UNIVERSITY of LIMERICK

OLLSCOIL LUIMNIGH

An exploration of IT project management and governance practices within the Irish University sector

This thesis is submitted in part fulfilment of the requirements for the

Degree of

Master of Business Administration

to

The Kemmy Business School

University of Limerick

By

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October 2013

Word Count: 19334

ACKNOWLEDGEMENTS

I would like to take this opportunity to thank those who have been there to support me throughout this arduous but rewarding process.

Firstly, I would like to thank Ms Catriona Burke for her guidance throughout the process of researching and writing this thesis.

I would like to thank all of my interviewees for so kindly offering up some time in their very busy schedules to speak with me so candidly about their own experiences. This study would not have been possible without your willingness to participate.

I would like to thank all my colleagues from the MBA class, in particular Mark O'Mahoney, Maurice, Susan, Mairéad, Stewart and John O'Rourke. I was really lucky to find such dedicated people to work with and on reflection you certainly made the entire experience less painful than it could have been and dare I say it – fun!

To Jean and Elaine, my BFFs. You two have kept me sane over the last two years. You really are true friends. Thank you for all your help and support especially in the last few months, I would never have managed without you. Jean, thank you for sourcing the transcribing app and for the not so exciting task of proof reading and all your suggestions.

To Mam - thank you for your constant words of encouragement and your belief in me as always.

Finally, to my husband and best friend Dermot and my beautiful daughter Aoileann – the person hunched over the laptop at the kitchen table is no more, I promise. Thank you for supporting and believing in me – especially at the times when I really doubted my confidence to get through this. It would not have been possible without you.

DEDICATION

For Dad

ABSTRACT

The purpose of this study is to explore IT project management and governance practices across the Irish University sector. Restrictions around resources in the public sector are putting Irish Universities in general under extreme pressure to do more with less. This alone should be forcing these institutions to review their operations to ensure they are using these limited resources wisely. This study aims to uncover what is being done to ensure IT are doing the right projects to ensure there is an alignment between the business and IT. The literature search identified four themes within which to focus the research; IT governance, project governance, top management support and project portfolio management. No project management or governance literature exists for the Irish context. Three perspectives from each of the seven Irish Universities were gathered through open ended interviews in an attempt to gain a holistic view of the status quo in each University. The findings in this study reveal that the alignment between the business and IT is certainly on the agenda within the Irish University sector with IT governance either recently introduced or to be introduced in the near future. However, the findings also reveal that not enough is being done to ensure that IT departments are doing the right projects given that project portfolio management is only visible at two Universities. In addition, the findings also uncovered a need to adapt project governance practices to become leaner and more agile for shorter term projects with fewer resources. This research supports and contributes to the area of project management and governance and serves to begin to fill the research gap for the Irish context.

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CHAPTER 1   INTRODUCTION

Critical dependence on IT is a fact for organisations worldwide and this has led to a focus on how the organisations are governing this part of their business. The onset of the recession added a new dimension as organisations scaled down resources in general. Now, organisations want to ensure that their IT departments are taking on the right projects. To do this they need to align their IT with the organisation's strategy. In this way, IT can enable and drive business change. Public sector organisations have the added complication insofar as they are funded by the taxpayer. To that end, these organisations need to ensure that any investment in IT is appropriately aligned with their publicised strategic objectives.

1.1   RESEARCH AIM

The aim of this thesis is to explore project management practices in the Irish University context with a particular focus on IT projects and the themes of IT governance, project governance, top management support and Project Portfolio Management (PPM). The reason for the study is to gain an understanding of the challenges these organisations are currently facing particularly given how restrictive the public sector has become in recent times. In essence, the researcher would like to determine to what extent the business and IT are aligned in order to cope with these challenges.

1.2   RATIONALE FOR THE THESIS

Rosacker & Olson (2008) highlighted how taxpayers worldwide are mindful of where their money is being spent and want to ensure that these funds are spent "in a rational, efficient, and effective manner" (Rosacker & Olsen 2008, p.49). Given the

level of discontent the Irish people feel for the Irish Government, particularly in these times of austerity, the researcher felt that an evaluation of project management within the public sector warrants further investigation. Organisations are becoming far more dependent on their IT systems and thus their IT support. Limitations in resources in general have generated a demand for business process reviews with a view to finding more efficient ways of operating and organisations look to the IT people to show them the way. IT investments in the public sector in Ireland have come under examination in recent years. Notorious high profile failures such as the Health Service Executive (HSE) system, P-Pars and Electronic Voting systems have contributed to an air of cynicism that exists with regard to public sector spending. Public sector organisations are publishing strategic plans in an effort to become more open and transparent about their goals and objectives. But what is being done within these organisations to enable the achievement of same? IT is fundamental to the achievement of the vast majority of strategic objectives in any organisation and this study will attempt to uncover whether there is evidence of business/IT alignment within the Irish University sector.

1.3   CONTEXT

The researcher acknowledges that governance practices may differ between sectors. Therefore, the primary focus of this study is the public sector and more specifically the Irish University sector. The choice of the Irish University sector was made primarily because of the researchers own connection to it and observations surrounding the subject matter. Furthermore, the review of the literature indicates that this sector has been unexplored with regards to project management and governance to date. The public sector has come under scrutiny in recent times as a direct result of the Reform of the Public Sector Act and subsequent highly publicised

"pay deals"; Croke Park, Croke Park II and more recently Haddington Road agreements. Restrictions around resources in general are putting Irish Universities in general under extreme pressure to do more with less. This alone should be forcing these institutions to review their operations to ensure they are using these limited resources wisely.

1.4   STRUCTURE OF THE THESIS

This thesis is divided into five chapters which are summarised below.

Chapter 1 briefly introduces and outlines the research topic and background and clarifies the aims and objectives of the study.

Chapter 2 provides a review of recent literature around the chosen topic of governance, top management support and project portfolio management (PPM). At the end of Chapter 2, the research questions used as the foundation of the primary research are outlined.

Chapter 3 discusses the methodology selected for the primary research part of the thesis and presents reasons for selecting qualitative rather than quantitative. The interview protocol is outlined along with a selection of the interview questions used. The case study method of data analysis is also discussed.

Chapter 4 outlines the results of the primary research component. First an overview of each case is presented followed by a cross case analysis using the themes uncovered in Chapter 2 as a lens. Finally, the key findings of the thesis are outlined.

Chapter 5 is the final chapter of the thesis. This chapter begins with a discussion around the data presented in Chapter 4 and how it synthesises with the secondary research presented in the literature review. Some limitations of the research are

stated. The chapter concludes with some recommendations for academics and practitioners.

CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION

This literature review will begin by discussing the role of information technology in organisations. Recent research in project management will then be explored focussing on governance, top management support and Project Portfolio Management (PPM). Linkages between governance and top management support will be highlighted along with the linkages between governance and PPM. This chapter will end with a summary of the literature, discuss any gaps identified and present the research questions that will form the foundation of the study.

2.2 THE ROLE OF INFORMATION TECHNOLOGY (IT) IN BUSINESS

Information technology has become "a key enabler of socioeconomic progress and development, enhanced productivity and therefore economic growth, reducing poverty and improving living standards in many ways" (Global IT Report 2009, p.ix). IT is omnipresent in business due to its far reaching capabilities across a variety of functions such as communication, inventory management, data management, management information systems and customer relationship management (MacKechnie 2013). With the onset of cloud computing in the last number of years, IT is now an essential part of shaping an organisation's business strategy (Smith 2011). To that end, organisations are critically dependent on IT, now more than ever.

A report released by the IT Governance Institute (ITGI) in 2011 supports this view. The fourth ITGI Global Status Report on the Governance of Enterprise IT (GEIT) collated the results from a survey conducted in 21 countries, across 10 industries and

with 834 business executives. Over 90% of respondents indicated that "IT was important or very important to the delivery of the overall business strategy and vision", a finding that has not changed significantly from the first survey in 2004 (ITGI 2011, p.13). Furthermore, value creation of IT investments was found to be "one of the most important dimensions of IT's contribution to the business" (ITGI 2011, p. 11). In direct response to these findings, the ITGI outlined five focus areas to enable the two objectives of IT governance; "IT value delivery to the business and the mitigation of IT-related risks" which are; strategic alignment, value delivery, risk management, resource management and performance measurement (ITGI 2011, p.48). Any IT governance initiative needs to consider the five areas "in an integrated way" (ITGI 2011, p.48).

2.3 GOVERNANCE – DEFINING THE TERMS

Governance is derived from the Latin word *gubernare* meaning 'to steer' and was originally used to describe the government of countries. In light of numerous high profile corporate scandals worldwide, the term now for the most part relates to the "good and transparent management of organisations" (Müller 2009, p.1). Governance can be divided into three main types; corporate governance, IT governance and project governance. While IT and project governance are the most relevant for this study, the next section will put some context around corporate governance.

2.3.1 CORPORATE GOVERNANCE

Corporate governance is well researched in the literature. High profile corporate scandals and the fallout of same have catapulted the topic into the spotlight in recent years. So what is being said about corporate governance? Sharma *et al* (2009) define

corporate governance as "how an organisation is directed and how different stakeholders work with each other to achieve corporate goals" (Sharma *et al* 2009, p.30). In the US, all organisations must comply with the Sarbanes Oxley Act (SOX) since it was introduced in 2002. This act is concerned with the regulation of financial practice and corporate governance. Similar regulations exist elsewhere, such as Basel III in Europe, the Corporate Governance Code in the UK and the King Code of Governance in South Africa.

2.3.2 IT GOVERNANCE

The literature supports the view that IT Governance is an "essential component of corporate governance" and that it is "high on the agenda" for most organisations (Sharma *et al* 2009, p.30; De Haes and Van Grembergen 2010,p.135).

Organisations worldwide have become critically dependent on IT and this level of dependence means that these organisations have a responsibility to ensure this essential component of their business is effectively governed. De Haes and Van Grembergen (2010) reinforced this view in their study into IT Governance implementations and how it impacts on business/IT alignment by stating that the "pervasive use of technology has created a critical dependency on IT that calls for a specific focus on IT governance" (De Haes and Van Grembergen 2010, p. 123). Their study focussed on the day to day practice of organisations around IT governance and revealed that there is a clear relationship between the application of IT Governance practices and business/IT alignment reinforcing its importance within the organisation (De Haes and Van Grembergen 2010). Luftman and Rajkumark (2007) refer to how alignment in this context can be bidirectional; IT aligned with the business and vice versa. They posit that IT can enable and drive business change. In further support of this view, the ITGI suggests that "IT governance consists of the

leadership and organisational structures and processes that ensure that the organisation's IT sustains and extends the organisation's strategy and objectives (ITGI, 2003). Later, ITGI and Selig add another dimension to the view by suggesting that IT governance is the process and structure that ensures that organisations deploy their IT investments appropriately to ensure that the resulting activities achieve the desired results (ITGI 2013; Selig 2008).

In his book, Eliminating "Us and Them", Romero (2011) offers an interesting perspective on how the need for IT governance has developed starting with how the relationship between the business and IT has evolved over the past thirty years. In the early days, the business simply allowed "IT to do whatever they could do and whatever they wanted to do" to the organisation whereas today, IT is viewed almost as "a necessary evil" (Romero 2011, p.2). Romero (2011) offers an insight into how the business' failure to look beyond the upfront investment required for IT has led to a serious underestimation of the on-going cost of technology. As a result, IT has lost the autonomy it once enjoyed. The failure of IT to justify the rising cost of technology indicates that there has been a distinct lack of governance, and to be more specific, IT governance.

In South Africa, IT governance only became part of the King Code of Governance in its third iteration, King 3 which was released in 2009. Compliance with King 3 is expected but not mandatory for all publically listed companies in South Africa. The omission of IT governance until 2009 highlights how relatively new the concept is. This is validated in an earlier study by De Haes and Van Grembergen (2006) where they identified that IT governance as we know it only emerged in the late nineties. Price Waterhouse Coopers (PWC) conducted a global survey on IT governance on behalf of the ITGI in 2008. The survey found that "good IT governance practices are

known and applied, but not universally" (ITGI 2008, p.8). Within King 3, IT governance is seen as the responsibility of the IT division within an organisation. The same ITGI (2008) report supports this view by stating that "in daily practice IT governance is still very much a CIO/IT director issue" (ITGI 2008, p.13).

ITGI has developed an IT governance framework called Control Objectives for Information and related Technology (COBIT) which has received global recognition. This control framework can be used by an organisation to determine if its IT supports its strategic vision and it focuses on what an organisation needs to do, not how they should do it (Moeller 2008; ITGI 2009b). Marnewick and Labuschagne (2011) uncovered that while frameworks exist for both corporate and IT governance that there was a gap around IT project governance. Their study based on the South African context found that organisations "do have structures and processes in place" for deciding on the right projects and to execute them effectively (Marnewick and Labuschagne 2011, p.669). However, they also found that IT governance requirements were not adhered to.

Henderson and Venkatraman (1993) developed a Strategic Alignment Model (SAM) (Figure 2.1) in response to the inability of organisations to realise value from their IT investments. The authors argued that this was partly due to the absence of an alignment between the business and IT strategies. The model comprises two dimensions; strategic fit and functional integration. Strategic fit recognises that "IT strategy should be articulated in terms of an external domain and internal domain" (Henderson and Venkatraman 1993, p.474). External domain refers to the environment in which the organisation operates and decisions made to stand out from competitors. The internal domain refers to how decisions are made around internal operations such as critical business process design and employee

development. At the time of the research, the way in which IT was viewed within organisations was transitioning from a "support function" to a "critical enabler of business transformation" (Henderson and Venkatraman 1993, p.474). The SAM model proposed that IT strategy needed to develop an external focus to ensure the organisation is well positioned against its competitors while maintaining a balance. The second dimension is concerned with the impact of IT choices on the business domain and vice versa.

The SAM model is designed to assist an organisation in their pursuit of any one of four alignment perspectives; strategy execution, technology transformation, competitive potential and service level. The authors conclude that no one perspective is superior and that the model provides "a set of ideas, tools and illustrations to leverage the emerging capabilities of IT for transforming organisations and markets" (Henderson and Venkatraman 1993, p.483).
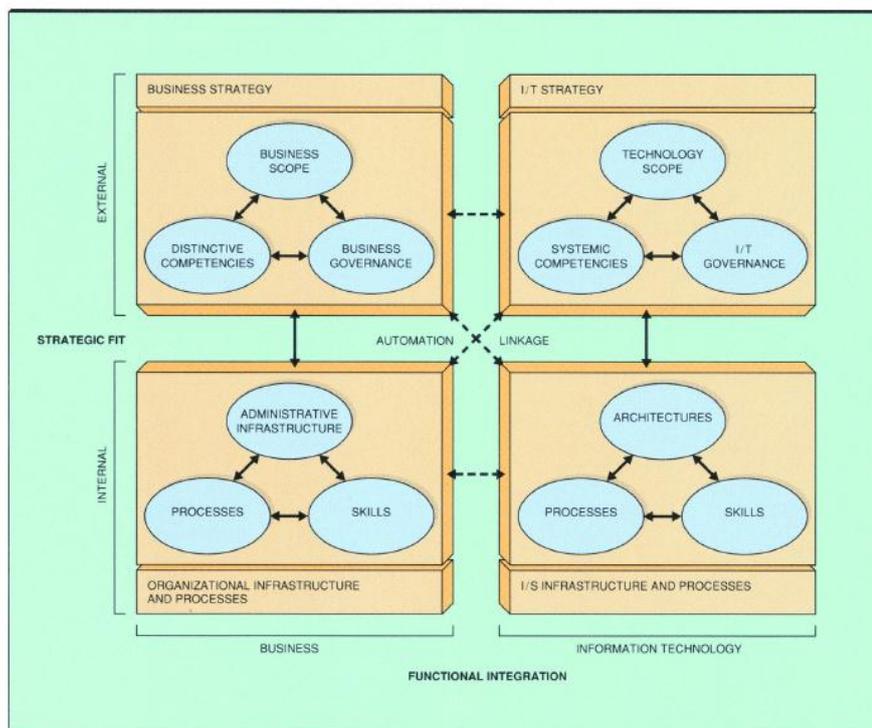
FIGURE 2.1 - STRATEGIC ALIGNMENT MODEL (SOURCE: HENDERSON & VENKATRAMAN 1993)

2.3.3 PROJECT GOVERNANCE

According to Müller (2009), project governance "is intimately linked to corporate governance" given that its overall aim is to consistently deliver planned projects which in turn contributes to the achievement of the strategic objectives of the organisation (Müller 2009, p.63). In contrast, Marnewick and Labuschagne's (2011) investigation into the governance of IT projects in South Africa found that while IT governance was a subset of corporate governance, the literature did not yield a governance structure for projects. The authors concluded that there is "a void as far as the "golden thread" between corporate, IT and project governance" (Marnewick and Labuschagne 2011, p.668).

Crawford and Helm (2009) discuss the contribution project management has made to improving public sector "traceability, transparency and accountability" (Crawford and Helm 2009, p.73). Government investments in Project Management in the US and UK symbolise the high profile nature of such practices in these countries. Regularly cited in literature, the Office of Governance and Commerce (OGC) in the UK has published many guides to assist public sector organisations to "improve their efficiency, gain better value for money…and deliver improved success from their projects and programs" (Crawford and Helm 2009, p.74). OGC are behind successful methodologies such as PRINCE2 (OGC 2007b) and Managing Successful Programmes (MSP) (OGC 2007a). In fact, Crawford and Helm (2009) point out that support and encouragement can be seen at various levels of the public sector in the UK. Taking inspiration from the OGC in the UK, a number of Australian territories have implemented initiatives in the public sector that support good governance and aim to improve on-time and on budget delivery of major projects. One such initiative is the Gateway Review Process which involves "short, intensive reviews at critical

points of the project/programme lifecycle" by an independent review team with a view to ensuring there is "early identification of areas requiring corrective action" (Australian Government 2013).

