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Investigating the rationale for adopting an internationally-recognised project management methodology in Ireland: The view of the project manager

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Abstract

As businesses become more dependent on technology, effective project management has been recognised as a necessity, in order to lead and deliver quality software applications on time and within budget. One possible option in software projects is the use of a project management methodology. This exploratory research examines why organisations with an existing project management methodology are transitioning to an internationally-recognised methodology, and why organisations that do not have a project management methodology are implementing an internationally-recognised methodology. Results of five case studies suggest that while an in-house project management methodology can work well within an organisation, the benefits of using an internationally-recognised methodology should be considered. These include: the assurance that the organisation is using what is considered to be best-practice; demand from external customers that a recognised methodology is used; assistance with external recruitment; and the availability of suppliers of the methodology for training and support.

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1. Introduction

The growth and acceptance of project management of Information Systems (IS) projects in organisations is on the increase and has come about more through necessity than through desire (Abbasi and Al-Mharmah, 2000; Crawford and Pollack, 2007; Kerzner, 2006b). More and more organisations are under pressure to develop and execute innovative business strategies and projects in order to stay competitive (Srivanna-boon and Milosevic, 2006). Increasingly, information systems are being used to carry out these business strategies, and as a result better planning skills are required (Brancheaum and Wetherbe, 1987). Management are realising that to remain competitive their organisations must implement good project management practices as an organisation may find that they are no longer competitive on price or quality and that it may be

cheaper to outsource project work (Kerzner, 2006b). As a result, organisations are forced to look internally for a solution to execute these projects effectively. One possible solution is project management, as using good project management practices can help organisations to better plan, organise, manage and control work, which leads to better performance and increased productivity (Abbasi and Al-Mharmah, 2000; Loo, 2002).

The fundamental objective of project management is to deliver a project within time, cost and to specification (Jurison, 1999). Yet, it is well known that many IS projects exceed their budget and time schedule (De Meyer et al., 2002). Various studies have found that between 40% and 50% of these projects fail to meet estimates and that the degree of overspend can exceed 200% (Keil et al., 2000; Robey and Keil, 2001). In 2004 the StandishGroupInternational (2004) conducted one of the most extensive and often cited studies which showed that only 29% of all the projects surveyed succeeded (i.e. were delivered on time, on budget, with required features and functions) with 18% of projects failing (cancelled prior to completion or delivered and never used).

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Brock et al. (2003) are of the opinion that these IS project performance problems could be addressed by having better implementation procedures and better management of projects while Milosevic and Patanakul (2005) have identified the use of project management processes as a factor affecting the success of IS projects. Research by Parker and Skitmore (2005) and Wateridge (1997) has also shown that IS projects that do not have a project manager or do not follow a methodology or a defined process are more likely to fail as ultimately, the project manager is responsible for the delivery of a project and is fundamental to ensuring that the project is a success.

2. Motivation for the research

Many organisations have developed their own project management methodology for managing IS projects, but Forrester (2005), a US-based, independent technology and market research company has found that organisations are tending to move away from internally-developed project management methodologies towards more broadly recognised approaches. In the USA, project management training and certification is on the rise in public and private companies (Pappas, 2005). This is also evident in Ireland where the number of individuals completing project management certification programmes is increasing year on year (IPMA, 2005). It is likely that many organisations in Ireland still use an in-house project management methodology or no methodology at all, although there is no data available to validate this claim.

The existing literature focuses on various elements of project management methodologies including: why a project management methodology should be adopted; the benefits and drawbacks of adopting a project management methodology; and more recently on the value of specific project management tools and techniques that are employed by project managers (Besner and Hobbs, 2006, 2008). Yet, little research has sought to determine why organisations transition from an in-house project management methodology to an internationally-recognised alternative. This is surprising given that such a transition is rarely trivial, and often requires substantial commitment of resources and upheaval. In addition, the new commercial methodology rarely caters for the needs and nuances of the organisation in the same way the in-house methodology would have done. Likewise, little research has tried to determine why organisations without a project management methodology are choosing accepted methodologies over internal alternatives, which can be simpler, require fewer resources, and are always tightly aligned to the organisation.

