

What are functions of the Project Management Office (PMO) in the Irish public sector, their level of maturity, and how do they contribute to organisational value?

MBA Dissertation

Abstract:

This paper examines the Project Management Office (PMO) in Irish public sector bodies to better understand the common functions it provides, the level of overall maturity capability to support project and programme management, and its contribution to organisational value, and ultimately the taxpayer. Strengthening project and programme management are critical to the Irish Government to achieve its priorities, managing public finances, and delivering public services. Public project management faces significant challenges due to political, environmental, administrative, and stakeholder influences. The Project Management Office (PMO) plays an important role as it helps to manage these complexities through various functions, and contributes to organisational maturity development. Yet, very little is known about Irish public PMOs. The author designed a conceptual model based on academic and industry research that allowed for the extraction of empirical data from ten public sector bodies by means of three questionnaires. The findings suggest that PMOs in the Irish public sector has a low intermediate level of maturity. A low intermediate maturity level implies crucial functions are not provided, or at a very low level of sophistication. This finding suggests the organisational value is not optimised, and presents many opportunities to improve efficiency and effectiveness. The contribution of the research is that it provides a conceptual model and approach for evaluation of overall public sector PMO maturity evaluation that can be applied to other countries. Also, it provides a baseline value for the Irish public sector to track progress in terms of maturity development, and potentially support future comparative research with other countries.



***WHAT ARE FUNCTIONS OF THE PROJECT MANAGEMENT OFFICE (PMO) IN THE
IRISH PUBLIC SECTOR, THEIR LEVEL OF MATURITY, AND HOW DO THEY
CONTRIBUTE TO ORGANISATIONAL VALUE?***

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1 Introduction

Dai and Wells (2004) discovered that the Project Management (PMO) first became a prominent point of discussion in academic literature in the early 1990s. Increasingly, organisations are setting up a Project Management Office (PMO), and it has become a common feature (Hobbs & Aubry, 2007).

The literature is full of different definitions, and attempts by well-known authors to describe the Project Management Office (PMO) (Cleand & Kerzner, 1985; Frame & Block; 1994; Kerzner, 2001; Desouza and Evaristo (2006); Project Management Institute, 2013). A global definition is simply not possible due to the variability in size, structure, and perception of value (Desouza & Evaristo, 2006). What most research appear to agree on is that the Project Management Office (PMO) “it is the area in which certain activities (also called functions) relating to project management are centered, and its objective is to help organizations achieve better results through projects” (Pinto, et al., 2010, p. 4).

The Irish Government recognises that “strengthening programme and project management is critical to the successful achievement of Government priorities, the management of public finances and the delivery of public services. Project management facilitates the identification of priorities and the effective allocation of resources, monitoring of progress and delivery of results” (Department of Public Expenditure and Reform, 2017, p. 28). Many of the Irish public sector bodies (Central Bank of Ireland; Revenue Commissioner; Tusla; Department of Defence; Dublin Institute of Technology; Health Service Executive; Office of the Government Chief Information Officer ;Department of Public Expenditure & Reform; Department of Justice; Department of Health) have set up PMOs with the objective to support project and programme management.

Many authors (Wells 1999; cited in Kwak & Dai, 2000; Kerzner 2003; Hurt and Thomas 2009; Arto, 2011; Bolles & Hubbard, 2015; Levatec, 2017) have described the various ways the Project Management Office (PMO) can contribute to organisational value. The Project Management Office (PMO) can help improve better alignment of projects and programmes with strategic objectives, improve efficiencies through repeatable processes, knowledge management, improved organisational risk management, resource competency development, and improved project performance (scope, time, cost, quality).

The contribution to organisational value is derived from the functions of the Project Management Office (PMO) and how well it serves its stakeholders (customers). Dai, 2002, Hill, 2004, Hobbs & Aubrey 2007, and the Project Management Institute, 2013 all describe

the different important functions that the PMO provide. The most extensive list of functions was identified by Hobbs and Aubrey (2007) who identified 5 main groups of functions (27 individual functions) which include: “Monitoring and Controlling Project Performance”; “Development of Project Management Competencies and Methodologies”; “Multi-Project Management”; “Strategic Management” (Hobbs & Aubry, 2007, pp. 82-83).

The functions of the Project Management Office (PMO) vary in its level of complexity and sophistication (maturity). Various maturity models (PMMM, CMMI, PMO Competency Continuum, P3M3, PMO Maturity Cube, TPM) describe the functions and processes in a hierarchal fashion. Typically, it ranges from basic to least sophisticated to optimised processes. It is the mature PMOs that provide the most organisational value it that the functions and related processes are optimised.

While the PMO can add value through adopting operational and tactical functions, the most organisational value is achieved through its strategic functions (Gartner & Folkedal, 2018). When setting up a PMO, industry and academic research suggests that when setting up a PMO strategic consideration should be given to scale up the PMO to an enterprise-level PMO as it has oversight of all the projects in an organisation, as appose to less sophisticated PMOs (i.e. Project Office, Programme Office). The enterprise PMO has more influence than PMOs responsible for one of a few projects (Crawford, 2011). An enterprise-PMO has a higher level of strategic orientation, and helps management ensuring the right projects are done right, creating visible of performance of all enterprise projects, and helping to identify organisational risks. Industry research suggests, “Effective EPMOs have a broad enterprise-wide responsibility and help direct strategy and focus on value delivery. Organizations that align their EPMO to strategy report 27 percent more projects completed successfully and 42 percent fewer projects with scope creep” (Project Management Institute, 2016).

Despite the great socio-economic value that successful public sector projects can generate, it is often project failures that are highlighted in the national media. Recently, the Irish Times published an article “Pattern of overspending in major Irish infrastructure projects”, highlighting several public project failures including “The motorway network, Luas, the national broadband plan, the Health Service Executive’s PPARS (personnel, payroll and related systems) computer system, the Dublin port tunnel and now the national children’s hospital projects” (The Irish Times, 2019). High public sector project failure rates is a

common problem across the world especially in the case of large infrastructure projects were as much as 9 out of 10 projects experience 50% overruns (Flyvbjerg , 2014).

Some research suggests that public management faces different challenges than the private sector because of factors such as political influence, administrative, environmental, open system, lack and competition, and multiple varied stakeholders with conflicting interests (Boyne, 2002; (Flyvbjerg , 2014; Santos & Varajão, 2015). These factors have proven to have a negative impact, resulting in many projects running late, or over budget. In order to deal with these complexities, require much more complex and sophisticated functions. Research suggests that the “PMO as a key ingredient of public sector projects’ success” (Santos & Varajão, 2015, p. 1190). Specifically, the enterprise-level PMO.

Considering the potential impact of poor project performance on the economy and public services, and the money being invested into setting up Project Management Office (as a promoter of best practices and improved project performance) there is no research currently available as far as the author is aware that provide information as to the types of Irish public sector PMOs, the functions they provide, the maturity capability to support project and programme management, and how they provide organisational value. Considering the different challenges that public sector project face, it is possible to assume that the Project Management Office (PMO) therefore may offer very different types of functions as identified in industry research.

The primary research object is to understand the types of PMOs in the Irish public sector, the functions they provide, the overall level of maturity, and how provide organisational value. The author designed a conceptual model based on both academic and industry research to allow for the extraction of data that informs of the typology of Irish public sector PMOs, and the strategic, tactical, and operational functions they have adopted, the level of maturity of each function, and the perceived value duration of each function. Furthermore, the model allowed PMOs to be classified by basic, intermediate, and advanced maturity level based on a scoring system, including overall average overall maturity levels in terms of strategic, tactical, and operational functions.

The research makes a minor contribution to the literature in understanding PMOs in the context of the public sector environment. It may further spark more academic debate and research into designing a more effective maturity model, different to existing models, to measure the total public sector maturity taking into consideration the additional influencing challenges. This research may be of further interest to the Irish Government as it will allow

developing a current baseline of the state of affairs, and to measure progress of maturity capability development. The findings may also provide future research of PMOs in other countries a benchmark to compare and contrast maturity levels in the public sector.

2 Literature Review

2.1 PMO Definition – What is the Project Management Office

The definition of the PMO has evolved over time, with earlier examples being discussed in the context of the functions that it provides. The evolution of the PMO definition perhaps can be justified in that it is rather a new phenomenon, and only became prominent or an area of major discussion in the 1990's (Dai & Wells, 2004). As noted by Aubrey and Hobbs (2007), the definition of the PMO varied greatly throughout the literature.

Early researchers described the PMO as group of people who has the authority to work in the interest of a project (Cleand & Kerzner, 1985). The PMO can be further described in the organisational context as unit with access to resources to support project management (Frame & Block, 1994).

Kerzner (2001), also describes the PMO in an organisational context and argues that it has a role to play in the development of organisational processes, including benchmarking “to gain information to help you improve your own performance” (Kerzner, 2001, p. 97).

According to Desouza and Evaristo (2006) “A universal definition of a PMO is not possible, because developing a PMO that works for an organization is an exercise in both customization and sustained effort” (Desouza & Evaristo, 2006, p. 415). The image of the PMO in literature contrasts significantly with what is observed in the industry in terms of the structure, roles, and perceived value (Hobbs & Aubry, 2007).

The lack of consensus in the industry, and formal description in literature has caused great confusion, resulting in various conflicting opinions” (Hobbs & Aubry, 2007). Desouza and Evaristo (2006) further explains that PMOs can also vary in its “size, structure, and accountability (Desouza & Evaristo, 2006, p. 415).

PMOs are “dynamic organizational entities”, which are frequently transitioning “from charter and structure to the next” (Aubry, et al., 2010, p. 1). In recent research, Monteiroa, et al., (2016) identified as many as 47 types of PMOs of

There are countless definitions and descriptions of what the PMO is in the literature, however, according to Pinto, et al., (2010), most of the prominent researchers in this area generally agree that “it is the area in which certain activities (also called functions) relating to project management are centered, and its objective is to help organization achieve better results through projects” (Pinto, et al., 2010, p. 4)

The leading professional body for project management professionals, the Project Management Institute (PMI) provides the following definition of the PMO:

“A project management office (PMO) is a management structure that standardizes the project-related governance processes and supports the sharing of resources, methodologies, tools, and techniques. The responsibilities of the PMO can range from providing project management support functions to actually being responsible for direct management of one or more projects” (Project Management Institute, 2013, p. 11).

The PMO can take on various structures “each varying in degree and influence they have on projects within an organisation” (Project Management Institute, 2013, p. 13).

| Table 2: Types of PMO Structures & Varying Degree of Control | | |
|---|--|-------------------------|
| Types of PMO | Description of Role | Level of Control |
| Supportive | Provision of a consultative role to projects supplying: Templates Best practices Training Access to information/lesson learned | Low |
| Controlling | Enforcement of compliance Project management framework Methodologies Specific templates Forms/tools Governance conformance | Moderate |
| Directive | Direct management of projects | High |

The PMI (2013) further suggests that the PMO “integrates data from corporate strategic projects and evaluates how higher level strategic objectives are being fulfilled” and is a “natural liason between the organization’s portfolio, programs, projects, and the corporate

measurement systems (e.g business scorecard) (Project Management Institute, 2013, p. 11).

To conclude, a singular globally accepted definition is not possible because of the variability of size, structures, roles, levels of accountability, and the perception of value. For the purpose of this research paper, the Project Management Institute (2013) definition will be adopted as it closely reflects what happens in the industry based on the author's experience as a PMO professional.

2.2 PMO Types

There has been great effort to find a standard method to typify the various types of PMOs (Hill, 2004; Desouza & Evaristo, 2006; Levatec, 2007; Gartner Research Group, 2008; Crawford, 2011; Project Management Institute, 2013).

According to Monteiroa, et al., (2016) there are as much as 47 types of PMOs, of which 25 of the models were unique. The models varied considerably because of "structures, roles, functions, and descriptions" (Monteiroa, et al., 2016, p. 27).

Table 3 below is a compares the various types of PMOs described by various authors in the literature.

| Table 3: Types of PMO | |
|------------------------------|---|
| Author | Types of PMO |
| (Kerzner, 2003) | <i>Functional Project Office</i> <i>Customer Groups Project Office</i> <i>Corporate Project Office</i> |
| (Hill, 2004) | <i>Project Office</i> <i>Basic PMO</i> <i>Standard PMO</i> <i>Advanced PMO</i> <i>Project Management Centre of Excellence</i> |
| (Desouza & Evaristo, 2006) | <i>Supporter</i> <i>Information Manager</i> <i>Knowledge Manager PMO</i> <i>Coach PMO</i> |

| | |
|--------------------------------------|--|
| (Levatec, 2007) | <i>Consulting PMO</i> <i>Knowledge PMO</i> <i>Standard PMO</i> |
| (Gartner Research Group, 2008) | <i>Project Support Office</i> <i>Project Management Office</i> <i>Project Portfolio, Center of Excellence</i> <i>Federated PMO Programme Offices</i> <i>Enterprise Programme Management Office</i> |
| (Crawford, 2011) | <i>The Project Control Office</i> <i>Business Unit PMO</i> <i>Strategic PMO</i> |
| (Project Management Institute, 2013) | <i>Project Office</i> <i>Departmental / Business Unit PMO</i> <i>Project Support Office</i> <i>Enterprise PMO</i> <i>Project Management Centre of Excellence</i> |
| (Bolles & Hubbard, 2015) | <i>Project Management Center of Excellence (Methodology)</i> <i>Project Support Organization (Administrative)</i> <i>Project Office (Operational)</i> <i>Project PMO (Operational)</i> <i>Business Unit PMO (Operational)</i> <i>Division PMO (Tactical)</i> <i>Enterprise PMO (Strategic)</i> |

Authors in the literature tend to refer to 3 – 7 types of PMOs. However, according to Bolles and Hubbard (2015), the naming of the PMO “usually a matter of management preference and the purpose of the PMO within the enterprise, rather than application of any particular standard or framework, that determines what title is utilized” (Bolles & Hubbard, 2015, p. 22). Organisational structures are different; therefore, it can be implied that there cannot be a standard structure for project and programme management.

Kerzner (2003) provide some additional detail on the various types of PMOs.

- *Functional Project Office*. This type of project office is utilized in one functional area or division of an organization such as information systems.

The major responsibility of this type of project office is to manage a critical resource pool, i.e., resource management. This type can exist together with other forms of a project office.

- *Customer Groups Project Office.* This type of project office is for better customer management and customer communications. Common customers or projects are clustered together for better management and customer relations. Multiple customer group project offices can exist at the same time and may end up functioning as a temporary organization. In effect, this type acts like a company within a company
- *Corporate Project Office.* This type of project office services the entire company and focuses on corporate and strategic issues rather than functional issues

Desouza & Evaristo (2006) concluded that the PMO's roles could be segmented into three levels, which are strategic, operational, and tactical. At a strategic level, the PMO must ensure alignment of projects with strategic objectives of the organisation, the strategic growth of the organisation, and efficient and effective knowledge management. The tactical level role is to ensure that there is a "close integration between projects and initiatives", "consistent quality of products and services generated by the projects" and "knowledge sharing" (Desouza & Evaristo, 2006, p. 417). Operationally, the PMO is responsible for ensuring that project evaluations are conducted, "integration of knowledge derived from projects", "expert knowledge on project management", and consistently "monitoring customer satisfaction" (Desouza & Evaristo, 2006, p. 417).

Bolles and Hubbard (2015) further concluded that "the position of a PMO within a hierarchical organization establishes its degree of authority, acceptance, adoption, and autonomy—and, thus, its "ownership" of, and the responsibility for, establishing, distributing, and supporting project management best practices somewhere within the enterprise" (Bolles & Hubbard, 2015, p. 22).

Similar to Desouza and Evaristo (2006), Bolles and Hubbard (2015), also highlights that PMOs can have a strategic, operational, and tactical role. The main difference is that Desouza and Evaristo (2006) suggest that PMOs can operate all three levels at the same time (strategic, operational, and tactical).

Hobbs and Aubry (2007) found that in the literature there are various typologies ranging from single project entities, to multi-project entities that are usually organised in an ascending hierarchy (Hobbs & Aubry, 2007, p. 75). Hobbs and Aubry (2007) concluded that “different authors used different properties to characterize the passage from one level to the next within their hierarchy” (Hobbs & Aubry, 2007, p. 75).

Below is a summary of the findings that Hobbs and Aubry (2007) identified as the properties used by authors to explain the progression through the hierarchical levels of the PMO.