Rosacher and Olson (2008) offer some relevant research in the US public sector context and how IT projects are selected and evaluated. The authors highlight the importance of taxpayers having confidence that public sector organisations are spending funds "in a rational, efficient and effective manner" (Rosacher and Olson 2008, p.49). Their research was based on three core reasons why state government IT projects needed to be investigated; 1) governments spend a significant amount of money on IT; 2) IT project implementation is problematic in any environment; and 3) prior research regarding IS implementations project success has focussed on the private sector. (Rosacher and Olson 2008, p.50). These reasons hold true for the Irish context.

Referring specifically to the project governance approach, Müller (2009) cites the steering group as the "principle institution for project governance" that has "ultimate responsibility for project success" (Müller 2009, p.64). Müller (2009) cites the work of Crawford *et al* (2008) in order to establish a link between the steering group and project sponsors in that project sponsors are part of the steering group. From a governance perspective, the steering group should establish a governance infrastructure, define the project goals, make the necessary resources available to achieve the goals and control project progress. In addition, the steering group "coordinates the link and synchronises the effort between the permanent and temporary organisation" (Müller 2009, p.65).

2.4   TOP MANAGEMENT SUPPORT AND GOVERNANCE

Crawford *et al* (2008) examined how the role of the sponsor has been represented in the literature and found that "very little research has examined the sponsor role in any depth" (Crawford *et al* 2008, p.S45). The role of the project sponsor has been defined in many ways in the literature and project management bodies of knowledge and no singular definition exists. From early thoughts of the sponsor being simply responsible for approving finance to the modern view of being critical to project success, the role of the sponsor has come to the fore in the literature in recent years. It is now looked upon as bridging the gap between corporate and project governance (Crawford *et al* 2008 p.S43).

Hall *et al* (2003) discuss the role of the sponsor in the public sector context as the person "responsible for representing the public client" acting in their interest within the project (Hall *et al* 2003, p.495). In this context, the project sponsor role is quite complex; "juggling the multiple needs of stakeholders and user groups, departmental procedures and practices, pan-government edicts" while combating "low levels of trust" and "an 'us-and-them' attitude" (Hall *et al* 2003, p.501). From this perspective, one could view the sponsor's role as to ensure there is ample political support for a project or programme (Crawford *et al* 2008).

Crawford *et al*'s (2008) qualitative study involved nine case study organisations and defined the role and responsibilities of the sponsor within corporate and project governance frameworks with a view to providing guidance to organisations. The conceptual framework developed as a result of the study is the Governance/Support Grid shown in Figure 2.2; and was designed to assist organisations in understanding the role the sponsor has to play around governance.
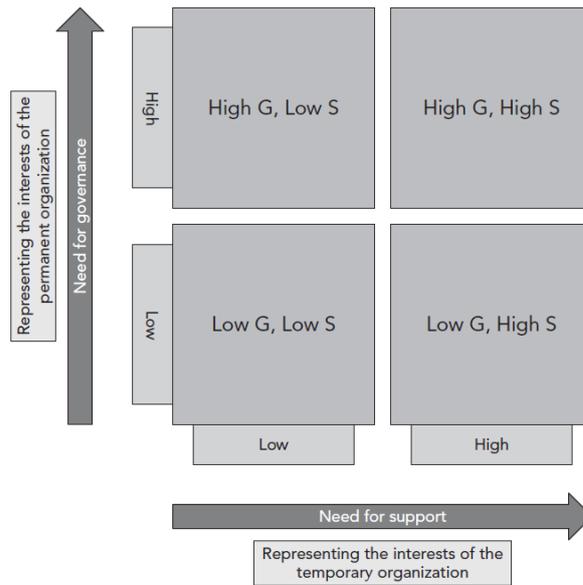
FIGURE 2.2 - FRAMEWORK FOR UNDERSTANDING THE ROLE OF THE SPONSOR

(SOURCE: CRAWFORD ET AL 2008)

The term "temporary organisation" refers to the project and "permanent organisation" refers to the organisation itself. Some of the quotations from the interviews carried out shown in Table 2.1 are quite telling of what people within organisations expect of the sponsor:

TABLE 2.1 - INTERVIEW QUOTES FROM CRAWFORD ET AL (2008)

Interviewee quotes
"Parent organisation can expect the sponsor to provide expertise from a business perspective to ensure proposed programme or project is the one that it requires."
"Sponsors are aware of political and cultural realities…"
"We look to the sponsor to provide direction, based on their business acumen"
"Sponsors ask pertinent questions"

From a governance viewpoint, organisations expect project sponsors to represent the business and ensure the "proposed project or program is the one that it requires" (Crawford *et al* 2008, p.S50). From the project manager's perspective, the sponsor is a political player that needs to ensure that "the business case is solid" and to

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"provide the direction, based on their business acumen" (Crawford *et al* 2008, p.S50). On the support front, the sponsor needs to "have the capability and the decision to influence others" when it comes to securing scarce resources or defending the project in the upper echelons and be "strong enough to make things actually happen" (Crawford *et al* 2008, p.S51).

In a complimentary study, Bryde (2008) examined the role of the project sponsor and project success criteria. His study provided some support for the classification of project sponsorship as having an internal as well as the traditional external focus. The internal focus is in line with the support dimension of Crawford *et al*'s (2008) framework and suggests that the sponsor should demonstrate an internal focus through "wider supporting activities" such as "making a demonstrable commitment to project management, providing staff with any training necessary to ensure project objectives will be achieved and creating the environment for projects to succeed" (Bryde 2008, p. 806). In a similar way, the external focus in Bryde's (2008) research corresponds to the governance dimension where the sponsor is concerned with "defining the business benefits/requirements; establishing a project strategy with priorities, defining the project success criteria, agreeing the project definition including objectives, taking delivery of a project at completion and monitoring benefit realisation" (Bryde 2008, p. 805). Both studies highlight how complex the role of the sponsor has become.

It follows that the role of the sponsor should be occupied by someone from senior management. In fact, Bryde's (2008) study reinforced this view that project sponsors need to be from top management to ensure "committed management….and….a generally supportive environment" (Bryde 2008, p.806). The earlier work of Farbey et al (1992) refers to the project champion as being someone from top management

who has sufficient influence to ensure that a project is placed at a high enough priority to enable success (Farbey *et al* 1992). Helm and Remington (2005) further support this view by identifying "appropriate seniority and power in the organisation" as one of the most frequently cited characteristics of project sponsors across a variety of industries. In contrast, Young and Jordan (2008) found that the "wisdom and practice" at the time of their study was that only "lip-service" was paid to the need for top management support. However, their own findings refuted this research by finding top management support to be "the most important CSF" (Critical Success Factor) in the context of project success (Young and Jordan 2008, p.720).

2.5 PROJECT PORTFOLIO MANAGEMENT (PPM) AND GOVERNANCE

The Project Management Institute (PMI) released their standard for portfolio management in 2008 and its purpose is to "describe generally recognised good practices associated with portfolio management" (PMI 2008, p.3). The standard is designed to complement the PMI's other publishing's around projects and programme management, such as PMBOK Guide, Standard for Programme Management and OPM3. Unlike projects and programmes, portfolios are not temporary; rather projects and programmes become part of the portfolio when they have been approved by the organisation. An organisation may have multiple portfolios targeted at business areas or objectives. Portfolios should represent the strategic goals of the organisation along with identifying the associated priorities. While the portfolio reflects the work selected to be done, it does not necessarily reflect what *should* be done. The organisation needs to ensure the individual

components of the portfolio are aligned with the organisational strategy. This is a role for IT governance. IT governance should work with PPM to ensure this alignment.

Portfolio management has a business focus and change as the strategic direction changes. With regards to where PPM fits with the organisational structure, it sits below senior or executive management level, but above project and programme management level.

Viewing the organisation in four levels, PPM is at Level 2, just below top level management, see Table 2.2.

TABLE 2.2   ORGANISATIONAL LEVELS

Level 1	Executive/Senior Management
Level 2	PPM
Level 3	Project/Programme Management
Level 4	Operations

It follows that an organisation must have a strategic plan if it is to implement a portfolio or selection of portfolios. Strategic plans are translated into initiatives or goals that become the focus of the portfolio and its programmes and projects. The fundamental purpose of linking PPM with the strategic goals of the organisation is to "establish a balanced and executable plan that will help the organisation achieve its goals" (PMI 2008, p.10).

Perhaps unsurprisingly, much of the research around PPM has been centred on new product development given the early work of Cooper *et al* (2001) and Krishnan and Ulrich (2001). Martinsuo (2013) conducted a study of the day-to-day practices of portfolio managers with a view to highlighting the limitations of current PPM

understanding in empirical research. His study revealed that PPM is a process "for and between people" and similarly "for and between organisations"; an alternate view to the standard PPM as a "service to strategy" (Martinsuo 2013, p.801). In addition, Martinsuo (2013) suggests that PPM could have an external perspective and used by organisations as a "competitive mechanism" (Martinsuo 2013, p.801).

Juiz *et al* (2013) established how the three IT governance mechanisms; alignment, communication and structures combined are an effective means to "produce the value the board expects from IT" (Juiz *et al* 2013, p.70). The study, conducted at the University of the Balearic Islands (UIB) was based on the IT governance and PPM practices in effect at the institution. Maes *et al* (2011) highlight how Project Portfolio Approval Processes (PPAP) is one of the best mechanisms of alignment between business and IT because it provides structure and transparency for all stakeholders. The process in place at UIB highlights the importance of the role of the sponsor since no project can be approved without one. In addition, the sponsor must be a member of the board of UIB, further demonstrating the seniority required for sponsors as highlighted earlier. The process enforced at UIB and the rigour applied is a good example of best practice in operation. An effective procedure exists to ensure any project that is approved is associated with a "strategic objective and tactical goal" (Juiz *et al* 2013, p.72) and that sufficient resources exist to work on the project. The obvious involvement of top level management throughout the process symbolises how seriously the process is taken within the organisation. Too often, public sector organisations accept that under resourcing is the status quo. The study also noted an important concern that is applicable to the Irish University sector; the demand for projects not aligned with strategic objectives; those projects required in order to comply with external regulations. In Ireland, this would apply to statutory

requirements from the Higher Education Authority (HEA) and the Central Applications Office (CAO). Such requirements create a drain on already stretched resources, but nevertheless cannot be ignored or given a lower priority. As a result, institutions must facilitate any projects that arise from these directives and reprioritise as necessary. The UIB study showed how much of a collaborative effort their IT governance and associated PPAP process and the obvious effort absorbed by the process.

PricewaterhouseCoopers (PwC) recently released a report based on their third global survey on the current state of project management. A key finding in relation to PPM was that although its adoption had not increased since its previous survey in 2007 that "its use leads to increases in the five key performance indicators [KPIs] of quality, scope, budget, time and business benefits" (PwC 2013, p.4). Almost two thirds of those surveyed whose organisations have adopted PPM indicated that in excess of 90% of their projects perform to expectations on these five KPIs. In contrast, 70% of those surveyed whose organisations have not adopted PPM indicated that less than 10% of their projects perform to the same expectations. These findings strongly suggest that organisations would benefit from adopting PPM in order to improve the performance of their projects.

In addition, the survey did find evidence of an alignment between PPM and organisational strategy with 80% of respondents reporting that there was "a strong correlation between their organisation's strategy and the project portfolio" (PwC 2013, p.5).

2.6 SUMMARY OF LITERATURE REVIEW AND RESEARCH QUESTION

This section will summarise the themes identified through the literature review, highlight any gaps and outline the research questions. The significance of the study will also be discussed.

2.6.1 MAIN THEMES IDENTIFIED THROUGH THE LITERATURE REVIEW

Throughout the literature review, four main themes emerged while researching project management and associated literature with a focus on business/IT alignment:

- IT Governance
- Project Governance
- Top Management Support
- Project Portfolio Management

While the researcher attempted to ground the literature search in what has been written since 2008, there were some occasions where it was necessary to look to earlier years. Unfortunately, there have been no seminal papers relevant to the research focus.

2.6.2 GAPS IN THE LITERATURE

Through the course of this literature review the researcher has observed a distinct lack of research around the Irish approach to project management in general. Further, the Irish public sector's approach to project management has been ignored to date. Drawing on the researcher's own experience within one of the Irish Universities where a project management standard has not been adopted to date, there is an opportunity to investigate project management practices in a specific subset of the public sector through mini case studies. In addition, an IT strategy is lacking in the

researcher's own institution which would suggest that IT governance is also lacking. There appears to be no formal mechanism currently to align the business and IT within this particular University.

2.6.3 RESEARCH QUESTIONS

Both the themes identified through the literature review and the identified gaps in the literature have contributed to shaping the research questions as outlined in Table 2.3. The objective of the research is to understand the role IT governance, project governance, top management support and PPM play in aligning business and IT within the Irish University sector. As presented in Table 2.3, the themes regarding IT governance, IT Project Governance, Top Management Support and PPM have resulted in four research questions for the primary research element of this thesis which is outlined in Chapter 3, Research Design. These questions will be used to address the overarching research question; "**To what extent is IT aligned with the strategic goals within the Irish University sector?**"

Literature Review	Author(s)	Research Questions
IT Governance: The literature highlighted that IT governance is high on the agenda for most organisations and should ensure that an alignment exists between the business and IT.	Sharma *et al* (2009) Crawford and Helm (2009) De Haes and Van Grembergen (2010)	1. Is IT governance high on the agenda for Irish Universities and does it incorporate business/IT alignment?
IT Project Governance: The literature outlined that the use of project governance improves the success rate of IT projects.	Marnewick and Labuschagne (2011) Crawford and Helm (2009) Rosacher and Olson (2008)	2. Is there a standard approach to how IT projects are governed and does it have a positive impact on IT project success?
Top Management Support: The literature suggested that the success of IT projects is strongly related to senior management involvement. In addition, the project sponsor has both a governance and support role.	Müller (2009). Crawford *et al* (2008). Sharma *et al* (2009). Juiz *et al* (2012). Jonas (2010). Young and Jordan (2008). Bryde (2008).	3. To what extent are senior management involved in sponsorship roles and how does their level of involvement impact project success?
Project Portfolio Management (PPM): The literature identified a link between PPM and the alignment of Business and IT.	Juiz *et al* (2012). Martinsuo (2013).	4. Is PPM employed as a mechanism for prioritising IT projects in the context of achieving strategic objectives?

2.7   SIGNIFICANCE OF THE STUDY

Since the onset of the global economic downturn, every industry has experienced reduced budgets and has had to evaluate their spending patterns. Ireland's situation was particularly precarious due to the high profile banking crises and the subsequent bank guarantee scheme implemented by the Irish Government. Those in the private sector have been exposed to high levels of uncertainty surrounding job security in particular. Public sector organisations in Ireland have been under particular scrutiny. In an effort to redress the imbalance, at the latter end of 2011, the Public Service

Reform Plan was launched outlining key commitments and actions for change across the public service. According to the Department of Public Expenditure and Reform, the five central themes of the plan are:

- "placing customer service at the core of everything we do;

- maximising new and innovative service-delivery channels;

- radically reducing our costs to drive better value for money;

- leading, organising and working in new ways; and

- a strong focus on implementation and delivery."

(Department of Public Expenditure and Reform 2013)

These five themes will initiate a large number of projects within public sector organisations and IT will be fundamental to the vast majority. Given that project management and IT governance has not been researched in the Irish context, the researcher recognises that the time is right to redress the gap. This study aims to identify the practices in place within the Irish university sector and synthesise with the themes uncovered in this literature review, thereby contributing to future research.

CHAPTER 3   RESEARCH DESIGN

3.1   INTRODUCTION

This chapter will outline the approach taken by the researcher to investigate project management practices with a particular focus on governance and sponsorship of IT projects within the Irish University sector. The reasons for selecting the qualitative approach as a means of exploring the themes are discussed. The research sample is presented and the rationale behind its selection is outlined. A sample of the interview questions is illustrated in Table 3.2 along with the corresponding themes. The data collection method, data analysis method and interview protocol will also be explained in this chapter.

3.2   RESEARCH APPROACH

The qualitative approach has been chosen over the quantitative approach. Qualitative research is "an inquiry process of understanding" which analyses words, builds complex holistic pictures, reports detailed views of informants and is conducted in a natural setting (Creswell 1994, p.15). According to Silverman (2000), qualitative research methods "provide a deeper understanding of social phenomena than would be obtained from purely quantitative data" (Silverman 2000, p.8). The researcher was concerned with gathering detailed information around the interviewees' experiences in the area of project management and governance within their institutions and considered the qualitative approach the most effective method in gaining these insights.

For this study, the qualitative research instrument employed is multiple case study research. The research techniques adopted in order to form case studies include

semi-structured interviews and observations made in order to analyse IT project management and governance practices in the Irish University sector. A semi-structured approach was used in order to encourage the interviewees to impart information that may not have been be forthcoming with a structured approach.

The nature of this research is exploratory rather than hypothesis testing. De Haes and Van Grembergen (2010) describe how exploratory research builds on secondary research through "reviewing available literature and/or data, or qualitative approaches such as informal discussions…..and more formal approaches through in-depth interviews, focus groups, projective methods, case studies or pilot studies" (De Haes and Van Grembergen 2010, p.125).

