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Challenges and competencies for project management in the Australian Public Service

Carley Blixt

University of South Australia, School of Natural and Built Environments, Adelaide, Australia

Konstantinos Kirytopoulos

University of South Australia, School of Natural and Built Environments, Adelaide, Australia

kkir@central.ntua.gr

Abstract

Purpose: Public sector projects still fail to meet delivery expectations, and the lack of significant project management experience in the Australian Public Service (APS) has been identified as a contributing factor. This research investigates the importance of competencies required for delivering public sector projects, as well as challenges faced by the project managers when operating in a public context.
Design/methodology/approach: Qualitative semi-structured interviews were used to enlighten the social and operating construct in APS. In parallel, a quantitative survey was used to determine the relative importance of various competencies to effective project delivery.
Findings: The research concludes that communication, accountability, business alignment, scope and deliverables, change, and project and programme orientation are the most important competencies in APS project delivery. Furthermore, there is evidence that the operating environment acts as a barrier to successful project delivery, noting that it does not let project management practice deploy its full potential for increased effectiveness and efficiency.
Practical implications: The research findings noted that the specific needs, values and functions of project management in the APS are not well defined, and therefore there were limited criteria against which public sector project management competencies could be designed and measured.
Originality/value: This empirical research contributes to the open dialogue of improving efficiency in project management within the APS context. The findings point to the conflict between the operational nature of APS agencies and their project activities, and how they struggle to define themselves as project organisations rather than lack of appreciation to individual competencies.

Keywords

Project management, Public Service Organizations, Challenges, Barriers, Competences

1. Introduction

In the last 20 years, the public service has changed its approach to programme delivery to respond to the increasing and evolving expectations of government and the public. Known as

New Public Management (NPM), this changed approach borrows heavily on private sector financial and management practice, shifting away from a traditional stewardship focus toward performance based on outcomes and efficiency (Halligan 1997). In the same way that commercial entities realize change through projects, the delivery of the key policies of Government has become projectized. In recognition of this and building on lessons learned by relevant transformation efforts in Europe (Jones 2006; Maddock & Morgan 1998), the Australian Public Service Commission (APSC) added project management to the suite of skills required of public service leaders (Australian Public Service Commission 2014a). Despite the focus on project delivery, for more than a decade and greater than $100 billion in investment, public projects are failing to meet delivery expectations (Young & Grant 2015; Young et al. 2012). To mediate this, the APSC supports a nationally recognized qualification, BSB41513 Certificate IV in Project Management Practice, to improve the skills of public servants working in project environments (Australian Public Service Commission 2014b). In addition to training strategies, the APSC has also sought to improve capability by attracting project managers from the private sector into roles with the Australian Public Service (APS). However, these career project managers may still be at a disadvantage if they have little understanding or experience of the specific complexities of delivering projects in a government environment (Boyne 2002).

Boyne (2002) identified that public and private sectors operate differently, and therefore tools and techniques must be tailored to consider the specific requirements of public sector project management. While subsequent literature has explored the need for advanced education of project managers (Thomas & Mengel 2008), how their competency may be assessed (Bartoška, Flégl & Jarkovská 2012; Brière et al. 2015; Wagner 2012) and analysis of the leadership qualities which make them successful (Müller & Turner 2010), the outputs are not tailored to

a public service environment. Therefore, the need for more specifically focussed research still appears to be unmet after reviewing the newer publications.

The aim of this research is to contribute in the effort of improvement of project management in the Australian Public Service.

The research addresses the aim through exploring the following objectives:

1. Investigate the challenges in conducting project management in a public context.
2. Evaluate the importance of public sector project management competencies as identified by current APS practitioners.

The research aspires to advance the body of knowledge regarding project management in a public service environment by capturing the current understanding of APS practitioners about the competencies required to deliver public sector projects. Others may use this information to identify gaps between current and desired specific public sector project management competency. This could lead to tailored project policy for the sector, specific educational approaches for public servants transitioning to project roles, or on-boarding which may be required to acclimatise private-sector project managers to a public service environment.

2. Competencies and challenges in public sector project management

Competencies for public sector managers have always been under focus, especially in their relation to those used in the private sector (Hondeghem & Vandermeulen 2000). The literature has been examined to identify competencies which are common to all project management environments, and assess if there are variations, specifications or additional technical, contextual, or behavioral competencies required for successful delivery of projects in a public setting. Transferring of practices from the private sector to the public sector came to the fore

after the introduction of New Public Management (NPM) in Australia during the mid-1990s. Critics of NPM initiatives believed that the public and private organizations were fundamentally different and therefore no business practices could be successfully transferred between them. To examine this view, Boyne (2002) collated the results of 34 separate empirical studies in management dating from the 1970s and 1980s. The aim was to determine if there were statistically significant differences between public and private practice across four distinct areas: the environment (or context), goals, structures, and values (including ethics). The organizational differences and goals between the public and private sector were often unexplored, sparse, or inconsistent in these studies. Nevertheless, the findings did not support a view that the two sectors were inherently dissimilar. However, it did identify that there were significant differences in values and ethics, approaches to human resource management, and decision making processes (Boyne 2002, p.118). Therefore, this suggested that any attempt to effectively apply private sector competencies to the public sector though NPM would require that processes and techniques be tuned or supplemented for successful transition.

The professional project management community supports the view that private sector practice requires adaptation to be effective in a government setting. The Project Management Institute (PMI) recognized that PMBOK did not adequately address the unique characteristics of public sector project management, by developing a Government Extension to the PMBOK (Project Management Institute 2006). The extension follows the existing structure of the text but touches on the size and diversity of public projects, the underpinning legal mandates and associated responsibilities, and stewardship of the public interest. However, the Government Extension to PMBOK is still largely a process and technically focused project management standard for the public sector, and offers little guidance in contextual or behavioral areas, key gaps specifically highlighted by Boyne (2002).