- Staff functions or line functions with project managers included within the PMO
- Organizational scope: covering larger portions of the organization
- Level within the organizational hierarchy: from the lower operational level to the top level
- Influence and authority: from passive to supportive to enforcing standards to empowered
- Operational issues to strategic issues, often associated with a progression from project management to program and/or portfolio management
- Process-driven to business-driven
- Project management maturity (culture) within the organization: from non-supportive to fully-supportive culture.

Drawing on earlier work of Desouza and Evaristo (2006) and Hobbs and Aubry (2007), Pinto et al (2010) described three types of PMOs namely: Project-Programme PMO; Departmental PMO; and Enterprise PMO. The PMOs were typified considering both the scope and approach. “There are three mutually exclusive possibilities: the project-program PMO, the scope of which covers just one of the organization’s projects or programs; the departmental PMO, which covers an area, department, directorship, or business unit, i.e., just a part of the organization; and finally the corporate or enterprise PMO, which covers the organization as a whole” (Pinto, et al., 2010). The three types of PMOs, arguably also is arranged in an increasing level of importance in terms of its organisational reach, and sophistication of or approach of services it provides to its customers.

As highlighted in the research, authors tend to arrange PMOs in order of importance. These hierarchy fashion may imply the types of PMOs are arranged by the level of the perceived value, or contribution it makes to the organisation.

Crawford (2011) acknowledges the value of lower level less sophisticated PMOs such as the Project Control Office, and Business Unit PMO, however, argues that all organisations should aspire to implement an enterprise-level, or Strategic PMO because it is at this level that “value-adding mechanisms of a PMO really reach warp speed” (Crawford, 2011, p. XXX). Crawford (2011), also found that any PMO below an enterprise or departmental PMO has very little organisational influence. In other words, PMOs below an enterprise or departmental level produce less value.

Below summarises the reasons provided by Crawford (2011) as to why an enterprise-PMO, or Strategic PMO generates significant organisational value.

- Serves as a repository for the standards, processes, and methodologies that improve individual project performance in all divisions.
- Serves to deconflict the competition for resources and to identify areas where there may be common resources that could be used across the enterprise.
- Allows the organization to manage its entire collection of projects as one or more interrelated portfolios.
- Executive management can get the big picture of all project activity across the enterprise from a central source: the PMO; project priority can be judged according to a standard set of criteria, and projects can at last fulfil their promise as agents of enterprise strategy.
- Key role in recruiting, hiring, training, and developing their own personnel and in doing performance reviews.
- Ownership of the project portfolio management process, putting the PMO at the nexus of strategy and tasks.
- Lead in refining benefits realization processes and implementing performance measurement frameworks
- Promote enterprise competency in project analysis, design, management, and review

Bolles and Hubbard (2015) describes 7 types of PMOs, including what the managerial focus is, and common titles or names used. The descriptions are useful in understanding further what is meant by strategic, tactical, and operational roles of various types of PMOs.

| |
|--|
| <i>Table 4: Functional Titles and Focus for each type of PBM Organization</i> |
|--|

| PBM Titles (Business Focus) | Managerial Focus | Common Titles/Names Currently in Use |
|---|--|--|
| Enterprise PMO (Strategic) | <ul style="list-style-type: none"> • Provide project business management on an Enterprise wide basis. • Ensure project work is congruent with the enterprise purpose, vision, mission, and strategic business plan across the enterprise. • Oversee Division and Business Unit PMOs. • Operate as a Project Management Center of Excellence. | <ul style="list-style-type: none"> • Enterprise Project Management • Organization/Office • Portfolio Management • Organization/Office • Project Portfolio Management • (PPM) Organization/Office • Corporate Project Management Organization/Office |
| Division PMO (Tactical) | <ul style="list-style-type: none"> • Provide project business management on a Division-wide basis. • Manage Project-Portfolio(s). • Manage Project-Programs as required • Oversee Business Unit and Project PMOs. | <ul style="list-style-type: none"> • Portfolio Management • Organization/Office • Project Portfolio Management • (PPM) Organization/Office • Program Management |
| Business Unit PMO (Operational) | <ul style="list-style-type: none"> • Provide project business management across the Business Unit. • Manage Project-Program(s). • Manage Projects as required • Oversee Project PMOs, Project Offices, and Project • Support Organizations. | <ul style="list-style-type: none"> • Program Management • Organization/Office • Project Management Organization/Office |
| Project PMO (Operational) | <ul style="list-style-type: none"> • Provide management of a single, mission-critical or major project, which is typically large and complex, (and whose success affects multiple areas of the enterprise). | <ul style="list-style-type: none"> • Project Management Organization/Office |

| | | |
|--|---|--|
| Project Office (Operational) | <ul style="list-style-type: none"> • Provide direct support of a single non-complex project. • If directed, manage the Project. | <ul style="list-style-type: none"> • Project Organization/Office |
| Project Support Organization (PSO) (Administrative) | <ul style="list-style-type: none"> • Provide administrative support of one or more noncomplex projects. | <ul style="list-style-type: none"> • Project Support Organization/Office • Project Controls • Organization/Office |
| Project Management Center of Excellence (PMCoE) (Methodology) | <ul style="list-style-type: none"> • Establish and implement project business management standards, methodology, practices, tools, templates, education, training, and project management competency on an enterprise-wide, division, business unit, or project basis. | <ul style="list-style-type: none"> • Corporate Center of Excellence |
| Source: (Bolles & Hubbard, 2015) | | |

In conclusion, PMOs operate at various levels in the organisation depending on their mission, scope, and approach. The level of importance appears to relate to the level of influence and reach within the organisation. Implementing an Enterprise PMO appears to render the most organisational value, thus appearing in most cases at the top of the hierarchy. Having considered the various PMO types of PMOs identified in the literature, and for the purpose of simplification, the paper will adopt three types of PMOs for the classification purposes. These include the project-programme PMO, departmental PMO, and enterprise PMO as identified by (Pinto, et al., 2010). The reasons for adopting this standard for typifying PMOs is that it takes into consideration both the scope and approach of the entity, and acknowledges that PMOs can operate at multiple levels, which includes strategic, tactical, and operational level (Desouza & Evaristo, 2006), which broadly aligns to what happens in the industry. (To support this statement, in the most recent PMI (2018) "Pulse of the Profession Survey" 64% of organisations had a Department-specific, regional, or divisional PMO(s), and 49% had an Enterprise-wide PMO (Project Management Institute, 2018, p. 21))

2.3 PMO Functions

There have been many authors in the literature that have described the functions of the PMO (Dai, 2002; Hill, 2004; Hobbs & Aubrey (2007). Perhaps the most well-known research on PMO functions is the empirical research conducted by Hobbs and Aubry (2007). The study used a comprehensive list of PMO functions derived from the literature and asked

respondents to rate the importance of functions on a scale from one to five (5 being the most important). The research identified 27 functions that PMOs performed. For the purpose of the research, a comparison is made between the authors to understand whether there are common functions.

Dai, (2002) identified six major PMO functions:

- Developing and maintaining PM standards and methods,
- Developing and maintaining project historical archives,
- Providing project administrative support,
- Providing human resources/staffing assistance
- Providing PM consulting and mentoring, and
- Providing or arranging PM training

Hill (2004) identified 20 different PMO functions and grouped under the following headings:

- Practice management
- Infrastructure management,
- Resource integration,
- Technical support
- Business alignment.

Hobbs and Aubrey (2007) logically grouped the functions as part of the analysis. This resulted in 5 main groups of functions:

- Monitoring and Controlling Project Performance
- Development of Project Management Competencies and Methodologies
- Multi-Project Management
- Strategic Management
- Organizational Learning

Table 5: PMO Functions by Order of Importance & Functional Grouping (s)

| Functions | % PMOs where important | Functional Group |
|--|------------------------|--|
| Report project status to upper management | 83% | <i>Group 1: Monitoring and Controlling Project Performance</i> |
| Develop and implement a standard methodology | 76% | <i>Group 2: Development of Project Management Competencies and Methodologies</i> |

| | | |
|---|-----|--|
| Monitor and control project performance | 65% | <i>Group 1: Monitoring and Controlling Project Performance</i> |
| Develop competency of personnel, incl. training | 65% | <i>Group 2: Development of Project Management Competencies and Methodologies</i> |
| Implement and operate a project information system | 60% | <i>Group 1: Monitoring and Controlling Project Performance</i> |
| Provide advice to upper management | 60% | <i>Group 4: Strategic Management</i> |
| Coordinate between projects | 59% | <i>Group 3: Multi-Project Management</i> |
| Develop and maintain a project scoreboard | 58% | <i>Group 1: Monitoring and Controlling Project Performance</i> |
| Promote project management within organisation | 55% | <i>Group 2: Development of Project Management Competencies and Methodologies</i> |
| Monitor and control performance of PMO | 50% | <i>Group 5: Organizational Learning</i> |
| Participate in strategic planning | 49% | <i>Group 4: Strategic Management</i> |
| Provide mentoring for project managers | 49% | <i>Group 2: Development of Project Management Competencies and Methodologies</i> |
| Manage one or more portfolios | 49% | <i>Group 3: Multi-Project Management</i> |
| Identify, select, prioritise new projects | 48% | <i>Group 3: Multi-Project Management</i> |
| Management archives of project management documentation | 48% | <i>Group 5: Organizational Learning</i> |
| Manage one or more programs | 48% | <i>Group 3: Multi-Project Management</i> |
| Conduct project audits | 45% | <i>Group 5: Organizational Learning</i> |
| Manage customer interfaces | 45% | <i>Manage Customer Interfaces</i> |
| Provide a set of tools without effort to standardise | 42% | <i>Group 2: Development of Project Management Competencies and Methodologies</i> |
| Execute specialised tasks for project managers | 42% | <i>Execute Specialized Tasks for Project Managers (e.g., Prepare Schedules)</i> |
| Allocate resources between projects | 40% | <i>Group 3: Multi-Project Management</i> |
| Conduct post-project reviews | 38% | <i>Group 5: Organizational Learning</i> |
| Implement and manage database of lessons learned | 34% | <i>Group 5: Organizational Learning</i> |
| Implement and manage risk database | 29% | <i>Group 5: Organizational Learning</i> |
| Benefits management | 28% | <i>Group 4: Strategic Management</i> |
| Networking and environmental scanning | 25% | <i>Group 4: Strategic Management</i> |
| Recruit, select, evaluate, and determine salaries for project managers | 22% | <i>Recruit, Select, Evaluate, and Determine Salaries for Project Managers</i> |
| <i>Source: Author adapted from (Hobbs & Aubry, 2007) and (PMO Value Ring Methodology, 2017)</i> | | |

The research by Hobbs and Aubrey (2007), identified that the group of functions associated with “monitoring and controlling of project performance” was the most important function, followed by “development of project management competencies and methodologies”, “multi-project management”, “strategic management”, and “organizational learning” (Hobbs & Aubry, 2007, pp. 82-83)

Following analysis of the 20 – 27 proposed PMO functions identified by the aforementioned research, Table 6 below provides a high-level comparison (at functional group level) of the various authors (Dai, 2002; Hill, 2004; Hobbs and Aubry, 2007). The comparison suggests that the PMO functions identified are very similar.

| Table 6: Comparison of PMO Functions Dai (2002), Hill, (2004), and Hobbs and Aubry (2007) | | |
|--|--|--|
| (Hobbs & Aubry, 2007) | (Hill, 2004) | (Dai, 2002) |
| Monitoring and Controlling Project Performance | Infrastructure Management | Providing project administrative support |
| Development of Project Management Competencies and Methodologies | Practice Management Technical Support Resource Integration | Developing and maintaining PM standards and methods, |
| Multi-Project Management | Business Alignment | Providing human resources/staffing assistance |
| Strategic Management | Business Alignment | |
| Organizational Learning | Practice Management Technical Support | Developing and maintaining project historical archives Providing PM consulting and mentoring Organizational Learning |

In a study conducted by PMO Value Ring Methodology (2017) of 889 PMO professionals in 21 countries in 2017, respondents were asked how long the benefits of a particular PMO function could be clearly perceived.

As a reference, the duration was time-boxed into three categories short-term (3 months), medium-term (3 to 9 months), long-term (9 to 18 months). It is important to emphasise that the potential number, which will be directly influenced by the maturity of each function. Meaning, functions with low maturity would not be able to generate value perception as expected.

The 27 functions which were assessed for the perception of value was derived from earlier work of Hobbs & Aubry, 2007, which represents the most common, or popular functions adopted by PMOs from around the world. The 27 functions, that Hobbs & Aubrey (2007) identified also aligns with the 20 PMO functions identified by earlier research conducted by Hill (2004).

The table represents the functions identified in the academic literature which is then compared to value perception information derived from industry research.

| Table 7: Functions and Perception of Value | | | | |
|---|--|-------------------|--------------------|------------------|
| PMO Functions | Functional Group (Based On Hobbs and Aubry (2007) Groups | Short-term | Medium-term | Long-term |
| Manage Project or Program Benefits | <i>Group 4: Strategic Management</i> | 1% | 3% | 96% |
| Support Project Portfolio Definition | <i>Group 4: Strategic Management</i> | 5% | 14% | 81% |
| Provide Project Management Methodology | <i>Group 2: Development of Project Management Competencies and Methodologies</i> | 7% | 22% | 71% |
| Manage Lessons Learned Database | <i>Group 5: Organizational Learning</i> | 12% | 18% | 70% |
| Manage Project Documentation | <i>Group 5: Organizational Learning</i> | 18% | 22% | 60% |
| Provide Project Management Tools and Information Systems | <i>Group 2: Development of Project Management Competencies and Methodologies</i> | 9% | 34% | 57% |
| Monitor Portfolio Performance | <i>Group 1: Monitoring and Controlling Project Performance</i> | 18% | 29% | 53% |
| Manage Resource Allocation Between Projects | <i>Group 3: Multi-Project Management</i> | 15% | 35% | 50% |
| Participate in Strategic Planning | <i>Group 4: Strategic Management</i> | 19% | 48% | 33% |
| Promote Project Management within the Organization | <i>Group 2: Development of Project Management Competencies and Methodologies</i> | 12% | 56% | 32% |
| Provide Advice to Upper Management in Decision-Making | <i>Group 4: Strategic Management</i> | 14% | 56% | 30% |
| Provide Training and Project Competency Development | <i>Group 2: Development of Project Management Competencies and Methodologies</i> | 16% | 56% | 28% |
| Support Project Planning | <i>Execute Specialized Tasks for Project Managers (e.g., Prepare Schedules)</i> | 32% | 40% | 28% |
| Perform Benchmarking | <i>Group 5: Organizational Learning</i> | 13% | 65% | 22% |
| Provide Mentoring for Project Managers | <i>Group 2: Development of Project Management Competencies and Methodologies</i> | 24% | 56% | 20% |
| Conduct Audit in Projects | <i>Group 5: Organizational Learning</i> | 28% | 57% | 15% |
| Manage Organizational Changes | Other | 76% | 14% | 10% |
| Manage Stakeholders in Projects | <i>Manage Customer Interfaces (2.84)</i> | 87% | 9% | 4% |
| Manage Projects or Programs | <i>Group 3: Multi-Project Management</i> | 88% | 8% | 4% |
| Provide Project or Program Performance Report to Upper Management | <i>Group 1: Monitoring and Controlling Project Performance</i> | 91% | 5% | 4% |
| Manage People in Projects | <i>Group 3: Multi-Project Management</i> | 78% | 19% | 3% |

| | | | | |
|--|---|-----|-----|----|
| Monitor and Control Project Performance | <i>Group 1: Monitoring and Controlling Project Performance</i> | 89% | 8% | 3% |
| Provide a Strategic Project Scoreboard | <i>Group 1: Monitoring and Controlling Project Performance</i> | 90% | 7% | 3% |
| Manage Interface with Project Clients | <i>Manage Customer Interfaces</i> | 66% | 32% | 2% |
| Manage Lessons Learned Meetings | <i>Group 5: Organizational Learning</i> | 93% | 5% | 2% |
| Execute Specialized Tasks for Project Managers | <i>Execute Specialized Tasks for Project Managers (e.g., Prepare Schedules)</i> | 96% | 2% | 2% |
| <i>Source: Author adapted from (PMO Value Ring Methodology, 2017) and Hobbs & Aubry (2007)</i> | | | | |

Having analysed the different findings of authors and associated lists of functions, the author identified the functions described by Hobbs and Aubrey (2007) as the most complete list of functions, which also represents what PMOs do within the industry. There could be an argument made, that perhaps some valuable functions that Irish PMOs provide are not included in the list.