The research strategy for this study uses available literature to identify themes and gaps in the literature. Seven case study institutions were identified to participate in the study. Semi-structured interviews took place within each of the case study institutions with the IT director, a Project Manager and a Project Sponsor. Three interviews in each institution served to provide multiple perspectives of Project Management practices and approaches to IT governance, project governance and PPM in the Irish University context and thus provide a holistic view. Figure 3.1 represents the research process.

Literature Research:
to explore what has been written to date and to define the research questions

Case Study Research:
to assess Project Management practices and approaches to IT governance and IT Project Management Governance in the Irish University sector

Comparing Cases:
to investigate the relationship between the use of IT governance and Project Management Practices and business/IT alignment

FIGURE 3.1 – RESEARCH PROCESS (SOURCE: AUTHOR'S OWN, ADAPTED FROM DE HAES AND VAN GREMBERGEN 2010)

Yin (2009a) defines the case study research method as "an empirical inquiry about a contemporary phenomenon (e.g. a "case"), set within its real-world-context especially when the boundaries between phenomenon and context are not clearly evident" (Yin 2009a, p.18). Later, Yin (2012) asserts that case study research assumes that "contextual and other complex conditions…..are integral to understanding the case" (Yin 2012, p.4). Such an approach is applicable to this research given the validity of the contextual issues surrounding the Irish University sector such as size of the institution, number of resources, etc.

3.3 SETTING

This study took place between 2nd August and 3rd September 2013. The interviewer was located in the University of Limerick and interviewees were located in each of the Republic of Ireland Universities in Limerick, Cork, Galway, Maynooth and Dublin. Where possible interviews took place in person at the interviewees' own

institutions. In cases where this was not possible telephone interviews were used as an alternative.

3.4 SAMPLE/PARTICIPANTS

Given that the focus of this study is IT projects, the researcher felt it prudent to speak to the Director of IT in each institution. In an effort to ensure a holistic approach to the research, one Project Sponsor and one Project Manager in each institution were also asked to participate. In addition, the Management Information Systems (MIS) group in each University was targeted to provide the Project Manager perspective as this group is typically the most project oriented group in each IT division. This is due to the nature of their business; the management of corporate systems such as student records, HR, finance, web and research. As a result, the MIS group touches many business units, many of which have been affected by budget and personnel reductions in recent years contributing to an already challenging environment. Table 3.1 outlines each of the interviewees, their role and tenure in that role. Despite many attempts, the researcher was unable to secure interviews with four people which are highlighted in yellow in Table 3.1.

The researcher made contact with each institution via the Management Information Systems (MIS) group that meets regularly and contains the MIS manager from within the IT departments in the Irish Universities. A colleague of the researcher that attends the MIS meetings provided the necessary contact information. The researcher felt that this was the level within the organisational hierarchy that would yield that best response in order to arrange the interviews. The MIS managers in each institution coordinated the interviews and were also interviewees under the Project Manager roles. The researcher maintains that the sample is of a high quality and

consistent with the research objective. For the purposes of data analysis and anonymity, the interviewees in the study are renamed #1A, #1B, #1C etc. Appendix 2 contains exemplary quotes for each Case Study subdivided by theme. Full interview transcripts are available on request.

TABLE 3.1 – INTERVIEW PARTICIPANTS

Interviewee	Role	Tenure in Role
#1A	IT Director	8 years
#1B	Project Sponsor	12 months
#1C	Project Manager	5.5 years
#2A	IT Director	12 months
#2B	Project Sponsor	12 months
#2C	Project Manager	13 years
#3A	IT Director	5 years
#3B	Project Sponsor	5.5 years
#3C	Project Manager	4.5 years
#4A	IT Director	8 years
#4B	Project Sponsor	2 years
#4C	Project Manager	8 years
#5A	IT Director	8 months
#5B	Project Sponsor	4 years
#5C	Project Manager	6 years
#6A	IT Director	-
#6B	Project Sponsor	-
#6C	Project Manager	8 years
#7A	IT Director	-
#7B	Project Sponsor	-
#7C	Project Manager	5 years

3.5 DATA COLLECTION AND MEASUREMENT INSTRUMENT

The semi-structured interview technique was the primary research element of this study. Open ended questions were prepared by the researcher in advance of the interview. By their nature, open ended questions encourage interviewees to speak broadly about a chosen topic. For this study, the objective was to gain as much insight into how governance and sponsorship of IT projects was managed by each

institution in order to determine whether or not there were official procedures in place.

3.6 INTERVIEW CONTENT

Sharma *et al* (2009) conducted a qualitative study on IT governance and project management within UK organisations. Their approach was used as guidance for the semi-structured interviews. Interview questions were organised into three main sections; About You; IT Projects and their Governance; and IT Governance in General. Although the same general structure was applied to each interview, the semi-structured format and the differences in the roles of participants gave rise to some variance. The researcher adapted the questioning where necessary while trying to maintain a certain level of openness. Table 3.2 contains some sample questions, the theme they relate to and their purpose.

TABLE 3.2   SAMPLE INTERVIEW QUESTIONS AND PURPOSE

Theme	Sample Question	Purpose
Interview Profiling	Can you tell me about your current role? How long have you been in your role? Can you give me an indication of your project management experience? Have you under gone formal project management training?	To understand the context in which the participant operates. To establish the level of knowledge held by the participant in the area of project management and to gauge the direction of the remainder of the interview.
	Has the university adopted a Project Management Standard or Framework? How long has this been in place? Is this rigorously applied?	To establish how formal their institution's approach to project management is.
IT Projects and their Governance	Can you tell me about a recently successful/unsuccessful IT project you were involved in and discuss your role in it? What were the project objectives? How were resources assigned to the project?	To identify a successful or unsuccessful project to facilitate the next line of questioning around governance and sponsorship.

	Was a project sponsor identified for the project?	To identify if a project sponsor was assigned and if this is common practice.
	What level of the organisation is a project sponsor typically from?	To establish if project sponsors are typically from senior management.
	Did the project sponsor have ultimate responsibility for the project?	To determine the role of the project sponsor in the project.
	How was the project governed? How was communication managed between the project team, steering group/board and other stakeholders?	To determine what practices were in place to oversee the project.
IT Governance in General	How do IT projects come about in general?	To determine whether there are processes in place to identify IT projects or if it is ad hoc.
	Is the alignment between IT and the business important for the university? Are there procedures in place to ensure this alignment?	To determine if there is awareness around aligning IT with the business objectives of the university.
	Are senior management involved in the governance process?	To establish how close senior management are to IT governance.
	Are there portfolios of projects in operation aimed at achieving specific objectives?	To establish if there is an approach to portfolio management in place.

3.7 INTERVIEW PROTOCOL

In order to ensure interviewees were sufficiently prepared for the topic for discussion, the researcher sent some information via email to each participant outlining the purpose of the research and the estimated time for the interviews of between thirty minutes to one hour. This information sheet is shown in Appendix 1. As agreed with the research ethics committee, the interviewees were guaranteed anonymity throughout the process meaning that names and organisations would not be included in the text. Interviewees were also informed that the thesis would be shared with them on completion and that it would not be published in full or in part without their permission, but that for the purposes of grading it would be shared with

a supervisor and external examiner. A copy would also be held on file within the University for student access. Where possible interviews took place in person at the interviewees' institutions with phone interviews being used as an alternative. All interviews were recorded to facilitate transcribing and analysis by the researcher. All participants were informed of this fact and that recordings would be destroyed by the end of 2013.

3.8   DATA ANALYSIS

Semi-structured interviews generate a significant amount of data. The researcher will record each interview and transcribe same. In order to facilitate analysis of the data for each case study institution, the data will be organised into seven groups. It will then be analysed to identify the main themes which were outlined in the literature review in the preceding Chapter 2 with a view to addressing the research questions. Chapter 4 will present the primary research. Using all of the data gathered is not feasible therefore the most relevant quotes from these interviews will be selected that best reflect the main themes identified in the literature review. Chapter 5 will discuss the primary research through the lens of the secondary research presented in the literature review. This final analysis will identify which aspects of the primary research supports or challenges the literature as well as highlighting if there are any new perspectives to add to the research area.

3.9 RESEARCH ETHICS APPROVAL

Dear Niamh,

Many thanks for your research ethics application which was reviewed by the KBS Research Ethics Committee on the 14th May. I am pleased to inform you, that your application has been given research ethics approval.

Kind regards.

Michelle

Michelle Cunningham
KBS Research Office
Kemmy Business School
University of Limerick
Limerick
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CHAPTER 4   DATA ANALYSIS AND FINDINGS

4.1   INTRODUCTION

This research was carried out in order to explore project management practices in the Irish University context with a particular focus on IT governance, project governance, top management support and PPM. The interviews were designed to uncover the practices in operation from three different perspectives within each organisation. Through semi-structured interviews, the researcher sought to gain a deeper understanding of the challenges facing these organisations and what steps they are making to cope with same.

This chapter will first present an overview of each case study to provide context. Exemplary quotes were organised by theme in order to summarise the data gathered to facilitate deeper analysis and is shown in Appendix 2. Cross case analysis follows in the context of the four themes identified in the literature; IT governance, Project Governance, Top Management Support and PPM.

4.2   CASE OVERVIEWS

This section will present an overview of each case study to provide context.

4.2.1   CASE 1

This organisation has just had a significant regime change along with a brand new 5 year strategic plan. A formal Project Management methodology has not been adopted within IT however, Project Managers apply their own methodology and experience to their IT projects. An IT management steering committee has been brought back into existence recently and part of its terms of reference is the oversight

of major IT projects. An IT strategy to support the University strategy will be written by the end of the year which suggests that there is awareness within this organisation of the need to align business and IT. A traditional approach to project governance is in use and there were a number of examples of large scale projects with a significant IT element outlined. One of the concerns highlighted within IT is the lack of dedicated project management resources with most project managers having operational responsibility also. This situation poses a significant challenge to keep projects on track during periods of operational issues and business peaks. Project Sponsors are considered to have ultimate responsibility at this institution since they are typically from the top level of the organisation. In the absence of an IT strategy, portfolio management is not visible at this organisation and IT projects are currently dealt with as they arise with no obvious prioritisation method in operation.

4.2.2 CASE 2

This organisation has formally adopted a Project Management methodology within the IT division and has recently established a Project Management Office (PMO), albeit a virtual PMO which is managed via a set of project proposal templates and a designated mailbox. The PMO is viewed as a hybrid type; in the middle of the continuum between a purely administration office to one that delivers and manages all projects. Initially the objective is to act as a filter for IT to ensure any project proposals have sufficient information to enable the management team to decide if it should move on to the next stage. There is senior management support for the PMO in that it will facilitate early identification of issues and prevent wasted IT time considering projects that should never be given resources, leading to a more reliable service. With reference to specific IT projects, a lack of rigour around the application of a Project Management methodology was highlighted as the root cause of some IT

failures along with lack of ownership and lack of a sponsor. Project sponsors are seen as being accountable for projects in this organisation. An example was used around slippage in a particular project where the president intervened in order to have stakeholders comply with requirements to get the project back on track signifying the strong level of support from top management around the governance process. IT project proposals are filtered through the PMO and must state how the proposed project will be beneficial to the University and how it meets the strategic objectives. A sponsor must also be identified at this stage. At the second stage the IT management team review proposals against a set of criteria. The IT strategy is used to prioritise projects. Income generating projects are given a higher priority such as e-learning initiatives and an online shop. Project portfolios are reviewed 3 to 4 times a year to determine what is in the pipeline and if priorities need to be reshuffled based on alignment with strategy. IT management are very much in tune with ensuring the IT strategy is in alignment with the overall University strategy and engage with their customers to ensure senior management see their own priorities in the list of proposed IT projects. Alignment between the business and IT is fundamental to ensure that IT gets funding for their projects. To ensure there is an alignment there, once the University publishes its strategic plan, each business unit is required to produce their own complementary strategic plan. In addition, each business unit must produce a more short term operational plan to identify objectives for the coming year. The PMO in this organisation is seen to ensure that the portfolio of projects within IT is very strategically aligned with the organisation and will have a more administrative function. Project management is seen to be a discipline that all teams need to buy into.

4.2.3 CASE 3

This organisation is in the very early stages of implementing an IT governance structure for the purpose of aligning IT with the strategic objectives of the organisation. A need for this governance arose from increasing pressure from internal customers looking for ways to improve efficiencies in order to cope with limited resources. The IT department recognises that the decision on IT investments needs to be made at executive level to ensure the university as a whole gets the best value out of any investment in IT. Alignment with strategy was apparent in that the IT strategy is currently being written to align with both organisational strategy and the strategies of IT's customers. Currently, all project proposals must go through a stage gate process with sanity checks being carried out by the IT management team. With regards to specific IT projects, a traditional project governance structure was described including a project sponsor, steering group and project team. Lack of commitment or engagement by the customer and absence of a project sponsor were cited as the primary causes of project failures. While IT staff members have undergone training in PRINCE2, a formal Project Methodology has not been adopted. The need for a PMO is something that is currently being discussed internally. Active involvement of project sponsors in IT projects is preferred at this organisation and project sponsors have ultimate responsibility for projects. Portfolio management is being discussed as a method of prioritisation of IT projects but is not yet in place.

4.2.4 CASE 4

IT governance within this organisation is something undertaken by the IT department which works closely with their customers to establish a finite list of IT projects each year. Rather than aligning with a formal strategic plan, the IT

department staff use their own experience and tacit knowledge of the strategic objectives of the organisation to prioritise across departments. While this organisation has used the traditional approach to project governance for large scale projects successfully in the past, it has more recently changed to a more agile method in response to a shift in the type of projects they are now project managing. Project Sponsors are still required with this approach, however ultimate responsibility is shared between IT and the sponsor and the relationship is looked upon as a partnership. Interestingly, poor project sponsors are cited as one of the main reasons for less successful projects. This organisation highlighted an issue with support from top management in general and there appeared to be a disjoint between the University Management Team and the rest of the organisation. Prioritisation of projects is an internal IT process that has no involvement from top level management.

4.2.5 CASE 5

This organisation has a new IT Director who has identified a substantial gap in IT governance. There is currently no formal mechanism for requesting projects which means that IT project requests come from any number of directions without any focus on the alignment with the strategic goals of the University. The business users making the requests set the priority for the most part in a 'he who shouts louder' way. Like IT governance, the project governance approach appears to be non-existent at this institution. Project teams are not assembled and it is the status quo for IT staff members to take on entire projects in parallel to their day to day roles. Although an interview took place with a Project Sponsor, it appears that they are generally not a project requirement in practice. With regards to specific IT projects, loose timeframes, lack of ownership and poor specifications were cited as the main

reasons for project failures. There was no evidence shown for successful projects. Portfolio management is not in operation. The new IT director did offer an insight into the vision for a new IT Governance structure. This new structure would see an independent group score and prioritise projects before passing them to executive level for a final decision on the list of projects to be undertaken by the IT division based on the strategic objectives.

4.2.6   CASE 6

Only one perspective was gathered at this organisation; that of a Project Manager. An IT governance structure does not currently exist at this institution although the alignment between the business and IT is something that they are working towards. Currently, IT projects are driven by budgets available within particular departments or by the needs of high profile customers. This organisation has a Project Management Office (PMO) within the IT department and its primary function is project governance. A traditional project governance approach is visible at this institution with project sponsor, project boards and project teams all in existence. There are two dedicated Project Managers within the IT department and all other staff members assume a dual project management and operational role. For the latter, services take precedence causing problems for projects, namely overruns. Although project sponsors are typical at this institution, the IT department assumes ultimate responsibility for IT projects. Portfolio management is not used as a prioritisation mechanism for IT projects.

4.2.7   CASE 7

Only one perspective was gathered at this organisation; that of a Project Manager. This organisation has a strong IT governance structure. Large IT projects are driven from the top down with the remainder being driven by individual department needs

from the bottom up. However, all projects must come through a project proposal process and show a link with a strategic objective, what benefit it is going to give to the institution, that there is a budget and resources to dedicate to it. A PMO exists within the IT department and all projects are put through it. A traditional project governance approach is visible with project sponsors, project boards and project teams. The IT department has recognised that this traditional approach needs to be made leaner in order to adapt to smaller projects. Project Sponsors are seen as being ultimately responsible for projects. Lack of commitment from the business users was cited as the main reason for project failures. There is an awareness of portfolio management at this organisation and they are beginning to group projects with a view to relating IT investment to particular strategic themes.

4.3 CROSS CASE DATA ANALYSIS

4.3.1 IT GOVERNANCE THEME

The literature suggested that IT governance should be concerned with the alignment of business and IT.

