities, processes and systems and the like), and the contribution of projects to delivering on business goals. Further, an organization needs to be clear on the goals and objectives that are to be met through the establishment of a PMO. An explicit understanding also needs to be reached of how project management and its attendant issues (both good and bad practices) are currently being realized throughout the organization as this will inevitably be impacted by the establishment of a PMO. These issues would all seem to impact on how one might design, implement and evaluate such an initiative [26]. Planning activity would need to result in designing a PMO that fulfills organization-specific

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\(^1\) The concept matrix is available from the authors: Space precludes publication in this paper.

<table>
<thead>
<tr>
<th>Organization ID</th>
<th>HEA</th>
<th>HEB</th>
<th>EDU</th>
<th>TRA</th>
<th>FIN</th>
<th>CON</th>
</tr>
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<tbody>
<tr>
<td>Economic sector</td>
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<td>Health services</td>
<td>Education services</td>
<td>Transport services</td>
<td>Financial services</td>
<td>Consulting services</td>
</tr>
<tr>
<td>Location(s)</td>
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<td>Global</td>
<td>Australia</td>
<td>Australia</td>
<td>Global</td>
<td>Global</td>
</tr>
<tr>
<td>No. of employees</td>
<td>&gt;4,000</td>
<td>&gt;2,000 (AU only)</td>
<td>approx. 2,000</td>
<td>&gt;3,500</td>
<td>approx. 50,000</td>
<td>&gt;10,000</td>
</tr>
<tr>
<td>Age of PMO</td>
<td>approx. 4yrs</td>
<td>&gt; 2yrs</td>
<td>approx. 5yrs</td>
<td>approx. 15mnts</td>
<td>approx. 3yrs</td>
<td>12-18mnts</td>
</tr>
<tr>
<td>No. of interviewees</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Interviewee IDs</td>
<td>HEA1,HEA2, HEA3</td>
<td>HEB1</td>
<td>EDU1</td>
<td>TRA1,TRA2, TRA3,TRA4</td>
<td>FIN1</td>
<td>CON1,CON2, CON3</td>
</tr>
</tbody>
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Table 1. Summary of organizations and interviewees
requirements and also responds to organization-specific pressures at a given point in time. Better understanding the broad business context and project environment, and the design activity required to achieve a good ‘fit’ between perceived need(s) and the implemented PMO would thus seem fruitful avenues for research.

More of a focus on planning may also help organizations grapple with some of the tensions that seem inevitably to accompany the introduction of a PMO. There is some evidence in the literature of tensions existing along a number of dimensions, including the degree of centralization, the degree to which empowerment and autonomy as opposed to control is pervasive in the ethos of the PMO, whether process or people are emphasized, and critically, whether the PMO is supported or corrupted by key political players in the organization [26]. Research that investigates these issues and how they impact on the successful design and planning of PMOs would thus be relevant and useful. We would argue that why a PMO is established, and its aims and objectives, fundamentally affects what is done, how it is done, the leadership skills required to fit both the rationale and the designed PMO, resourcing levels, and so on. These would all be relevant and interesting research topics.

The implementation of a PMO will make fundamental changes to how projects are initiated, prioritized, approved, controlled, managed, evaluated, and so on. Much of the responsibility for this, which may have previously resided within business units may well be centralized, and largely removed from the control of individual SBU managers. We contend that this represents a substantial change for the organization, requiring careful communication and ‘selling’ of the concept prior to the project being endorsed [25]. The PMO concept needs to be ‘marketed’ across the organization. It needs to be sold to senior executives, from whom strong political support will be required for it to be successful. Furthermore, the concept needs to be shaped in conjunction with the various business units following extensive consultation. Otherwise selling the concept across the organizational business units may be very difficult, as it is likely SBU leaders may perceive a loss of power, and autonomy through its creation. While some authors do mention the need for research into some of these political issues [6], there is little evidence in the academic literature of research that focuses on the management of change associated with the introduction of the PMO.