2.4 PMO Value

Just like any other organisational function (i.e. Finance, Procurement, Legal, Marketing, HR) the PMO needs to demonstrate value (whether income-generating or not) to justify the investment. Dinsmore (1999), suggests that programmes and projects are the organisational bottom-line in that the vision, mission, strategies, objectives, and goals translate into programmes and related projects that trigger actions. Various authors in the literature suggest efficient and affective programme/project delivery as a very important source of value (Dinsmore, 1999; Arto, 2011; Bolles & Hubbard, 2015; Levatec, 2017). According to Wells (1999) if the Project Management Office is used effectively there can be great organisational value such as: “Predictable and repeatable use of project management tools and techniques”, Growing staff professionalism in project management”, “Standardization and portability of tools and techniques”, “Facilitation of use of project management in becoming a core competency”, “Improvements in organizational design and performance”, More productive and skillful project teams”, “Profitability improvements”, “External recognition for overall organizational performance” (Wells, 1999; cited in KWAK & DAI, 2000, p. 3)

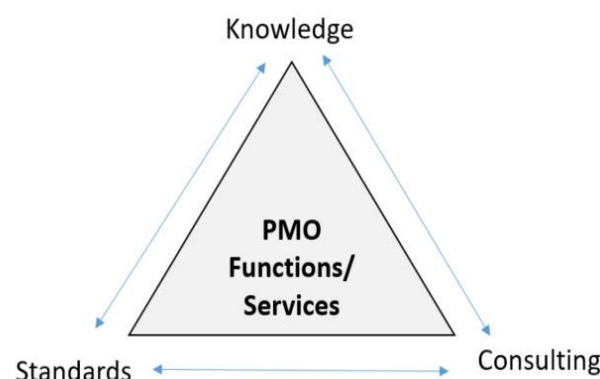
Kerzner, (2001) who has been researching project management for several decades found that “Good project management methodologies allow work to be accomplished in less time, a lower cost, with fewer resources, and without any sacrifice in quality” (Kerzner, 2001, p. 7)

Desouza & Evaristo (2006) describes the PMO as having a role as a knowledge manager suggesting that “A well-implemented PMO can resolve the most challenging project management issues by capturing and transferring knowledge, maximizing the power of cross-functional teams, regulating the demand of integrated technologies, and providing ownership and accountability for key efforts. Moreover, it can fully assess the impact and risk of change and provide projects with guidance on best practices and standards” (Desouza & Evaristo, 2006, p. 415).

More recent studies by Hurt and Thomas, (2009), had similar outcomes and found that organisations that implemented a PMO experienced both tangible and non-tangible benefits very quickly. The tangible benefits related to projects being on time within budget-related metrics. The organisations that participated experienced cost savings in time, fewer write-offs and rework, increased revenue, greater market-share, and increased competitiveness. With regards the to intangible benefits, the benefits were associated with better strategic alignment and attainment, improved resource management, improved regulatory compliance, improved decision-making. The perception and value for project management within the organisation was indicated as high to significant as a result of the various accomplishments (Hurt & Thomas, 2009).

Levatec, (2007) suggests that the value proposition of the PMO is centered around the idea it is a contributor to standards, knowledge, and standards.

Figure 3: Core Areas of PMO Value



Source: Author adapted from (Levatec, 2007)

According to Levatec (2007), the PMO value is generated through:

- “Establishing, maintaining, and maturing a set of policies and procedures to govern project processes within the organization”,

- “Executing activities associated with knowledge acquisition and dissemination for the benefit of project practitioners (including providing training as well as project knowledge bases and other relevant knowledge artefacts)”
- “Assisting with or directly managing the execution of projects as required in order to provide “expert guidance” on project management practices and project delivery”.

In an explorative study of PMOs, Arto, et al., (2011) identified further additional benefits of the PMO, which relates to knowledge, in that managements boards have full visibility and better understanding of the projects and project portfolio and associated risks or issues that may need to be addressed. Another benefit that the “PMO gives is that it connects project decisions as part of logical and interrelated entity” (Arto, et al., 2011, p. nd).

Bolles and Hubbard (2015) in order for the PMO to demonstrate its worth there various business actions required:

- Select, prioritize, and initiate only projects supporting strategic initiatives and business objectives.
- Direct the distribution of enterprise funds and resources, while assuring those funds and resources are effectively applied across the enterprise to only those projects that support strategic initiatives and business objectives, thereby giving those projects, from the very start, the best opportunity to succeed.
- Assess multiple categories of risk, including technical, project delivery, and operational risk. Prioritize and document identified risks and develop control strategies for higher-level risks.
- Identify and document non-performing projects and cancel each non-performing project, or place the project work on hold.
- Identify and document changes in business strategy, budgeted funds available, or requirements and establish the associated effects on projects-in-progress. Then reprioritize or place on hold affected projects.
- Develop and then measure PMO selected key performance indicators for: each strategic initiatives, each business objective, each project-portfolio, each project-program, and each project of any significance.
- Report upon, and take corrective action as necessary for, each PMO selected key performance indicator.
- Formally and routinely, communicate the measured value and identified benefits to the enterprise’s executive management.

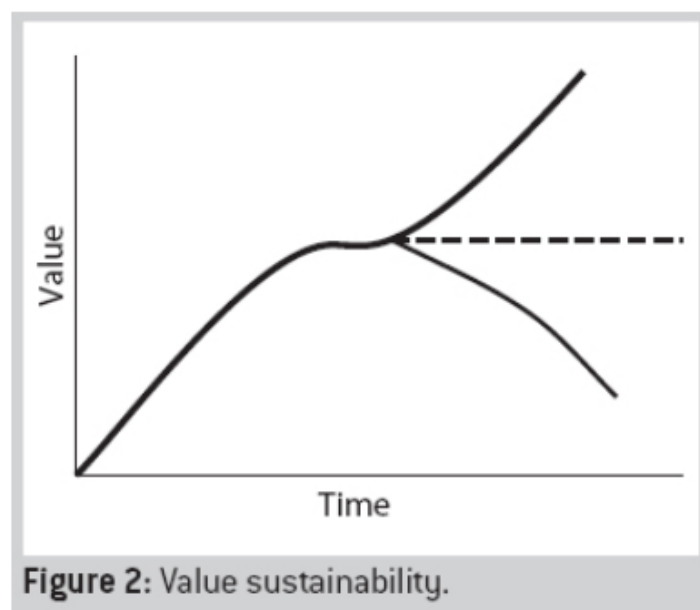
- Develop and maintain PMO support of, and support for, operations organizations and also foster inter-organizational collaboration.

Source: (Bolles & Hubbard, 2015, p. 15)

2.5 PMO Value and Sustainability

While PMOs can be perceived to generate value quickly, the challenge is to sustain value. According to Aubry, et al., (2010), the life expectancy the PMO is only two years, which suggest that in order to remain of value, the right strategy should be implemented selecting the best functions that would drive organisational value (Aubry, et al., 2010). Hurt and Thomas (2009) found (similarly to other researches) that the value of the PMO can deteriorate over time which perhaps can explain the short life expectancy (see Figure 4 below).

Figure 4: Decreasing of PMO Value



Source: (Hurt & Thomas, 2009)

In order to achieve longevity Hurt and Thomas (2009) concluded that the following measures should be taken.

- Build a core ideology
- Pick the right PMO leadership
- Create a culture of discipline
- Confront brutal facts but keep the faith

As proposed by Desouza and Evaristo (2006), the PMO can provide functions that are strategic, operational, or tactical. However, what industry research has identified is that it is strategic related functions has a long-term perception of value. It can be therefore understood why authors such as Gartner and Folkedal (2018), suggest a long-term strategic view should be considered when setting up a PMO: “PMO’s long-term value, sustainability, and success are determined less by tactical or operational focus. Instead, the design and build of a PMO that is scalable to an Enterprise PMO level should inherently be strategic. Creating sustained value—and by extension, survival—is dependent on the PMOs ability to assess and deploy capability while simultaneously planning how to position, shape, and ultimately manage strategic growth” (Gartner & Folkedal, 2018, p. 75)

2.6 PMO Maturity & Competency Continuum

2.6.1 What is maturity?

The Random House dictionary describes “maturity” as when full development or perfected condition has been achieved (dictionary.com, n.d.). The description of maturity can, therefore, be interpreted to imply growth.

To understand what maturity means in the context of project management and consequently the PMO it is therefore necessary to define the specific level of growth development, associated stages, and requisite skills (Crawford, 2011). However, it is important to understand that maturity in an organisational perspective can vary depending on the viewpoint of a particular stakeholder (Iqbal, 2005). For instance, stakeholders can view maturity from a process perspective whereas others are more interested in quality. In the project world, stakeholders are focussed on the project management maturity in particular. This combines both elements of process and quality (Iqbal, 2005).

Over the past decade many well-known authors such as Kerzner (2001), Crawford (2002, 2011), Hill (2004), including professional bodies such as the Project Management Institute, Software Engineering Institute (SEI) (2002), and public bodies like UK Government Office of Government Commerce have developed organisational project maturity models. The objective of the models is to help organisations with improving their process maturity through providing a “roadmap”, or stages, to be followed which is based on best practices, that would ultimately lead to continues process improvement endeavours.

The functions provided by the PMO and the level of complexity and integration within the rest of the business plays an important role in determining PMO maturity. Hill (2004), describes 5 functional groups (practice management, infrastructure management, resource integration, technical support, business alignment), consisting of 20 different functions that are performed by a mature PMO. For maturity to be achieved, the processes need to be “institutionalized”, meaning that it requires upper management support and applied across the organisation (Crawford, 2011).

Fahrenkrog, et al. (2003) suggests that maturity relates to steps leading to process improvement, and many are based on stages, most use a business process management architype listing these stage from basic to advanced and typically consists of standardisation, measure, control, and continuously improve. Typically, the models are structured based on 4 – 5 levels of maturity starting at the most basic to advanced as demonstrated by Table 8 – Comparison of Maturity Models below.

| Maturity Model | Developed by | Description | Levels of Maturity |
|---|---|---|---|
| PMMM (Project Management Maturity Model) | Kerzner (2001) | “Provide organizations with general guidance on how to perform strategic planning for project management. The various levels, or stages of development, for achieving project management maturity, and the accompanying assessment instruments, can be used to validate how far along the maturity curve the organization has progressed” (Kerzner, 2001, p. xi) | 1) Common language 2) Common processes 3) Singular methodology 4) Benchmarking 5) Continues improvement |
| CMMI Capability Maturity Model Integration | Software Engineering Institute (SEI) (2002) | “Maturity levels represent a staged path for an organization’s performance and process improvement efforts based on predefined sets of practice areas. Within each maturity level, the predefined set of PA’s also provide a path to performance improvement. Each maturity level builds on the previous maturity levels by adding new functionality or rigor” (CMMI Institute, n.d.) | 1) Initial 2) Managed 3) Defined 4) Quantitatively Management 5) Optimizing |
| OPM3 (Organisational) | Project Management Institute (2003) | “OPM3 identifies hundreds of Best Practices in organizational project management and determined which | 1) Standardise 2) Measure 3) Control |

| | | | |
|--|--|--|---|
| Project Maturity Model) | | specific Capabilities are needed to achieve these Best Practices and how to establish when each Capability has been achieved. In turn, every Best Practice has been placed within a context called the OPM3 Process Construct, mapping them to the project management domains and to the stages of process management” (Fahrenkrog, et al., 2003) | 4) Continuously improve |
| PMO Competency Continuum | Hill (2004) | “The PMO competency continuum provides a vehicle that defines a series of PMO stages that can be examined for application in an organization” (Hill, 2004, p. 45) | 1) Project Office 2) Basic PMO 3) Standard PMO 4) Advanced PMO 5) Center of Excellence |
| P3M3 (Portfolio, Programme and Project Management Maturity Model | UK Government Office of Government Commerce (2006) | “The Portfolio, Programme & Project Management Maturity Model (P3M3) can be used as the basis for improving portfolio, programme and project management processes” (Office of Government Commerce, 2006) | 1) Initial Process 2) Repeatable Process 3) Defined Process 4) Managed Process 5) Optimised Process |
| PMO Maturity Cube | (Pinto, et al., 2010) | PMO maturity assessment tool that allows PMOs to self-evaluate maturity in any type of organisation. Describes the functions under for each approach (strategic, tactical, operational) and various levels of sophistication (maturity). Helps identify “current level of PMO maturity in each service provided for that particular scope and the target level of maturity for the PMO that is being analysed” (Pinto, et al., 2010) | 1) Basic 2) Intermediate 3) Advanced |
| TPM Total Project Management Maturity Model | (Žurga, 2018) | The purpose of the maturity model is directed at measuring the total project maturity for public administration. | 1) Ad hoc 2) Initiated 3) Implemented 4) Managed 5) Improved |

Examining the maturity levels of the various maturity models suggest that mature PMOs focus on continues improvement in terms of its processes. Also, mature PMOs functions and related processes focus on strategic management activities such as providing advice to upper management, participation in strategic planning, management of benefits, network and environmental scanning (Aubry, et al., 2007). Whilst the most mature PMOs focus on

strategic functions, authors highlight the need for the basic (operational, tactical) functional competencies to be established in order to develop competencies.

Kerzner (2001) highlights the importance of strategic planning when it comes to implementing a PMO. “Strategic planning for excellence in project management needs to consider all aspects of the company: from the working relationships among employees and managers and between staff and management, to the roles of the various players (especially the role of executive project sponsors), to the company’s corporate structure and culture” (Kerzner, 2001, p. 9).

In general terms, the PMO can play a part in boosting the organisational maturity by means of providing support services, consulting and mentoring services, or providing common practices by means of a standard methodology, providing training, project management, PM Software tools, portfolio management and strategic alignment (Crawford, 2011).

Pinto et. al (2010), however argues that despite the correlation between organisational and PMO maturity, it is possible for immature PMO to exist in a more mature organisation because the PMO maturity is linked to the level of sophistication of how it can perform its functions and reaching its objectives (Pinto, et al., 2010).

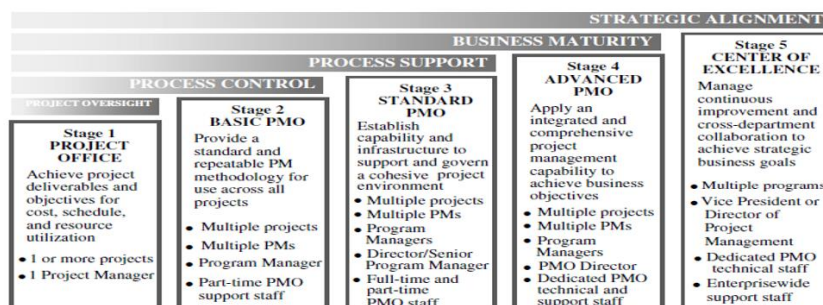
To get a better understanding of how a maturity model provides a structured path for process maturity, and what actions may be required, the next section provide more details of the of the PMO Competency Continuum developed by Hill (2004).

2.6.2 PMO Competency Continuum – 5-stage model

Hill (2004) developed a 5-stage model that “represent a progressive competency and advancement of functionality that can be attained to meet the needs of the project management environment and the associated business objectives of the relevant organization” (Hill, 2004, p. 46). Effectively, it describes five stages, of PMO maturity levels, and the associated activities or functions, which needs to be performed. This suggests that there is a set of functions (practice management, infrastructure management, resource integration, technical support, business alignment) of which the competency level within the organisation, its PMO maturity, can be developed. The model is based on the presumption that a PMO that is at a higher stage competency level (i.e. level 3), has already achieved the competencies of the lower levels (i.e level 1 – 2). However, Hill (2004) does suggest that the organisational need does come first. In other words, a PMO can pursue any activity regardless of in what stage is allocated to ensure that it is suitable to the situation and

relevant to the organisations need. The figure below represents the 5-stage model described by Hill (2004). This model will further help to explain what maturity means in the context of a PMO in that it describes the activities, and level of competencies required at various stages.

Figure 4: Overview of PMO Capabilities across the PMO Competency Continuum.



Source: Hill (2004, p.46)

The section below provides more detail in Figure 4 an“Overview of PMO Capabilities across the PMO Competency Continuum”.

Stage 1 – The Project Office

A Project Office may exist either formally or informally by an acknowledgement that it is responsible for project and the project teams performance. It has an important role in terms of project oversight, implementing project deliverables, and monitoring and controlling project-related baselines such as project costs, schedules, and resource utilization. At this first stage, there is a limited need for a full range of functions to be implemented other than what is needed to effectively deliver the project. The competency is primarily delivered by means of the skills of and experience of that of the project manager. The scope of the Project Office is also very much limited in that it does not have any programme level authority, nor any strategic relevance. The primary focus is project level deliverables, and monitor and control of project performance, including team performance.