4.3.1.1 GENERAL IT GOVERNANCE

All case study institutions acknowledge that some level of IT governance is necessary in the University sector and agreed that the issue is quite topical within the sector. In fact, all but Case 4 and 5 have an IT governance structure in place although it would seem to have been dormant in recent years in some cases. For example, Interviewee #1A states that:

> "One of the reasons that the IT management steering committee was brought back into existence was to ensure that our IT projects were in alignment with University strategy. I have been asked by calendar year end to produce an IT

strategy that will demonstrate how that is going to happen." (Interviewee #1A)

However, they also observe that there appears to be a lack of awareness or appreciation from senior management around the projects that are required to "keep the lights on" and continue with "strategists and senior managers don't want to hear about those things and they only get to hear about them when the lights go off" (Interviewee #1A)

Some institutions are just beginning to put IT governance processes in place. For example, IT Director, Interviewee #2A notes:

"We would have set up a project management office in the last two months. I am very committed that we will have a PMO in IT." (Interviewee #2A)

On a similar vein, Case 5 appears to be about to embark on the establishment of an IT governance structure with IT Director, Interviewee #5A explaining:

"From an IT side, there is now a steering group starting to be formalised. Having a group that is more cross-divisional that is representing stakeholder investment in the project." (Interviewee #5A)

Similarly, Case 3 is in the very early stages of a new IT governance framework with IT director, Interviewee #3A outlining the rationale for same:

"Recently because of the recession, more and more people are looking to implement IT as part of a way of getting more efficiency and effectiveness and automating because people are required to do more with less. Our resources are being reduced so having to make sure you are making the right

decision. So on foot of this I looked for an IS governance to be put in place."

(Interviewee #3A)

Interviewee #3A also makes the point that the decision making process should not lay with IT by highlighting that "it has to be done at a level that is in the best interest of the University therefore we need visibility therefore this IS governance needs to be in place to make those calls" (Interviewee #3A).

IT governance in Case 4 appears to be left to the IT department to a large extent judging by some of the responses from the IT director, Interviewee #4A, displayed in Table 4.1:

TABLE 4.1 SAMPLE EXEMPLARY QUOTES 1

Interviewee	Quote
#4A	"We don't have that type of governance for any type of governance on campus."
#4A	"More by osmosis rather than written down documents we're aware of the major strategic directions that the university wants to go in – things like graduate recruitment, internationalisation, online initiatives, CRM. So all of these sorts of things are key initiatives and we self-project ourselves forward. But if somebody said can we find a place in either the University strategy document or our own strategy document that said any of those, it wouldn't be there."
#4A	"Other than senior management, where they don't really discuss IT anyway, there's no forum where the areas collaborate. I don't see anything on the horizon to say that is going to change – not saying that it shouldn't or won't in the future. We're not as a university in that space at the moment."

4.3.1.2 IT PROJECT REQUEST PROCEDURE

At a lower level, most cases appear to have put some hurdles in place for those requesting IT's participation in a project in the form of a project proposal form or similar. This serves a dual purpose; to ensure that IT have enough information to determine if there are sufficient resources available to facilitate the project and to

ensure there is ample commitment from the business user. Project Manager in Case 3, Interviewee #3C notes:

> "We have in place in ISS, to manage the work coming through, a Project Request Form. So any piece of work that somebody within the University wants done, this form is required to be filled in. That form goes to the management team and we discuss the resources that are required around it and based on that make a decision on whether we should go or not go for that project." (Interviewee #3C)

Interviewee #2C, Project Manager at Case 2 adds:

> "It is what we call a virtual PMO. Basically it is a mailbox where people will send their project proposal and the IT director will assess those and bring them to the IT management team and we will approve or not approve." (Interviewee #2C)

IT Director in Case 2, Interviewee #2A clarifies:

> "The PMO has a role in pipeline management in making sure that what's coming into us in the management team is in the correct format with the right information so we can select whether a project should move onto the next stage or not go any further." (Interviewee #2A)

An alternative approach is visible in Case 4 which is more collaborative in nature as outlined by Project Manager, Interviewee #4C:

> "We would also have formal meetings with each of the business areas around the Oct/Nov time. Any of them might come up with a list of 20 or 30 projects

and we would work through with them what priority they are." (Interviewee #4C)

Interviewee #4C elaborates on where an alignment with the strategic plan is apparent in the requested projects by stating that "in the requirements coming in from customers, the benefits should be in their document. If you can't come up with a business benefit you'd have to wonder why you're doing it." (Interviewee #4C)

The project sponsor's perspective on IT governance in some cases appears to be at odds with that of the IT department. Project Sponsor, Interviewee #1B, states:

"I don't think we have had an IT strategy as such. They might dispute that in IT. They do a lot of things but if I was asked where is the document that says this is what we were meant to be doing for the last 3 years, I don't think it exists and that is why we want them to do more for the next 5 years." (Interviewee #1B)

Similarly, Project Sponsor at Case 3, Interviewee #3B comments:

"The problem is that universities are so stretched financially that actually being able to invest smartly in the alignment of business and IT is incredibly difficult because there simply isn't enough money to invest. So, things at the moment actually run on a bit of a wing and a prayer. I think in general it's relatively ad-hoc." (Interviewee #3B)

Interestingly, the Project Sponsor at Case 4 felt that IT governance was in place, which conflicted with the view of the IT department. Although somewhat biased towards their own department's perspective, Interviewee #4B explains:

"I definitely think so [that alignment between the business and IT is important to the university]. This university has positioned itself, takes pride in and still aspires in taking the lead in being a research intensive University, where high quality, cutting edge research is done, and which is attractive to international class researchers to come to, to work. You can't make that claim if you have support facilities that are old world." (Interviewee #4B)

There was evidence in one case of where project sponsors seem to be in tune with their counterparts in the IT departments, with Interviewee #2B offering the following opinion:

"I mean you are at nothing unless it's linked to the strategic plan." (Interviewee #2B)

4.3.1.3 SUMMARY OF IT GOVERNANCE THEME

Table 4.2 summarises the sub themes identified under the main theme of IT governance and demonstrates in which cases the evidence was found.

TABLE 4.2   SUMMARY OF IT GOVERNANCE SUB THEMES

Sub Theme	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
IT Governance on the agenda	✓	✓	✓	✓	✓	✓	✓
IT Governance in place	✓	✓	✓	✗	✗	✓	✓
Early Stages of implementation	✗	✓	✓	✗	✗	✗	✗
Project Proposal Stage Gate Process in place	✗	✓	✓	✓	✗	✗	✓

4.3.1.4 IT GOVERNANCE KEY FINDINGS

The primary research findings suggest that IT governance is on the agenda of all Irish Universities and five out of seven cases actually have a framework in place.

The findings also show that in two cases IT governance is in the very early stages of implementation suggesting that it is a relatively new concept for those institutions. In addition, the findings demonstrate an emerging theme linking IT governance to business/IT alignment where most institutions enforce a project proposal process for those requesting IT projects. This stage gate process ensures that the department submitting the request has at least thought about how the proposed benefits of the project serve to satisfy one of the institutions strategic objectives. Figure 4.1 summarises these findings using the data presented in Table 4.2.

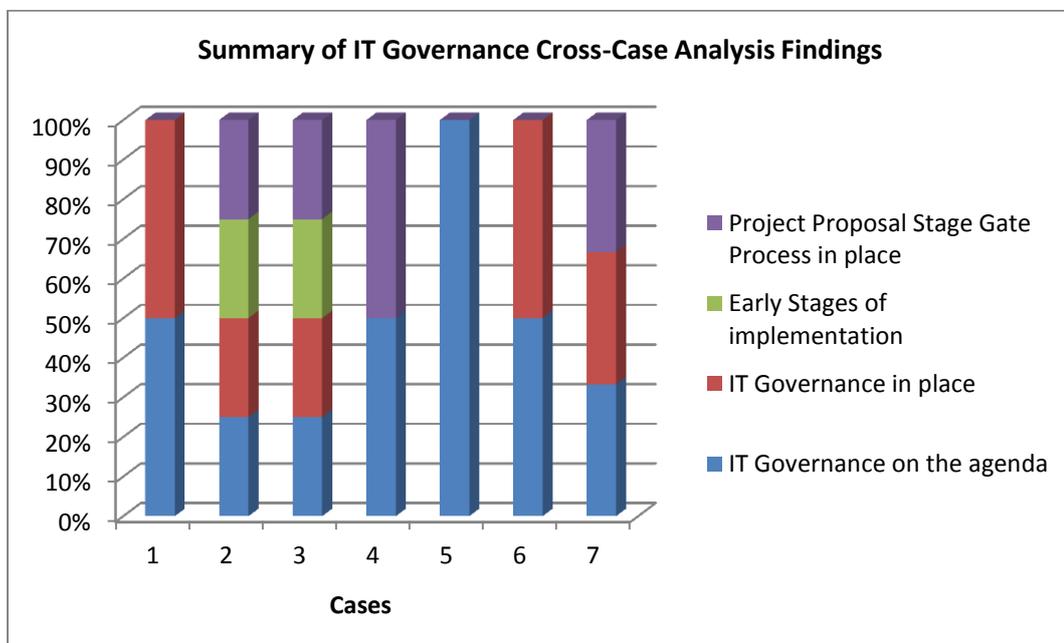FIGURE 4.1 - SUMMARY OF IT GOVERNANCE CROSS-CASE ANALYSIS FINDINGS

4.3.2 PROJECT GOVERNANCE THEME

The literature suggested that the use of project governance improves the success rate of IT projects.

4.3.2.1 PROJECT GOVERNANCE APPROACH

For the most part, Irish Universities appear to use a traditional project governance structure of project sponsor, project steering groups/project boards and project teams

for large scale IT projects. There is a variation in the terminology however. For example, Interviewee #2C states:

"So we typically have a sponsor, steering group and a project team." (Interviewee #2C)

A similar approach is observed in the response from Interviewee #1B at Case 1:

"In terms of projects whether it be IT or building projects – we have put in place a structure sometimes called the steering group and there is an operational group called an advisory group as well." (Interviewee #1B)

Further evidence of this traditional approach is apparent in the response from Interviewee #3A:

"There would be a steering group and a project group who meet on a regular basis and review where they are vis-a-vie where they should be." (Interviewee #3A)

The traditional method to project governance appears to also be in use at Cases 6 and 7, quotes shown in Table 4.3:

TABLE 4.3   SAMPLE EXEMPLARY QUOTES 2

Interviewee	Quote
#6C	"We have project teams and then we have project boards. All our projects are governed with that mechanism."
#7C	"There's a project board for each of the projects, then there's executive officers and then the executive board. So there's a sort of hierarchy of governance if you like."

On the other hand, some Universities appear to be struggling with their project governance and in turn with the management of their IT projects. Interviewee #5A explains in Table 4.4:

TABLE 4.4   SAMPLE EXEMPLARY QUOTES 3

Interviewee	Quote
#5A	"There are no project teams assembled. People take on projects as part of their day to day work so really people within the division that were responsible for that project were hived off and given certain roles and tasks within it. There was no project team."
#5A	"No there wasn't [a steering group]. When the project went into crisis, then we pulled a group of people together that were cross divisional. But it wasn't done in the early stages so there was no real stakeholder engagement. It was just done and that's when the wheels started coming off."

Interviewee #5B, Project Sponsor within the same University offers their own perspective:

"I think the issue is that nobody has overall ownership of the process and so in one sense there almost has to be a transfer of the ownership of the process to somebody or to a body. I think that is a culture change that we haven't adopted." (Interviewee #5B)

Completing the 360 degree view of this institution's issues around project governance, Interviewee #5C, Project Manager highlights:

"I think ownership is the biggest issue and I think they had no clear idea of what they wanted to achieve so the goals weren't clearly defined. So it was almost like they embarked on it without really having a clear picture of what it was that they wanted to have as a result." (Interviewee #5C)

4.3.2.2 CHANGE IN PROJECT GOVERNANCE APPROACH

Some institutions highlighted a change in project governance in order to adapt to the change in the type of IT projects which were moving away from the large scale projects associated with IT infrastructure and towards smaller scale projects. Interviewee #4C outlines this shift:

> "What we're moving more towards now in some of our other projects is a kind of prototyping approach. So we build something kind of quickly to get screens out there and then work with the customer to reiterate them. So they're kind of shorter snappier projects." (Interviewee #4C)

The same interviewee went onto explain how this change has affected the relationship with the sponsor of the project in that "with the agile approach the relationship is less formal, however you probably touch them a lot more frequently…..I would have been in contact with them a number of times a week as the project was progressing" (Interviewee #4C).

Case 7 is also mindful of a need to adapt their traditional method of project governance to the changing landscape of IT projects and Interviewee #7C notes:

> "We're reviewing that [project governance framework] at the moment. It was developed more or less for fairly big projects. We found that it wasn't suitable for a smaller project that might take 6 to 8 weeks and involve one or two people. We're reviewing it now to make it a bit leaner and easier."
> (Interviewee #7C)

In addition, it was felt that a change in process was required to ensure people engaged with the framework:

"It's not always rigorously applied. Some people don't like it. Some people try to get away with it. I think it was getting a bit unwieldy so if we make it a bit leaner we might get more buy-in from people." (Interviewee #7C)

4.3.2.3 PROJECT GOVERNANCE FOR PROJECT SUCCESS

To a large extent, most cases offered evidence that a project governance structure contributed to the success of their IT projects. Alternatively, a lack of project governance was attributed to the failure of certain IT projects. Interviewee #2A provides evidence of both scenarios:

"It didn't have a clear sponsor, didn't have a clear owner and there wasn't a clear decision process. So we applied a formal methodology with a weekly meeting and a Gantt chart and roles and responsibilities and a project that had been running for 3 years and had gotten barely out of the starting blocks was finished in 3 or 4 months." (Interviewee #2A)

Similarly, Interviewee #7C offers the following evidence:

"There were clear reporting lines. There was a project board, a sponsor who is the CFO, a very strong project manager and a good team – well committed. (Interviewee #7C)

On the same vein, Interviewee #3A said of their institution:

"So it was done extremely well but I really think it came back to the amount of time spent up front in terms of planning and having all of the stakeholders involved. So everybody understood what their role was, what they were doing as part of the project, when they needed to do it, who they needed to

talk to and what the expected outcome or output from their phase of it was."

(Interviewee #3A)

Finally at Case 1, Interviewee #1B explains how governance was used to save a failing project:

"It was snowballing and for whatever reason I was asked to take charge of it and put a structure on it and essentially to document it. I said – what are we trying to achieve here? There were quite regular meetings, I would say every 4 to 6 weeks where I would basically put together a report and present it to the steering committee." (Interviewee #1B)

4.3.2.4 PROJECT GOVERNANCE SUMMARY

Table 4.5 summarises the sub themes identified under the main theme of project governance and demonstrates in which cases the evidence was found.

TABLE 4.5 - SUMMARY TABLE OF PROJECT GOVERNANCE SUB THEMES

Sub Theme	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
Traditional Approach	✓	✓	✓	✓	✗	✓	✓
No visible project governance	✗	✗	✗	✗	✓	✗	✗
Positive affect on project success	✓	✓	✓	✗	✗	✓	✓
Adapted approach for smaller projects	✗	✗	✗	✓	✗	✗	✓

4.3.2.5 PROJECT GOVERNANCE KEY FINDINGS

The primary research findings around project governance suggest that Irish Universities use a traditional approach consisting of project sponsor, project steering committees, project boards and project teams and that project governance practices

have a positive effect on project success. A sub theme emerged where some universities recognised the need to adapt their traditional approach to fit smaller shorter term projects. Figure 4.2 summarises these findings using the data presented in Table 4.5.
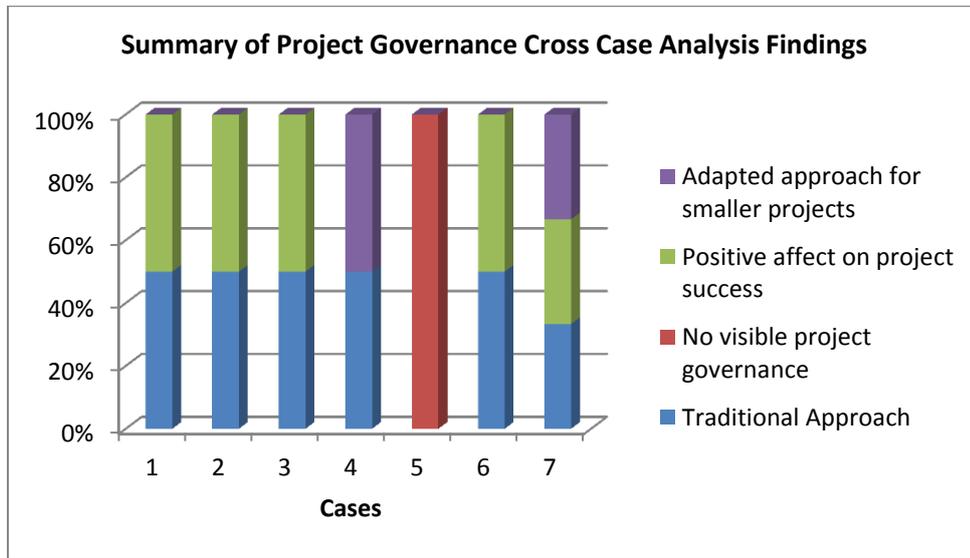
FIGURE 4.2 - SUMMARY OF PROJECT GOVERNANCE CROSS-CASE ANALYSIS FINDINGS

4.3.3   TOP MANAGEMENT SUPPORT THEME

The literature suggested that senior management involvement positively contributes to the success of IT projects. In addition, the project sponsor has a dual role of support and governance of the project. Through analysing the interviewees' responses, it appears that there is evidence within the Irish University context in support of this.

4.3.3.1 PROJECT SPONSOR RESPONSIBILITIES

In almost all cases, it was clear that ultimately responsibility for the project lay with the sponsor given the level of seniority they typically hold. For example, Interviewee #1A states:

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"Yes, [ultimate responsibility would sit with the project sponsor] and quite rightly so. The sponsor is sitting at the top University table which is our UET – University Executive Table." (Interviewee #1A)

A Project Sponsor at the same institution, Interviewee #1B concurs with:

"If the project doesn't deliver I suppose the buck stops with me." (Interviewee #1B)

In the same way, the Project Manager at Case 1 agrees:

"If you had a major issue with the project it would fall back on the sponsor." (Interviewee #1C)

A Project Sponsor at Case 2 also accepts responsibility with:

"Yes I would think as a sponsor I am ultimately responsible and accountable for the project." (Interviewee #2B)

Similar sentiments emerged from Case 3, 5 and 7.