It is possible, for example, that better up-front change management may help achieve more satisfactory outcomes from the introduction of a PMO. There is recognition that the introduction of a PMO is an initiative that brings with it substantial change in the organization, and should be treated as an organization change project in itself [27], but arguably more research is needed. We did not find evidence of research of this type, and would suggest that research around critical planning activities, understanding the business rationale and designing PMOs to fit the broad aims, objectives and strategies of the organization would be helpful. Despite the fact that the establishment of the PMO is argued to be often motivated by frustration at project productivity and performance, there is little discussion in the literature on the need to establishing baseline measures of current performance with respect to project management prior to the move to the PMO. If there are no baseline measures of project performance prior to the establishment of a PMO, it becomes exceedingly difficult for the PMO to demonstrate its value to the organization, and to demonstrate improvement along a number of performance dimensions. Exactly this problem beset many early outsourcing projects, and early empirical research in that field demonstrated the need to understand the ‘measure’ the internal performance prior to negotiating the outsourcing deal [14]. Thus, it seems establishing baseline measure of performance prior to the establishment of the PMO needs empirical research to establish the value (or lack thereof) delivered by the PMO.

There is an understandable tendency to appoint good PMs to lead and run the PMO, and one advantage of doing this maybe that they have a good working knowledge of the organizational politics. But these PMs are good at delivering results, and may not necessarily have the qualities and skills required for setting up a PMO. Thus, we argue that up-front, the planning needs to consider the leadership skills required for the PMO at different stages. This has been examined to a certain extent in a study in the practices, roles and responsibilities of middle managers in program and project portfolio management [6]. But much remains to be learned. Indeed to set up the PMO, someone well versed in the culture and politics of the organization may be required, well regarded and able to gain the respect of senior management and the project management fraternity. The PMO leader also needs to be adept at influencing (up and down) and obtaining resources, in selling the concept broadly across the organization, in managing strategic expectations of clients and sponsors, and in bringing about a cultural change. Once the PMO has been established, is demonstrating its value, is widely accepted and acknowledged, then there may well be more of a need for leadership skills around delivery, rather than influencing and selling. This is speculative, but there is currently little evidence of research into the
types of leadership skills that are needed at various stages in the life cycle of a PMO.

The arguments that accompany a decision to centralize the PMO typically reflect a control mentality, for example the structures advocated by Bolles and Hubbard [7]. However there seems little empirical research on the political dimensions of the centralization/decentralization question for the PMO. As mentioned earlier, centralizing the PMO entity may cause a power shift: Those appointed to the PMO most likely gain power, while stakeholders such as business unit managers and project managers remaining in business units may feel a loss of power by such an initiative. When centralization is also accompanied by standardizing on methodology and process, centralized decision making about project prioritization, and reporting of project performance, then clearly there are substantive political issues which in the main have not been seriously researched to date. While Aubry et al. [6] mention the need for research into power issues, there is little research literature currently considering this in PMOs. Often PMOs are implemented to establish standardized methodologies, processes, procedures, and practices, which apply to all projects.

However, one of the reasons cited for the failure of centralized PMOs is because of a lack of flexibility, where local PMOs ‘spring up’ because of a dissatisfaction with the central PMO, and a perception that their business unit projects were different, requiring a localized focus, a different approach and process that was not accommodated by the central PMOs [23]. Thus, it seems that planning for the implementation of a PMO needs to be mindful of local requirements, and allow for a degree of flexibility in