A common challenge in organisations, both in the private and public sector is that many project office can exist which makes it challenging in terms of ensuring common practices are adopted to ensure better project outcomes. To mitigate associated risks, senior project office team members can collaborate on the design of the Project Office responsibilities;

however, often it requires the set-up of a higher-level PMO to provide guidance for support project management.

Activities conducted by the Project Office include:

- Application of principals and techniques of modern project management through the knowledge and skills of the project manager to ensure project performance success. It focusses and monitors project performance indicators such as cost, schedule, and resource utilization and associated variances while facilitating corrective actions where necessary.
- Serves as a direct interface for project team performance providing differentiation between technical performance (i.e technical methods) and project management performance, which are needed to ensure successful outcomes.
- Serving as the first-level project management oversight.

Stage 2 – Basic PMO

The Basic PMO plays a very important role in laying the groundwork for further competency development. Unlike the Project Office, the Basic PMO is responsible for the management and control of multiple projects. At this stage, the PMO is responsible for implementing standards and repeatable processes, which should be adopted by all projects and programmes.

Hill (2004) identified 20 different functions that should be performed by a mature PMO. It is the task of Basic PMO the roll out the capability across all of the 20 functions. The 20 functions are grouped under practice management, infrastructure management, resource integration, technical support, and business alignment.

Table 9: Functional Groups & Description of Functions

| Functional Groups | Description of PMO Functions |
|---------------------------|---|
| Practice Management | 1. Project management methodology 2. Project management tools 3. Standards and metrics 4. Project knowledge management |
| Infrastructure Management | 5. Project governance 6. Assessment |

| | |
|---|---|
| | 7. Organization and structure 8. Facilities and equipment support |
| Resource Integration | 9. Resource management 10. Training and education 11. Career development 12. Team development |
| Technical Support | 13. Mentoring 14. Planning support 15. Project auditing 16. Project recovery |
| Business Alignment | 17. Project portfolio management 18. Customer relationships 19. Vendor/contractor relationships 20. Business performance |
| <i>Source: adapted from Hill (2004, p 48)</i> | |

The Basic PMO undertakes the following activities.

- Establishment of a standard approach to project management including common tools; repeatable processes; preferred practices; implementation of a comprehensive methodology.
- Aggregate project performance analysis, variance analysis, identification of issues and mitigating actions, including the project manager performance, with the objective of ensuring project objectives are achieved.
- Introducing project management as a professional discipline within the organisation by means of the provision of prescriptive standards, designating professional project managers, training, role specifications and roles responsibilities of project stakeholders.

Now that a basis for the PMO is established, where project oversight is in place, process controls have been established, the focus changes to elements of process support related functions and services as outlined by stage 3.

Stage 3 – Standard PMO

A Standard PMO may progressively be established based on the foundations set up by the Basic PMO; however, in some instances, organisations may circumvent stage 1 and stage 2 due to the business needs. Hill (2004) does suggest that this is possible, it is necessary to ensure that the competencies described for stage 1 and stage 2 must be put in place to ensure effectiveness. Whilst there is a continued emphasis on monitoring and control of

projects, the focus now turns to project support related functions and services. In this stage, the PMO will be responsible for multiple projects and programmes represents “the essence of complete and comprehensive capability” (Hill, 2004, p. 46).

The PMO is considered to be a centralised function of project management in relation to oversight and control in stage 3. Furthermore, it also is mandated to establish the various processes and associated practices to support project management in the business environment.

The functionality associated with stage 3 is for organisations that are interested in implementing the PMO as a core business competency or seek to further develop its project management maturity.

Business buy-in and having the right resources in place can ensure that the basic functions can be implemented within months, the Standard PMO be operational within 1 year, and full competency achieved within a 2 to 3 year period.

Activities undertaken by the Standard PMO in stage 3.

- Project management resources for business units. Professional practice facilitator for project managers/project teams. Coordinator and collaborator for project stakeholders (i.e resource managers; customers; vendors).
- Interface with the business and project management environment.
- Facilitating project management environment process design and to facilitate for project management excellence.
- Serving as project management environment representative to senior executives.

Stage 4 – Advanced PMO

The Advanced PMO plays an important role in terms of “projectizing” the organisation. At this stage, the focus is about integrating business interest within the project management environment. This implies common practices are introduced for both the business and project management environments ensuring processes are aligned. It is about integration. It is expected that the functionality competency of an Advanced PMO can be achieved within 1 to 2 years after the Standard PMO competency have been developed and put in place. At the this stage, the PMO provides a “comprehensive, centralised project management

oversight, control, and support activities, together with expanded functionality that represents a mature and business-orientated project management organisation” (Hill, 2004, p. 50).

As part of the Advanced PMO stage, the 20 functions to release capacity to be allocated to project and programme management. Furthermore, as the focus is on business interest, the PMO further undertakes the tasks to ensure that its functions are integrated to support efficient and effective operations.

Activities undertaken by the Advanced PMO include:

- A separate business unit responsible for preparing its own budget for developing and implementing advanced project management practices and business integration activities.
- Collaborating with business units developing/adapting integrated processes common to both.
- Providing expertise in project management, with full-time staff, and state-of-the-art project management practices.

Stage 5 – Center of Excellence

The focus of the functions prescribed to the Center of Excellence is primarily focussed on strategic level interest. The Center of Excellence is a separate business unit responsible for enterprise-wide project management operations. Whilst lower-level PMOs may have some level of a strategic role a difference is that the PMO leader has direct access to the CEO or top executives within the organisation. Establishing this new unit can take between 1 to 2 years. The Center of Excellence can either develop from an earlier stage PMO, or be set up independently providing the direction and guidance for lower-level PMOs within the organisation. This is usually the case for large organisations, that may be serving multiple regions, supplying a certain level of oversight and control.

Activities undertaken by Center of Excellence:

- Provision of both direction and influence of enterprise project management operations including oversight of multiple PMOs in the case of global organisations with regional hubs.
- Building the project management environment, project stakeholder awareness, cross-business representation, customer relationship management, including vendor and partner management.

- Sponsoring initiatives to evaluate both project management functionality and business effectiveness.
- Representing business interest in the project management environment, and project management interest in the business environment.

In stage 5, the 20 functions are reassessed for strategic business implications and taking into consideration as to how they may be adapted, adjusted, to achieve efficiency and effectiveness including adoption in other PMOs within the organisation.

Perhaps one of the more interesting studies specifically aimed at measuring the total maturity of the public sector in Slovenia was conducted by Žurga (2018). Whereas, the public sector consists of multiple organisations. The figure below shows the different levels of maturity with specific examples of what is being measured in terms of “management of projects”, “management of programs of projects”; “management of portfolios of project”, “organisational support for PM”, “HRM for PM”, “integration of PM and strategic management”.

The TPM model – Total Project Management maturity model for public administration

Source: (Žurga, 2018, p. 151)

| | <i>Ad hoc (1)</i> | <i>Initiated (2)</i> | <i>Implemented (3)</i> | <i>Managed (4)</i> | <i>Improved (5)</i> |
|---|---|--|---|--|---|
| <i>Management of projects</i> | At some ministries. PM methodology depends on project leader. | Ministries introduce own PM methodology, and PM rules and processes. | Common PM methodology for PA, implemented throughout whole PA. | PM processes and rules of conduct are defined and managed for whole PA. Project organization is incorporated in PA's permanent organizational structure. | PM processes and rules of conduct are being improved on on-going bases, for whole PA. Knowledge and experience from concluded projects is accumulated and used for further projects, and for improving conditions for their success. |
| <i>Management of programs of projects</i> | Ad hoc, pending on the ability of the project manager to 'sell' importance of managing the developmental initiative. | A few programs at government level. Successful implementation of programs initiate establishing good practice for others. | Program of projects are regular practice in PA. Program-related processes are being implemented. | Program-related processes are fully managed. Program organization is incorporated in PA's permanent organizational structure. | PM processes and rules of conduct are being improved on on-going bases, for whole PA. Knowledge and experience from concluded programs of projects is accumulated and used for further programs of projects, and for improving conditions for their success. |
| <i>Management of portfolios of projects</i> | Only at some ministries, based on demand of ministers. | At some ministries. Need for having project portfolio at government level is articulated, yet still seeking for political will. | Project portfolio at government level is implemented, key development projects are included. Key criteria for including a project in the portfolio is political will. | Project portfolio is managed; criteria for including projects in portfolio at governmental level are defined. The majority of projects where government is the main stakeholder is included in the portfolio. | All developmental project of a state that are co-financed from budget and project leader is appointed by the government are included in the government portfolio. These projects may be included in different (sub)portfolios, upon defined criteria. |
| <i>Organizational support for PM</i> | On <i>ad hoc</i> bases. Projects and project organization are usually seen as disturbance to regular ('normal') processes. | At some ministries organizational units are set, to give support to projects and to address incorporation of project work in regular work. They are initiation for PM offices. | In key ministries, organizational units are established to support PM at ministerial level. PM office at government level is established to address PM at government level. | Organizational unit(s) (PMO) to support PM at ministerial and government levels is (are) established – pending on the national approach. Basically, two approaches are top-down and bottom-up. In respect to this, line of 'command' may differ. | Organizational support to PM (project, program, and portfolio) is optimized at PA level: one or more PM offices, covering the full range of PM processes. It is constantly being improved in order to stay flexible, operational and a-political. |
| <i>HRM for PM</i> | On <i>ad hoc</i> basis. Focus is on training in individual ministries and upon interest of public employees or public managers. | More systematic approach to cover needs in ministries in respect to PM is initiated. Training programs cover basic topics. | Competence model for PM and project team (PT) members is in place. It is connected to key HRM processes such as recruitment, training and remuneration. | Training scheme for PM and PT members is in place, supporting the PM competence model. Focus: competent project managers and PT members. PM certification scheme is in place, and is connected to all HRM processes. | PM competency model and training scheme is being constantly improved, based on: - Monitoring and analyzing gap between existed PM competences and those foreseen for the (near) future; - Including knowledge and experience from finished projects; and - Strategic developmental goals of a state. |
| <i>Integration of PM and strategic management</i> | No recognized system need, nor capacity for this, only at some ministries. | Integration is recognized as a mean for increasing success of strategic plans implementation. Efforts to increase capacity are in place. | Rules and legal bases for integration exist. Processes are formalized. Acceptance and recognition of benefits is increased. | Integration is fully managed, and integrated with budget processes. Focus is on results oriented budget. Co-ordination of policies is at high level. | Integration is fully managed. All processes are optimized, and are being improved. Focus is on realization of state's vision and long-term developmental goals. |

What is interesting to note is that the groups of functions being measured closely resembles the functional groupings that Hobbs and Aubry (2007) identified. In example, the project programme and portfolio management categories fall within the multi-project management group. Similarly integration of project management and strategic management, effectively relate to the strategic management group of functions.

Having reviewed the various maturity models the all (except TPM) appear to be aimed at individual organisations. The Irish public sector, however, consists of multiple organisations. This would suggest that the model to be adopted to understand and overall maturity require ad different approach.

Perhaps the most practical maturity model that is simple and easy to use is the PMO Maturity Cube developed by Pinto et. al (2010). It is different to the TPM model developed by Zurga (2018) in that like other maturity models, is particularly aimed at individual organisations. Having said this, the same outcomes can be achieved by assessing all individual public sector bodies separately and calculate the average maturity levels. Similar to the TPM model, the functions being measured in terms of maturity also can be linked to Hobbs and Aubry's (2007) functional groupings. So, without over complicating matters, the same outcomes can be achieved. Furthermore, as suggested by Hill (2004) some large organisations can have many PMOs managed by a central PMO therefore whether a maturity model is organisationally aimed should not really matter.

Is full maturity required?

Setting up a PMO and reaching a maturity level where full competency has been achieved can take approximately 2-3 years, and achieving advanced or excellence levels even longer (Kerzner, 2001; Hill, 2004). This can also require significant organisational investment, as more experienced, skilled technical resources are required. The question then arises whether a full maturity level is required. The short answer from examining the literature is that it is dependent on what the organisational need is. As Pinto et. al (2010) suggest, it depends on the mission and the scope of the PMO, and the services it provides to its stakeholders.

To answer the question of what maturity means in the context of the PMO, the literature review, and comparison of various maturity models suggest that maturity relates to how effective the functions and associated processes are executed, their level of sophistication,

and how integrated they are within the organisation. In order to be a mature PMO, there are basic functions that need to be implemented and reviewed on an ongoing basis to ensure it meets the organisational needs. To develop the PMO maturity requires investment in experienced, skilled resources, and buy-in from business stakeholders. Furthermore, reaching full development or perfected conditions takes time, and require a focus on continuous process improvement. PMOs can operate at a strategic, operational, and tactical level depending on its mission, scope, and approach and therefore there is often no need to achieve the highest level of PMO as long as it meets the business objectives.

For the purpose of this paper, the two most relevant maturity models were the TPM, and PMO Maturity Cube. The author decided that the Maturity Cube Model is the best model to be adopted for the purpose of this research, as it can also be directly linked with secondary research of value perception conducted by PMO Value Ring Methodology (2017).

3 Research Question(s)

The purpose of this research was a study of the Project Management Office (PMO) in the Irish public sector to better understand the functions they provide, the level of maturity, and how provides organisational value. This research is important considering the role of projects and programmes in helping the Irish Government identify priorities, effectively managing public finances, and providing public services.

- **Primary Research Question:** *What are functions of the Project Management Office (PMO) in the Irish public sector, their level of maturity, and how do they contribute to organisational value?*

To address this primary question, the research will endeavour to answer the following secondary questions, which are all key components in achieving the overall research objectives, support analysis, and further discussion.

- *What are the types of PMOs currently in the Irish public sector?*
Understanding the types of PMOs in the Irish public sector is important in that the classification reflects the scope, and the type of functions/service expected to be performed to operate effectively and efficiently.
- *How long have the PMOs been operational?*

How long a PMO has been operational can be important, as it can be indicative of how much progress has been made in terms of reaching full competency. Research suggests in order to reach full competency can take up to 3 years. If a full competency has not been achieved (missing functions, very low maturity) it can be further indicative of a lack of strategic planning, or resource constraints.

- *How many resources are currently in the PMOs?*

To set up and scale a PMO requires skilled resources. The level of resources, number of projects/programmes under management, and associated level of maturity, further facilitates the discussion in terms of understanding whether or not a PMO may be under-resourced.

- *How well are projects and programmes currently performing?*

As a promoter of best practices and improved project/programme delivery performance, this KPI can be linked to the PMO functions to understand how well it is currently executing its role. KPIs such as % of projects successfully delivered can be compared to the performance of organisations (low and high maturity) around the globe and serve as a benchmark.

- *Are there any common reasons for project and programme failures and how does this compare to industry research?*

Research suggests that public sector projects are different to private sector projects in that it has a different set of challenges (influencing factors). This data helps to understand if top reasons for project failures are different to that of the private sector, and as results of the influencing factors.

- *What common functions are the PMOs performing, and what is the duration of the perceived value?*

As identified in the literature it is the functions that provide organisational value. Some functions are perceived to provide short, medium, or long-term value. To ensure longevity and sustainability of value, it is therefore important to understand what the common functions are that provided.

- *What are the common functions least performed by the PMOs.*

Common functions that are least performed helps identify at an organisational and group level areas where PMO value is lost, thus helping identify risks, and opportunities for improvement.

- *How sophisticated (mature) are the functions being performed?*

Organisational value is increased where the PMO provides functions/services/processes that are imbedded, repeatable, optimised and measured, and continuously improved. The opposite situation where maturity is low at organisational or group level, helps in identifying lost opportunities to achieve maximum efficiencies and effectiveness, that supporting the case for continued investment of maturity capability development.

- *Is there a case for continued investment in PMO maturity capability development?*

The outcome of the study will confirm whether or not the overall maturity level of Irish public sector bodies are low, increasing the risk of poor project and programme performance, impacting public finances, and deliver of public services. In this scenario, a justified argument can be made for continued investment in maturity capability development of the Project Management Office(s) (PMO). Furthermore, the practicalities of improving the situation will require further exploration and discussion.

4 Methodology

The author developed a conceptual model grounded in academic and industry research to support in answering the primary and secondary research questions. The empirical data was extracted from Irish public project leaders representing 10 Irish public service bodies that has a significant role in delivering crucial services to the taxpayer, and support the system as a whole.

The method used to extract the data was 3 different questionnaires designed to inform of the types of PMOs, the age, how they are performing, number of resources, common reasons for project failures, what functions are being provided (and not), and help to determine the overall maturity level of Irish public sector PMOs. The method selected was effective it that is was practical, specific, and provided easy measurable data.