This study aims to address this gap by attempting to gain an understanding as to:

- i. Why organisations in Ireland with an existing project management methodology in place for managing information systems projects are transitioning to an internationally-recognised project management methodology (IRPMM).
- ii. Why organisations that currently do not have a project management methodology in place for managing information systems projects are choosing to implement an

internationally-recognised project management methodology rather than developing an in-house methodology.

To address these questions five exploratory cases studies were conducted. In the next section of this paper the background literature is reviewed. The research approach is then explained. This is followed by a presentation of the findings and an analysis and discussion of the results. The paper ends by identifying some limitations in the research and making some suggestions for further research.

3. Project management methodology

Before proceeding any further it is important to explain what a methodology is in the context of this research. A methodology is a structured approach for delivering a project, and consists of a set of processes, with each process having clearly defined resources and activities (Turner, 2000). A project management methodology will set out what an organisation regards as best practice; improve inter-organisational communication; and minimise duplication of effort by having common resources, documentation and training (Clarke, 1999). Research by Payne and Turner (1999) has shown that project management practices can vary significantly from one project to another. However, Kerzner (2001) believes the best way to increase the likelihood of an organisation having a continuous stream of successfully managed projects is to develop a good project management methodology in-house that is flexible enough to support all projects. Some organisations adapt their project management methodology from external standards such as the Project Management Body of Knowledge (PMBoK), as project life cycles and management structures are different in every organisation (Zielinski, 2005). The amount of time and effort needed to develop a methodology will vary from company to company depending upon factors such as the size and nature of projects, competitive pressures and the number of functional boundaries to be crossed (Kerzner, 2001).

For those that do not wish to develop their own methodology, there are internationally-recognised project management methodologies available which are supported by accreditation. Two most commonly known methodologies are the Project Management Body of Knowledge (PMBoK), developed by the Project Management Institute (PMI) and Projects IN Controlled Environments (PRINCE2) developed by the Office of Government Commerce in the UK (McManus and Wood-Harper, 2002). The focus of this research is on organisations who have adopted either of these two project management methodologies.

4. Adopting a project management methodology

The project management methodologies of most organisations are fairly standard with most using a common project-management language and framework across the organisation, often adapted from external standards like those of the PMI. However, project life cycles and management structures are different in every organisation and therefore one project

management methodology does not fit all. Selecting a standard methodology that does not fit within the framework of the organisation will not achieve its promised benefits (Garcia, 2005). A tailored version of a standard methodology will provide an organisation with the flexibility to adapt the methodology to their own specific requirements (Kerzner, 2006a, p154; Zielinski, 2005). Both PRINCE2 and the PMBoK are flexible in their design and can be customised to suit the needs of any organisation with many organisations selecting, adapting and implementing only processes from the PMBoK methodology that suit their needs (Forrester, 2006).

The existing literature recognises the benefits of implementing and using a project management methodology, and does not distinguish between project management methodologies that are internally developed or internationally-recognised. Deploying a project management methodology can have a positive impact on an organisation, as the standards set out can reduce the time to deploy new practices by providing a common reference point for those developing the infrastructure to support the standard (Garcia, 2005). Organisations are becoming increasingly aware of the benefits that a single, common, structured method for project management can bring (OGC, 2002), as according to Abbasi and Al-Mharmah (2000), the lack of use of a project management methodology can contribute to poor overall performance of projects and lack of organisation in a project. The benefits to the organisation of using a project management methodology include: effective management and planning of the project; the controlling of budgets and resources (Zmud, 1980); and the provision of a consistent method of reporting across all projects, allowing staff to move between projects without having to relearn the management approach. A common language is needed so that all team members can understand each other (Clarke, 1999). The use of project management methodologies also helps to manage change effectively by providing appropriate tools and techniques (Kerzner, 2001). However, the project manager must be willing to manage within the guidelines, policies, procedures, rules and directives of an organisation to achieve this (Kerzner, 2001).