<table>
<thead>
<tr>
<th>Themes</th>
<th>Potential Research Areas</th>
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<tbody>
<tr>
<td>1. Planning &amp; Preparation for IT PMO</td>
<td>• Understanding the business environment &amp; context, and how one designs an IT PMO to achieve a good fit between business and IT PMO, to ensure delivery of organizational strategic goals and objectives</td>
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<td>Implementation</td>
<td>• Understanding the issues around determining and clarifying the goals and objectives for PMOs together with determining the appropriate processes and structures required to enable meeting the objectives</td>
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<td></td>
<td>• Planning resourcing levels for IT PMOs to ensure they can deliver on business expectations and requirements</td>
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<td></td>
<td>• Considering change(s) that accompany the introduction of an IT PMO, and how those changes can be effectively ‘sold’ throughout the organization and managed</td>
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<td>• Understanding appropriate baseline measures (quantitative and qualitative) to assess the project performance prior to the establishment of the IT PMO, so that a) information about current performance may impact design choices on how the IT PMO is realized, and b) appropriate measures and targets can be established for the IT PMO so that it is able to demonstrate performance to senior executives</td>
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<td></td>
<td>• Understanding the leadership skills required in IT PMOs, and how these relate to leadership/management skills required of good project managers</td>
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<td>• Considering the challenges of power and influence, and how these are changed by the introduction of an IT PMO; the implications of changes to power structure when an IT PMO is introduced</td>
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<td>• Understanding the need for flexibility can be built into the operations of the IT PMO to enable appropriate localized requirements and variations</td>
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<tr>
<td>2. Implementation &amp; Operation of the IT PMO</td>
<td>• Understanding how to establish an appropriate balance between supporting and enabling project managers and projects versus controlling, auditing, compliance and reporting upwards</td>
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<td>• Balancing the need to build project management capabilities across the organization (or business unit) versus centralizing project management and focusing on delivering results from projects centrally</td>
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<td>• Establishing the balance between advising, monitoring and supporting projects versus delivering project outcomes</td>
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<td>• Understanding the costs and benefits of ownership of the project and associated responsibilities being controlled by the PMO versus ownership and responsibilities of projects remaining with project sponsors, business unit managers, and so on</td>
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<td>• Developing strategies regarding the standardizing of project methodologies, processes and the like versus promoting flexibility and responsiveness to specific business needs</td>
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<td>• Encouraging innovation versus standardization, and understanding the contents in which innovation is critical to the achievement of broad business objectives</td>
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<td></td>
<td>• Empowering and allowing autonomy of project managers and devolving decision-making versus centralizing control and decision-making, standardization, and the like</td>
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<tr>
<td>3. Delivering Value from the IT PMO</td>
<td>• Undertaking empirical research to determine if proposed measures of IT PMO performance are effective in practice</td>
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<td>• Understanding what metrics (soft and hard) provide useful insights into IT PMO performance, and how these might be systematically implemented</td>
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<td>• Considering the governance arrangements required for an IT PMO, to ensure delivery of organizational value</td>
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<td>• Understanding approaches and practices required to ensure delivery of benefits from IT projects, programs and portfolios</td>
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<td>• Understanding the appropriate practices and mechanisms to ensure learning, management of knowledge in projects, programs and portfolios</td>
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Flexibility is required to allow for sensible variations without degenerating into totally localized practices. Another cited benefit of PMOs is to provide consistent ways of prioritizing and resourcing projects, but again, internal and external environmental changes may require the need for flexibility in this regard [7]. Research into how this flexibility can be designed into
the operations of the PMO does not appear to have been adequately addressed in the literature to date, and thus we would argue should become prime candidates for future research work.

4.2. Theme 2: The implementation and operation of a PMO

Most of the academic research has been concentrated on issues associated with implementing and running the PMO. The work of Singh et al. [29] identified challenges in the implementation of PMOs, and noted that there has been little research conducted into these challenges nor to specifically support those in organizations charged with the responsibilities of managing a PMO. Some claim to be offering best practices and critical success factors [2] [13]. Others have researched the value of post implementation reviews and cross project learning, oft-cited as being amongst the benefits of establishing a PMO [20], while the knowledge management capabilities of PMOs [13] have also been investigated. Other research has focused on the communication and coordination aspects of the PMOs. One important finding from research considering the operation of the PMO was that while PMOs are linked to improved adherence to budgets, there was less evidence to support that they resulted in better quality or more timely project outcomes [22].

Hobbs and Aubry [17][18] noted that there was little consensus in the literature on how to structure or configure a PMO, and how that PMO evolved over time. Since then, many papers have studied suitable structures for PMOs and how these might evolve over time with increasing maturity, akin to the notion of a life cycle for PMOs [6] [4] [5] [26] [19], but there is not total agreement in this regard. Tensions and challenges seem to remain as detailed below, all of which imply a need for further empirical research into the structure and configuration of the PMO, and this impact of this on PMO performance.

A number of academic papers explore the appropriate roles, functions and services of a PMO [13] [17], arguably the most common topic encountered in the academic research. However, the common roles and functions of PMOs as identified across the literature contain some inherent contradictions. These roles embody tensions such as:

- supporting and enabling project managers and projects versus controlling, auditing, compliance and reporting upwards [23].
- building project management capabilities across the organization (or business unit) versus centralizing project management and focusing on delivering results from projects centrally [11].
- advising, monitoring and supporting projects versus delivering project outcomes [2].
- ownership of the project and associated responsibilities being controlled by the PMO versus ownership and responsibilities of projects remaining with project sponsors, business unit managers, and so on [26].
- standardizing project methodologies, processes and the like versus promoting flexibility and responsiveness to specific business needs [19].
- encouraging innovation versus standardization [26].
- empowering and allowing autonomy of project managers and devolving decision-making versus centralizing control and decision-making, standardization, and the like [26].