The remaining parts of this section will go into more details about the methodology.

1. Research Sample
2. Data Collection Method (Questionnaires)
3. Conceptual model
4. Primary Data Analysis Method(s)
5. Ethical & Other Considerations
6. Reliability of Research
7. Limitations & Constraints

4.1 Research Sample

One of the big initial challenges was identifying a way to get direct access to project management leaders within public institutions. These project leaders consists of Higher Executive Officers (mid-management team), Principals Officers (senior managerial grade/Heads of Units/Functions), and Assistant Principal Officers (senior managerial grade), that has worked in the Public for 3 years.

The author identified that the The Department of Public Expenditure and Reform (2017), published an “overall strategy for development and innovation in the Public Service to 2020 and beyond”. Under the overall strategy, the Government identified the need “strengthening programme and project management is critical to the successful achievement of Government priorities, the management of public finances and the delivery of public services. Project management facilitates the identification of priorities and the effective allocation of resources, monitoring of progress and delivery of results” (Department of Public Expenditure and Reform, 2017, p. 28). As part of the strategy, Action 10 was identified that sets out key tasks, which includes the following:

- Extend the Civil Service Project Managers’ Network to connect existing project management practitioners across the whole public service. This network will provide a forum to share common project management approaches and learning based on proven models currently in use across the public service;
- Support project management training and work with training bodies across the public service to explore opportunities to share learning between project management practitioners and to support professionalisation;
- Build on the programme management experience developed since the establishment of PMOs in the Department of Public Expenditure and Reform and the major sectors. The experience to date will be reviewed to determine how programme management practice should be developed and improved;

- Ensure programme management approaches result in better sequencing, integration and greater coherence across reform projects in the public service; and
- Review the RDO's Practical Handbook on Programme Management and consider ways of embedding its use across the public service.

This working group is represented by civil service Project Management Leaders and Advisory Service, and the workshops facilitated by the Institute of Public Administration. Through extensive networking, the author was invited to workshop 4, on 27 February 2019, to address representatives and present the research proposal and its objectives with the objective of securing buy-in. Furthermore, at the meeting, various concerns were also discussed such as matters of confidentiality, and what the message be in the circumstances where the research findings did not cast a favourable light of the level of services provided by the respective bodies which will be further discussed under the in the limitations and constraints of the research.

The following public institutions are represented in the Action 10 working group.

- i. Department of Defence
- ii. Defence Forces
- iii. Department of Public Expenditure & Reform
- iv. Department of Education & Skills
- v. Department of Justice and Equality
- vi. Office of Public Works
- vii. Department of Health
- viii. Health Service Executive
- ix. Revenue Commissioners
- x. Housing Agency
- xi. Courts Services
- xii. TU Dublin
- xiii. Office of the Government of Chief Information Office
- xiv. Local Government Management Agency
- xv. State Laboratory

The Central Bank of Ireland, whilst not part of the action 10 working group was also targeted and participated in the survey.

4.2 Data Collection Method

The questions used in the survey was derived from the work of Pinto et. al (2010), which was used in the development of the PMO Maturity Cube. Respondents were presented with three questionnaires, each representing three types of PMOs (project-programme PMO; Departmental PMO; Enterprise PMO). Individual questionnaires consisted of prescriptive list of functions (21 to 27 functions) and included 6 supplementary questions to support further analysis. Each of the questions presented a prescriptive list of answers in a dropdown list from which the respondents selected the most appropriate answer reflecting the current level of sophistication (Level 0 – Level 4) the function is performed. Respondents were also asked to select a targeted level of sophistication it plans to achieve. The questions were grouped into three dimensions (strategic, tactical, and operational). All fields in the questionnaire were mandatory to ensure completeness and consistency of answers.



The author collected the questions developed by Pinto et. al and developed an Excel based questionnaire with built in functionality to easily capture answers.

| ID | Questions | Maturity Level | Current Level | Target level |
|--------|---|--|---------------|--------------|
| A. 1.1 | How does the PMO provide advice to the senior management? | Level 0 - The PMO does not perform this function. Level 1 - The PMO is asked by top management to give its position on issues relating to making strategic decision once in a while. Level 2 - The PMO is frequently asked by top management to give its position on issues relating to making strategic decision, however, its involvement is not formally established. Level 3 - The PMO is frequently asked by top management to give its position on issues relating to making strategic decision and its involvement is formally established. | [SELECT] | [SELECT] |
| A. 1.2 | How does the PMO coordinate and integrate the organization's portfolio? | Level 0 - The PMO does not perform this function. Level 1 - The PMO identifies interdependencies between the projects and programs of the organization, but it does not keep track of the changes in interdependencies. Level 2 - The PMO identifies and tracks interdependencies between the projects and programs of the organization, informing and triggering the managers of project /programs and stakeholders in case of need, rebalancing, and other changes. Level 3 - The PMO identifies and tracks interdependencies between the projects and programs of the organization, acting proactively to ensure the realization of the portfolio and providing preventive and corrective actions as required. | [SELECT] | [SELECT] |

Once the questionnaire was completed, respondents sent the completed form either directly to the author, or to the Department of Defence (who forwarded the respective feedback). Other data collection techniques considered including observations, and interviews.

According to (Hoepfl, 1997), observation techniques for collecting information is about “observation of participants in the context of their natural scene” and observational data are

used for the purpose of description—of settings, activities, people, and the meanings of what is observed from the perspective of the participants” (Hoepfl, 1997, p. 53). However, this observational type of data gathering would be not be appropriate for this type of research project in that some PMO services are cyclical i.e monthly, quarterly, or yearly. According to Saunders, et al., (2016), a mutli-method data collection approach may provide richer information (i.e questionnaire & interviews combined) as it can provide more context (Saunders, et al., 2016). In order to collect the data necessary to support the project there was no need to conduct interviews with respondents. All variables where predetermined and questions were close-ended.

The author also considered gathering the data through an online questionnaire as it has the advantage of rapid distribution, and quick response gathering (Andrews, et al., 2003). The success of getting a good response rates is subject to the questionnaire being well designed. It facilitates gathering both quantitative and qualitative data (Hewson, 2014). An online questionnaire will also enable the author to use a diversity of questions such as Yes/No answers, multiple choice options, and ranking importance by order (Evans & Mather, 2005). The author concluded that by designing the questionnaire in Excel it provided greater scope and flexibility for data manipulation (using Pivot functionality). In addition, by sending the questionnaire by email achieve similar objectives in terms of rapid distribution, and tracking of responses, whilst maintaining the data within a secure firewall.

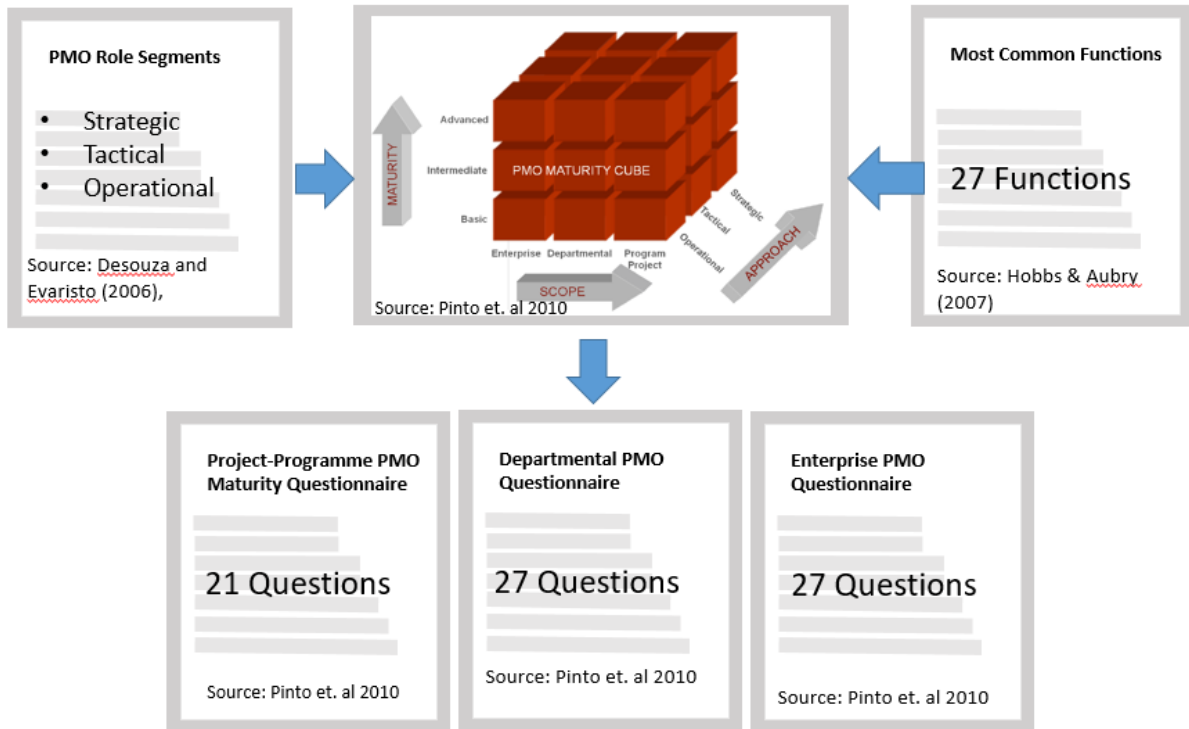
4.3 Conceptual Model

The conceptual model brings together research from both industry and academic resources. It combines existing models, secondary, and primary research data to support effective analysis to help answer the primary and research data. Through the literature review, the author identified a maturity model (PMO Maturity Cube) developed by Pinto et. al (2010), and the associate research also included a readily used questionnaire. The questionnaire suited the criteria to meet the research objectives in that it is:

- Based on best practices
- Recently developed.
- Grounded in academic research and validated within industry.
- Simple to use.

The sections below will provide a breakdown of the conceptual model in more detail.

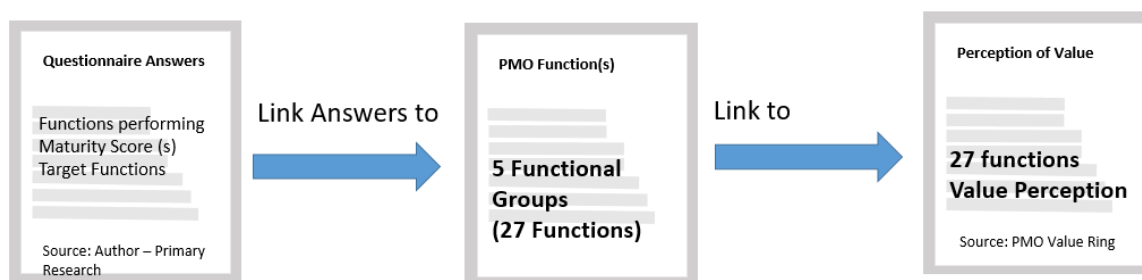
First part of the conceptual model



Each answer presented a level of maturity (Level 0, Level 1, Level 2, Level 3, Level 4). The author build a scoring system whereby each level presented an increasingly value. For example, the higher the maturity level, the higher the score. As indicated in the image below when an answer was selected a score was generated. This part of the model helped in assessing the maturity levels of the organisations in terms of strategic, tactical, operational, and total maturity levels. It was then possible to determine the average overall maturity level of the Irish public sector PMOs by analysis of aggregate data.

| ID | Questions | Maturity Level | Current Level | Current Score | Target level | Target Score |
|--------|---|--|---------------|---------------|--------------|--------------|
| A. 1.1 | How does the PMO provide advice to the senior management? | Level 0 - The PMO does not perform this function. Level 1 - The PMO is asked by top management to give its position on issues relating to making strategic decision once in a while. Level 2 - The PMO is frequently asked by top management to give its position on issues relating to making strategic decision, however, its involvement is not formally established. Level 3 - The PMO is frequently asked by top management to give its position on issues relating to making strategic decision and its involvement is formally established. | Level 3 | 7.5 | Level 1 | 2.5 |
| A. 1.2 | How does the PMO coordinate and integrate the organization's portfolio? | Level 0 - The PMO does not perform this function. Level 1 - The PMO identifies interdependencies between the projects and programs of the organization, but it does not keep track of the changes in interdependencies. Level 2 - The PMO identifies and tracks interdependencies between the projects and programs of the organization, informing and triggering the managers of project /programs and stakeholders in case of need, rebalancing, and other changes. Level 3 - The PMO identifies and tracks interdependencies between the projects and programs of the organization, acting proactively to ensure the realization of the portfolio and providing preventive and corrective actions as required. | Level 2 | 5 | Level 2 | 5 |

The next part of the model, took the questions and correlated it with the 27 functions identified by Hobbs and Aubrey (2007), highlighting functional gaps and at the same time, link it with industry research to help identify the perception of value of each of the functions.



The data analysis sections provides more details of the inner-working of the model, and how the data was analysed to determine the maturity levels at both organisational, and Irish public sector level.

4.4 Data Analysis Method(s)

Some of the conceptual model was explain in the previous section. The focus of this section is to explain in detail the analysis aspects of the data derived from the model.

Respondents are presented with 21-27 questions depending on the type of PMO within their organisation (project/programme PMO, departmental PMO, or enterprise-level PMO). Each question represented one of the 27 functions identified by Aubry and Hobbs (2007) in the academic literature.

Every question provides the respondent with a set of answers from least sophisticated to most sophisticated. Level- 0 implies that a service is not provided, whereas, Level – 4 suggests that a function/service is provided at the most sophisticated level, or has reached its highest level of maturity. When an answer is selected, a score is generated as outlined below. For instance, if a service is at its most mature level, a score is of 10.0 is generated.

| Maturity Levels | Score Allocated |
|-----------------|-----------------|
| Level - 4 | 10.0 |
| Level - 3 | 7.5 |
| Level - 2 | 5.0 |
| Level - 1 | 2.0 |
| Level - 0 | 0.0 |

The questions are further grouped into strategic, tactical, operational categories. When all the questions are answered, a total score is calculated for each group of functions. The table below demonstrates the group of functions and the maximum score that can be achieved.

A PMO that is at the highest possible maturity level in terms of its functions will have a maximum maturity score of 205.

| Groups of Functions Being Assessed | Total Maximum Score (100% Maturity) |
|------------------------------------|-------------------------------------|
| Strategic Assessment | 75 |
| Tactical Assessment | 75.5 |
| Operational Assessment | 57.5 |
| <i>Maximum Maturity Score</i> | 205 |

In order to calculate the level of maturity for each organisation at functional group level, and total maturity, the total scores are calculated (as per above), and then divided by the maximum achievable score for each of the functional groups assessed.

| Maturity Measure | How the maturity score % is calculated? |
|-----------------------------|--|
| Strategic Assessment | Your Score / Max Strategic Assessment Score = % |
| Tactical Assessment | Your Score / Max Tactical Assessment Score = % |
| Operational Assessment | Your Score / Max Tactical Assessment Score = % |
| Overall Maturity Assessment | Your Total Overall Score / Max Overall Score = % |

Once the level of maturity has been calculated the final scores are matched with a range as per below to assign an overall maturity calculation. As an example, if the overall maturity assessment score equated to 40%, the organisation has been classified as having an INTERMEDIATE level of PMO maturity.

| Organisational Maturity Level | Range: |
|--------------------------------|------------|
| BASIC level of Maturity | 0-33% |
| INTERMEDIATE level of Maturity | 34% - 65% |
| ADVANCED level of Maturity | 65% - 100% |

Below is an example of the summary of the overall maturity assessment for a given organisation:

| Organisation Name | Scope | Strategic Maturity Assessment | Operational Maturity Assessment | Tactical Maturity Assessment | Overall Maturity Assessment | MATURITY Classification |
|-------------------|----------------|-------------------------------|---------------------------------|------------------------------|-----------------------------|-------------------------|
| Organisation | enterprise-PMO | 80% | 96% | 72% | 80% | ADVANCED |

Average PMO maturity Levels – Irish public sector

Calculating the average public sector maturity values are derived from the average scores produced by all respondents.

Functional Gap Analysis

All questions and answers were grouped by the five groups of functions identified by Hobbs and Aubry (2007), and by level of the sophistication. Where a more than 50% of respondents answer that they do not perform a function (“Level 0” answer), it is considered that a functional gap exists within a particular functional group i.e. “Organisational Learning”.

Perceived Value Analysis

All of the questions that are answered “Level 1 to Level 4” suggests a function is being performed. The total percentage of PMOs that provide the function is calculated.

The questions itself are analysed to determine which of the functions (27 identified by Hobbs and Aubrey, 2007) it represents. Secondary research data from PMO Value Ring Methodology (2017) is also compared to the functions. The end result showing the function, % of PMOs that provide the function, and how long the value of the function is perceived for (short, medium, or long-term).