Clarke (2010) and Kassel and Berman (2010) are among those that support the view that a tailored technical focus alone is not enough to successfully delivery projects in a public-sector environment. They stress that public projects must deliver more than products or services but also public value, which is defined as "*supporting the public interest, values and ethics, as well as the stewardship of public funds*" (Kassel & Berman 2010, p.3). In the context of New Public Management and its later iterations, the question of who delivers public value is critical since public entities may not themselves undertake projects as set out in the PMI definition. Instead, they may deliver products and services through partnerships with the private sector but must remain ultimately accountable for the provision of public value (Kassel & Berman 2010); to do so, they must enforce the same focus in subcontractors who may have different drivers (Boviard & Loffler 2009). The efforts of all staff and contractors must be aligned to achieve the required public value, through individual training and competency assessment. An effective way to align the decision-making processes of individual workers is to define, train and assess to a competency typology which is based on the values, functions, and objectives of the organization (de Graaf 2005). But Wirick (2009) asserts that this area of public project management remains so underexplored that little evidence exists to support the development of a typology which could drive such alignment. Van Der Waldt (2011) agrees by highlighting how the lack of clearly defined public sector project management competencies has inhibited the development of tailored training programs, and how this has ultimately frustrated the ability of the sector to influence and align decision-making.

Wagner (2012) points out that such a competency typology must be based on an understanding of the functions government performs to achieve its mission, its supporting systems, the assets that are employed in that process and ultimately the existing organizational values. However, there is little research or literature of public sector values. Van Der Wal, De Graaf and

Lasthuizen (2008) found that few and inconsistent definitions of organizational values were offered. Additionally, they identified that values were arbitrarily assigned to a given sector based on assumptions or ideological views rather than being based on empirical evidence. To address this gap, Van Der Wal, De Graaf and Lasthuizen (2008) undertook an extensive survey of managers in public and private organizations to test which organizational values were held in common, and if it were possible to identify a distinct set that applied to the public service alone. They established a mixed set of twenty public, private, and common organizational values that rated most highly from amongst the 500 identified in the literature review. More than 1200 respondents from both sectors were asked to rank the five most important values considered when decisions were made in their organizations. It was found that the organizational values between the private and government sectors were fundamentally different. Among the top prioritized values for the public sector were lawfulness, incorruptibility, and impartiality (Van Der Wal, De Graaf & Lasthuizen 2008, p.476), which closely aligns to the current Australian Public Service Values of impartiality, ethical action, accountability (including lawfulness) and respectful committed service. The top prioritized values for the private sector included profitability and innovativeness. While the reasons were not explained in the research, one interesting result was that profitability and innovativeness were not prioritized in the public-sector responses, despite being key tenants of NPM.

As noted by Boyne (2002), the public and private sectors perform similar functions but they vary in their approaches. This suggests that an existing and accepted project management competency standard may need to be adapted and supplemented to meet the requirements of public sector project management delivery.

On the same line of thought, Jałocha et al. (2014) concluded that, in addition to general management skills, public sector managers need to exhibit competency in areas of integrity,

accountability, public service ethos, and change. Furthermore, public sector managers require an understanding of the mission of public good, an ability to manage political influence, and be aware of laws and guidelines. A specific feature of public sector management was the ability to manage and overcome the barriers of a more diverse stakeholder set, and undertake community building through collaborations and coalitions (Jałocha et al. 2014, p.253). Their analysis showed that public sector project management requires the competencies in both project management and public sector management.

Research and literature on public project management competencies remains thin. Further, a lack of government organizational frameworks or agreement on key public sector competencies for project management means that the need for tailored and appropriate training approaches remains unsatisfied. Thus, there is a need for empirical research on the improvement of the education of Australian Public Service staff in managerial aspects of the delivery of public sector projects.

3. Research method

The research protocol developed, described the research methods to be employed as well as the way in which they would be applied to the current research. The research protocol as presented hereafter, was approved by the researchers' organization ethics team. The ethics approval purpose is to make sure that the ethics is aligned to the Australian Code for the Responsible Conduct of Research.

To map the existing challenges and competencies required for effective project management in the Australian Public Service, the research employed mixed methods. Qualitative semi-structured interviews formed part of an inductive approach to understanding the social and operating construct, which concluded with an affinity map. In parallel, a quantitative survey

was used to determine the relative importance of various competencies to effective project delivery.

To develop both the interview and survey tools, the results of the literature review were compared with the ICB 3.0 (International Project Management Association 2006) as well as current and publicly available Australian Commonwealth Government policy documents, findings and reports that outlined the required project management competencies for APS staff. These inputs directed the development of an interview guide and survey tool that collected the views about the operating context and the importance of various competencies from the perspective of current APS project management practitioners.

The participant group was made up of 45 project workers who were employed full, part time or as contractors within the Australian Public Service. This cohort was sought from the Commonwealth Project, Programme and Portfolio Management Maturity Model (P3M3) Community of Practice, which includes public service project management practitioners from across all Federal Government Agencies, as well as members of the Australian Institute of Project Management registered as working within a Federal Government Agency.

The Voice of the Customer (VOC) approach to semi-structured interviews was used to conduct data collection (Burchill, Brodie & CQM 2005). The process began with the construction of an interview matrix to ensure adequate coverage and perspectives were included to limit gaps in data which would result in incomplete or misleading problem analysis.