While the impact of using a project management methodology is generally found to be positive, there are also some negative effects. Methodologies for project management range from rigid policies and procedures, which may require extensive tracking, sign-off and maintenance, to more informal guidelines and checklists (Dicks, 2000; White and Fortune, 2002). The amount of documentation required and its generation can be very time consuming and is the biggest drawback to rigorous project management methodologies (Abbasi and Al-Mharmah, 2000; Kerzner, 2001). There is also a need to continuously evaluate and improve the methodology, which takes time and effort and adds to the cost of using a project management methodology (Dicks, 2000). However, despite the time required to implement and maintain project management methodologies, the many advantages can outweigh the disadvantages, especially when increases in customer satisfaction are taken into account (Naughton and Kavanagh, 2005).

5. Project management methodologies currently used in Ireland

A study carried out in 2001 and 2002 by the International Project Management Association (IPMA) showed that Ireland was ranked second, behind Sweden, and ahead of the United Kingdom, Norway, Denmark, Hungary, Austria, Romania and Latvia in the practice of project management (Naughton and Kavanagh, 2005). This research team (Naughton and Kavanagh, 2005) believe that a key attribute of this high ranking is a result of the demands from many of the US multi-national companies operating in Ireland. The research would also tend to indicate that the increase in the use of project management is helping Irish organisations to deal with at least three of the strategic challenges that face all organisations: how to manage complexity, how to manage time and how to manage cost (Dutta et al., 1998).

At this point, no reference has been found in the literature to indicate what project management methodologies are currently in use in Ireland. However, during 2004 and 2005 the Institute of Project Management Ireland (IPMI) and the Department of Management and Marketing in University College Cork conducted a survey of middle to senior management and project managers in Ireland, the results of which were made available by the IPMI to the researchers. Of the 200 responses that were received, 25% of organisations used the PMBoK methodology, while 5% used the PRINCE2 methodology. The remaining organisations used other project management methodologies, which were not specified. Information on the use of specific processes, tools, or techniques used by these project managers was not provided. This survey also showed that 47% of the individuals interviewed believed that certification of project managers are important to senior executive management in the organisation. More recent figures from the IMPI indicates that in 2008 there were approximately 1500 project managers certified with the IPMA in Ireland (IPMI, 2008).

6. Research design and methodology

The implementation of an IRPMM to manage information systems projects is relatively recent to organisations in Ireland and, following a review of the literature, it was apparent that there is a lack of both qualitative and quantitative research in this area. As the subject under investigation is new and there was little existing research, the objectives of this study highlighted the need for exploratory research. Therefore, case study was selected as the research strategy in this instance. Case studies provide the researchers with an opportunity to understand the conditions present in a particular situation (Yin, 2003) and they are particularly appropriate for researching concepts that are at an early stage of maturity (Benbasat et al., 1987). Multiple case studies, as opposed to a single case study, were conducted to obtain a broader view of practices in several organisations. For the purposes of this research five case studies were employed as according to Yin (2003) five or more cases should be used for a high degree of accuracy and replication.

7. Target profile of organisations

The target profile of participant organisations for this research was:

- (1) Organisations in Ireland that employ more than 50 individuals, on the assumption that organisations smaller than these would not have dedicated project managers or may not have a project management methodology in place.
- (2) IS project managers in the selected organisations were required to have completed either the PMI or PRINCE2 certification programme within the previous three years.
- (3) As a result of IS project managers completing a project management certification programme, organisations were required to have implemented either PMBoK or PRINCE2 for their information systems projects, or implemented an adapted version of PMBoK or PRINCE2.

8. Selection of organisations

The organisations were selected by a number of different means. The first attempt at identifying organisations was to review the list of companies on the IPMI website that had participated in their project management training. Several of these organisations seemed to fit the required criteria and they were contacted. Two organisations were obtained from this list. The remaining organisations contacted by this means did not wish to participate or did not fit the required criteria. As this would have limited the research to organisations that had only completed the PMI certification program from the IPMI additional organisations were selected through personal contacts in the software industry.