4.5 Ethical & Other Considerations

All individuals that participated in the research did so out of their free will and had the authority to do so. The author presented the research proposal at a formal meeting of public sector bodies, explaining the objectives of the research, and what the information will be used. Individuals completed the questionnaire and emailed the completed form directly to a Central Bank of Ireland email address where the information was stored securely on an internal network. The names of the individuals participating in the research are also kept anonymous. Due to confidentiality concerns, the organisations name and associated results

cannot be linked. Data is presented on an aggregate basis, and where individual organisational results are displayed organisations are given a case name (i.e Case A, Case B etc.) to further ensure confidentiality of individual results.

4.6 Reliability of Research

Empirical data was extracted by project management leaders holding roles such Higher Executive Officers (mid-management team), Principals Officers (senior managerial grade/Heads of Units/Functions), and Assistant Principal Officers (senior managerial grade), that has worked in the public sector bodies of on average 3 years. The target sample therefore has the knowledge, experience, and authority to understand the subject matter, and necessary skills to answer the presented questions effectively and accurately.

The questionnaire is grounded in academic literature and the associated questions and answers were developed through an extensive review of existing literature and research, and have been validated by industry professionals. The questionnaire is grounded in the work of Hobbs and Aubry (2007) based on the research of 500 PMOs globally to identify the most important functions, and earlier work of Desouza and Evaristo (2006) who identified the role dimensions of the PMO (strategic, tactical, and operational). Both these studies are well-known in academic research and commonly referred to by most re-knowned academic researchers in the field.

The secondary data used in linking functions to the perception of value was obtained through a credible industry source. PMO Value Ring conducted a study of 889 PMO professionals in 21 countries in 2017, respondents were asked how long the benefits of a particular PMO function could be clearly perceived. As a reference, the duration was time-boxed into three categories short-term (3 months), medium-term (3 to 9 months), long-term (9 to 18 months). It is important to emphasise that the potential number, which will be directly influenced by the maturity of each function. Meaning, functions with low maturity would not be able to generate value perception as expected. The 27 functions which were assessed for perception of value was derived from earlier work of Hobbs & Aubry, 2007, which represents the most common, or popular functions adopted by PMOs from around the world. The 27 functions, that Hobbs & Aubrey (2007) identified also aligns with the 20 PMO functions identified by earlier research conducted by Hill (2004).

4.7 Limitations & Constraints

Target Sample size: 16 Public Sector bodies were targeted for the purpose of this research project. Of the 16, the majority participated in the survey. Whilst these members are representative of some of the biggest public institutions in the state, a larger sample set would have provided a more comprehensive and accurate picture of the functions, maturity levels across the public sector. Furthermore, during the period when the target sample were asked to participate in the research, there were significant negative media exposure of the Children's Hospital project that had significant cost overruns. This meant the Public Sector bodies and ability to deliver projects came under the spotlight which may have hindered participation in the research in the circumstances where the results may paint a negative picture about organisational project management maturity capabilities. Ideally, the researched would have been enriched by comparing outcomes with other nations, however, similar exercise using the same method has not yet been completed making comparative analysis and benchmarking impossible.

Questionnaire (s):

Three questionnaires were presented to the target sample. The questionnaire listed 27 – 33 questions depending on the scope of the PMO. Because questionnaire provided the listed of functions, there may be value functions that are provided by the PMOs that are not captured, and consequently not evaluated in terms of maturity and sustained value. Having said this, based on experience (10+ as a PMO professional), it is the author's opinion, that the list of functions represented is a comprehensive population of functions. Also, the list of functions is a results of a comprehensive study of 500 PMOs which was conducted by Hobbs and Aubrey (2007), which aligns with most research as demonstrated in the literature review.

Scoring Mechanism

The scoring mechanism to determine the overall maturity levels is heavily weighted in favour of functions that are strategic. The reason is that the literature suggests that strategic functions are the source of long-term sustainable value. However, it could arguably be the case that a specific organisation does not value strategic type functions. At the end of the day, the perception of value is how well the PMO serve and meet its stakeholders ("customers") needs and expectations. On the other hand, the argument for the potential efficiencies and effectiveness that can be achieved at organisational level through effective strategic management activities including improved organisational risk management presents a convincing case in support of scoring strategic management functions higher than tactical and operational functions.

Public Sector Maturity should be Measured Differently

The scope of this research did not include ascertaining whether or not mainstream maturity models as described in the literature is even appropriate to measure the average level of maturity for an entire public sector. The model used measured maturity at an organisational level and the average values used to provide an overall level of maturity in terms of strategic, tactical, and operational functions. There potentially may be a better way of assessing the maturity levels for the public sector as a whole using different measures such as adoption of a standard methodology across all institutions, the level of compliance, overall project performance metrics, and level of cross-institutional knowledge sharing for instance.

5 Analysis & Findings, Discussion

5.1 Introduction

The research findings represent empirical data from 10 Irish public sector PMOs. A conceptual model was designed based on academic and industry research to answer the primary research question: *What are functions of the Project Management Office (PMO) in the Irish public sector, their level of maturity, and how do they contribute to organisational value?*

It is acknowledged by the Irish Government that “strengthening programme and project management is critical to the successful achievement of Government priorities, the management of public finances and the delivery of public services. Project management facilitates the identification of priorities and the effective allocation of resources, monitoring of progress and delivery of results” (Department of Public Expenditure and Reform, 2017, p. 28).

The Irish Government has taken a proactive approach through its Vision 2020 programme by establishing a working group (Action 10) represented by project leaders from public sector bodies, which has the objective of enhancing project and programme management maturity capabilities. Public sector projects are complex due to a variety of influencing factors (political, environment, administrative, and multiple stakeholders). Increasingly, the taxpayer is also demanding greater efficiency and effectiveness. Due to the complexity, the

Irish Government needs more sophisticated methods to support project and programme delivery.

The can PMO play a very important role in addressing this need as it provides value as a promoter of project and programme success and efficiency of resource utilisation (Santos & Varajão, 2015, p. 1190). As an organisational entity, the PMO ensures that the right projects are done, and done right.

The PMOs that participated in the research should be given credit as their role contributed to the respective organisations at both a strategic, tactical, and operational level. However, the research found that Irish public sector bodies on average had a “low intermediate level PMO maturity”. In other words, the functions/services being provided are not yet fully optimised, suggesting there are still opportunities to significantly contribute to organisational value, and consequently the taxpayer. In order to maximise value though (through improving PMO maturity levels), there is a need for organisational buy-in, and securing the right resources (skilled/experienced), and the necessary funding. However, it should be highlighted that 40% of the PMOs classified as having a basic maturity level, 40% an intermediate maturity level, and 20% an advanced maturity level.

The sections that will follow will provide a more detailed analysis of the findings, linking research and concepts from both academic and industry sources to facilitate interpretation and support concluding remarks, while highlighting any limitations and constraints.

5.2 Respondents Representation & Reliability

The target sample consisted of project and programme leadership within the Public sector. The individuals held roles that can be described as Higher Executive Officers (mid-management team), Principals Officers (senior managerial grade/Heads of Units/Functions), and Assistant Principal Officers (senior managerial grade), that has worked in the public sector for approximately 3 years. The individuals represented in the target sample therefore have the authority, experience, and knowledge to accurately answer the research questions. The research from a participants perspective is therefore reliable.

The research is based on a 63% participation level of the targeted sample. Participating organisations include: Central Bank of Ireland, Revenue Commissioner, Tusla, Department of Defence, Dublin Institute of Technology, Health Service Executive, Office of the

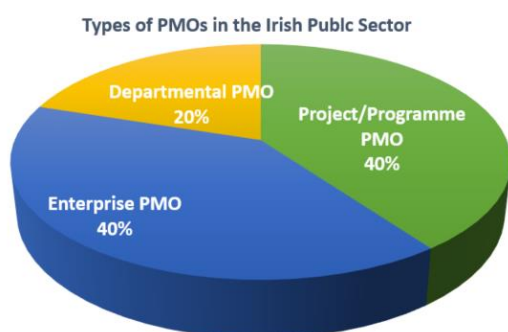
Government Chief Information Officer, Department of Public Expenditure & Reform, Department of Justice, Department of Health. The organisations that participated represent approximately up-to 321 public under management. For confidentiality purposes data is presented on an aggregate basis, and individual organisational names removed from the study.

Considering the negative media exposure associated with the cost overruns of the Children's Hospital at the time the research was conducted including concerns about confidentiality, and potential impact of negative results, the participation level exceeded expectations. Special recognition should be given for The Department of Defence, and Office of the Government Chief Information Officer for encouraging members to participate in this research project.

The research makes a minor contribution to understanding organisational project and programme management maturity capability within the Irish public sector due to the limitations of the target sample itself. Ideally, a fully mandated exercise should be encouraged for all public sectors to participate in to get the most accurate picture. Furthermore, the findings itself can act as a benchmark to against to measure progress in PMO maturity. Having said this, the importance of the organisation that participated in the research, and their crucial roles of public services, including taking into account the number of public projects it presents, it is the belief of the author that findings is a healthy representation of PMOs, and the level of maturity within the public sector.

5.3 PMO Types

The research used three classifications of PMOs: project-programme PMO, departmental PMO, and enterprise PMO. The classification method proved effective in that all participants



were able relate their scope with the type of PMO. Each type of PMO represented a set of functions at increasing level of sophistication (maturity). Some functions are trivial, yet contribute to generating organisational value; whereas the more sophisticated complex functions represented the most value.

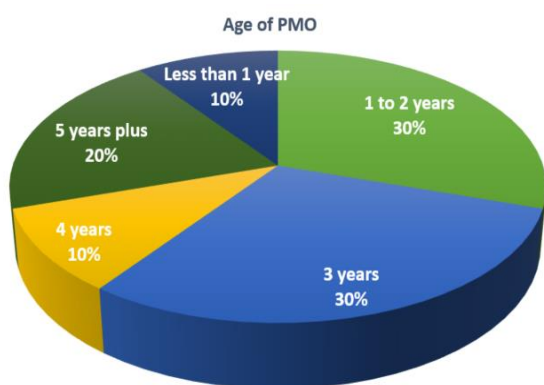
Desouza & Evaristo (2006) identified that PMOs can almost always have a strategic, tactical, and operational role. Similarly, to relate research found that all PMOs that participated in the research performed all three roles simultaneously. Identification of the PMOs was important

as the types of functions differ. For instance, project-programme PMOs would not be expected deliver functions such as “Recruit, Select, Evaluate, and Determine Salaries for Project Managers”, “Participate in organisational strategic planning processes”, “Promotion of project management within the organisation”, or “Managing Portfolios”. This being the case, maturity level measurements are only measured directly in terms of the scope and approach.

40% of Irish public sector PMOs identified as an enterprise-PMO, with an organisational level scope, 20% identified as a departmental-PMO with a scope particularly related to the delivery of departmental projects, programmes, and portfolios. 40% of the PMOs identified as a project-programme PMO with a scope focussed on delivering project/programme specific deliverables. These findings helped answer the following research question”: “*What are the types of PMOs currently in the Irish public sector?*”

5.4 Age

Identifying the age of the PMOs is important in that the lifespan of PMOs is typically 2 years (Hobbs & Aubry, 2007). Also, the time elapsed since the PMO was formed can be

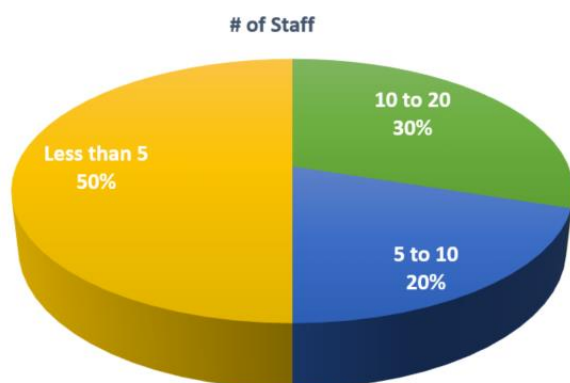


used as an indicator as to how much progress has been made in developing its competency. For instance, researches suggest basic functions can be provided in a matter of months, a standard type PMO can be operational within one year, and full competency developed within 3 years (Hill, 2004; Crawford, 2011). It should be noted that the proposed timelines are subject

to getting business buy-in, and having the right resources (experience and skills) including the funding to support the various initiatives. 70% of the PMOs suggested that it has been up-and-running for less than 3 years. This perhaps suggests that the PMO is a fairly new function within the public sector. Also, considering the average low level of maturity (which will be discussed in further detail in section 8.9). 20% of the PMOs have been operational for >5years, 10% for 4 years, 30% for 3 years, 30% for 1 to 2 years, and 10% less than 1 year. This answers the research question: “*How long have the PMOs been operational?*”

5.5 Number of Staff

Implementing a PMO requires a significant amount of effort. Increasingly, there is also pressure on PMOs to undertake more complex tasks. This requires people to do the

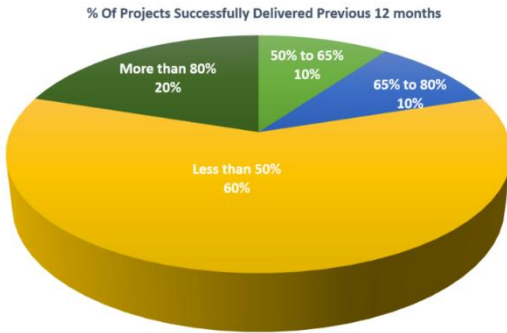


work and considering some of the administrative challenges (budgetary, HR, etc.) this can put a significant constraint in both the quality of service delivered, and progress being made in terms of providing more sophisticated services that deliver more organisational value. The advanced PMOs for instance may include various specialist resources (i.e schedulers, business analysts)

which can also be more costly than PMO administrative resources. Considering financial constraints within which the public sector bodies operate, it is not surprising that 50% of PMOs had less than 5 staff. Considering that the average PMO was responsible for the oversight of 26 to 32 projects it is not unreasonable to foresee how the limited amount of resources provides challenges in terms of day-to-day administrative duties and having to perform time-consuming complex activities (i.e analytical and support activities) and at the same time focus on continued process improvement initiatives. In the case of these particular PMOs, 80% had the responsibility of overseeing 30 to 40 projects with less than 5 staff. 30% of the PMOs had between 10 and 20 staff. Perhaps not surprising is the fact that these particular PMOs had the largest amount of projects in their portfolio and also had the highest level of maturity which will be discussed in further details in the remaining sections. These findings support to answer the question: *“How many resources are currently in the PMOs?”*

5.6 Project Delivery Performance v Industry

There are a wide-array of reasons why projects performance can be poor and some may argue that it can be out of the control of the PMO and the services provided. As previously highlighted public sector projects are believed to be different due to influencing factors such as political, administrative, environmental, and complex stakeholder challenges. However, benchmarking against industry project performance metrics will provide a target or aspiration level as the Public sector becomes more



projectised, and demands for efficiency and effectiveness increases. According to the PMI (2018), organisations with a low maturity experienced much poorer project performance levels when compared to mature organisations. In example, in low maturity organisations, only 36% of projects were delivered on time, 43% completed within budget, and 56% percent

completed to budget, and 21% deemed as failures. Mature organisations performance significantly better with 64% of projects delivered on time, 67% completed within budget, 78% percent completed to budget, and only 12% deemed as failures. Over the past 12 months, 60% of respondents suggested that less than 50% of projects were successfully delivered. In comparison with industry research, the success rates of projects in the Irish sector is therefore considerably poorer than global averages. If as suggested by industry research that there is a link between maturity and project performance, then this supports the argument for the need for further investment in PMO maturity capability development. These findings help to answer two particular research questions: *“How well are projects and programmes currently performing?”* and *“Is there a case for continued investment in PMO maturity capability development?”*

5.7 Common Reason for Project Failure

The previous section benchmarked the PMOs in the research with industry project



performance metrics and highlighted that public sector projects may have very different challenges to private sector projects. Industry research by the PMI (2018) suggests that the top reasons for project failures include: “Change in organization’s priorities”; “Change in project objectives”; “Inaccurate requirements gathering”; “Inadequate

vision or goal for the project”; “Inadequate/poor communication”; “Opportunities and risks were not defined”; “Inaccurate cost estimates” (Project Management Institute, 2018, p. 25). Interestingly, the PMOs surveyed provided similar reasons compared to industry research as to why projects fail. What is notably different is that the PMOs (40%) identified limited/taxed resources as the primary reason for project failures. Budgetary and HR policies may be a contributing factor in limiting the type and amount of resources that can be deployed to deliver projects. However, despite these constraints, the PMO can play a very important role

in terms of better utilisation of resources through effective portfolio management practices which encompasses prioritisation, effective demand and capacity planning, and the management of resources between projects. This helps to answer the following research question (s): “*Are there any common reasons for project and programme failures and how does this compare to industry research?*” and “*Is there a case for continued investment in PMO maturity capability development?*”

5.8 PMO Functions, Value & Functional Gaps

Table 10 (below) represents the type of functions performed by the PMOs that participated in the survey. The functions are listed in order of the percentage of PMOs that performed the function. For example, the function that was least performed by the PMOs is conducting project audits (performed by 30%). On the other end of the spectrum, all the PMOs developed a project management methodology. Moreover, the table also shows how long a specific function is perceived to generate value (short-term, medium-term, long-term). These findings help to answer the primary research question by identifying what functions are performed by Irish public sector PMOs (and which ones are not), including the contribution it can make towards organisation value.