An alternative perspective is visible at Case 4; one of shared responsibility. For example:

"So it wasn't that we would have said that the buck stopped with him in all cases, because that wouldn't be our approach to IT projects in general anyway. We wouldn't regard as the responsibility sitting with the project sponsor – at best it is regarded as a partnership." (Interviewee #4A)

However, both Project Sponsor and Project Manager at the same institution held opposing views, demonstrated by quotes in Table 4.6:

TABLE 4.6   SAMPLE EXEMPLARY QUOTES 4

Interviewee	Quote
#4B	"Yes [I was accountable] insofar as when we went live with the project…..I was responsible for ensuring that it was implemented correctly and that it was a success. Any problems that we encountered would have been my problems essentially."
#4C	"Yeah, I suppose [that the project sponsor was ultimately responsible]."

At Case 6, the IT department assumed the responsibility for IT projects:

"No. That [responsibility for the project] would have lain with us, the IT

department." (Interviewee #6C)

4.3.3.2 LEVEL OF PROJECT SPONSOR INVOLVEMENT

Active involvement of the project sponsor in the project is something that was

obviously preferred at Case 3 with Interviewee #3A commenting:

"They need to have an active role….because sometimes there can be a

tendency that you get the project sponsor but they are not actively involved.

So you might have someone at senior level that says, Yes, I endorse this

project, but that is the start and end of their involvement in it. So that doesn't

work. You have to have somebody who is actually going to be involved."

(Interviewee #3A)

Similarly, at Case 2, the Project Sponsor defines his own role thus:

"I think the sponsor's role is at the top level ensuring that it is adequately but

not overly specked. That the milestones are realistic, and that they are being

met and I think it is to query and probe where we think there might be

problems and issues coming up and they are highlighted early rather than late and keep the whole thing on track really." (Interviewee #2B)

In addition, at Case 1, the IT Director considers the sponsor's role to be more active particularly if there are issues with the project:

"Obviously if the project has challenges or difficulties the sponsors become much more active. Certainly if there is a requirement for further resources or if there are changes in scope as the project moves on, you would have to convince the sponsor first and the sponsor would have to take it to UET." (Interviewee #1A)

4.3.3.3 GENERAL TOP MANAGEMENT SUPPORT

The level of general top management support for projects was questionable in some instances. Some interviewees were critical. For example Interviewee #2B offers the following opinion:

"I think the universities management tend to have a 'make it so' attitude. We decide things and I think there is not enough representation of the kind of people who have to do things. There is little thought given to implementation I suppose. So it's just this is a strategy – it wouldn't take much more I think when you are doing your strategic work to make it an implementable strategy. The university management team is very good at 'the why and the what' but gets weak on 'the how'." (Interviewee #2B)

A similar view exists at Case 3 and 4, demonstrated by quotes in Table 4.7:

TABLE 4.7   SAMPLE EXEMPLARY QUOTES 5

Interviewee	Quote
#3C	"The University is definitely recognising that IT needs to be there, but in the same breath, there needs to be more ownership from senior management."
#4A	"It's an unusual university in that sense as most of the senior management don't get involved in the operational running of the university. There's the operational running which drives our work from a row of Directors – none of whom are on the University Management Team (UMT). So the UMT works in a different direction as such."

4.3.3.4 Summary of Top Management Support Theme

Table 4.8 summarises the sub themes identified under the main Top Management Support theme.

Table 4.8   Summary of Top Management Support Sub Themes

Sub Theme	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
Project Sponsors have ultimate responsibility for a project	✓	✓	✓	✗	✓	✗	✓
Project Sponsors should have an active role to ensure success	✓	✓	✓	✓	✗	✗	✓
Support from top management in general	✗	✗	✗	✗	✗	✗	✓

4.3.3.5 TOP MANAGEMENT SUPPORT KEY FINDINGS

The primary research findings around top management support suggest that the project sponsor has ultimate responsibility for the project. In addition, project sponsors that are actively involved are seen as necessary for the overall success of the project. The emerging theme of lack of top management support for IT in general was highlighted by most cases. Figure 4.3 summarises these findings using the data presented in Table 4.8.
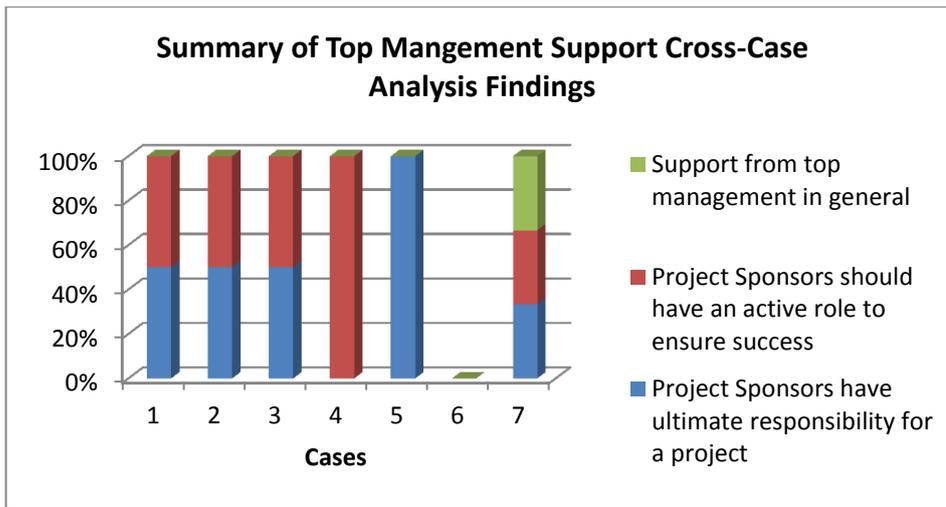
FIGURE 4.3 - SUMMARY OF TOP MANAGEMENT SUPPORT CROSS-CASE ANALYSIS FINDINGS

4.3.4 PPM THEME

The literature identified a link between PPM and the alignment of business and IT.

4.3.4.1 PPM ALIGNMENT WITH STRATEGIC OBJECTIVES

Two cases spoke specifically about a portfolio of projects and how it should map back to the strategic plan of the university. For example, Table 4.9 highlights some exemplary quotes from Cases 2 and 3 that support this point:

TABLE 4.9   SAMPLE EXEMPLARY QUOTES 6

Interviewee	Quote
#2A	"The portfolio for me is the strategic plan, the university's strategic plan….the PMO's job is to help me make sure we have a portfolio that is strategically aligned."
#2A	"We will have three or four periods in the year where we will do this planning and look at our pipeline and look at what's the priority based on our strategic plans and kind of rejig the project portfolio. So that we can look at our projects and have the confidence and courage to say that's not strategically aligned so let's pause it."
#3A	"We are looking at portfolios in the context of our service catalogue like a portfolio of services that we would deliver, but portfolios in terms of schedules of projects we undertake. That would be our portfolio for academic year X."

In addition, the IT department at Case 3 is mindful of aligning the IT strategy with that of the University and their customers. A Project Manager explains:

> "We're writing our strategy at the moment so our strategy is aligned with the Research one and the University one and we're waiting for the Teaching and Learning one before we publish our strategy." (Interviewee #3C)

PPM is something that Case 7 is trying to establish. Interviewee #7C explains how it will work:

> "We're trying to move it to PPM, where you take the themes of the college and we're actually trying to begin to group projects in terms of that idea of PPM. The beauty of that is that you can relate your investment to particular themes. (Interviewee #7C)

The same interviewee offered an interesting perspective around the prioritisation of projects in a University environment:

> "The thing I think about in a college because there's so much big stuff to be done – if you prioritise on the same set of criteria there's some stuff you'll never do. What I think is more appropriate is a graduated prioritisation system so that it would enable us to help people that would never get a look in." (Interviewee #7C)

Case 1 referred to how the lack of an IT strategy had led to a system of individual projects:

> "I'd say to be honest we have probably thought more about discrete projects to date, that they have been dealt with as they arise from different quarters of the University and that would be a weakness I would say." (Interviewee #1B)

However, a Project Manager at the same institution identified how projects and themes could be linked together, although it appeared to be a solo effort:

"When I look at the strategic plan I can identify key areas where IT can be aligned to deliver…I tend to try and link it to the strategic plan, that is just how to sell it." (Interviewee #1C)

Case 6 identified one particular portfolio that exists within the institution:

"One of the ones that would have been high profile here is Academic Simplification which is basically looking at all our processing of students – the CAO to the end of you like. So the business identified a stream of 4 or 5 key projects that would devolve over the coming years and they went into the mix." (Interviewee #6C)

Although, its success is questionable:

"Move on two years and there's one major project out of that – the Curriculum Simplification piece, but a lot of the other projects haven't gone off the board yet." (Interviewee #6C)

Cases 4 and 5 do not have a method of prioritisation in place for IT projects. Case 4 is a victim of a functional organisational structure with departments working in silos. Interviewee #4A explains:

"At the moment I don't see any change on the horizon which will devolve prioritisation out because we've made loads of attempts doing it and there isn't enough common purpose." (Interviewee #4A)

Although PPM and prioritisation are lacking at the University at Case 5, the IT Director offered a forward looking perspective on how it may be implemented at the institution in the near future:

"That [governance] group would take projects in, score them, prioritise them and there would be a discussion there and they would pass over a prioritised list to a higher body which might be say the executive or a group of people that have the power and ability to assign resources to a project. They would then look at the list and they may weed some out and say this is not within the strategic aim of the university so we're not doing that. They may redefine some of the order and then what comes to IT would be a list of projects ranked from 1 through to whatever." (Interviewee #5A)

4.3.4.2 SUMMARY OF PPM THEME

Table 4.10 summarises the sub themes identified under the main PPM theme.

Table 4.10 - Summary of PPM Sub Themes

Sub Theme	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
PPM adopted	✗	✓	✓	✗	✗	✗	✗
PPM should be linked to strategic plan	✓	✓	✓	✗	✓	✓	✓

4.3.4.3 PPM KEY FINDINGS

The primary research findings around PPM suggest that although PPM is still a relatively new concept within the sector there appeared to be agreement that portfolio management should be linked to the strategic plan. Figure 4.4 summarises these findings using the data presented in Table 4.10.
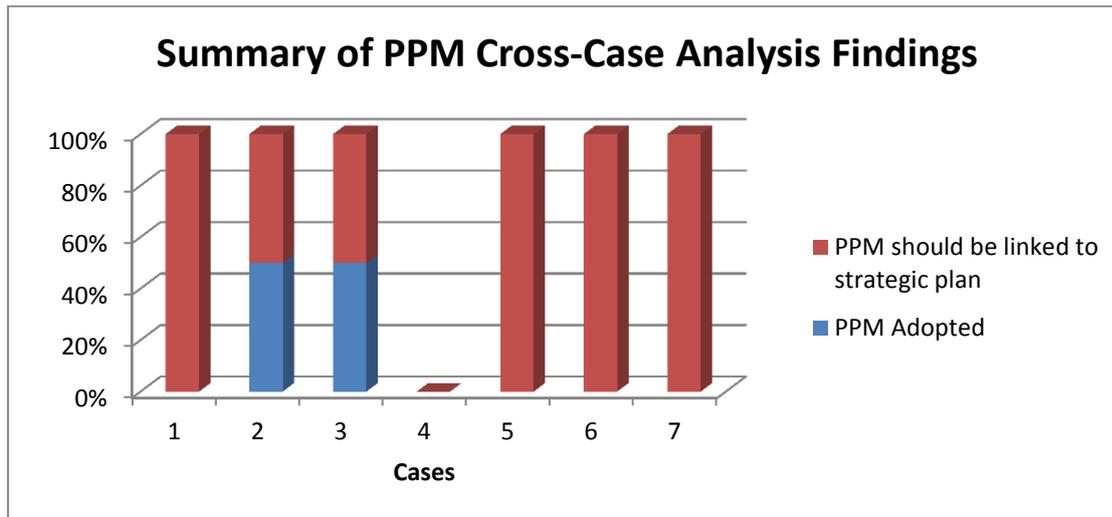
FIGURE 4.4 - SUMMARY OF PPM CROSS-CASE ANALYSIS FINDINGS

4.4 CONCLUSION

This chapter presented an overview of each case study to provide context. Cross case analysis followed in the context of the four themes identified in the literature; IT governance, Project Governance, Top Management Support and PPM. The chapter ended with the key research findings under each of the identified themes which will be discussed in Chapter 5.

CHAPTER 5   DISCUSSION AND CONCLUSIONS

5.1   INTRODUCTION

Chapter 2 included a review of the literature which has taken place to better understand IT governance and related themes of project governance, support of top management and PPM. Through a thorough search of the literature, the researcher found that while there have been numerous studies on project management practices in both public and private sector worldwide, there is a distinct lack of research to represent the Irish context. To that end, the researcher began to fill that gap by undertaking further research in order to gain an insight into project management practices within the Irish public sector and more specifically the Irish University sector, focussing on IT projects. Chapter 4 outlined the experiences of those Irish University employees through a thematic presentation representing the responses gathered during open ended interviews. This chapter will discuss the key findings and link these back to the literature review in Chapter 2 to identify where areas correlate and to identify any gaps that may be present in the literature. Thesis limitations will also be highlighted. This chapter will also outline some recommendations for academics and practitioners.

5.2   SUMMARY AND DISCUSSION OF KEY FINDINGS

In order to gain a greater understanding of whether an alignment exists between IT and the strategic goals of Irish Universities, four main themes were explored throughout the primary and secondary research components of the thesis. This section will discuss the findings presented in Chapter 4 and correlate it with the secondary research presented in Chapter 2.

The following themes will be used to frame the discussion regarding the key findings:

1. IT governance practices and business/IT alignment.

2. Project governance and its contribution towards IT project success.

3. Top management support and its contribution towards IT project success.

4. PPM Adoption in the context of achieving strategic objectives.

5.2.1 IT GOVERNANCE PRACTICES AND BUSINESS/IT ALIGNMENT

The primary research findings suggest that IT governance is on the agenda of all Irish Universities and five out of seven cases actually have a framework in place.

As learned in the literature, IT governance is an "essential component of corporate governance" and is "high on the agenda" for most organisations (Sharma *et al* 2009, p.30; De Haes and Van Grembergen 2010, p.135). Each case showed evidence that IT governance is on the agenda and that five of the seven institutions have an IT governance structure in place, albeit some are in their infancy. IT Director at Case 3 described the recent introduction of an IS governance committee. Similarly, Project Sponsor at Case 2 outlined how each department's strategic plan must be "in support of and feeding into the University's strategic plan". Case 5 appeared to be in the midst of a transitional period with a new IT Director who indicated that IT governance is something that is on the agenda to be addressed at the institution to ensure that IT is "a partner and involved in determining how to do the right things". According to De Haes and Van Grembergen (2010), there is a clear relationship between the application of IT governance practices and business/IT alignment within organisations. Cases 1, 2, 3, 6 and 7 have clearly adopted IT governance as a mechanism for aligning their IT projects with the strategic objectives of the University to varying degrees. IT Director at Case 1 mentioned how the terms of

reference of the IT Management Steering Committee included ensuring that IT projects were aligned with the University strategy.

The IT department at Case 4 appeared to be struggling with top management support insofar as IT governance was very much an internally focussed process. IT indicated that they were working towards achieving strategic objectives that were known rather than recorded within the University which presented a unique challenge. This is consistent with the findings of ITGI (2003) that IT governance ensures that IT within an organisation realises the organisation's strategy. Henderson and Venkatraman's (1993) Strategic Alignment Model (SAM) was designed to provide an organisation with a "set of ideas, tools and illustrations to leverage the emerging capabilities of IT" and to realise value from their IT investments (Henderson and Venkatraman 1993, p.474). Project Manager at Case 5 predicts that the introduction of an IT governance structure within the organisation will ensure that "there's a good return on investment and that you are not wasting your time on one thing at the expense of another of more value". Similar evidence is apparent at Case 3 where the IT Director is of the opinion that IT governance is "to make sure that the University as a whole gets the best value out of any investment in IT". This is consistent with the findings of Luftman and Rajkumark (2007) that IT can enable and drive business change.

In addition, the primary research findings demonstrate an emerging theme linking IT governance to business/IT alignment where four out of seven institutions enforce a project proposal process for those requesting IT projects. This is consistent with the Project Portfolio Approval Process (PPAP) at the University of the Balearic Islands (UIB) as discussed by Juiz *et al* (2012) where the PPAP is part of the IT governance framework in place at that institution. This PPAP "aligns strategic and tactical

objectives with business unit demands for IT projects" (Juiz *et al* 2012, p.74). For example, Project Manager at Case 3 indicates that the Project Proposal Form in place at their institution is a mandatory step for any piece of work that IT are required to do which is reviewed by the management team who determine if there are sufficient resources to dedicate to the project. Similar evidence is obvious at Cases 2, 4 and 7. Instinctively, similar to UIB, this is likely to be a control mechanism adopted by the IT departments to cope with the flow of project requests from all corners of their institutions stemming from a desire to improve efficiencies across the board. This stage gate process actually promotes the alignment between the business and IT by putting the onus on the customer to establish a business case for their request. In addition, in most cases this process ensures that the department submitting the request has at least thought about how the proposed benefits of the project serve to satisfy one of the institutions strategic objectives.