In the main, these tensions and challenges appear to have been under-researched. In listing the many possible roles of PMOs, the authors concerned tend not to highlight or discuss the fact that there are indeed tensions inherent in these roles as highlighted above. The exceptions here are Julian [20], and Pellegrinelli and Garagna [26], who do at least point out the problematic nature of the combinations of roles which have been identified as appropriate for PMOs. Interestingly, these authors are all consultants, which begs the question of whether academic researchers are identifying topics for their research based on the sorts of practical field problems that face professionals working in organizations. Identifying and listing roles and functions is helpful, but better understanding the types of issues that arise from tensions within those lists seems vital. We contend that all the points above lend themselves to, and require, further sound empirical investigation.

4.3. Theme 3: Delivering value

There was widespread agreement that the overriding purpose for PMOs was to deliver value to key stakeholders, and thus to the organization at large. Some argued that at the individual project level, the PMO’s responsibility lay in delivering on project outcomes (time, cost, quality), while at the program and portfolio level, value was seen as corresponding more to supporting and enabling the achievement of business goals and objectives, enhancing efficiency and effectiveness of the organization and so on [2].

Other authors viewed value in terms of improved organization-wide project management capability [11] rather than in direct project outcomes and business benefits.

Where the literature is largely silent however, is in how PMOs go about monitoring and controlling their own performance as a PMO, and demonstrating to
others, especially senior executives and sponsors, how or in what ways the PMO itself is delivering value to the organization. For example, for the Singh et al. [29] study, not one of their participants (who were leaders of PMOs) used hard metrics in reporting to senior executives on their performance following the establishment of PMOs in their organizations. They all relied on soft measures (increased satisfaction with projects, perceptions of ‘pain points’ prior to and following the PMO establishment, and so on), which are important and informative, but perhaps need to be combined with other quantitative metrics. While Desouza and Evaristo [12] propose that three types of measures (project-, PMO- and business-centric) should be employed, we found no evidence that these or any other sorts of metrics had been empirically investigated, nor has research into how measures might be implemented been conducted. Given earlier statements that nearly 50% of PMOs struggle to demonstrate their value to the organization and are threatened with closure [16], conducting research into what metrics (hard and soft) offer useful insights into PMO performance, how these might be implemented, and how these can be used to demonstrate the effectiveness of the PMO to key decision makers seems an urgent topic for sound empirical research. An on-going ability to ‘sell’ the value of the concept to key stakeholders is critical to maintaining the political support of senior executives and hence, resources needed to sustain the PMO. The issue of the value delivered by the PMO would also seem to be a component of governance surrounding the PMO. On this matter, the academic literature is silent, and thus we would argue empirical research is needed on all aspects of value delivery and governance of the PMO. A study of PMO leaders revealed that comparatively little importance is attached to benefits realization and management in projects [16]. If PMOs are set up to deliver business value from projects, portfolios and programs, it could be argued that being able to demonstrate more than meeting time, cost and quality objectives would be required. While such measures of project success are important [15], so too is being able to demonstrate the achievement of expected business benefits from projects, programs and portfolios, in being able to demonstrate ‘value for money’ from investment in IT. The role of the PMO in putting in place approaches and practices to ensure the delivery of expected potential benefits from all project activity seems absolutely crucial, and thus we argue, should become subject to rigorous empirical research. Another aspect of value delivery could be argued to be associated with learning: Developing and implementing practices that routinize the learning that ensues with post-implementation reviews, project audits, implementing and managing a lessons learned database and other knowledge management practices, and the like. While the importance of learning and knowledge management to improve project management practice has been mentioned in some academic research [12][13] the fact that the Hobbs and Aubry [17] study found that such activities were rated least important in PMOs by PMO leaders themselves suggests that there is a need for more research and suggestions for improved practice.

5. Interviews with IT PMO leaders

A set of exploratory interviews with IT PMO leaders was conducted in an attempt to gauge their perceptions of the issues, challenges and tensions that were revealed through our literature review. In the main, these interviews confirm the tensions discussed above. Overall, while themes 1 and 2 certainly ‘touched a nerve’ with the managers in that they did reveal very real concerns they are dealing with on a regular basis, theme 3, with its focus on the delivery of value, provoked discussion and reflection that revealed the managers’ struggle to prove the PMO’s value to the organization as a very real and dominant concern. The managers’ reactions to each theme will be discussed in the paragraphs that follow.