10. Organisation profile

A high-level profile of each of the participating organisations is detailed in [Table 1](#). Some of the organisations have several office locations within Ireland or have offices in multiple locations around the world. As practices could vary across locations within the same organisation, for the purposes of this research the findings relate to the location in which the interview was conducted.

Case A was a long-established financial services organisation based in the UK, employing 4500 staff. Its Irish office employs approximately 65 staff. The organisation is a provider

of investments, pensions and protection products for employers and individual consumers.

Case B was a building society that employs approximately 1000 staff country-wide. The building society provides a range of savings, investment, mortgage and insurance products and services to personal and business customers.

Case C was a technology services provider with numerous offices worldwide that employs approximately 4000 people. There are a number of office locations based within Ireland, one of which participated in the research. This office employs 50 people. The site that participated in the research had operated as an independent company prior to its acquisition a number of years ago. This division of the organisation specialises in quality assurance, testing, consulting and applications maintenance services.

Case D was an Irish organisation operating in the financial services industry. It employs approximately 2500 staff in Ireland and operates in key locations around the world through a range of specialist business units and subsidiary companies. The organisation provides a comprehensive range of financial services to domestic and international corporate organisations.

Finally, Case E was an Irish insurance provider with approximately 2000 employees based in several offices in Ireland. This organisation offers a variety of insurance products to both personal and business customers ranging from general insurance, life assurance, pensions, investments, to personal financial services.

11. Participant profile

The level of experience of the project managers interviewed varied across the organisations, as did the number of projects that they managed before and after the implementation of the new project management methodology. A high-level profile of these project managers is displayed in [Table 2](#).

12. Data collection

As the researchers wished to gather detailed opinions and perspectives on the subject of project management methodologies in information systems projects, the primary method of data collection was a semi-structured personal interview. An interview guide was developed to facilitate this. The interview guide contained a number of sections related to the research question and objectives with each section containing a number of questions. These questions were created following a review

Table 1
High-level profile of organisations.

	Case A	Case B	Case C	Case D	Case E
Industry of organisation	Financial services	Building society	Technology services	Financial services	Insurance
Total number of employees in Ireland	65	1000	420	2500	2000
Number of IT staff in Ireland	14	80	50	200	170
Location of offices	Ireland and UK	Ireland	Worldwide	Ireland, Europe and USA	Ireland
Customers	Internal to the organisation	Internal to the organisation	External to the organisation	Internal to the organisation	Internal to the organisation

Table 2
High-level profile of project managers interviewed.

	Case A	Case B	Case C	Case D	Case E
Years of experience as a project manager	1.5	9	9	8	7
Number of projects managed before the implementation of the methodology	3	50	4	5	20
Number of projects managed after the implementation of the methodology	2	6	2	2	5

of the existing literature and the research questions. The aim of the interview questions was to ensure that there was sufficient detail and coverage of the research questions (Eisenhardt, 1989). A sample of the interview questions asked is detailed in the Appendix. Using open-ended questions provided the researchers with the opportunity to gather detailed information and it gave the researchers more control over the data collection than other types of data collection methods. It also provided the researchers with the opportunity to ask additional questions, if necessary (Cooper and Schindler, 2001).

Participants were interviewed at their place of work. Interviews were recorded and lasted between one and two hours. The project manager in each of five organisations was interviewed for the purposes of this exploratory research as the study focused on the perspective of the project manager. Consequently, the findings of this research are based on the opinions and experiences of the each of the project managers within the context of their own organisation.

13. Data analysis

Each interview was transcribed as soon as possible after the interview as recommended by Miles and Huberman (1994). The interview transcriptions were read several times in order to become familiar with the data in greater detail (Eisenhardt, 1989). A detailed summary of each case study was written and re-read several times. Notes were made and the main points made in relation to each of the research questions were highlighted for each case (Miles and Huberman, 1994). These were organised into separate sections as suggested by Yin (1981). Cross-case analysis was then conducted with similarities and differences across cases highlighted.

Table 3
Project management methodology used.