An interview guide was developed, including open ended questions that explored positive, negative and change based on personal experience. This approach offered the strongest authentic data for problem exploration, and the structure meant that responses were easily probed during the interview. A transcript from each interview was prepared, reviewed by the

interviewee, and a final version was agreed for use in the research. Before processing, all identifying factors were removed from the responses to preserve the confidentiality of participants. Each text was deidentified with an interview code, and then decomposed into multiple images of use and "voices", or desired capabilities. Individual images or voices were transcribed onto cards and marked with an interview code and unique reference number for complete transparency and traceability. Cards from all interviews were combined without prejudice to develop affinity diagrams which identified larger themes and the relationships between these concepts.

Participants from the target group were invited to complete an online survey by following a link from a website or email; responses were collected online, and were not individually identifiable. The survey was structured based on a Likert scale so that participants chose the importance rating most closely aligned to their own experience for each question.

All records containing personal information remain confidential as per the ethics considerations for the research protocol.

3.1 Semi-structured Interviews

Semi-structured interviews were undertaken to seek information about the competencies required to operate projects in the public sector from practitioners with both private and public sector experience. They compared and contrasted their experiences across sectors through a framework of common open-ended questions which offered the flexibility to probe further and let concepts and theories develop as they unfolded (Bryman 2012, p.470).

Individual interviews were arranged with five project managers, and took approximately 1 hour each. Interviewees were asked for the same basic demographic information as was collected in the questionnaire, and then spoke about the technical, behavioral or contextual competencies

they consider essential for successful management of projects in the public sector through personal stories and examples.

Following introductions, each interview was taped to aid in the preparation of a verbatim transcript, with care taken throughout to avoid any identifying details. A written transcript was prepared from each session, with the identities of the participant codified and any specific detail removed to protect participants' anonymity.

The participants reviewed and approved the written transcripts, which constituted data cleansing and preparation, resulting in data ready for use. Each of the approved transcripts was deconstructed into "images", or written descriptions of situations experienced by interviewees that illustrate a precise idea. Each "image" was given an associated interview code for complete traceability and transparency back to the research and transferred to a lower level card (image). Where there was more than one "image" describing the same idea, the strongest was selected and incorporated for use in later affinity mapping.

The objective of the affinity mapping activity was to establish what challenges project managers or public servants face when undertaking projects in a public context, and the concepts associated with this process are presented in **Figure 1**.

Place for Figure 1 - General Affinity Grouping Description

The individually coded cards that represent single images were combined and rearranged into small natural groupings, describing a common idea (Burchill & Brodie 2005). A sentence was written to capture the specific relationship between the 2-3 "images" that made up the grouping, resulting in a medium level (main image) statement. Occasionally, single cards sufficiently captured an idea and could stand alone as main images. Medium level (main image) statements

and single cards were themselves grouped and labelled, resulting in higher level statements (affinities).

At the conclusion of the process, the higher-level affinity groups labels were arranged and arrows were used to describe the directions of influence and interactions between them. Having identified broader themes and statements through affinity and abstraction (Burchill & Brodie 2005, p.256), the research drew conclusions and established an emerging theory about the effect of the operating context on the efficacy of project management practice in the APS.

3.2 Survey

Participants were invited from the target group to voluntarily complete a 20 to 30-minute online survey, resulting in 40 completed questionnaires. Since the responses were collected online with no involvement from the researcher, the responses were not individually identifiable. The questionnaire began with 7 general demographic questions on gender, age range, employment status, the size of the Commonwealth Agency in which the participant worked, the category of their job role, their broad level of training, and years of experience in project management. They were also asked to review a list of 59 competencies and identify the relative importance of each to successful delivery of projects in the Australian Public Service. The competency section was structured based on a 5-point Likert scale so that participants chose the importance rating most closely aligned to their own experience for each question.

The Likert responses to each competency were converted to numeric values to test if there were any statistically significant trends which would influence the design or tailoring of public sector specific project management education.

4. Research Findings

4.1 Understanding the social and operating construct in the Australian Public Service

Five project management practitioners were interviewed who had experience in both private sector and Australian Public Service projects, to address the research objective of 'investigating the challenges in conducting project management in a public context'.

In total, eighty-nine unique "images" (i.e. comments that represent a distinctive idea or position) were captured from the five transcripts, and were subsequently grouped into twelve main affinities as in **Figure 2**. Analysis of the affinity map found that the standard operating procedures and environment within the Australian Public Service sub-optimise the effectiveness and efficiency of project management practice, and restrain it from achieving its full potential in delivering desired outcomes. The main images under each affinity are summarised in **Table 1.**

Place for Table 1 - Main images under affinities related to public sector project management challenges

Place for Figure 2 - Map of Relationships between High Level Affinity Group Statements

4.2 Competencies importance to effective project delivery

Forty current project management practitioners in the public sector responded to a survey asking them to evaluate the importance of 59 public sector project management competencies required for successful project delivery in the Australian Public Service.

Based on demographic results, APS project management staff that participated in the survey were relatively evenly distributed across all years of experience groupings (**Figure 3**). All survey respondents have had some formal or informal project management training. Out of 40 respondents, 87.5% of APS project practitioners have a recognized academic qualification or

certification in project management, with 35% of the total survey group having attained specialized university-level qualifications.

Place for Figure 3 - Percentage of Survey Group with Given Years of Experience

Survey data concluded that increased project manager age was loosely but statistically significantly correlated with increased project manager years of experience ($r = .402$, $p=<0.010$). This suggests that current APS project management practitioners make a sustained commitment to working in the discipline throughout their careers. The combined set of 59 competencies, drawn from both the ICB 3.0 and public administration skill sets, were analyzed against each of the key variables: Gender, Age Group, Employment Status, Agency Size, Role, Educational Achievement, and Years of Experience. However, one-way ANOVA testing yielded no statistically significant results. The high level of specialist education across the survey group may have a moderating effect, resulting in the observed consistency of responses to competencies across all tested variables.