5.2.1.1 IT GOVERNANCE THEME RESEARCH CONCLUSION

The case studies demonstrate that IT governance is on the agenda for all Irish Universities albeit to varying degrees. The focus on IT governance across the board is to align IT with the strategic direction of the institutions to maximise the value of IT investments.

5.2.2 PROJECT GOVERNANCE APPROACH AND ITS CONTRIBUTION TO IT PROJECT SUCCESS

The primary research findings around project governance suggest that Irish Universities use a traditional approach consisting of project sponsor, project steering committees, project boards and project teams and that project governance practices have a positive effect on project success.

As learned in the literature, project governance "is intimately linked to corporate governance" given that its overall aim is to consistently deliver planned projects which in turn contribute to the achievement of the strategic objectives of the organisation (Müller 2009, p.63). More specifically, Müller (2009) found that the steering group is the primary mechanism employed by organisations for project governance. The primary research findings are consistent with the literature where in all but Case 5 a traditional approach to project governance is used which includes the steering group or project board at the top filtering down to the project team. A project sponsor is also a requirement with this approach. IT Director at Case 3 described the governance structure for one of the IT projects at their institution as having a steering group and a project group who meet regularly to review project progress. The same interviewee continued to explain how the steering group's responsibility would be to address any issues as they arise to mitigate the failure of the project. Similar structures were described in Cases 1, 2, 4, 6 and 7 signifying that a strong correlation with the literature.

Project Manager at Case 4 described how their project governance approach was changing with the changing landscape of projects within their institution away from the formal traditional approach outlined by Müller (2009) and towards a more agile method for smaller scale projects. Project Manager at Case 7 identified that a similar shift was occurring at their institution with the added caveat that a leaner project governance process would increase user engagement. This emerging theme was not represented in the literature review however; a subsequent literature search by the researcher around agile project management unveiled some recent relevant research. Cobb (2012) discusses a shift in the last decade of project managers having to "adapt their processes to improve their effectiveness in a very fluid business environment,

while still maintaining structure and organisation to ensure effective control over the execution and delivery of their projects" (Cobb 2012, p.78). At Case 7, the Project Manager identifies that the review of the project governance framework was necessary because "it wasn't as suitable for a smaller project that might take 6 to 8 weeks and involve one or two people". Similarly, Project Manager at Case 4 outlines how a new approach was required for "shorter snappier projects" in order to "build something kind of quickly to get screens out there and then work with the customer to reiterate them". This evidence supports Cobb's (2012) research. Intuitively, Irish Universities have been experiencing significant cut backs in budgets and human resources on foot of the Reform of the Public Sector Act. As a result, many IT departments no longer have the resources to tackle the large infrastructure projects. In parallel, other University departments are experiencing the same strain on resources and are looking to IT to provide ways to streamline their own processes thus generating an enormous body of work for IT. In response to their customer needs, IT departments are attempting to maximise their existing resources to develop solutions. Although it did not emerge as a theme at Case 3, the IT director at that institution did mention the strain that their IT department is coming under specifically related to customer requests to make their processes more efficient. One could theorise that the IT departments at Case 4 and 7 are adapting their project governance approach as a means of managing the aforementioned external influencing factors and hence these factors play a moderating role.

5.2.2.1 PROJECT GOVERNANCE THEME RESEARCH CONCLUSION

The case studies demonstrate that a traditional project governance approach is used successfully at six institutions. In addition, two cases demonstrated a shift towards a

more agile approach for smaller, shorter term projects in response to the changing needs of their customers.

5.2.3 TOP MANAGEMENT SUPPORT AND ITS CONTRIBUTION TOWARDS IT PROJECT SUCCESS

The primary research findings around top management support suggest that the project sponsor has ultimate responsibility for the project. In addition, project sponsors that are actively involved are seen as necessary for the overall success of the project.

As learned in the literature, the project sponsor's role is two-fold; to support the project and to represent the business needs of the organisation (Crawford *et al* 2008; Bryde 2008). Evidence from Cases 1, 2, 3 and 4 demonstrated how it was essential for the project sponsor to have an active role in the project to ensure success which suggests a strong correlation with the literature. For example, Project Sponsor at Case 2 outlined how they were involved in project specification, setting realistic milestones and monitoring same, uncovering potential issues and keeping the project on track. This finding specifically correlates with Crawford *et al*'s (2008) conceptual model outlining the dual role of a project sponsor. Institutions that are seeking a more active involvement from the project sponsor shows that there is a higher level of support required in these cases. There is also a correlation with the findings of Hall *et al* (2003) within which the project sponsor's role is described as quite complex; "juggling the multiple needs of stakeholders and user groups, departmental procedures and practices" while overcoming "low levels of trust" (Hall *et al* 2003, p.501). IT Director at Case 1 outlines how part of the project sponsors role in IT projects at that organisation is to take "requirement for further resources or change in scope" to University Executive Team which would be somewhere in the middle of

support for the business (permanent organisation) and support for the project (temporary organisation) within Crawford *et al*'s (2008) conceptual framework. Project Sponsor at Case 3 highlights how part of their role was to "quality assure the content of what they were actually delivering". This correlates with Bryde's (2008) external focus where the sponsor is concerned with "taking delivery of a project at completion and monitoring benefit realisation" (Bryde 2008, p.805).

Müller (2009) found that ultimate responsibility lay with the project sponsor. Evidence in support of the literature was found at Case 1, 2, 3, 5 and 7. IT Director at Case 1 comments that ultimate responsibility would sit with the project sponsor "and quite rightly so" since they are sitting at the UET and need to answer questions. Similarly, IT Director at Case 2 outlines how sponsors "would report at management team level" and would therefore be accountable to that team. It is interesting that evidence to support this perspective emerged from Case 5 given that both IT governance and project governance was found to be lacking at this institution. On further reflection, the evidence emerged only from the Project Manager's perspective whose tenure in the role exceeds that of the Project Sponsor and IT Director which may indicate that governance practices have diminished at this institution more recently. Conflicting perspectives on where responsibility should lie was uncovered at Case 4. The IT Director was of the opinion that there was a shared responsibility between the sponsor and project manager and that it was "at best regarded as a partnership". However, both Project Sponsor and Project Manager at the same institution indicated that the project sponsor had sole responsibility. It is difficult to determine exactly why there were different perspectives around this point but intuitively it is possibly as a result of the shift in project governance practices at the institution that have just been discussed. Project Managers within the IT department

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find themselves working closely with their customers in the delivery of projects which understandably contributes to the notion of shared ownership and thus shared responsibility. Given that only one perspective was obtained at Case 6, it is difficult to determine if the evidence presented that suggested that the IT department assumes responsibility for projects is a view shared across the institution.

Bryde (2008) found that project sponsors need to be from top management to ensure management commitment for the project. According to Farbey *et al* (1992), a project sponsor from the top level has sufficient influence to ensure that a project is placed at a high enough priority to enable success. Young and Jordan (2008) also found that top management support was the most important aspect in the context of project success. The primary research findings show that in five out of seven institutions project sponsors are generally from top level management. All project sponsors that participated in this study were all from top level management which demonstrates a further correlation with the secondary research. For example, Project Manager at Case 3 described how the Director of HR was project sponsor and owner for the successful project described during the interview. Interviewees at Case 1, 2, 4 and 7 shared similar evidence that project sponsors within their institutions were from Director Level or higher. This also correlates with Helm and Remington (2005) who identified "appropriate seniority and power in the organisation" as one of the most frequently cited characteristics of project sponsors across a variety of industries.

An interesting theme emerged from this part of the primary research where all but one case identified that top management support was poor for IT in general. Project Manager at Case 3 highlighted that while the University recognised that IT needs to be there that there needed to be more ownership by senior management. Project Sponsor at Case 2 offered similar evidence to support this emerging theme with the

statement that "the university management team is very good at 'the why and the what' but gets weak on 'the how'". Project Manager at Case 1 shared their concerns that they don't think that senior management "get IT". This emerging theme was also evident at Cases 3, 4, 5 and 6. Intuitively, this emerging theme harks back to Romero (2011) where it was described that IT is looked upon as a necessary evil within organisations. Senior management recognise that IT is a key enabler of the business and include directives in the strategic plans and expect the IT department to make it happen with little thought about the implementation and impact of same on internal resources. It follows that senior management at these institutions may not fully understand that the relationship between IT and other departments should be symbiotic in order to maximise the benefit to the organisation.

5.2.3.1 TOP MANAGEMENT SUPPORT THEME RESEARCH CONCLUSION

The case studies demonstrate that project sponsors have ultimate responsibility for projects and that they have a dual role; to support the project and to represent the business. In addition, project sponsors should come from the top level of the organisation to ensure there is sufficient influence over senior management. Finally, while senior management acknowledge that IT is necessary to drive the business forward there appears to be poor understanding that there needs to be synergy in the relationship between IT and the business for the benefit of the organisation.

5.2.4 PPM ADOPTION IN THE CONTEXT OF ACHIEVING STRATEGIC OBJECTIVES

The primary research findings around PPM suggest that although PPM is still a relatively new concept within the sector there appears to be agreement that portfolio management should be linked to the strategic plan.

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According to Juiz *et al* (2013), an effective PPM process ensures any project that is approved can be mapped back to a strategic objective. The primary research findings suggest that while portfolio management is only in practice at two of the seven cases, there is consensus that PPM should be used to align IT projects to the strategic objectives of the Universities. This correlates with one the key findings of the PWC (2013) third global survey on project management that PPM adoption has not increased since 2007. As learned in the literature, PPM is an effective mechanism in ensuring there is business/IT alignment as it provides structure and transparency to all users (Maes *et al* 2011). IT Director at Case 2, where an element of portfolio management appears to be in place discusses how the portfolio *is* the strategic plan as far as the IT department is concerned and that the portfolio should be reviewed at regular periods in an effort to reprioritise projects when necessary. Project Manager at Case 3, where a degree of portfolio management also appears to be in operation indicates that alignment with other organisational strategies is fundamental to the IT strategy. While evidence of portfolio management in operation was not uncovered in the remaining cases, there was certainly an appreciation that there was potential for IT projects to move in that direction in the future. An example of this is in the interview with IT Director at Case 5 where it is envisaged that a governance group, yet to be established, will assume responsibility for the prioritisation of IT projects within the institution and use the strategic aims of the University as the rationale for the decision making process. The ultimate aim is to establish a level of transparency around how IT projects are selected which is currently lacking at the institution. This correlates with the findings of Maes *et al* (2011) summarised above.

The fact that PPM is not prevalent within Irish Universities suggests there is a risk that the IT departments within these institutions are not doing the right projects. This

is a potential weakness in the alignment between the business and IT. PWC (2013) supports this as its survey uncovered that 70% of those surveyed whose organisations have not adopted PPM indicated that less than 10% of their projects perform to the same expectations. In stark contrast, two thirds of the organisations who have adopted PPM indicated that in excess of 90% of their projects perform to expectations on the five KPIs of quality, scope, budget, time and business benefits. These findings strongly suggest that Irish Universities would benefit from adopting PPM in order to improve the performance of their projects.

5.2.4.1 PPM THEME RESEARCH CONCLUSION

The case studies demonstrate that PPM is a relatively unexplored area within Irish Universities with evidence present in just two institutions. As a result, there is a risk that those institutions that have not yet adopted PPM are not doing the right projects.

5.3 THESIS LIMITATIONS

As with any research study, this one has a number of limitations.

Despite efforts to secure three interviews at each institution, four interviews were not secured. Unfortunately, this resulted in a one dimensional perspective at two institutions. Those missing insights would have provided a more holistic view of those particular cases.

For the primary research component, face to face interviews was the preferred method of data gathering as it gave the researcher the opportunity to build a relationship with the interviewees leading to more frank discussions. In the instances where telephone interviews were used, the researcher felt that it was more difficult to

build the same relationship and that perhaps the data in these cases could have been richer.

Throughout the data gathering phase it became apparent that some institutions were either on the cusp of implementing significant changes in their processes or had just embarked on a new regime. As a result, these particular institutions may have put forward the ideal scenario they are working towards rather than what is currently in place and hence some of the details may be inaccurate and misleading.

Finally, notwithstanding these limitations, the results suggest in a tentative way that the alignment between the business and IT within the Irish University sector is a topical subject that is being addressed to some degree in each case.

5.4 RECOMMENDATIONS

This section will outline some academic and practitioner recommendations.

5.4.1 ACADEMIC RECOMMENDATIONS

1. In the researcher's view there may be benefit in conducting longitudinal data analysis to assess the events and impact of implementing some of these processes over time.
2. More research is needed around the agile project management approach.
3. Research using multidisciplinary perspectives of project management and strategic management would provide another dimension.

5.4.2 PRACTITIONER RECOMMENDATIONS

4. There is a potential opportunity for a review of the project management standards to incorporate the agile approach uncovered within this research.

5.5 CONCLUSION

The purpose of this chapter was to discuss the key findings and link these back to the literature review in Chapter 2 to identify where areas correlate and to identify any gaps that may be present in the literature. A research conclusion was drawn at the end of each section. Thesis limitations were also highlighted and the chapter concluded with some recommendations for academics and practitioners.

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APPENDIX 1   INFORMATION SHEET FOR PARTICIPANTS

Nature of Study

The aim of the research is to examine the governance and sponsorship of IT projects within the Irish University sector to determine to what extent they are aligned with the strategic direction of the institutions. The research will examine the project management processes and practices in operation within IT divisions in the seven Irish Universities and evaluate whether there are procedures in place to promote this alignment. Given the resource restrictions that have been put in place within the public sector since the onset of the recession, this research will attempt to uncover whether Universities in general have adapted their project management practices to make efficient use of these resources.

Research Method

The researcher intends to interview three key members in each University; IT Director, IT Project Manager and Project Sponsor. These interviews will have a semi-structured format and be approximately one hour in duration. Where possible, the interviews will take place in person with teleconferencing and telephone used as alternative methods. The questions presented in each interview will examine the project management activities and practices of the institution focussing on IT projects. The results of the interviews will be examined with a specific focus on project governance and sponsorship and their alignment (if any) with the strategic direction of the institution.

Interview Specific Information

Interviews will be recorded with a Dictaphone with permission from the participants. This will allow the interview sessions to flow freely and enable the researcher to transcribe the data for analysis at a later date. If a participant feels uncomfortable at any time they can request that the recording equipment be switched off. Participants are entitled to copies of all recordings made and the recordings will be destroyed once the research has come to an end. Participants have the right to withdraw participation in this study at any time without having to explain or give a reason.

Participants are entitled to full confidentiality in terms of their participation and personal details. Participants are entitled to contact the KBSREC (contact details below) if they have any concerns about participating in the research.

Contact Information

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APPENDIX 2   EXEMPLARY QUOTES BY CASE AND

THEME

Case Study 1

Theme	Exemplary Quotes
IT Governance	There's been a very significant regime change here. (#1A, IT Director)
	So he has revived a process which to be honest had fallen into disuse for a number of years. (#1A, IT Director)
	We have an IT management steering committee and I can give you the terms of reference for that if you want. One of them is the oversight of major IT projects. It comprises of myself, MIS Manager and a number of people at VP level in the organisation and it can act as a steering committee for major projects or it can appoint steering committees for major projects. (#1A, IT Director)
	One of the reasons that the IT management steering committee was brought back into existence was to ensure that our IT projects were in alignment with University strategy. I have been asked by calendar year end to produce an IT strategy that will demonstrate how that is going to happen. (#1A, IT Director)
	We have lots of things to do that have to be in alignment and in keeping with the University's strategy. But we've lots of things to do to keep the lights on too, otherwise the lights go off. Strategists and senior managers don't want to hear about those things and they only get to hear about them when the lights go off. (#1A, IT Director)
	In some respects I don't like the term strategic plan or IT strategy, I would actually prefer the more generic term, IT plans which would include both strategic elements and other elements as well. (#1A, IT Director)
	They came to us and said can we do this, we need this to be done. We said that it will have to go into a queue and then they went to the VP and said listen we want this to be put on the priority list and in fairness they had a very good case. There was negotiation and they did get bumped up the priority list because of it. (#1A, IT Director)
	I think more generally in fact we want to move from dealing with projects as they arise to having an IT strategy that would support the strategic plan. It's only in the first half of this year that we adopted a strategic plan for the next 5 years and the IT Management committee have now asked the

	director of the computer centre to prepare a strategic plan for IT. Essentially that will support the strategic plan for the next 5 years. Then the projects should come in to that and in a sense we are kind of saying people need to think about what they want done in IT over the next 5 years rather than coming up in 2 years' time saying we have some great projects here we want to have done and nobody has thought about it before. (#1B, Project Sponsor) I don't think we have had an IT strategy as such. They might dispute that in the computer centre. They produce an annual report from time to time to go to the quality reviews and so on. They do lots of things but if I was asked where is the document that says this is what we were meant to be doing for the last 3 years I don't think it exists and that is why we want them to do one for the next 5 years. (#1B, Project Sponsor) As things come to the executive virtually every initiative has to be referred to the strategic plan. If it doesn't fit their then it would have to be a very convincing case if you think about it. There is a strong alignment there. (#1B, Project Sponsor) There is another committee that sits and it represents senior university executives and the IT director chairs it and he usually runs through outstanding projects we have. Now this committee was not active for a couple of years and has only been reinstated now. So that may put a better structure in communicating IT projects to the executive so I would see that in those cases all the IT projects being represented and planned. It's a very important forum. (#1C, Project Manager)
Project Governance	There is a steering committee and an operating committee under that. (#1A, IT Director) Where the project like the CRM straddles the organisation, the likelihood is that the computer centre will have a much stronger PM role and where the project is something like the replacement of a finance system or student accommodation system where its focused on a single organisational unit it may well be that the management and sponsorship of the project will have to come from there rather than from the centre. (#1A, IT Director) For a while the UET [University Executive Team] itself had tried to oversee steering committees but it didn't work. It's too high a level and there are too many steering committees so it was too hard to manage properly. So having IT management steering committee in between is a big improvement. (#1A, IT Director) If we had dedicated people that could be dedicated to projects I think we

could be far better when it comes to end dates. There's a huge tension there. (#1A, IT Director)

In fairness the University can't look for outputs sensibly unless it is prepared to provide the inputs. While they don't like admitting it when its pointed out to them they have to accept it. It's not like people are there twiddling their thumbs, reading the paper or whatever. If you really, really, really want good time on projects you put dedicated resources on projects (#1A, IT Director)

Unfortunately have operational responsibility as well as project responsibility…. Its not ideal because what happens is that people get pulled off of projects to deal with operational issues, business peaks and so forth. It means then, particularly if these interruptions are unexpected, projects go behind schedule for perfectly good reasons. And sometimes when people are looking at this from on high taking a helicopter view they say well you committed to delivering it on this date and yes it was with the best of intentions, but none of us envisaged that you would come in and ask us to do something else as well. You know you have to take account of that when you have finite resources. (#1A, IT Director)

In terms of projects whether it be IT or building projects or so on - We have I guess for each project put in place a structure where sometimes called the steering group, sometimes called mainly called the steering group and there is an operational called an advisory group as well. (#1B, Project Sponsor)

So we put in place a steering group of senior managers and I chair that group and I'm the link into the university executive for that. (#1B, Project Sponsor)

There were various things that began to emerge and it set a precedence that we need a governance structure to see who is actually responsible for this project. (#1B, Project Sponsor)

It was snowballing and there was no side at exec level for whatever reason I was asked to take charge of it and put a structure on it and essentially to document it. I said - what are we trying to achieve here? There were elements of what we wanted to achieve, there were also quite important bits around IR issues that began to emerge. (#1B, Project Sponsor).