	Case A	Case B	Case C	Case D	Case E
Original project management methodology	Internally developed	None in place	Internally developed	None in place	Internally developed
Project management methodology implemented	PMBok	Adapted from PRINCE2	PMBok	Adapted from PMBoK	Adapted from PRINCE2
Champion/Driver of the project management methodology implementation	Project manager	Senior management	Senior management	Senior management	Senior management
Number of years since project management certification was obtained at time of interviews	1	3	2	3	1
Time to implementation	1 month	6 months	Ongoing	Unknown	Ongoing

14. Findings

This section presents the findings of the research. Each project manager was asked if a project management methodology was in use prior to the adoption of an IRPMM. As can be seen from Table 3 the use of project management methodologies varied across the organisations.

Two of the larger organisations (Cases B and D) had no methodology in place prior to the adoption of an IRPMM. Project management in these cases was very haphazard and varied from project manager to project manager or project to project. Of the three organisations that had a methodology in place, two organisations, both of which were small at the time, had a methodology in place that was developed internally and was used consistently across all projects. As both of these organisations had a small IS department, it may have been easier to make a decision internally to use and implement a project management methodology than in the larger organisations where such a decision would affect a lot more personnel and agreement would have to be reached between all affected departments. The remaining organisation (Case E) followed an in-house methodology imposed on them by their parent organisation that had annual reviews and releases. However, it was used inconsistently across departments due to the changing structure of the organisation. In recent years this particular organisation has had to contend with a lot of new staff who had worked with different methodologies or with no methodology at all and it was taking a considerable amount of time for all staff to become accustomed to the in-house methodology.

15. Reasons to adopt an IRPMM

All of the organisations that participated in the research made a decision in the last number of years to implement an IRPMM for the first time or to transition from their internally-developed methodology to an IRPMM.

As can be seen from Table 3 the drive for the implementation of an IRPMM mainly came from senior management (the four larger organisations). Consistency in the management of projects was the main reason for implementing an IRPMM as, even where organisations had previously used an in-house

methodology, it was not always used consistently and it was also considered inflexible when trying to tailor the methodology for smaller projects (See Table 4). As stated by one project manager “if we are going to do things [manage more IS projects] we need to do them in a consistent manner”. Cost savings were also a factor as it was believed by one organisation that implementing a standard project management methodology that would be used consistently across the organisation would save money in the long term by helping to bring projects in on time and within budget.

Two of the larger organisations (Cases C and E) were also driven by their desire to obtain Capability Model Maturity Integration (CMMI) certification, of which a requirement is to have a project management methodology in place. An IRPMM would reduce the overhead of training new staff in an internal methodology as it would now be possible to recruit staff with experience in the IRPMM. Case C, whose customers were external also saw certification of their project managers and the use of an IRPMM as a potential differentiating factor when competing with other vendors for business. The project manager in this case believed that their customers would see the value in having certified project managers and that there “was a pursuit of certification [at organisational level] to ensure that we were getting projects”. This organisation was also driven to a certain extent by demand from their customers to have a standard methodology in place, which may be due to the industry (technology services) that this organisation operates in.

In the smallest organisation (Case A) it was possible for the project managers to directly influence management and to set out a business case for obtaining certification, which would progress their own careers, yet at the same time have a positive impact on the organisation. The decision to implement a methodology was made within a very short timeframe in contrast with the longer timeframe required for the larger organisations. This may be due to the smaller size of this organisation and the higher level of complexity that such a task entails in larger organisations.

All project managers believed that the implementation of the new methodology improved the quality of the projects delivered and increased the success rates of projects even though none of the organisations formally measured this. In two cases (Cases B

and D) both project managers agreed that “it [project management methodology] helped to identify issues earlier on a project” resulting in the cancellation of one project in each of these two organisations before too much money was committed to the project.

While there was some interest in the personal development and training of staff in all organisations, this seems to have been only a minor consideration. However, the introduction of the methodology did formalise the role of the project manager (Cases B, D and E) by detailing competencies that must be achieved in order to hold the position. This has made it more desirable as a position as it is now seen as an opportunity for career progression.