All the competencies achieved means higher than 3.0 on a five-point Likert scale (refer to **Table 2** in **Appendix A**). Twenty-five of the 59 competencies achieved a response mean higher than 4.0.

Of the competencies achieving a mean greater than 4.0, seven also achieved a median of 4.5 or higher (refer to **Table 2** in **Appendix A**). This suggests that Communication, Accountability, Business Alignment, Scope and Deliverables, Change, Project Orientation, and Program Orientation were particularly important to respondents, with 50% of survey participants rating these competencies 5.0 on a five-point Likert scale.

The relatively high means and medians for ICB 3.0 competencies offer support that they are valid and needed in the public-sector project management context. However, several public administration competencies were also rated equally highly, suggesting that these areas of expertise are just as essential. Therefore, project management competency standards, such as ICB 3.0, must be supplemented with public administration competencies to describe the full set of skills needed to successfully deliver projects in the APS.

5. Results and Discussion

Participants in the study confirm Boyne's (2002) earlier research that while public sector and private sector environments perform similar functions, they are dissimilar in their approaches. Specifically, external consultants or project managers entering the APS find an environment "*more different than similar*" [Interviewee response] to their experience of the private sector. While they can "*draw on the fundamentals…there is tuning to be done*" [Interviewee response] to apply those approaches effectively in the public service. This supports Gomes et al. (2008) who found that although Portuguese project managers in the public sector showed familiarity with the processes of effective project management practices, they highlighted the specific nature of public sector operational systems and their influence on their use.

Specific differences were observed in this research between public and private sector practice in the areas of accountability, communication, finance, procedures, stakeholder management and decision making, and confirm the need for tailored approaches and thus education to manage these differences.

Supplemented project methodologies, such as PMI's Government Extension to the PMBOK (Project Management Institute 2006), offer some direction about how practice differs between government projects, but they do not fully address the requirement for specific contextual

tailoring. This research shows that unless project management methodology is customized to and integrated with ongoing operating practice and organization values, the environment overwhelms the individual efforts of project management practitioners. This results in sub-optimal project outcomes which directly undermine the confidence in both the staff themselves and project management as a discipline.

The research also sought to evaluate the relative importance of public sector project management competencies as identified by current APS practitioners. Specifically, the survey tested for any competency gaps in ICB 3.0 (International Project Management Association 2006) by supplementing the standard with public sector project manager competencies identified by Jałocha et al.'s (2014) desktop study. Though the research findings from the survey cannot be regarded conclusive, it provides partial validation of the importance and relevance of the competencies as set out in ICB 3.0 (International Project Management Association 2006) standard to the public sector. However, the relatively high ranking of public administration competencies by APS project management practitioners lends support to the view that formal standards must be supplemented with specialist competencies to address the specific challenges of this context (Jałocha et al. 2014).

In addition to technical and contextual competence, the research also strongly supported the need for high levels of behavioral competency to achieve project management success in the APS. Affinity Groups five and nine described the public sector as a low-accountability environment where there is considerable freedom for staff to interpret objectives, select and choose how they deliver their work. These conditions require project managers to have particularly well developed levels of behavioral competency, or emotional intelligence, to negotiate past personal choice to create alignment and achieve project objectives without position authority. The criticality of these soft skills to project success supports Clarke's (2010)

earlier findings that higher emotional intelligence, or behavioral competencies, results in more effective project delivery.

The use of project management consultants and proxies to deliver public projects was revealed in Affinity Group two, and showed that proxies and contractors are engaged for their expertise and occasionally to bridge and overcome relatively low project management practice maturity. Many projects are delivered through such partnerships, but Kassel and Berman (2010) highlight that Government remains ultimately accountable for public value. This is achieved through the effective management and direction of contractor effort, including aligning their value sets to those of the public sector (Van Der Wal, De Graaf & Lasthuizen 2008). The results from this study describe a critical weakness across these areas, noting the APS often does not set the tone of contract relationships, but instead relies on contractors to help shape them. This often results in poorly defined objectives, and since little direction is provided to proxies, leads to off-specification work and misdirected efforts which jeopardize project outcomes: "*after a four-month engagement, we were doing the wrong thing*" [Interviewee response].

Further, the values of the APS are often not understood or shared by proxies, who often "*come into an environment whose culture and values they don't understand or share*" [Interviewee response]. However, there is little observed formal orientation offered to speed their acclimatization. Potential behaviors such as creating dependency or seeking to expand their presence that runs contrary to the APS needs and values are rarely directly managed. While the intent of employing contractors is to supplement capacity to deliver public value, failing to orient and acclimatize them to the public service operating environment jeopardizes this aim.

The strongest finding from the research was how clearly current APS project managers identified the operating environment as a barrier to successful project delivery in the public service, noting that it does not let project management practice deploy its full potential for

increased effectiveness and efficiency. For example, strong hierarchies mean that "*communication has to go up and down the [hierarchical] chain*" [Interviewee response] frustrating collaboration. Further, Wagner (2012) noted that organizational competency is a precondition for the development of personal competencies as these typologies must be based on the specific needs, values, and functions of a given organization (Van Der Waldt 2011; Wirick 2009). However, the research shows the conflict between the operational nature of APS agencies and their project activities, and how they struggle to define themselves as project organizations. The confusion and tension around this role clarity results in over commitment which negatively impacts outcomes. An optimistic "*magic pudding resourcing model [is applied] …where you keep taking and it never gets smaller*" [Interviewee response], and many areas operate at "*more than 150% capacity*" [Interviewee response]. Inability to balance operational and project requirements systemically illustrates that conditions of organizational competency have not yet been met. The strong focus on building individual project manager competencies may act as a distraction from the underlying issue of organizational competency, which was observed in the affinity map to have more direct and negative impact on project delivery.