There were quite regular meetings, I would say every 6 weeks. 4-6 weeks there was a meeting where I would basically put together a report and present it to steering committee. (#1C, Project Manager)

What the president expects now is an initial document which is like a feasibility, it is a 2 page document which outlines the project, benefits,

	costs - that information has to be sent to the university executive to approve now. . So we do have a type of structure. So if I was going to go with a new project in the morning I would have to get a sponsor or user who wants it but we would have to put together that document. (#1C, Project Manager)
Top Management Support	Yes, [ultimate responsibility would sit with the project sponsor] and quite rightly so, the sponsor is sitting at the top university table which is our UET - University Executive Table. That way he can ask a question about the project around that table and expect the sponsor to give answers. (#1A, IT Director)
	Obviously if the project has challenges or difficulties the sponsors become much more active. Certainly if there is a requirement for further resources or if there are changes in scope as the project moves on, you would have to convince the sponsor first and the sponsor would have to take it to UET. (#1A, IT Director)
	If the project doesn't deliver I suppose the buck stops with me. (#1B, Project Sponsor)
	In practice the way it works is one member of the executive is responsible for the project and they bring it to the executive meeting and they would maybe start a discussion around some aspect of it. (#1B, Project Sponsor)
	There is a significant involvement [from senior management]. I certainly spent a lot of time on that project to get a comprehensive document so the president would understand what we were trying to do. (#1B, Project Sponsor)
	If you had a major issue with the project it would fall back on the sponsor. (#1C, Project Manager)
	I would have concerns [about the awareness of business/IT alignment]. I know the president and some of the other university sectors and I don't think they get IT to be honest with you. (#1C, Project Manager)
PPM	I'd say to be honest we have probably though more about discrete projects to date that they have been dealt with as they arise from different quarters of the university and that would be a weakness I would say. (#1B, Project Sponsor)
	I think in the absence of strategy one is then likely to get into project by project. While part of the role of these steering groups is probably to look at the way in which individual projects can now help other projects. That is where the membership of those steering groups becomes important. It's to get it away from the people at an operational level who for the most

	part are worried how it will solve my problem. People at a higher level will say this could do other things as well. It's to try and get that more lateral thinking into the process. That's what I'm trying to do. (#1B, Project Sponsor) When I look at the strategic plan I can identify key areas where IT can be aligned to deliver so what I am putting together a proposal to the university executive. I tend to try link it into the strategic plan that is just how to sell it but again the line on our strategic plan is that IT is very much seen as a key enabler to achieve overall. You know the flaky stuff. If you say improve student experience e.g. we have just done a smart card project well this should improve the student experience, but that is an intangible. (#1C, Project Manager)

Case Study 2

Theme	Exemplary Quotes
IT Governance	We would have set up a PM office in the university in the last 2 months. I am very committed that we will have a PMO office in IT. (#2A, IT Director)
	The role of the PMO would be a hybrid, if you looked at a continuum between a PMO being purely a kind of administration office that creates templates and does nothing else and on the other end of the continuum the PMO delivering and managing all projects, I think it will sit in the middle. (#2A, IT Director)
	The PMO has also a role in pipeline management in making sure that what's coming into us in the management team is coming to us in the correct format with the right information so we can select whether a project should move on to the next stage or not go any further. (#2A, IT Director)
	I don't want to really be looking at a document where the business case makes no sense or isn't there, there is no detail or what's your budget? There is no budget. That for me is something that PMO should be weeding out and what comes to us is well formed, and well thought through and well crafted. (#2A, IT Director)
	The 5 criteria are - Is it strategically aligned, how risky is it, what is the cost, what is the business case from a costs/benefits analysis point of view, how does it fit with our architecture and is the business ready for it. First gate or first phase of the project we apply the first 3 because we don't know the solution design yet so we can't look for that then and we don't really understand the business ready at that early stage of the game. At the next phase the whole 5 are applied and we really see if it can go forward to implementation. (#2A, IT Director)
	We have a strategy, they have signed off on the strategy so we now come up with a list of plans and go in with that suite of plans and say are you happy, does this tick the boxes and hopefully because of our engagement with the business it will be in line with their requirements if I can put it like that. That puts a little more responsibility on IT to get it right and come forward with the right set of priorities through engagement in this process already. (#2A, IT Director)
	All of our language and all of our plans I'm trying to connect them back into the university strategic plan. So what comes out of IT looks less alien to the management team if that can make any sense to you, that the language that IT are starting to use that what's coming out of IT looks

more natural to them. (#2A, IT Director)

The way the strategic planning process works in the university is that the university creates a strategic plan for the university and then each of the units within the university need to create their own strategic plan. (#2A, IT Director)

I mean you are at nothing unless it's linked to the strategic plan. (#2B, Project Sponsor)

I think the external environment is changing and we absolutely have to have an IT strategy that supports where we are going strategically. (#2B, Project Sponsor)

There is as well as the strategic plan, the information systems and library have drawn up their strategic plan in support of and challenging and feeding into the universities strategic plan. (#2B, Project Sponsor)

It is what we call a virtual PMO. Basically it will be a mailbox where people will send it their project proposal there and the IT Director will assess those and bring them to the IT management team and we will approve or not approve or go ahead to the pit stage or whatever. But there will be a formal process there, but there won't be an actual office there supplying project managers or managing the pipeline or that sort of thing or looking at the resource requirements across projects, there won't actually be a person there. Not initially anyway. (#2C, Project Manager)

Basically we would hope that this PMO approach will spearhead it in IT and that it will go to IS and we are aligning that with HR and Institutional Research person to kind of align that with a PM set of templates for the university in general for the operational projects linked to the strategic plan. (#2C, Project Manager)

There's a lot happening here but who knows what we're doing out there. Our IT Director wants it to be very much upfront - these are our projects, here is where we are with them, here are the projects in the pipeline, here are the ones that are completed. I think it is something we need to do and its being driving from the top here so we're trying to drive it from the bottom up as well. (#2C, Project Manager)

There is a PM mentality permeating throughout the campus at the moment because of the restructuring and the strategic plans and operational plans and the projects that support it. (#2C, Project Manager)

There would be a joint plan between ourselves and the business. (#2C, Project Manager)

	We are now fully aligned with the business. What we've done in the last 2 to 3 years, we're mapping most of our projects to the strategic plan. (#2C, Project Manager)
	They're all mapped back to the strategic plan. There is a very close alignment now. In our approval process, starting here at IT level, alignment to the strategic plan is one of those criteria. If it's not critical to the university strategic plan then it's going to score less. (#2C, Project Manager)
	Once it gets up to the UMT and its not aligned then they don't want to know about it. (#2C, Project Manager)
	For any major development on the business side must be linked to the strategic plan and if it can be linked to income generation all the better. (#2C, Project Manager)
Project Governance	It didn't have a clear sponsor, didn't have a clear owner and there wasn't a clear decision process. So we applied a formal methodology with a weekly meeting and a Gantt chart and roles and responsibilities and a project that had been running for 3 years and had gotten barely out of the starting blocks was finished in 3 or 4 months. (#2A, IT Director)
	But the PM discipline really worked because we had accountable owners, we had monthly steering committees and weekly operation meetings and we got through it and it went live and it was a major success. That discipline really helped it because it was a cross functional project it was a project that spanned all the colleges all the central administration areas so it really needed that discipline to force everyone to come back each week and account for why there content wasn't up there. (#2A, IT Director)
	I think as the world gets more complex and university gets more complex and HEA is more demanding we are going to have lots more projects and initiatives and I do think they have to be formally managed and started and ended and so on. (#2B, Project Sponsor)
	We felt that good PM required that there be a project board as well as a project sponsor. We didn't want to set up an additional project board so we asked Academic Council to act partly as project board and also the university management team to also act as project board. So the project initiation document has been to both of those for approval and comment and I'll be reporting back to both of those with and exception report as the project goes on. (#2B, Project Sponsor)
	One of the biggest issues we have here is the closure of projects and the handover to operational support, user support, etc. (#2C, Project

	Manager)
	So in general our projects don't end in failure but sometimes they don't end at all. (#2C, Project Manager)
	I'll put it to you like this - I think I formally closed my first project a month ago. (#2C, Project Manager)
	So we typically have a sponsor, steering group and a project team. (#2C, Project Manager)
	Where we had project with a project plan with a project sponsor and a steering group that still meets to roll out all these services, none of that has happened. (#2C, Project Manager)
	I have documented what I see as the failure [in that project] and the primary one is the lack of commitment from HR. (#2C, Project Manager)
Top Management Support	He [the sponsor] would have been the one reporting at management team level on the project progress. And the project slipped by 3 months so he was the one that had to report back. (#2A, IT Director)
	There is a feeling I think across the entire university that adopting a PM approach would make us more reliable and make us more honest of ourselves in what we can and cannot do. (#2A, IT Director)
	I think the sponsor's role is at the top level ensuring that it is adequately but not overly specked. That the milestones are realistic, and that they are being met and I think it's to query and probe where we think there might be problems and issues coming up and that they are highlighted early rather than late and keep the whole thing on track really. (#2B, Project Sponsor)
	Yes I would [think as a sponsor I am ultimately responsible and accountable for the project]. (#2B, Project Sponsor)
	I would say not enough [top management involvement in governance processes]. I think the universities management tend to have a 'make it so' attitude. We decide things and I think there is not enough representation of the kind of people who have to do things. There is little thought given to implementation I suppose. So it's just this is a strategy - it wouldn't take much more I think when you are doing your strategic work to this is an implementable strategy. The university management team is very good at 'the why and the what' but gets weak on 'the how'. (#2B, Project Sponsor)

	It's not going to be hugely different in the new regime, except the project sponsor will have more responsibility for the delivery of the project. (#2C, Project Manager)
PPM	Our priorities will be driven by our strategic plans so we will be looking back at our strategic plan and saying what are our commitments from the strategic point of view because we have an IT strategy. We will use our strategic IT strategy to dictate the priorities of the projects. (#2A, IT Director) In the current climate anything that brings us in more money would go to high priority genuinely because if you are like the rest of us we are in financial difficulty. (#2A, IT Director) We will have three or four periods in the year where we will do this planning and look at our pipeline and look at what's the priority based against our strategic plans and kind of rejig the project portfolio. (#2A, IT Director) The portfolio for me is the strategic plan, the universities strategic plan. Now the IT strategic plan was distilled from the university plan and the themes can be seen there. So that to me is the portfolio and the PMO's job is to help me make sure we have a portfolio that's heavily strategically aligned. So that we can look at our projects and have the confidence and courage to say that's not strategically aligned so let's pause it. (#2A, IT Director) The PMO for me is really vital because it's the instrument that can make sure that we stay closely aligned to the business. And in a time where the money is really tight and we really need to ensure that our investments are aligned with the strategic plans and benefits of the university, it's the vehicle for achieving that. (#2A, IT Director)

Case Study 3

Theme	Exemplary Quotes
IT Governance	We have always had up to now in the business systems area an element of PM in terms of the schedule of projects and project plans for each of them but now even we have a formal request process. Those requests are reviewed by the management team and people are asked, we get the external, we would have done it internally now we get them external stakeholders who are putting forward the projects to do it so confirming that money is there, what the project is to do, so the anticipated benefits from it. What objective in the university strategy that its making the contribution towards so that we understand if somebody's says ok what projects were to ensure that this objective is achieved, that we should be able to look back over time and say this this and this so that's what we have moved towards. (#3A, IT Director) I would have recognised and its one of the things that I would have raised with senior management in that as an IT Department we were the ones saying yay or nay and it was a case of all coming and kind of trying to juggle and see ok how can we take on the projects with the resources we have. (#3A, IT Director) Recently because of recession, more and more people are looking to implement IT as part of a way of getting more efficiency and effectiveness and automating because people are required to do more with less. Our resources are being reduced so having to make sure you are making the right decision. So on foot of that I looked for an IS governance to be put in place and that has now happened so the IS governance that will achieve 2 things. It's going to make sure too that all of the investment is required, the other thing we were finding as well is that certain areas were agreeing to projects that had an IT element without us having anything to do with the decision making process. So people were coming to subsequently saying well I have got money from X to do Y and I need you to do A, B and C to make that happen and you are saying well hold on a minute we don't have the resources. (#3A, IT Director) What we will be doing is producing a schedule of projects that we will have been agreed at executive level and saying this is what we are undertaking, this is how they will contribute to the achieving of objectives from a university perspective, this is what is involved. So it becomes visible exactly what's the impact of certain decision making in terms of projects. (#3A, IT Director) It's really to make sure that the university as a whole gets the best value out of any investment out of any IT. (#3A, IT Director)

It's critical [the alignment of business and IT]. (#3A, IT Director)

It's not appropriate for me to be asked to be making these calls, it has to be done at a level that is in the best interest of the University therefore we need visibility therefore this IS governance needs to be in place to make those calls. (#3A, IT Director)

I think first of all its absolutely obvious that almost everything every member of staff does in terms of value added activity uses our IT infrastructure as the basis of doing that. It's very clear as soon as an IT infrastructure breakdown or something that you know business process also grind to a halt. (#3B, Project Sponsor)

I think given the environment we are in it's important to have IT literate business people and business literate IT people so that we can understand what each other is talking about. (#3B, Project Sponsor)

The alignment of business process and IT is absolutely fundamental and will become increasingly so. (#3B, Project Sponsor)

The problem is that universities are so stretched financially that actually being able to invest smartly in the alignment of business and IT is incredibly difficult because there simply isn't any money to invest. So things at the moment actually run on a bit of a wing and a prayer because the formalising of any alignment between and IT systems may cost money. But I think in general its relatively ad-hoc. (#3B, Project Sponsor)

We have in place in ISS, to manage the work coming through, a Project Request form. So any piece of work that somebody within the University wants done, this form is required to be filled in. That form goes to the management team and we discuss the resources that are required around it and based on that we make a decision on whether we should go or not go for the project. (#3C, Project Manager)

The University has only recently in the last number of months introduced a governance committee. That is chaired by the secretary of the college and would have various representatives from around the college. They are still defining their terms of reference and role. (#3C, Project Manager)
So that it is seen that it is not central IT that is blocking things and saying no. Central IT can go to governance and say that a particular request has come in for an online prospectus, but we're very busy at the moment doing work for the international office or careers and what's the priority for the University - what do they want? (#3C, Project Manager)