In discussing the planning and preparation for the PMO (theme 1), the PMO leaders mentioned the need to improve project management and project outcomes as a basic driver of the establishment of the PMO. This was to be achieved via the effective application of better tools, techniques and methodologies. For example, HEB1 commented: “Its original mandate was to help initiate projects, help to report on projects, establish some common tools and templates to help do health checks on projects.” But there were other drivers involved in the establishment of the PMO: "The objectives it was set up for were one, nobody had a clear visibility about what our priorities were within our portfolio, so we weren’t working on the right things at the right time. Second, to make sure we were directing resources to the right things, so we had resources working on the things that were a priority to the organisation.” (CON2)

Achieving better project management and project outcomes for an organization is going to involve the IT PMO not only in project audit and control activities, but also commonly in the selection of projects and the allocation of resources. This means a power shift from business units to the PMO. Thus the concept of the PMO and how it will operate needs to be carefully marketed to the senior management of the organization concerned as not all would see this power shift as in their interests. The PMO leaders interviewed were
sensitive to this issue. One of the PMO leaders (HEB1) after a recent review of the PMO in his organization: “Certainly, if I’m completely honest, not all the directors are on board with what we do. There is a core group of directors who are, who do get what we’re trying to do.” Thus we argue that this is an opportunity to research issues round the planning and selling of the IT PMO concept broadly to senior executives and key stakeholders to better understand the implications of this significant organizational change.

Interviewees were very aware of the challenge of bringing subtle and mature leadership capabilities to the IT PMO. This was evident in a comment by one IT PMO leader (FIN1): “I think you need that ability to balance between running a service, and running a standard way of doing things. So the leadership skills are being able to lead a team of people to be able to have that approach. Obviously there’s the technical side of things. So you have to have all of the tools, methods, processes. That all needs to be a given, but the leadership skills are around getting that capability amongst all the people across the IT PMO team because if you don’t have that capability and that approach, it can fall apart.” Others explicitly recognized other leadership challenges: “Leadership in the PMO? I think a PMO has many masters. You’ve got your business sponsors, who want the projects delivered, you’ve got your IT Execs, who obviously needs to deliver to the business and you’ve got your project managers are looking for the support in structures that they need. I think leading a PMO is a real challenge to serve those many masters. I think the key thing that’s needed for leadership in a PMO is to clearly communicate and sell what are their objectives so that you can manage the expectations of your stakeholders” (HEA2). It seems clear to us that research is needed to identify effective leadership of the IT PMO, such that the effective shifts in power that underscore the establishment of this entity can be sold and managed across the organization.

In interviewing IT PMO leaders on the operation of their PMO (theme 2), a number of tensions and challenges that had been mentioned in the literature emerged quite strongly. Firstly, there was the tension between supporting and enabling project managers and control and compliance issues, including such things as project stage gate checks. The following quotes give an indication of these tensions: “In some of the feedback we got in our review we are already seen as a traffic cop and they [business unit staff] have to do stuff only because the IT PMO wants it, rather than doing stuff because it provides the appropriate controls to minimize risks.” (HEB1). So whereas in that case there was clearly a mandate to impose methodology and process on organizational projects, other IT PMO managers (FIN1) saw their role as involving much less direct control: “I wouldn’t see it as a mandate. We provide a service to the people doing the delivery to help them set their projects up or releases up for success and we come in from time to time to help them do that.” While some had restructured the PMO so that support and enablement, delivery and governance were seen as three separate strands of activity, others clearly felt that research into effective ways of managing this tension would be beneficial.

Secondly, an issue emerged concerning whether the IT PMO simply enabled business unit project managers or actually supplied the project managers, thus essentially taking control of the projects. This tension is evident in the following comment from the IT PMO manager (HEB1): “There is a debate amongst some of the directors about where the project manager can sit and that’s actually in play at the moment. Some of the directors want to give me their project managers, some don’t. My personal thoughts are I’ve got enough on my plate as it is at the moment.” This raises the question of whether to really be effective a PMO should have an oversight of all projects in an organization, or just some. In one case (FIN), the IT PMO was involved only if a project spanned more than one business unit, if IT staff were required, and if strategic funding had been secured. This is a rarely mentioned issue in the literature, worthy of further research.