6. Conclusions

Despite significant investment over a decade, public sector projects have failed to meet delivery expectations, and the lack of significant project management experience in the Australian Public Service has been identified as a contributing factor. The Commonwealth Government has sought to address these gaps and improve future outcomes by increasing project management competency in the Australian Public Service through training.

This research explored the importance of various competencies required for delivery of public sector projects as well as challenges faced by the project managers when operating in a public context.

Both Boyne (2002) and Gomes et al. (2008) identified that while project management principles are generally the same between the public and private sectors, existing operational practice significantly impacts their application. The results of this research strongly confirm this view, noting the largest challenges identified as barriers by project managers in the APS are the operating practices and culture, which deoptimize project management practice.

Wagner (2012) note that organizations must have clarity about their roles, functions, and values as a critical input before developing a competency set. However, the operational emphasis, and therefore culture, structures, and processes of the APS are tuned for service delivery. This outlook is often in opposition with a project delivery focus, and agencies may struggle to define their own needs and requirements in this area. The effect of this lack of organisational competency in project management means that the supporting systems and practices are often absent or ill-defined, and the operating environment overwhelms the efforts of individual project managers even if they attempt to tailor their tools and techniques. In a nutshell, it is concluded here that until the APS achieves to resolve the tension between its operational and project roles, any efforts to define required competencies may be premature; focus may be better placed on systemic clarification.

While APS sector project managers rated all competencies relatively highly, emphasis was placed on communication, accountability, business alignment, scope and deliverables, change, and project and programme orientation. These competencies corresponded to specific challenges in the operating environment identified through the interview process. The relative importance placed on these competencies by APS project management practitioners in the

survey may reflect areas that are most challenging when delivering projects, or areas where they observe a need for improved organisational practice.

This study has offered insight into how project management operates in the Australian Public Service, but because of the approach, has some limitations. The cohort that participated in the research was self-selected from the membership of professional project management and peer groups, and was already predisposed to be highly engaged and thoughtful about this topic. Interviewing and surveying APS staff who are not members of such networks and societies but act in project roles may confirm if the views and experiences represented here are broadly representative of all project managers in a public setting.

The research findings noted that the specific needs, values, and functions of project management in the Australian Public Service are not well defined, and therefore there were limited criteria against which public sector project management competencies could be designed and measured. Therefore, it may not be possible to establish the definitive composition of a public-sector project management competency typology for the APS until organisational requirements are further advanced. Further opportunities for research include the definition of the operating model for project management in the Australian Public Service, with a particular focus on how project management should smoothly intersect with the operational environment. There is also scope to take the PMBOK (PMI 2016) work further, to provide specific detailed guidance about how standard project management practices should be tuned to work within the constraints of the public system.

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Appendix A

Place for Table 2 - Ranked survey results for "Competencies required for effective project management in the Australian Public Service", noting competency source and type.