Table 10: Functions/Services Provided by Irish Public Sector PMOs

| Functions | PMOs Providing Service | Value Perception of Function |
|--|------------------------|------------------------------|
| Conduct project audits | 30% | Medium-term |
| Allocate resources between projects | 40% | Long-term |
| Conduct post-project reviews | 40% | Long-term |
| Benefits management | 40% | Long-term |
| Monitor and control project performance | 50% | Short-term |
| Recruit, select, evaluate, and determine salaries for project managers | 50% | Short-term |
| Manage customer interfaces | 60% | Short-term |
| Implement and manage a database of lessons learned | 60% | Long-term |
| Networking and environmental scanning | 60% | Medium-term |
| Coordinate between projects | 67% | Long-term |
| Manage one or more portfolios | 67% | Long-term |
| Identify, select, prioritise new projects | 67% | Long-term |
| Execute specialised tasks for project managers | 70% | Short-term |
| Implement and manage risk database | 70% | Short-term |
| Monitor and control performance of PMO | 80% | Medium-term |
| Provide advice to upper management | 90% | Medium-term |

| | | |
|---|----------------|---|
| Implement and operate a project information system | 90% | Short-term |
| Develop and maintain a project scoreboard | 90% | Short-term |
| Management archives of project management documentation | 90% | Long-term |
| Participate in strategic planning | 90% | Medium-term |
| Manage one or more programs | 90% | Short-term |
| Report project status to upper management | 100% | Short-term |
| Develop competency of personnel, incl. training | 100% | Medium-term |
| Promote project management within organisation | 100% | Medium-term |
| Provide mentoring for project managers | 100% | Medium-term |
| Provide a set of tools without effort to standardise | 100% | Long-term |
| Develop and implement a standard methodology | 100% | Long-term |
| Source: Adapted from (Hobbs & Aubry, 2007) | Source: Author | Source: Adapted from (PMO Value Ring Methodology, 2017) |

All the PMOs (100%) designed an implemented a standard methodology. A methodology provides the “systems of practices, techniques, procedures, and rules” (Project Management Institute, 2013, p. 546). This finding is not surprising in that it is a key deliverable in the initial stages of setting up a PMO (which the research population represents) and a common feature in most maturity models. Hill (2004) for example suggests that this is a deliverable of what is considered a basic PMO. Industry research suggests that a standard methodology provide long-term value (PMO Value Ring Methodology, 2017). So how can a standard methodology equate to value? To begin with, it provides repeatable processes (Hill, 2004). The PMOs, therefore, contribute to organisational value through efficiencies “as allow work to be accomplished in less time, at a lower cost, with fewer resources, and without any sacrifice in quality” (Kerzner, 2001, p. 7). Designing and implementing a standard methodology forms part of a group of functions that Hobbs and Aubrey (2007) classified as “Development of Project Management Competencies and Methodologies”. This group further consists functions such as: Develop and implement a standard methodology”, Promote project management within the organization”, Develop competency of personnel, including training” “Provide mentoring for project managers”, “Provide a set of tools without an effort to standardize” (Hobbs & Aubry, 2007, p. 82). Interestingly, 40% of respondents considered this group of services the most important function of their respective PMOs. In fact, 100% of the respondents adopted all of the functions in this group. The reason may be, that all respondents in the research are members of the Vision 2020 Action 10 working group which has an objective to support training, provide mentoring, and have rolled out “Practical Handbook on Programme Management” (Department of Public Expenditure and Reform, 2017, p. 28). Regardless of the reason, these set of functions can generate value both in the medium and long-term (PMO Value Ring Methodology, 2017). A key influencing factor in

public sector projects is administrative issues (i.e budgetary processes/HR policies). These constraints may limit public sector bodies from getting the right skilled resources. This being the case, supporting training, and developing transferrable skills are key value drivers, because it is more cost-effective to build core competencies in-house in the long run. Furthermore, considering the risks and issues associated with political influences, stakeholder influences, and environmental influences, projects managers can receive training (technical and non-technical soft skills) to better deal with these associated risks/issues. For example, risk management training can help identify, analyse, and plan for risks. Conflict management and negotiation skills can help in dealing with multiple stakeholders with different priorities to improve the likelihood of success of projects.

40% of respondents also identified “monitoring and control of project performance” as the most important function. Interestingly, the study conducted by Hobbs and Aubry (2007) found that this group of functions were the most important according to 500 PMOs that participated in the survey. According to Hobbs and Aubry (2007), the group of functions consists of “Report project status to upper management”, “Monitoring and control of project performance”, “Implement and operate a project information system”, “Develop and maintain a project scoreboard” (Hobbs & Aubry, 2007, p. 82). These set of functions plays an important role in terms of input into governance processes (Hobbs & Aubry, 2007). The associated functions at its most basic level provide organisational value create transparency in terms of how projects are performing. The perception value at the basic level is short-term (PMO Value Ring Methodology, 2017). The real value comes from when the PMO identify project performance issues early and intervene or take corrective actions before cost, time, or quality issues lose control. The reason why this group of functions is important to the PMOs may relate to the fact that the consequences of project failures can have a significant impact on the public and consequently political interest. It can be perceived as a way to demonstrate value to management to justify the investment. Having said this, despite the important role that monitoring and controlling plays in governance, a large proportion, 50% did not actually monitor and control the project/program performance taking into account time, cost, or quality. Considering the potential impact on public services, the low number of PMOs that provide this function is surprising.

20% identified of the PMOs “Multi-Project Management” as its most important function. According to Hobbs and Aubry (2007) this group consists of the following function “Coordinate between projects”, “Identify, select, and prioritize, new projects”, “Manage one or more portfolios”, “Manage one or more programs, “Allocate resources between projects”

(Hobbs & Aubry, 2007, p. 82). Dinsmore (1999) suggests that organisational strategy translates into projects and programmes. This being the case, the PMOs therefore provides significant organisational value, as it can be responsible for delivering various strategic initiatives. This group of functions primarily relates to portfolio management including interdependency management. These type functions can be highly sophisticated and mostly performed by very mature PMOs. It can greatly contribute to organisational value as it provides visibility of projects at an organisational level, and help in the identification of key organisational risks and issues. The level of sophistication and potential budget constraints, including the level of maturity may explain the smaller number of respondents identifying this group as the most important function. Having said this, considering issues observed by Flyvbjerg (2014), whereby often political influence can result in projects starting up when it should not, a robust prioritisation process which is embedded in the organisational governance structures can mitigate such risk by ensuring the right projects are done. In addition, considering the importance of efficient usage of public finances, coordinating and management resources should be an important function of the PMO as it can improve better resource management including demand and capacity planning. Whilst a healthy proportion of PMOs provided most of the group functions, only 40% provided the service allocating resources between projects and programmes. This particular function provides particular value in that it improves resource management, more effective demand and capacity managed, thus potentially resulting in greater efficiencies.

None of the respondents identified strategic management as the most important function. Hobbs and Aubrey (2007) suggest this group consists of the following functions: "Provide advice to upper management", "Participate in strategic planning", "Benefits management" "Network and provide environmental scanning" (Hobbs & Aubry, 2007, p. 83). The majority of the respondents suggested that the PMOs are involved in strategic management practices. Gartner and Folkedal (2018), argues the sources of sustained value comes from these strategic management functions, more so than operational, or tactical functions. One of the research findings that are of particular interest is that 60% of the PMOs did not provide benefit management related services. This finding is particularly surprising because most methodologies and best practices emphasise the importance of benefits management. The reason is that projects usually get approved to start based on business case (outlining the benefits and constraints), the level of strategic alignment, and return on investment (ROI) subject to the risk being acceptable. Once the project starts the business case and associated benefits should be reviewed because changes (i.e requirements, scope, estimates, issues, etc) during the project life-cycle may negatively, or positively impact

benefits. The PMO plays an important role in not only monitoring the changes but also plays a part in identifying when a project can no longer be justified, and should be cancelled, and can make a recommendation to management with this regard. As suggested in the research, a common problem in the public sector is that projects are not very often cancelled because of political interest. However, to continue investing in a project that cannot be justified can significantly negatively impact public finances in that it may prevent other justifiable projects from commencing. The PMO therefore can help prevent issues such as this through robust prioritisation processes and benefit management processes.

Separately, a project is temporary, and this being the case, once a project has been completed it is often the case that benefits only materialise in the years post the implementation. In example, the sponsor of a public sector may ask for investment in a new public service that will generate a hundred new jobs once the project is completed.

The PMO plays an important role of continuing monitoring the justification of the spend during the project lifecycle, review upon project closure if benefits that were promised have been delivered, and then track and monitor the results post-project implementation to ensure benefits are realised (i.e). Therefore the sponsor and benefit owners are held accountable for ensuring these benefits are achieved. This function in particular drives long-term value in organisations.

None of the respondents identified organisational learning as the most important function of the PMOs. Hobbs and Aubry (2007) describe this group of functions: "Monitor and control the performance of the PMO", "Manage archives of project documentation", "Conduct post-project reviews", "Conduct project audits", "Implement and manage a database of lessons learned", "Implement and manage a risk database" (Hobbs & Aubry, 2007, p. 83). Desouza and Evaristo (2006) suggest that one of the roles that drive significant organisational value is when the PMO acts as a knowledge-manager. This means, ensuring past learnings are captured, stored, and communicated to prevent project related issues from re-occurring, or improve efficiencies through applying positive learnings. A large proportion of the PMOs, 40% did not implement a lessons database, 60% did not conduct post-project reviews to extract valuable transferrable knowledge. The reason may relate to issues in the public sector where collaboration may be seen as duplication of effort (Boyne, 2002). The reality, however, is that knowledge sharing can significantly improve project performance. Conducting project audits appeared to be the least adopted function. Only 30% of PMOs performed this function. The naming of the function may have been a key contributing factor as to why so very few respondents selected this function. It may be the case that respondents viewed this function as a role performed by the internal audit department or an

external body. Project assurance is a very important function and can greatly contribute to organisational value in that “It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes” (Association of Project Management, 2018, p. 3). Despite the fact that the description of the function may have caused issues, considering the importance of governance, accountability, and transparency, and high level of risk associated with projects due to the various influencing factors, the working assumption was that more PMOs would have provided this function.

Across the 27 functions that Hobbs and Aubry (2007) identified, most of the functions are adopted by the various PMOs, which can provide organisational value to support project and programme management.

Below summarises particular functions where 50% more of PMOs did not provide this particular service to its stakeholders. Through continues improvement efforts and maturity capability development, these gaps may be addressed.

- **Finding 1:** 70% of PMOs did not provide a function of “project/programme assurance/audits”
- **Finding 2:** 60% of PMOs did not perform the function of “benefit management”
- **Finding 3:** 60% of PMOs did not perform the function of “allocating and sharing resources between projects”
- **Finding 4:** 60% of PMOs did not provide a function of “conducting post-project/programme reviews”
- **Finding 6:** 50% of PMOs did not perform the function of “monitoring and controlling project/programme performance”
- **Finding 7:** 50% of PMOs did not provide the function of “Recruit, select, evaluate, and determine salaries for project managers

There may be a number of reasons as to why a large number of PMOs does not provide the aforementioned value functions. The fact that the population of PMOs was fairly new, can suggest that there has not been enough time to develop all the competencies. It may also be indicative that the functions are not required by the specific organisations, or there has not been enough buy-in, available skills, or financial investment in developing these services. It may also suggest the lack of a strategic implementation plan. It is likely, due to budgetary constraints, and infancy of PMOs may have been perhaps the largest contributory factors.

The aforementioned sector answers the following research questions “*What common functions are the PMOs performing, and what is the duration of the perceived value?*” and “*What are the common functions least performed by the PMOs.*” It further highlights how PMOs can provide organisational benefit thus further helps to answer the primary research questions: “*The functions of the Project Management Office (PMO) in the Irish public sector, their level of maturity, and how do they contribute to organisational value*”.

5.9 PMO Maturity Levels – Detailed Analysis

The previous section showed the types of functions provided by Irish public PMOs. Table 10 also presented the potential value of a specific PMO function. What it did not demonstrate is the level of sophistication of each service currently being provided.

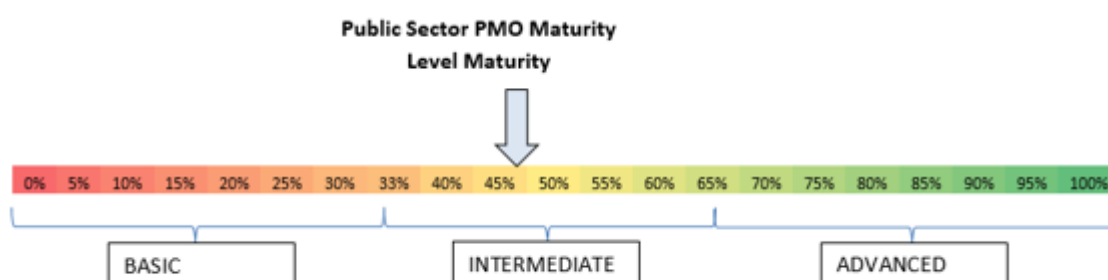
In example, the PMO may provide a service of monitoring and controlling project performance in term of cost, time, and quality and provide this information to management. This information in its own right is valuable. However, the PMO may provide the same service but additionally analyse the data, take preventative and corrective actions, while working closely with the project or programme managers. The last example requires significantly more effort and skills, is more sophisticated, and can prove to be much more valuable in terms of contribution to the organisation. The first example represents a service that is low in maturity, where the last is high maturity.

Respondents were presented with 21 – 27 questions. Each question represented a specific PMO function. Respondents were asked to identify how their PMO perform a function based on a pre-defined list of answers ranging from the lowest maturity (least complex) to the highest level maturity (most complex). The questions were grouped into three PMO role dimensions (strategic, tactical, operational) including the 5 functional groups identified by Hobbs and Aubrey (2007). The answers generated a maturity score based on a scoring system. Strategic related functions would generate the highest potential score, followed by tactical, and operational. The reason being, that strategic functions are perceived as generating the highest level of organisational value.

The findings were very interesting and that all PMOs provided services that are strategic, tactical, and operational. The supports the findings of Desouza and Evaristo (2006) who identified that PMO categorised in these three roles, and can provide them simultaneously.

The research found that the average overall maturity level of the population of PMOs that participated in the study had a low intermediate level of maturity. This suggests that PMOs on average may not have provided certain service, or provided the services at a very low level of sophistication. If as suggested by many authors (Kerzner,2001; Hill ,2004) that maturity is related to process improvement, it can therefore be argued that the PMOs is at a low level of maturity terms of optimisation.

Figure 5: Average PMO Maturity – Irish Public Sector



Source: Author

The average low intermediate level of maturity was a feature across the strategic, tactical, and operational dimensions of the assessment. Respondents were also asked to select the target level of the specific service which they planning on achieving. The current actual level of maturity versus that of the target maturity further suggests that plans are in place to improve their respective PMO maturity levels. Having said this, it appears a significant amount of work remains to achieve the desired levels of sophistication.

It is important to note that there that the level of maturity for individual organisations ranged from one end of the spectrum to the opposite end. 40% of the respondents had a basic level of maturity, 40% an intermediate level, and 20% an advanced level. An argument can be made for public sector entities to share their PMO journey and learning from the organisations that have achieved an advanced level.

The below table summarises the findings of the individual organisation’s maturity assessments.