Thirdly, another challenge noted by the IT PMO leaders was the tension between standardizing project processes and methodology and the like and promoting flexibility and responsiveness to local business needs. How this balance may be approached in practice is indicated by the following comment: “We do have a methodology. We’ll be coming in and saying: Okay, for this particular release, this is how we think you should be doing it. Tell us about the unique aspects of this release. We’ll go through what we call a ‘tailor waiver process’ where we’ll say: Okay, this is the standard methodology. This is how you want to apply it. Let’s look at the deviation, and if we think that’s presenting risk, then we’ll step through that risk with stakeholders and then baseline that along with the plans and say: Okay, we’ve got a clear plan of how we want to get from here to the end, or ‘here to the end and here to the end of the next stage’, and then we’ll back away” (FIN1). While this particular IT PMO leader was concerned to support local flexibility, we did not find this practice broadly in our empirical interviews, and thus we suggest that research considering how much, and how to manage local flexibility and responsiveness in terms of process, method and so on could be useful.
to support the IT PMO leader and operations of that group. While all the IT PMOs had implemented greater governance around their projects to improve value delivery (theme 3), views were mixed as to how effective this was perceived to be. For example, “it’s been an evolution and a revolution because there are some projects which have come to checkpoints and there’s been a lot of questions about whether we should still be doing this. It has created unease and tension, particularly at senior levels where we may not have had this before. There is a perception that it slows things down because there’s this re-examination and having to evolve the business case at particular checkpoints. So there is a pool of thought that we slow things down by having our process and procedures, there’s another pool of thought that we’re actually providing revelation, examination at particular stages” (HEB1).

Most of the IT PMO leaders interviewed were confident that there had been benefits from the establishment of their PMOs within their organizations, with the improved visibility of current projects and improved upwards reporting on project status and outcomes being very prominent in their stories. However, they were all struggling with finding suitable metrics of demonstrating the value added by their own office. For example, many of the IT PMO leaders reported that they were now able to demonstrate fewer late and over-budget projects, and more projects being completed in a timely manner, but none had in place measures of how or what the PMO itself contributed in that regard. One PMO manager (HEB1) remarked: “How do we demonstrate value for the PMO? A really good question. I think it’s very important because my office costs over a million dollars per year. So it’s not only the quantitative aspects but the qualitative aspects of value. Now how do you prove that value? I don’t have an answer for that.” All expressed very strong support for research in this area as they feared being considered an expensive overhead by executives in their organizations.

All the IT PMO leaders accepted that they could and should be doing a lot more in terms of benefits planning and realization, and were thus very supportive of research of this type. For instance, FIN1 noted: “Does the PMO consider post-implementation benefits realization? It will, but we haven’t got there yet. So it’s a fair way away before we’re going to be able to come back at the end of a project and say ‘Well here are the business benefits.’”

The IT PMO leaders also typically rated a range of issues around learning, such as better post-implementation reviews (PIRs), improved knowledge management through shared and documented lessons learned, and so on, as all critical to their long term success, but many admitted these were areas where they needed to improve. One of the IT PMO managers (FIN1) had implemented some basics in this regard: “We did do a PIR and captured lessons learned. We have a standard which is the bank standard around capturing business learning in a spreadsheet. What we’ve been doing recently is at the end of each stage we’ve been doing a review, not really a PIR, but it’s a lessons learned capture”. However, all the IT PMO leaders interviewed recognized learning about all aspects of project performance, and managing and sharing that knowledge as a critical aspect of their function which needed more of their attention, and importantly, more research on how it could be done both effectively and efficiently.

Overall the IT PMO leaders were in agreement that they were adding value to their organizations, they generally acknowledged that key stakeholders had more mixed views: “The feedback is somewhat polarized. People can see the benefit but there are some aspects of what we do that people don’t like and so it was an opportunity to evolve. People could see that we knew how to run projects” (HEB1).

6. Conclusion

In this paper, our aim was to identify what we ‘know’ about IT PMOs as reported in the literature, and perhaps more importantly, what is relatively under-researched. This is important, as the IT PMO has been put forward as a solution to the problems that have long plagued project management, and IT projects in particular. We have identified tensions and challenges where there is little research or actionable advice reported in the literature, and proposed a research agenda based on the issues where further empirical research seems to be required. The findings from this analysis were organized under three major themes: Up front planning, the PMO operation, and delivering value. The perspectives of IT PMO leaders confirmed that these themes were indeed real and troublesome in their lived work experiences. The outcome of this research is thus a research agenda to further our knowledge of IT PMOs, derived from a review of the academic literature, and from interviews with key stakeholders in IT PMOs. The specified themes and directions should be of interest and value to IS academics, since IT projects are now a significant concern for PMOs.

7. References

[1] Andersen, E. S. and Vaagaasar, A. L., “Project management improvement efforts – Creating project