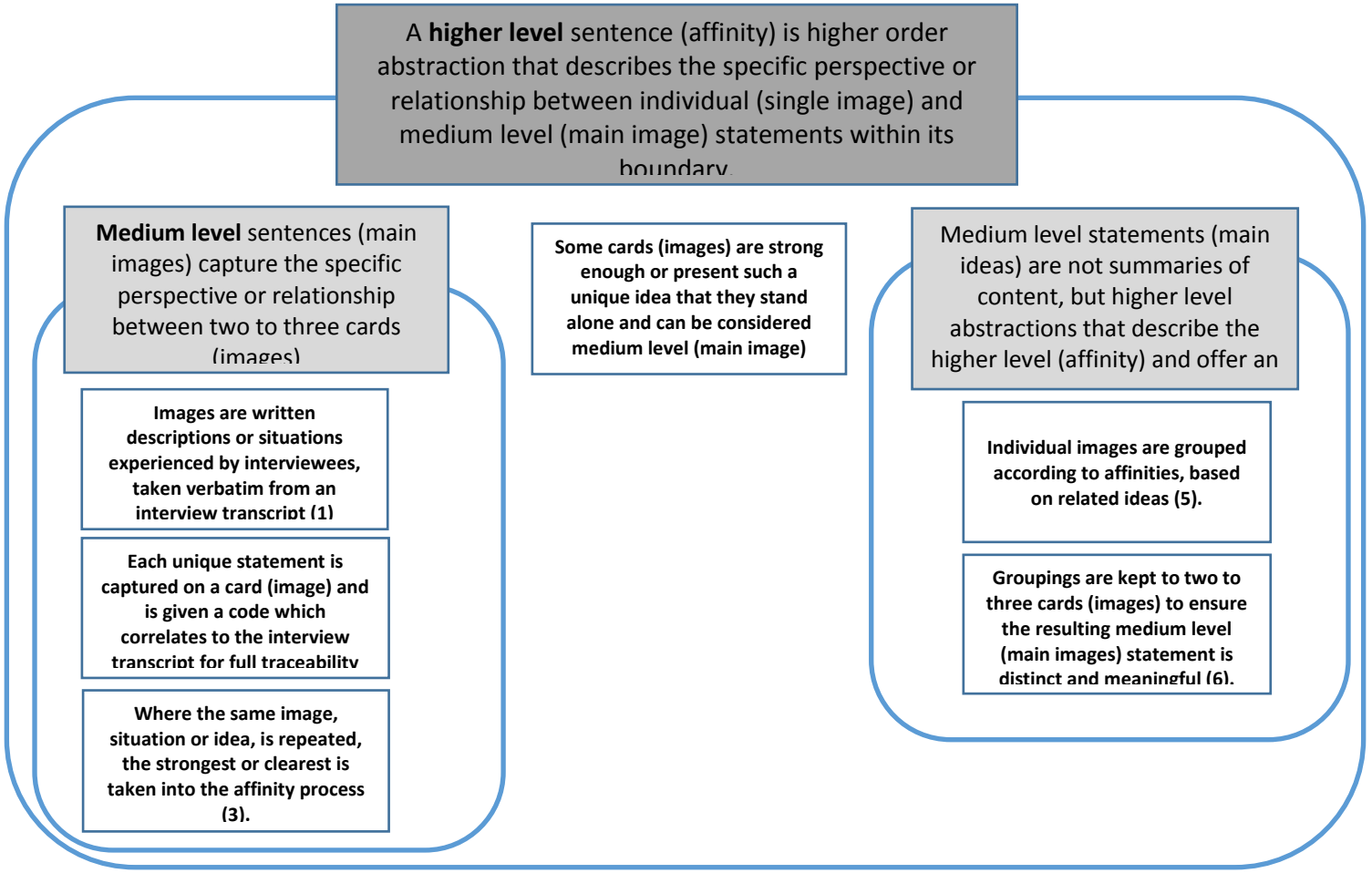


Figure 1 General Affinity Grouping Description

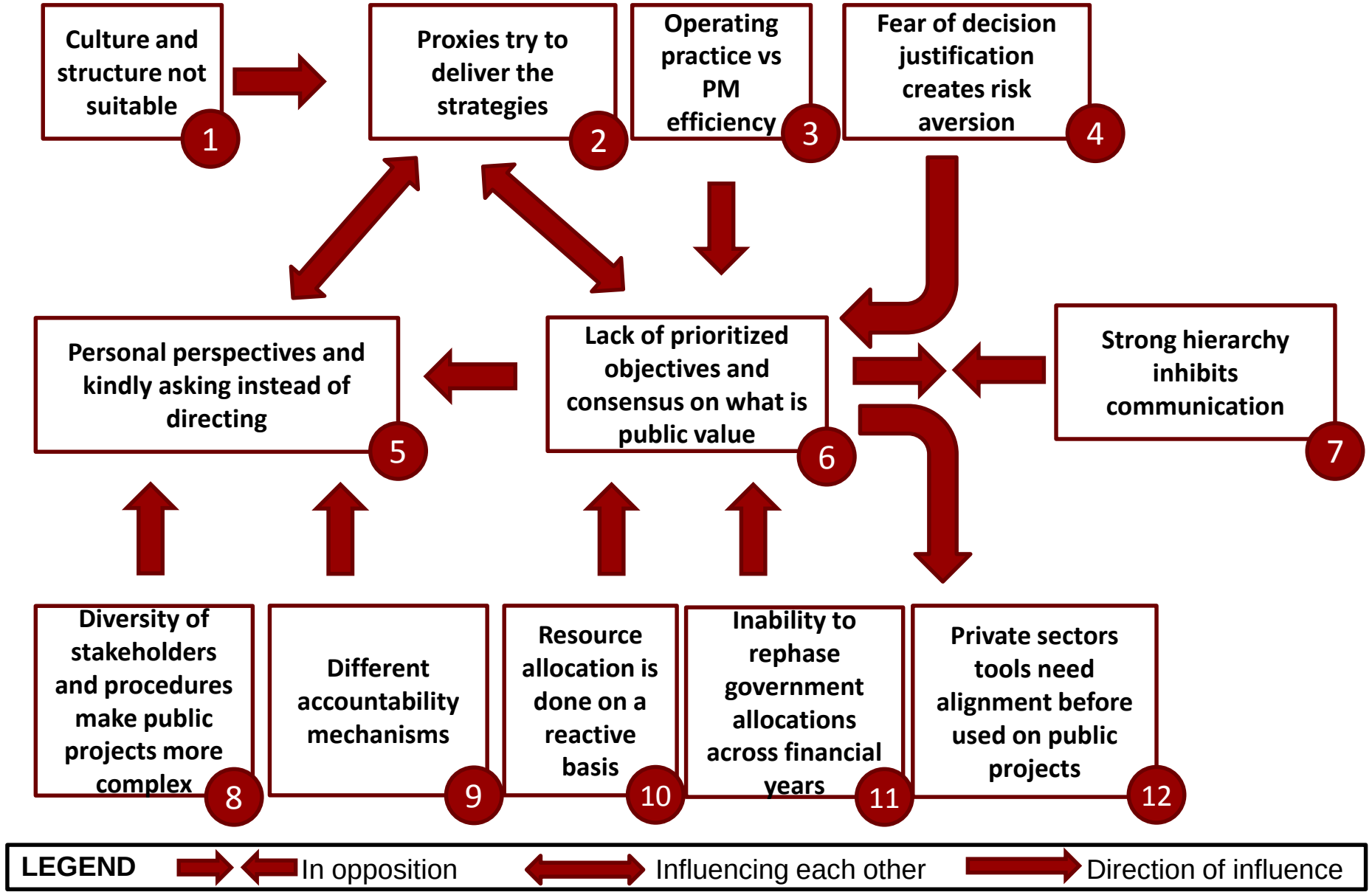


Figure 2: Map of Relationships between High Level Affinity Group Statements

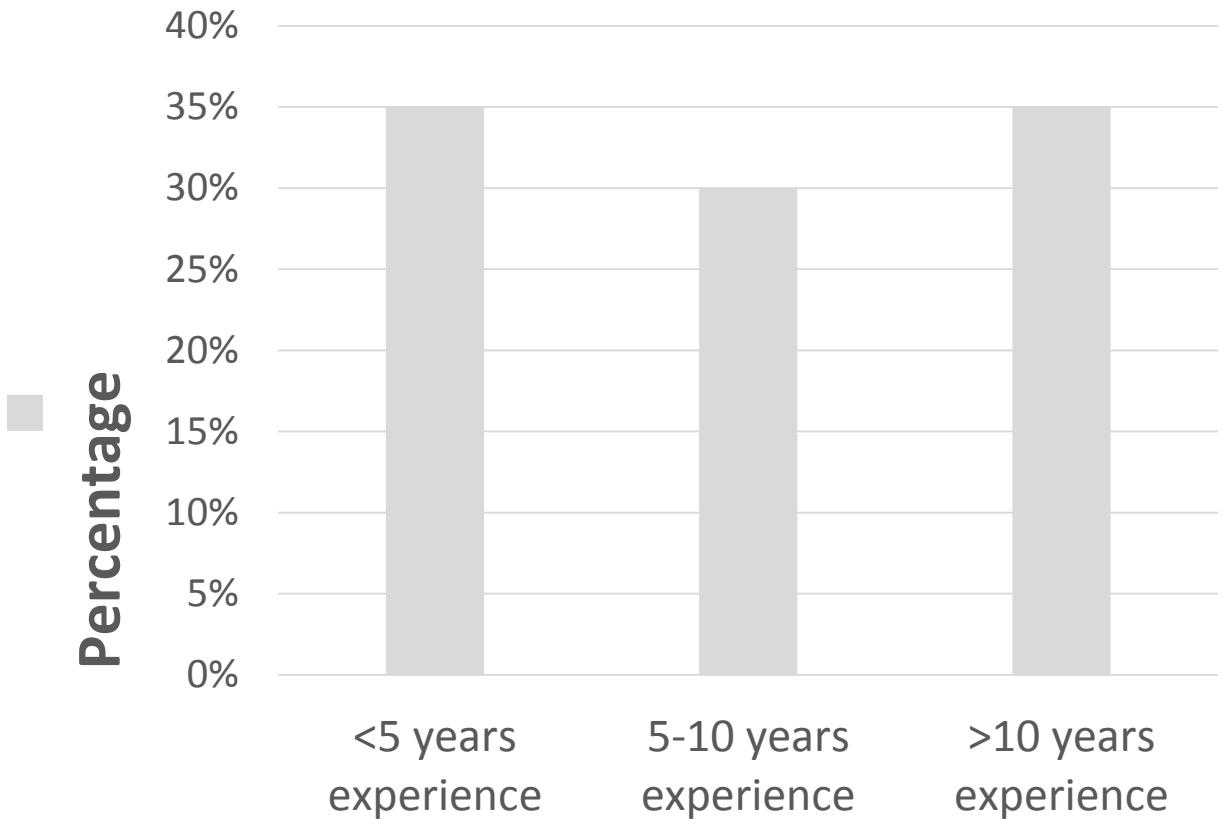


Figure 3 Percentage of Survey Group with Given Years of Experience

Table 1: Main images under affinities related to public sector project management challenges.

#	Affinity	Main images
1	The public service culture and structure is not suitable for the project management approach.	• Project process maturity is low in the public sector. • Public servants do not always recognise the value of project mgt. • The public service has limited exposure to project management practice.
2	The public service uses proxies to deliver process structure to link strategies to project objectives.	• Success measures not adequately defined. • Lack of clearly defined objectives leads to misdirected efforts. • Lack of understanding of the importance of planning phase. • Consultants often undertake a key role.
3	Operating practice undermines project management efficiency.	• Inflexible public service processes. • Understanding local operating practice is core to the ability to deliver projects. • Punitive consequences for circumventing operating process.
4	Fear of being unable to justify choices in public stewardship creates a risk averse culture which significantly slows the decision making process.	• Decision making in the public sector is impacted by a "fear of the front page". • The high level of accountability associated with public stewardship results in deferred or delayed decisions.
5	Significant skill is required to negotiate a path through the proliferation of personal perspectives to create a shared view that achieves the project objectives without position authority.	• Difficulty in motivating staff. • Poorly defined outcomes leave considerable room for interpretation about what deliverables are required. • Change resistance culture. • Strong alignment between personal values of staff and the organisational goal of delivering public good.