Table 11: Maturity Assessment of Irish Public Sector PMOs

| Organisation Name | Strategic Maturity Assessment | Operational Maturity Assessment | Tactical Maturity Assessment | Overall Maturity Assessment | Current Maturity v Target Maturity |
|-------------------|-------------------------------|---------------------------------|------------------------------|-----------------------------|------------------------------------|
| Case A | 80% | 96% | 72% | 80% | 80% |
| Case B | 86% | 96% | 91% | 89% | 100% |
| Case C | 57% | 61% | 59% | 59% | 66% |
| Case D | 50% | 52% | 44% | 48% | 65% |
| Case E | 50% | 39% | 31% | 40% | 40% |
| Case F | 30% | 35% | 52% | 39% | N/A |
| Case G | 30% | 35% | 31% | 32% | 32% |
| Case H | 36% | 22% | 28% | 27% | 37% |
| Case I | 21% | 30% | 16% | 23% | 32% |
| Case J | 23% | 17% | 21% | 21% | 28% |
| Average | 46% | 48% | 44% | 46% | 53% |

To further understand the level of maturity of each individual function, the answers were further analysed. The questions were grouped into 5 functional groups as identified by Hobbs and Aubry (2007):

Group 1: Monitoring and Controlling Project Performance

Group 2: Development of Project Management Competencies and Methodologies

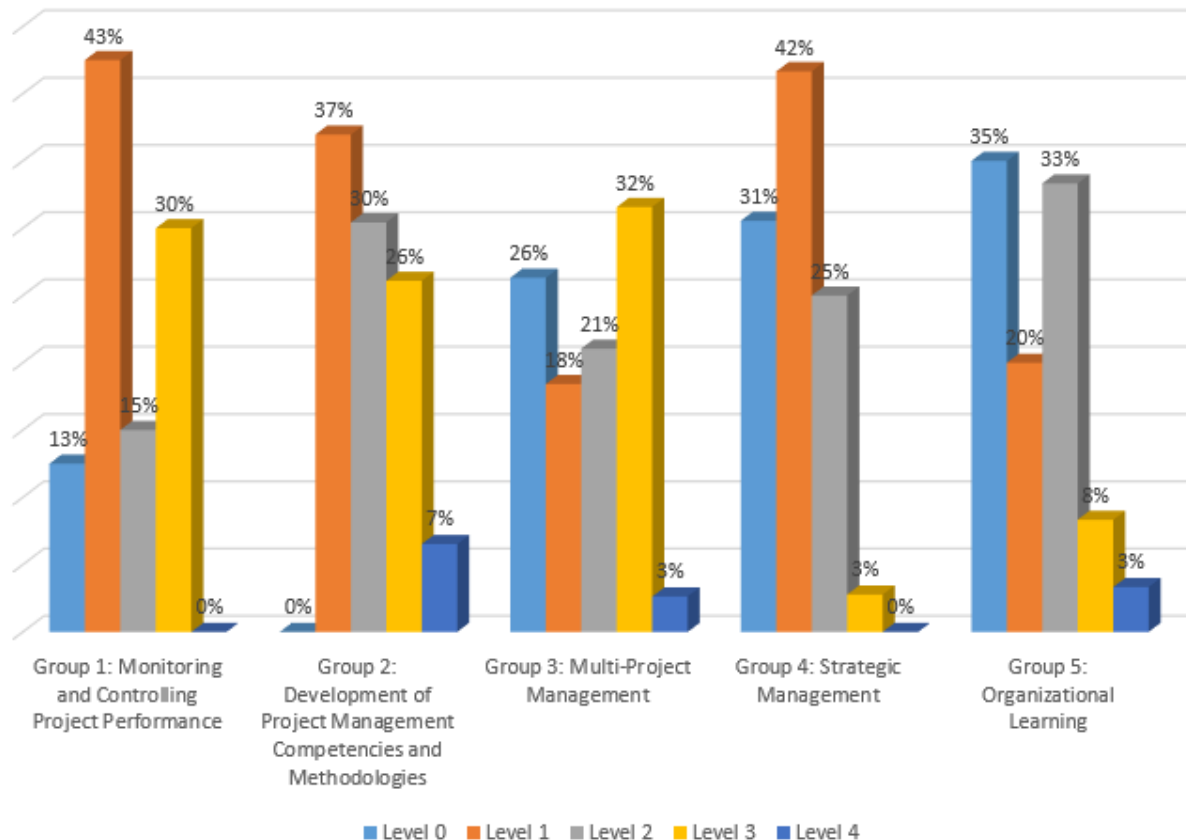
Group 3: Multi-Project Management

Group 4: Strategic Management

Group 5: Organizational Learning

The answers were examined in the level of occurrence of the maturity levels (Level 0 to Level 4). This analysis helps determine the level of average maturity by functional groups.

Graph 1: Maturity Analysis – functional group



Group 1: Monitoring and Controlling Project Performance - Analysis:

The majority of PMOs (56%) performed the associated functions at a very low maturity level (Level 0 – Level 1).

Group 2: Development of Project Management Competencies and Methodologies - Analysis:

The majority of PMOs (56%) performed the associated functions at a low level of maturity (Level 1 – Level 2)

Group 3: Multi-Project Management - Analysis:

The majority of PMOs (53%) performed the associated functions at a medium level of maturity (Level 2 – Level 3)

Group 4: Strategic Management - Analysis:

The majority of PMOs (73%) performed the associated functions at a very low level of maturity (Level 0 – Level 1).

Group 5: Organizational Learning - Analysis:

The majority of PMOs (55%) performed the associated functions at a very low level of maturity (Level 0 – Level 1).

6 Discussion

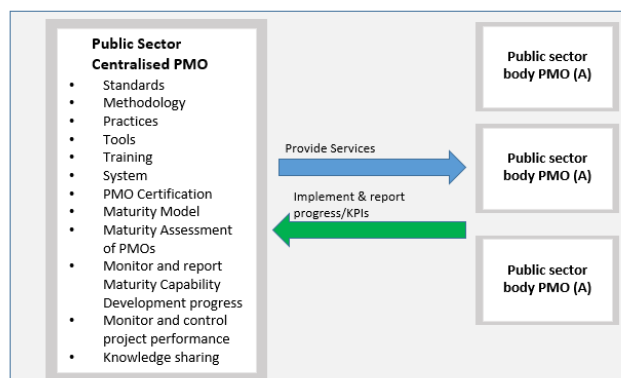
The research findings make a minor contribution to the literature in that it identified the types, age, level of resourcing, project performance levels, types of functions, and maturity levels of PMOs within the Irish public sector. The research has also contributed to the literature in that the conceptual model may be replicated in other future research. The findings may also provide other research the opportunity to compare findings in terms of overall Public sector PMO information of other countries.

The Irish Government, in particular, can benefit from the research, as it has shed light on the current population of PMOs within the Irish public sector, what service they provide, what services they are not providing, and maturity levels, which can serve as a benchmark for the identification and implementation of improvement plans.

This research has also raised a number of points of additional discussion as highlighted below.

- *Could a Centralised “Master” Public Sector PMO be the answer to support maturity capability development, greater transparency, and improve efficiencies?*

Most economist like Porter (1947) would argue that organisations benefit when economies of scale are achieved. As demonstrated by the findings, Irish public sector PMOs undertake similar functions, it can be argued that the creation of a Public Sector Centralised PMO that provides centralised support could result in greater economies of scale, resulting in greater overall efficiencies of public finances. In fact, many large organisation is structured in a way where there are multiple PMOs scattered across the organisation, who are under the oversight of the “centralised PMO”.



Development standards, tools, methodologies, and best practices can take a significant amount of effort and often a burden on the part of PMO staff and project managers alike. As part of the role of a proposed Public Sector Centralised PMO (PSCPMO) is to develop standards, tools, methodologies, and best practices which can be made readily available to all public sector PMOs.

While it is accepted the type of PMOs vary (as per the findings), the organisational structures vary, to ensure consistency it should be mandated for all Irish public sector bodies to adopt the standards, tools, methodology, and best practices. This would arguably ensure a greater degree of consistency, and repeatable processes.

With the provision of these services, by developing some of the basic deliverables of a PMO, already efficiencies and effectiveness should improve. At present, different Irish public sector PMOs go out to tender to get information systems i.e. PPM (Project Portfolio Management) and training. With a singular framework that will allow all PMOs to benefit of these services could prove to be much more cost-effective and drive greater organisational value. Because of cost savings and a greater variety of training can be provided, which can include both technical training (i.e Project Management, estimating, risk management, change management, business process management) and other soft skills such as conflict management, negotiations, communication, and people management. The PSCPMO can also provide a standard roadmap for PMOs to develop their maturity capability. As suggested by the research findings, the overall average maturity levels remain low. A standard method for measuring maturity levels that are adopted by all Irish public sector PMOs will mean that the Irish Government will not only have a benchmark to understand the overall state of organisational project and programme management maturity capability but can also support the tracking of progress to see if improvements plans are being

implemented effectively. The PSCPMO can, for instance, provide the service of the maturity assessment and assurance, and provide a level of compliance certification. From individual PMOs it will require periodical (i.e. annual) reporting on progress. Considering that project success rates remain low, and low in comparison with industry. The PSCPMO can take the centralised role of tracking and reporting of key project and programme performance. This would have multiple benefits in that it will create a view of the state of health (scope, time, cost, quality, risk, benefits) of the overall public sector portfolio (i.e. enhance transparency, enforce accountability), and supporting prioritisation, and help with identification of risks to the public sector finances, and services in advance. This will require PMOs to report their respective performance KPIs on an ongoing basis (i.e. quarterly).

Irish public sector PMOs appear to have a very low level of maturity in terms of organisational learning, and consequently, it may be arguably the same situation across public sector bodies. This may include a lessons learned database that is centralised, that is searchable and accessible. In addition, quarterly meet-ups to discuss and share challenges on a quarterly basis associated with maturity capability issues, or discuss what worked really well. The PSCPMO support the public sector PMOs in that it can act as a knowledge manager. Knowledge management is crucial to organisational development maturity and can help that mistakes of the past are not repeated. Implementing such a PMO may have significant challenges as it may be interfering in individual organisations and be perceived as an extra level of bureaucracy, however, through effective change management PMOs can be brought on a journey to understand the problems in the bigger context, as servants of the public, and effectively adopt, and use the new ways of working.

There is a counter-argument to a proposal of having a PSCPMO in that by standardising what every individual PMOs are doing while it can great efficiency and effectiveness, can deteriorate potentially due to inflexibility. As demonstrated, by Hurt and Thomas (2009), value plateaus over time for many PMOs, and in order to allow for sustainability, there is also a need for flexibility. This may suggest that certain elements of control should be left up-to individual organisation PMOs. Hurt and Thomas (2009) do highlight that in considering flexibility, “all changes should be based in preserving core features of the original hedgehog principle—embodied in the company's project management methodology—while stimulating progress via modifying and changing it around the periphery”.

- *Setting up a PMO that is scalable to enterprise-level should be a priority.*

As argued by Aubry, et al., (2009) PMOs may contribute to organisational performance through functions such as “benefit management”, “best use fo PMO resources”, “Portfolio

equilibrium”, “Predictability of capacity to deliver”, and “Project success” (Aubry, et al., 2009, p. 4). These benefits are primarily a focus of the enterprise-level PMO. As demonstrated by the literature review, the most organisational benefit can be achieved where an effective enterprise-level PMO is operational. It therefore would make sense that it should be a priority of all public sector PMOs to set up a PMO that is scalable to an enterprise-level PMO for sustained value. As suggested Gartner and Folkedal (2018), a long-term strategic view should be considered when setting up a PMO: “PMO’s long-term value, sustainability, and success are determined less by tactical or operational focus. Instead, the design and build of a PMO that is scalable to an Enterprise PMO level should inherently be strategic. Creating sustained value—and by extension, survival—is dependent on the PMOs ability to assess and deploy capability while simultaneously planning how to position, shape, and ultimately manage strategic growth” (Gartner & Folkedal, 2018, p. 75). Whilst, setting up a PMO will immediately generate some level of value, improving the maturity levels through continues improvement effort is how the real efficiencies and effectiveness is achieved. As industry research suggests there is a correlation between mature organisations and project and programme performance compared to low maturity organisations.

- Is there a case for increased investment in PMO maturity development capability?

The simple answer is yes. As aforementioned, the overall maturity is low. In particular very low in terms of “strategic management”, and “organisational learning”, and low in terms of “monitoring and controlling of project performance”. As highlighted in the literature, strategic management activities and organisational learning are key long-term drivers or organisational value. In particular, the lack of benefit management in particular was highlighted as very weak. Organisational learning is especially important in terms of the maturity development of the overall organisational maturity. Not learning from mistakes can be very costly in terms of project management considering the amount of public funds being invested. Also, despite a large proportion 40% of respondents identified “monitoring and controlling of project performance” as the most important function of their PMO, the low maturity suggests progress needs to be made to meet these specific priorities. To answer the question whether there is a need for increased investment in PMO maturity development, the answer is if the Irish Government can appreciate the potential benefits such as improved time, cost, and quality project deliverable KPIs, improved identification of priorities, more effective resource management, risk management practices, and benefit management, then would be argued that answer is yes.

- *Critical evaluation of the Study*

The research study achieved the objectives it set out in terms of answering the various research questions. Also, it can be considered valuable as it is the first of its kind to be performed with regards to the Project Management Office specifically within the Irish public sector context as far as the author is aware. The conceptual model worked well in being able to gather the data, and support analysis, which can be replicated in other research. The findings also supported the author's hypothesis that the overall level of PMO maturity in the Irish sector is low. While the author was able to meet the research objectives, one of the biggest limitations as previously highlighted was the limited number of participants in the research. Ideally, a much larger group could have participated thus providing a more accurate picture of PMOs in the public sector. Despite the low number of PMOs that participated in the research, the author still believes that the outcome will be relatively the same in terms of average overall maturity levels.

The existing model for evaluation of maturity levels worked well in answering the research questions, however, there is a need for further research to understand whether or not the model used in this research, or any other models described in the literature review is fit for purpose for the analysis of overall maturity level of PMOs across the whole of the Irish public sector, or any sector for that matter. Initial analysis suggests they all except TPM are individual organisation focussed.

The research used average values for determining the average overall maturity based on a set of predefined functions. The set of functions and maturity assessment worked well for single organisations. Feedback from respondents was positive:

“Overall, this is an excellent questionnaire – and should help people create a solid roadmap to developing their PMO. It should be easy for people to use this as a gauge on their own maturity” (Anon, 2019).

However, it could be the case, that the functions and level of complexity, are not the right measurements to use, to begin with when measuring the maturity level for a whole organisation (in this case the Irish public sector). Having said this, the TPM model which was successfully applied, aligns with the adopted model of this research. It could therefore be argued that the conceptual model used is a credible approach for accurately measuring overall maturity levels.

Further Research:

- Research of a larger set of Irish public sector bodies would further contribute to the understanding of these organisational units, and how they contribute to organisational value.
- Furthermore, operationalising the conceptual model and applying it to other countries to provide a way to compare.
- Also, a very interesting piece of research to measure the same participants in 18 months time to understand how much progress has been achieved in improving their maturity level. In addition to this, understand what they did to achieve it, and challenges experienced throughout the journey.

7 Conclusion

Similar to the existing research of PMOs, this research also demonstrated that the types of PMOs in the Irish public sector, and the functions, including the level of sophistication varied significantly. This aligns with the findings of Hobbs and Aubry (2007), who suggested that “structures”, “roles”, and “perceived value” of PMOs vary from organisation to organisation (Hobbs & Aubry, 2007, p. 74). PMOs in the Irish public sector participated in strategic, tactical, and operational activities simultaneously. This supports the argument of Desouza & Evaristo (2006) that PMOs almost always fall within these three dimensions. PMOs. The value of these roles ranged from trivial, to very complex, providing different levels of perceived duration of organisational benefits. The author’s hypothesis that the overall maturity levels of Irish public sector PMOs were proven correct as demonstrated by the low intermediate level of maturity. Surprising the range of maturity levels varied significantly with a large proportion of PMOs (40%) considered as being basic, suggesting the most basic functions are provided, at the lowest level of sophistication. The literature (both academic and industry) made a compelling case for PMOs to take a more strategic role as the highest level of organisational value can be achieved, thus supporting the notion that Irish public sector PMOs should aspire to set up a scalable PMO that has the potential to become an enterprise-level PMO.

This research paper has made a contribution, albeit minor, to better understand Irish public sector maturity capability for project and programme management. Furthermore, it has contributed in that it has given the Irish Government and associated public sector bodies a baseline measure to track the progress of PMO maturity capability development. Since completion of the research, several meetings have been held with participants who is interested in how to improve current PMO maturity levels. At the very least, the research has contributed to improved knowledge sharing within the Irish public sector.

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9 Appendices

Questionnaires



Questionnaire.xlsx