16. Selection of an IRPMM

There were differing reasons as to why a specific IRPMM was chosen for implementation (see Table 5). Two of the project managers interviewed (Cases A and B) were involved in the decision as to which methodology was selected. In both cases the project managers selected a project management methodology that was recommended to them by colleagues. Four of the five project managers interviewed (Cases A, B, C and E) were aware of the reasons for selecting the particular project management methodology adopted by their organisation. The decision on the methodology selected in the Case D was made by a separate team within the organisation, who were given the task of choosing an appropriate methodology for the organisation. This was then adapted to suit the needs of the organisations and imposed on all project managers.

There was a general requirement for a methodology that is widely recognised by other organisations. For the larger organisations, it was important that the methodology could be tailored to the needs of the organisation. In Case C where CMMI was being implemented, CMMI recommended the implementation of the project management methodology from the PMI certification programme. This organisation was partly influenced by this requirement and partly influenced by its parent organisation in the United States where the value of PMI certification was seen in other US-based organisations. Case E is also implementing CMMI, but this organisation does not appear to have been influenced by the recommendation of CMMI. The main focus in this organisation related to having a methodology where certification, training, assistance and

Table 4
Reasons to adopt an IRPMM.

	Case A	Case B	Case C	Case D	Case E
Desire to implement a uniform approach to project management within the organisation	x	x	x	x	x
Improved project success rates	x	x	x	x	x
Better definition of the role of the project manager		x		x	x
Required by CMMI Certification			x		x
Desire to obtain a competitive advantage over other suppliers			x		
Expectation by customers to have a standard methodology in place			x		
Career Progression	x				

Table 5
Selection of an IRPMM.

	Case A	Case B	Case C	Case D	Case E
Methodology recommended by a colleague	x	x			
Methodology recommended by CMMI			x		
Methodology in use by parent organisation			x		x
Decision made at management level				x	
Ability to tailor the methodology required		x		x	x
Requirement for certification, training and support to be available from multiple suppliers					x

support can be provided by more than one supplier. As a result, PRINCE2 was selected because of the availability of numerous training providers.

17. Analysis of findings

Even though some of the organisations studied in this research previously used their own internally-developed methodology, there was still a desire within these organisations to implement an IRPMM. The main reasons for implementing an IRPMM included: an assurance that best-practice was used within the organisation; the lack of availability of more than one supplier for the methodology previously used; and demand from external customers to have an IRPMM in place. While the decision to implement a methodology was supported by management in all cases, management was not always the initial driver (see Table 3).

The decision to implement a methodology was made within a very short timeframe in the smallest organisation, which was to be expected, as smaller organisations tend to be more flexible with their decision-making. This contrasted with the longer timeframe required for the larger organisations. The larger organisations tended to adapt the methodology to suit their business needs and conducted customised training courses for project managers whereas the smallest organisation completed the certification programme with a recognised training provider and implemented the methodology without any adaptation. This organisation was easily able to modify their existing processes to fit with the new methodology. While a quicker implementation is possible if an organisation does not adapt the methodology, the larger organisations needed to adapt the methodology to fit with their existing established business processes and wanted it to be an organisation-wide methodology as opposed to an off-the-shelf methodology.

The two methodologies implemented differed in terms of their flexibility on smaller projects. The larger organisations, that implemented the PMBoK methodology, did experience difficulties with the flexibility of the methodology in relation to its use on small projects. Even though one of the large organisations had adapted the PMBoK methodology, the adaptation was still very closely aligned with the standard methodology. In contrast, another large organisation that implemented an adapted version of the PRINCE2 methodology did not seem to experience the same difficulties. However, this organisation did have an issue with their old in-house methodology, which was similar to PRINCE2, and was imposed on them by their parent company. Project managers found it difficult to scale the methodology down to meet the needs of the projects that were conducted in Ireland, which tended to be significantly smaller in size than projects in the parent organisation. This could suggest that in order to have flexibility, it is necessary to adapt a methodology, regardless of the actual methodology that is employed.