6	The lack of prioritised objectives makes it difficult to determine the chain of activities that optimise public value.	• Objectives focused on public value, which may or may not be measured economically. • Lack of understanding about how individual outputs contribute to end value. • The process for prioritising effort toward activities that maximise end value is unclear.

#	Affinity	Main images
7	Strong hierarchy inhibits quick access to information and communication.	• Communication is limited as "information is used as currency". • The hierarchical nature of public organisations restricts horizontal information flow. • It is important to respect the authority of formal information channels when seeking or sharing information.
8	Diversity of stakeholders and procedures make public projects more complex.	• Very significant differences in operating practices between public and private sectors. • Stakeholders in public sector projects are more numerous and diverse.
9	Current accountability mechanisms do not help managers significantly to manage performance.	• Limited consequences for poor performance. • Little consequence for failing to commit to project outcomes.
10	Resource allocation is done on a reactive basis	• Ongoing conflict between operational functions and project delivery. • Little visibility or understanding of resource capacity. • Struggle to allocate resources between operations and projects.
11	Inability to rephase government allocations across financial years.	• Competition for finite funds. • Funding practice is driven by government's annual cycle rather than the immediate needs of the project.
12	Private sector's tools need alignment before used on public projects.	• Project management business qualifications are not enough. • Basic project management methodologies should be tuned to the public sector operating environment.