Four organisations had customers who were internal to the organisation (i.e. the customer was another department/business unit within the same organisation) and one organisation had customers who were external. The organisation with the

external customers faced greater demand from their customers for project management certification and the use of an IRPMM. This demand was also driven internally by senior management in the organisation, as they wanted to obtain any possible competitive advantage when competing with other vendors for projects. An additional difficulty facing this organisation was that they required buy-in from their external customers when implementing their new project management methodology. The organisation encountered several problems when trying to use the new methodology on existing projects as customers did not wish to change from the old internally-developed methodology. Some customers also wanted to use their own methodology, resulting in conflict between the two methodologies, which had to be resolved individually with each external customer.

While three of the project managers detailed that it did take some time for project team members to become familiar with the methodology, no resistance was reported by members of the project team to the implementation of the methodology. Instead, the benefits that resulted were welcomed by the project team. However, there was some resistance from the external customers in Case C who used their own methodology and did not wish to change.

18. Discussion of findings

These cases studies are a step in providing an insight on project management practices in Ireland, from the project manager's perspective, specifically in relation to the implementation and use of an IRPMM following project management certification.

Kerzner (2001) and Milosevic (1996) identified several reasons why organisations decide to implement a project management methodology with which this study agrees. This study found that the main driver in larger organisations for the implementation of an IRPMM, was a desire by senior management to have a uniform approach to project management across the organisation. As a result, management provided their full support for the implementation and they also provided the time, money and the resources required for the implementation, which is in line with the existing literature (Brown, 1999; Loo, 1996). Yet, it must be noted that if an organisation decides to customise a project management methodology this can take a substantial amount of time and money, and this should be taken into consideration. In contrast, the main driver in the smallest organisation was the personal desire of the project manager to enhance her career prospects and her knowledge of project management, while at the same time considering the benefits to the organisation. This was not identified as a driving factor in the existing literature. This may suggest that project managers in smaller organisations can have more direct influence on management to obtain their support, which can benefit both the project managers and their organisation.

The findings of this study also suggest that when a recognised methodology is implemented in an organisation, the support and input of the various divisions within the organisation is needed to ensure a successful adoption of the methodology. This concurs with the findings of Blackburn

(2002), Brown (1999) and Loo (1996). Where customers who are external to the organisation are required to use a methodology, this study shows that their support is also required for a successful implementation. This requirement has not been highlighted in the literature to date.

Many organisations adapt an IRPMM to their own specific requirements, as project life cycles and management structures are different in every organisation (Zielinski, 2005). The organisations in this study that tailored the methodology to meet their needs were large organisations that were well-established and have been in existence for over fifty years. This may suggest that in order for the methodology to be successful, large, well-established organisations require a methodology that can be modified to fit with their existing business processes. This agrees with the findings of Garcia (2005) who states that if a standard does not fit within the framework of the organisation it will not achieve its promised benefits. The organisations that adapted the methodology also tended to have a condensed version of the methodology for smaller projects, which made the methodology more flexible in terms of its use for projects of all sizes. This suggests that adapting an IRPMM may improve the flexibility of a methodology, and so, could resolve the problems identified by White and Fortune (2002) who find that sometimes a methodology can be difficult to model to the 'real world', or can require too much documentation.

One project manager believed that there were no major additional benefits following the implementation of their new IRPMM after the completion of the certification programme, as they had a good methodology in place previously. This organisation had already recognised the benefits of using a standard methodology. As a result, in this organisation there was no evidence to suggest that the new methodology was more effective than the old methodology, which concurs with Kerzner (2001) who states that it is not important which methodology is used so long as the project team can use the methodology. However, this study identified a number of benefits to using an IRPMM rather than an in-house methodology (an area not covered in existing literature). These included: the assurance that the organisation was using what was considered to be best-practice within the industry, which should provide a competitive advantage when competing with other suppliers for projects; the expectation of external customers that their suppliers would have a recognised project management methodology in place; the availability of several suppliers of the methodology for training and support; and assistance with external recruitment, resulting in a reduction in the overhead of training of new staff members. This suggests that while using an in-house project management methodology can benefit an organisation and can work well within an organisation, as was seen in the organisation that had a successful internal methodology prior to certification, the benefits of using an IRPMM should be considered by organisations when deciding on a project management methodology.

In conclusion, organisations considering implementing an IRPMM need to think about their reasons for doing so. It is possible that if a good project management methodology

already exists and is used consistently across an organisation that there may not be a requirement to implement an IRPMM. However, in the event that an organisation intends to implement an IRPMM senior management must be committed and supportive of the implementation in order for it to be successful. Management must also obtain the support of all staff, and possibly customers, to ensure that the methodology is used on projects. In the event that the methodology requires customisation, additional time and money must also be made available for this and also to allow time for staff to receive training on the methodology. This may result in a longer implementation period, which may have an impact on the decision to customise. Selection of the most appropriate project management methodology can depend on factors such as the availability of project management certification providers for training and support; the ease with which the methodology can be adapted to suit the business; and the flexibility of the methodology in practice across projects of different sizes.

19. Limitations of the research

This research was limited by the fact that it employed case study as its research approach. As a result, the findings are only representative of the five organisations studied at a particular point in time in a particular location. Practices may have varied across office locations within Ireland or across countries. The findings were also based on the opinion of one project manager in each of the organisations interviewed. If additional project managers in each organisation had been interviewed they may have had differing opinions, depending on their level of experience and the division of the organisation in which they worked. Further research should address this limitation and it should also consider the viewpoint of other stakeholders within the organisation.

Four of the five cases studied were large organisations. As only one of the organisations that participated in the study was small the findings relating to the small organisation cannot be directly compared or contrasted with any of the other organisations studied.

This research focused on project management certification from providers of the PMBoK and PRINCE2 methodologies, as both of these methodologies are internationally recognised. Other methodologies and certification programs could also have been considered in order to examine project management methodologies and project management certification more broadly. Caution should be exercised in relating the findings in this research to contexts other than to similar organisations that use the PMBoK or PRINCE2 project management methodologies.

20. Implications for practice and recommendations for further research

It is the researchers hope that the findings reported here will complement existing research in the area of internationally-recognised project management methodologies and will be of interest to practice. The results recognise that there are benefits

to using an IRPMM over an in-house methodology. The findings may provide an indication as to when an organisation should customise a methodology or when they should implement a standard methodology. The research also identifies issues that project managers may need to consider when implementing an IRPMM, which may help organisations to have a more successful implementation.

Future research, either quantitative, or qualitative, needs to further examine the drivers of implementing an IRPMM. In addition, as all of the organisations that participated in this study only implemented a methodology recently and they have not yet reached the point where updates and revisions to the methodology are required the time and effort to continuously evaluate and improve the methodology was not identified as a problem. However, future research may address this and also verify some of the other findings across a broader range of organisation sizes and industry sectors.

Appendix

Sample questions asked during the semi-structured interviews are detailed below:

- (a) Why did you/the organisation decide to obtain project management certification?
- (b) How was approval obtained?
- (c) What project management certification program was chosen, and why?
- (d) Was a project management methodology adopted following the completion of the project management certification program?
- (e) Was implementing a project management methodology considered at management level/any level?
- (f) Who made the decision to implement the methodology?
- (g) What steps were involved in implementing the project management methodology following the completion of the project management certification program?
- (h) Was the project management methodology implemented in its entirety?
- (i) Was the methodology adapted to suit the needs of the organisation?
- (j) Were there any issues with implementing the project management methodology?
- (k) What should be done to address the difficulties faced in attempting to implement the methodology?
- (l) How has the use of a project management methodology impacted on your project team in terms of the attempt to implement the methodology?
- (m) What benefits do you attribute to the use of a project management methodology in terms of the attempt to implement the methodology?
- (n) What difficulties/downsides were experienced when implementing a project management methodology?
- (o) What difficulties/downsides were experienced when using a project management methodology?
- (p) How were these difficulties/downsides dealt with, or how are you currently trying to deal with them?
- (q) How do you define a successful project?
- (r) How has the use of a project management methodology affected the success rates of projects?
- (s) What effect has the use of a project management methodology had on the quality of projects delivered?

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