Table 2 Ranked survey results for "Competencies required for effective project management in the Australian Public Service", noting competency source and type.

Survey ranking	Competency name	Competency		Statistical analysis			
		Source	Type	N	Median	Mean	SD
1	Communication	ICB 3.0	T	36	5,00	4,56	0,877
2	Accountability	PSPM	B	36	5,00	4,44	0,909
3	Business alignment	ICB 3.0	C	35	5,00	4,34	0,838
4	Scope and Deliverables	ICB 3.0	T	36	5,00	4,28	1,003
18	Change	ICB 3.0	T	36	4,50	4,08	1,105
50	Project Orientation	ICB 3.0	C	36	4,50	3,61	1,076
54	Programme Orientation	ICB 3.0	C	36	4,50	3,53	1,000
5	Cost and Finance	ICB 3.0	T	36	4,00	4,25	0,906
6	Collaboration	PSPM	C	36	4,00	4,22	0,866
7	Results Orientation	ICB 3.0	B	36	4,00	4,22	0,898
8	Control and Reporting	ICB 3.0	T	36	4,00	4,19	0,920
9	Probity and Integrity	PSPM	B	36	4,00	4,17	0,910
10	Project Organisation	ICB 3.0	T	36	4,00	4,17	1,000
11	Problem resolution	ICB 3.0	T	35	4,00	4,14	0,944
12	Ethics	ICB 3.0	B	36	4,00	4,14	0,961
13	Finance	ICB 3.0	C	36	4,00	4,14	0,931
14	Leadership	ICB 3.0	B	36	4,00	4,14	0,961
15	Project Requirements and Objectives	ICB 3.0	T	36	4,00	4,14	1,046
16	Teamwork	ICB 3.0	T	36	4,00	4,14	0,990
17	Resources	ICB 3.0	T	36	4,00	4,11	0,950
19	Engagement	ICB 3.0	B	36	4,00	4,08	0,906
20	Negotiation	ICB 3.0	B	36	4,00	4,08	0,937
21	Startup	ICB 3.0	T	36	4,00	4,08	1,052
22	Decision Making	PSPM	B	36	4,00	4,06	0,955
23	Time and Phases	ICB 3.0	T	36	4,00	4,03	1,055
24	Health Security Safety Environment	ICB 3.0	C	36	4,00	4,00	1,042
25	Project Structures	ICB 3.0	T	36	4,00	4,00	1,121
26	Efficiency	ICB 3.0	B	36	4,00	3,97	1,082
27	Procurement and Contract Management	ICB 3.0	T	36	4,00	3,97	1,082
28	Reliability	ICB 3.0	B	36	4,00	3,97	1,055
29	Interested Parties	ICB 3.0	T	36	4,00	3,92	1,079
30	Quality	ICB 3.0	T	36	4,00	3,89	1,008
31	Risk and Opportunity	ICB 3.0	T	35	4,00	3,89	1,078
32	Closure	ICB 3.0	T	36	4,00	3,86	1,246
33	Permanent Organisation	ICB 3.0	C	36	4,00	3,86	1,150
34	Openness	ICB 3.0	B	36	4,00	3,83	0,971
35	Conflict and Crisis	ICB 3.0	B	36	4,00	3,81	1,117
36	Government Policy	PSPM	C	36	4,00	3,81	0,889
37	Values Appreciation	ICB 3.0	B	36	4,00	3,81	0,951

Survey ranking	Competency name	Competency		Statistical analysis			
		Source	Type	N	Median	Mean	SD
38	Self-Control	ICB 3.0	B	35	4,00	3,80	1,079
39	Public Administration	PSPM	T	36	4,00	3,78	0,989
40	Public Standing	PSPM	C	36	4,00	3,78	0,989
41	Political Acumen	PSPM	C	36	4,00	3,75	1,156
42	Systems Products and Technology	ICB 3.0	C	36	4,00	3,75	0,967
43	Partnership and Coalition	PSPM	C	36	4,00	3,72	0,974
44	Personnel Management	ICB 3.0	C	36	4,00	3,72	1,111
45	Portfolio Orientation	ICB 3.0	C	36	4,00	3,69	0,980
46	Information and Documentation	ICB 3.0	T	35	4,00	3,69	1,105
47	Legal	ICB 3.0	C	35	4,00	3,69	0,963
48	Policy Deployment	PSPM	C	36	4,00	3,67	0,894
49	PM Success	ICB 3.0	T	36	4,00	3,64	1,125
51	Long Range Thinking	PSPM	B	36	4,00	3,56	1,132
52	P3 Implementation	ICB 3.0	C	36	4,00	3,56	1,107
53	Relaxation	ICB 3.0	B	36	4,00	3,56	1,157
55	Public Consultation	PSPM	T	36	4,00	3,53	1,158
57	Creativity	ICB 3.0	B	36	4,00	3,40	1,090
56	Public good	PSPM	C	36	3,00	3,50	1,056
58	Diversity	PSPM	C	36	3,00	0,34	1,225
59	Public Ethos	PSPM	C	35	3,00	3,23	1,031

ICB 3.0: IPMA Competence Baseline for Project Managers version 3.0
PSPM: Public Sector Project Manager Competency Set based on Jatocha et al. (2014) and own research
T: Technical Competency
B: Behavioral Competency
C: Contextual Competency