Project Governance	So it was done extremely well but I really think it came back to the amount of time spent up front in terms of planning and having all of the stakeholder involved. So that everybody understood what their role was what they were doing as part of the project when they needed to do it, who they needed to talk to and what the expected outcome or output from there phase of it was. (#3A, IT Director)
	And I suppose another one was run very much from the I suppose the academic side where there wasn't a real process in place so therefore there would have been a system in place but things like; what was the process that the system was there to support, who was going to get involved in it, who was going to take responsibility for it, so much so that we then had a system that didn't have an owner? Because of the lack of engagement of certain areas across the university. And that I think gave rise to a lot of issues subsequently in relation to the system because those that were involved in particular roles went back to maybe their teaching roles and you were left with a system with no owner. (#3A, IT Director)
	There would be a steering group and a project group who meet on a very regular basis and review where they are vis-a-vie where they should be, address any issues if there are any delays, what are those delays, what needs to be done, do we need to look for more resources. So I think that periodic review using emails and other mechanisms to actually look at how the project is proceeding so producing minutes of meetings for key stakeholders so that they know where the project is, having an escalation process agreed up front so that if something does appear to be going not quite off the rails but there is some issue that can be escalated fairly quickly to make sure that it doesn't have a significant impact on the project in terms of timelines and costs and deliverables. (#3A, IT Director)
	There was a kind of steering group established of interested stakeholders, I wouldn't have chaired that, there was a senior individual within the university who would have chaired that group who I suppose would have acted as the main sponsor and I was on then the steering group. I suppose as a member of the steering group I had more day to day interest in pushing the project forward. (#3B, Project Sponsor)
	Project team meetings of which I would have been involved in some where there was a requirement for me to also meet with the consultants so the technical team in ISS. Then there would have been steering group meetings and that would have been level three. There was email communications then project team meetings on a more regular basis and then governance meetings on a less frequent basis. (#3B, Project Sponsor)

	We've all done the PRINCE methodology with a view that we'd apply that but the reality is that we are good and we try to do the paperwork, but we're not as good as we should be. There is discussion on-going now that we need a PM Officer. Whether that is part of ISS and IT or whether it is part of the University, but we're trying to recognise that we need someone to ensure we are following the methodologies. (#3C, Project Manager) We have tried to implement a PM Officer by using an existing member of staff in the past, but it didn't work and we came to the conclusion that we need a dedicated post. (#3C, Project Manager) I think with a lot of systems the absence of a sponsor is an issue. The project seemed to run and be delivered, then people disappeared and there were different perceptions on who owns the systems in the day to day running. We're now acutely aware of this on projects so we tie people down and get assurances. When departments come to us and say we want X and we'll work with you on the project, we'll say you need to dedicate resources to supporting or administering. (#3C, Project Manager)
Top Management Support	There would have [been a project sponsor] that would have been the registrar at that stage. It would have been a high level. (#3A, IT Director) So while it's all well and good and you appreciate having someone a senior project sponsor in some of these if the project sponsor is only saying yes go ahead and is not actually involved in the delivery and making sure everything happens then you get a different outcome. (#3A, IT Director) They need to have an active role and need to be kept in the loop in terms of what is going on and what is happening. Because sometimes there can be a tendency that you get the project sponsor but they are not actively involved in it so you might have someone at a very senior level that says yes I endorse this project but that is the start and end of their involvement in it. So that doesn't work. You have to have somebody who is actually going to be involved. (#3A, IT Director) The ISS department managed it - if they were doing the right things if you know what I mean where as I was quality assuring the content of what they were actually delivering. The quality of the output. (#3B, Project Sponsor) The delivery of the project really would have been the steering group's responsibility. (#3B, Project Sponsor)

	Because it was corporate we had to make sure that all the project methodology steps were applied. We exercised due diligence, we tendered, we got buy in from senior management, we had steering groups, we had working groups, we had project plans. More importantly in my point of view we had buy in from the University and contribution from the University was key and ownership from the University as this was going to impact on everyone. (#3C, Project Manager) Yes. We had project sponsor and owner - Director of HR. (#3C, Project Manager) Yes they would have [been ultimately responsible and accountable for the project]. (#3C, Project Manager) The University strategy talks about the University of Enterprise and the Digital Campus so specifically references IT for students and for research which is good. The University has recently been given 7 million for IT related projects, so we're looking for strategic partners that we can engage with to help us manage IT, so that's good in the current climate. The University is definitely recognising that IT needs to be there. But in the same breath, there needs to be more ownership from senior management. (#3C, Project Manager) It will bring representation on that [governance] committee from various parts of the university, but also I think it will have the authority around the term 'shadow IT' where departments will go off and do their own things because they have the money to do it, whereas it might not be in the best interest of the university but the university would not stop it. (#3C, Project Manager)
PPM	We are looking at portfolio of projects and we are looking at portfolio in the context of our service catalogue like a portfolio of services that we would deliver but portfolios in terms of schedules of projects we undertake and that would be our portfolio for academic year X, in that context yes it is looked at. (#3A, IT Director) We have specifically a question in our project proposal which says - what university level objective is this project contributing to and how is it contributing to the achievement of this objective. (#3A, IT Director) Within the strategic plan for the University, ISS are actively doing that. We're writing our strategy at the moment so our strategy is aligned with the research one and the university one and we're waiting for the teaching and learning one before we publish our strategy, just to say what our strategy will be. I'm then aware that coming out of our strategy there are things like business intelligence, MIS reporting and I

	need resources and staff that will be dedicated towards putting reporting tools and systems in place or research administration so that we will need to line those pieces up so we're acutely aware and we are putting it down on paper. In practice at the moment it does seem to be people knocking on the door with the latest project. (#3C, Project Manager) We need as an IS department to be seen to be adding value and to be providing the services to the University. What we are trying to do as an IT department is see if we can free up more time so that we can deliver on projects for ourselves for the University, doing those added values that justifies what we do. There is a perception that that needs to be done. We're trying to work smarter and be seen to be doing that as well. (#3C, Project Manager)

Case Study 4

Theme	Exemplary Quotes
IT Governance	We don't have that type of governance for any type of governance on campus. The way that governance of our business systems works is we produce a work programme every year - going around talking to everybody and pull together effectively the project list. It's not being driven by a steering group or an individual on campus that you can go to and say - this is what people want, which do you think we should go with - its more bottom up generated. We'd sit down with the big 5 admin areas and lots of the smaller areas and ask what projects do you want for the coming year and we'd put them in and we'd use our experience and things like that to help guide them towards what's priority. How we prioritise across areas is largely down to us then because there's nobody that we can go to. (#4A, IT Director)
	Then from a formal perspective the detailed plan gets included into what's called our IT plan and that would be officially signed off by the registrar but I would expect that he signs off without reading it because there is never any question about even the smallest or major detail. (#4A, IT Director)
	We've done several attempts to establish a business systems and IT steering group and we've had them all in the room and we present the plan or whatever and nobody ever comments - people in registry would never comment on a finance project, etc. So we've found that these meetings were individual conversations with individuals at the meeting with lots of onlookers present and it was kind of frustrating for everyone - they were saying what's the purpose of this meeting, there's no shared ownership of it. So it kind of died away. (#4A, IT Director)
	More by osmosis rather than written down documents we're aware of the major strategic directions that the university wants go in - things like graduate recruitment, internationalisation, online initiatives, CRM. So all these sort of things are key initiatives and we self-project ourselves forward. But if somebody said can we find a place in either the University strategy document or our own strategy document that said any of those, it wouldn't be there. (#4A, IT Director)
	I definitely think so [that alignment between the business and IT is important to the university]. This university has positioned itself and takes pride in and still aspires in taking the lead in being a research intensive university, where high quality, cutting edge research is done, and which is attractive to international class researchers to come to, to work. You can't make that claim if you have support facilities that are old world. (#4B, Project Sponsor)

	We have our IT work programme that is put together at the end of the year for the following year. It is done based on the themes and the strategic objectives of IT services within the university. (#4C, Project Manager) We would also have formal meetings with each of the business areas around the Oct/Nov time. Any of them might come up with a list of 20 or 30 projects and we would work through with them what priority they are. We come with our projects and dump them into that plan or spreadsheet and see what the fit is, based on "finger in the air". You vie for resources. As well as that the IT Director would be giving us the other slant from the senior management perspective to say the themes for this year are based on this, this and this. (#4C, Project Manager) I think there would be [official processes in place to ensure an alignment between the business and IT]. When a customer comes to me with a project to do, through the benefits and drivers you would be able to see strands of our strategic plan in there. In the requirements coming in from customers, the benefits should be in their document. If you can't come up with a business benefit you'd have to wonder why you're doing it. (#4C, Project Manager)
Project Governance	The steering group would have been more around discussing more policy type issues. They didn't track project progress - we reported the progress to them, but it wasn't that they were saying as a team oh you're behind or anything like that - in some ways they wouldn't have known as that wasn't their role. (#4A, IT Director) We don't have steering groups for projects in general. We tend to do it as work with an individual. (#4A, IT Director) We're moving more towards now in some of our other projects is a kind of prototyping approach. So we build something kind of quickly to get screens out there and then work with the customer to reiterate them. So there kind of shorter snappier projects whereas this (showing framework on paper) is more akin to a project that is going to go on for six months or so, with a lot of people involved. I think when we start a project that we would assess which type of project it is and decide if we go with the traditional route or apply the more agile type of approach to it. (#4C, Project Manager) Yeah, the residential manager would have been the sponsor for that. What I do notice with the Agile type approach is that the relationship is less formal with the sponsor however you probably touch them a lot more frequently. With the traditional method and with the research project I would have had a steering group and I would have had regular

	meetings with them and status reports and all of that traditional project management stuff. With Agile you work a lot closer with them - I would have been in contact with them a number of times a week as the project was progressing and again the sponsor would have been well up to date with what's going on. (#4C, Project Manager)
Top Management Support	He was a very strong project sponsor and to be honest it wouldn't have happened without him. He really wanted it to happen from his perspective and it worked well because he left the IT side to IT - sometimes you get project sponsors that suck the whole project in and you find not so much turf wars, but there's issues in relation to them not using the expertise in relation to IT where it should be used on projects. Likewise we were very clear that we had no ownership, we didn't want to own the card in that sense, and we had no ulterior motive there. (#4A, IT Director)
	So it wasn't that we would have said that the buck stopped with him in all cases, because that wouldn't be our approach to IT projects in general anyway. We wouldn't regard as the responsibility sitting with the project sponsor - at best it is regarded as a partnership. (#4A, IT Director)
	There is a UMT, but they tend to not really get into any business systems IT issue. I can't remember the last time there was a discussion at UMT in relation to a business system. (#4A, IT Director)
	There are lots of projects that you wouldn't regard as successful. They can be for all sorts of different reasons. Usually down to project sponsors are not particularly good, a project sponsor that may have not bought into it or lost interest or whatever along the way. (#4A, IT Director)
	It's an unusual university in that sense as most of the senior management don't get involved in the operational running of the university. There's the operational running of the university which drives our work from a row of directors - none of whom are on the university management team. So the UMT work in a different direction as such. (#4A, IT Director)
	Yes, I was the project sponsor. I was basically defining the need locally, the business need and working with MSU who were the IT project managers. (#4B, Project Sponsor)
	Yes [I was accountable], insofar as when we went live with the project and we went out the research community to say that there were no more paper forms and that it was all online, it's going to give all these

	benefits, more streamlined processes, more transparency in the approval process, etc – I was responsible for ensuring that it was implemented correctly and that it was a success. Any problems that we encountered would have been my problems essentially. (#4B, Project Sponsor) Yeah, I suppose [that the project sponsor was ultimately responsible]. (#4C, Project Manager) Yeah [senior management would been involved in ensuring there was alignment], certainly our IT director would have a very close eye and big input into the work programme to be done for the year. (#4C, Project Manager)
PPM	At the moment I don't see any change on the horizon which will devolve prioritisation out because we've made loads of attempts doing it and there isn't enough common purpose. (#4A, IT Director) We have quite a silo'd structure. Other than at the senior management level, where they don't really discuss IT anyway, there's no forum where the areas collaborate. I don't see anything on the horizon to say that that is going to change - not saying that it shouldn't or won't in the future. We're not as a university in that space at the moment. (#4A, IT Director)

Case Study 5

Theme	Exemplary Quotes
IT Governance	From an IT side, there is now a steering group starting to be formalised as well. Having a group that is more cross-divisional that representing stakeholder investment in the project when previously it was seen as sitting somewhere else I believe and things were almost forced on people and people probably felt they didn't get to have a say in what the actual project was going to do or how it was being delivered or how it was progressing so those things are coming into place now but again very early stages. (#5A, IT Director)
	People ask and they receive pretty much. One of the issues that it seems to be that if I went out and asked for an example of a project that has been rejected, I don't think anyone could find one because any project that comes in is accepted. Then projects will drag and not meet timelines because it's a never-ending pile of things coming in. So really how they come in is just through informal methods, emails, phone calls, someone on their way to lunch gets grabbed by their boss or someone higher up the hierarchy that says that I'd like you to do this. So there's no formal mechanism for requesting projects. (#5A, IT Director)
	Yes, I think it's fundamental. And part of IT's image is as an order taker. We're seen as 'we basically tell you what to do and you do it and give it back all prettily packaged when it's done', whereas we should be a partner and involved in all those processes earlier to determine how you do things and are you doing the right things. But the fact that we're just told what to do is generally accepted. (#5A, IT Director)
	As far as I can see there is no mechanism where questions are asked about the projects that come in - should we actually be doing them at all, is there any strategic alignment between the project requests and the wider university plan, so no, that doesn't exist at the moment. (#5A, IT Director)
	[The alignment between the business and IT] is important in terms of the use of resources. Just to be effective in our use of resources and this will generate capacity for us to achieve our goals. (#5B, Project Sponsor)
	How are IT to determine which project gets priority? In many cases is it the office that is making the request that determines the priority or what is the urgency. There is no clear structure that determines which projects are priority other than if somebody shouts louder. (#5B, Project Sponsor)

	Yes, I would think alignment between business and IT is essential. Because we are so thin on the ground and the Universities resources are being squeezed so much year on year that you have to make sure that those activities you are involved in are the ones that will deliver the most, that there's a good return on investment. And that you are not wasting your time on one thing at the expense of another of more value. (#5C, Project Manager)
Project Governance	Basically overall responsibility, the sponsor is responsible for ensuring that resources are allocated. Any blockages or disagreements or things that can't be decided within whatever framework we are putting in place in terms of the governance of that project - ultimately the decision will go back to the sponsor. So the sponsor may have to make a decision across two competing views if consensus can't be reached. Then they may need to undo blockages and get things moving again if things do fall down. Also, being primary around saying what the benefits should be and what the aims are. Why are we doing this in the first place? (#5A, IT Director)
	Probably it was me [project sponsor], but it wasn't defined well. That's probably one of the key issues there. It probably should have been me, but I believed that it was head of department and head of department thought it was me so there was lack of ownership. (#5A, IT Director)
	There are no project teams assembled. People take on projects as part of their day to day work so really people within the division that were responsible for that project were hived off and given certain roles and tasks within it. It wasn't that people were brought together from different divisions that might have been more effective way to deal with it. It was that people were hived off and told, you do this, you do this and you do this. There was no project team. (#5A, IT Director)
	No there wasn't [a steering group]. When the project went into crisis, then we pulled a group of people together that were cross divisional. But it wasn't done in the early stages so there was no real stakeholder engagement. It was just basically done and that's when the wheels started coming off. (#5A, IT Director)
	Yes I am project sponsor, at this point in time. (#5B, Project Sponsor)
	It sits within the VPA&R office. But ITD is a division that reports to the VPA&R office. So in other words, if there is a difficulty with a project within ITD, it goes to the head of ITD and if it's a big enough problem then it goes to the VPA&R's office in any event. (#5B, Project Sponsor)

	That was probably a weakness in that a time frame wasn't identified. The time frame that was identified was the launch. Certainly it has gone on longer than envisaged. (#5B, Project Sponsor) I think the issue is that there is nobody that has overall ownership of the process and so in one sense there almost has to be a transfer of the ownership of the process to somebody or to a body of the entire process. So there has to be a division between the operations part of it and the ownership of the process. I think that is a culture change that we haven't adopted. (#5B, Project Sponsor) Yes [there was a sponsor] at executive level. (#5C, Project Manager) I think it was because of the system that was being upgraded it was perceived that IT owned that system so therefore it seemed logical that IT were the ones driving it forward. That shouldn't have been the case. In other institutions it would have been a Buildings and Estates project but because IT were deemed to be the owners of the system we were the ones that were pushing it forward. (#5C, Project Manager) I think ownership is the biggest issue and I think they had no clear idea of what they wanted to achieve so the goals weren't clearly defined. So it was almost like they embarked on it without really having a clear picture of what it was that they wanted to have as a result. (#5C, Project Manager)
Top Management Support	He was only involved at a very high level, which I suppose is what you want from a sponsor. It was very clear where the sponsor wanted to go on things so it wasn't that we went back to him with issues, we just dealt with them as they arose. (#5C, Project Manager) It's the project sponsor that has ultimate responsibility for it as they are the ones that have been tasked to deliver on it. (#5C, Project Manager) At the moment probably not [senior management are not involved in governance of IT projects]. (#5C, Project Manager)
PPM	*Future looking perspective* - That [governance] group would take projects in, score them, prioritise them and there would be a discussion there and they would pass over a prioritised list to a higher body which might be say the executive or a group of people that have the power and ability to assign resources to a project. They would then look at the list and they may weed some out and say this is not within the strategic aim of the university so we're not doing that. They may redefine some of the order and then what comes to IT would be a list of projects ranked from 1 through to whatever. (#5A, IT Director)

Case Study 6

Theme	Exemplary Quotes
IT Governance	I'd like to say that they all come out of a strategic plan and that they are well thought out, but we are not that evolved yet. A lot of them come about because there is money available for some reason or they might be a high profile customer or some sort of activity that trumps other stuff. We are slowly updating ourselves to publishing a work plan in advance and an operational plan in advance which we try to stick to regardless of changing priorities. (#6C, Project Manager) Yes, definitely, undoubtedly and it is something we are working on [alignment between business and IT]. Steps are being made to put checks and balances in particularly around funding and the business side of it to make sure it is aligned to a defined business strategy. (#6C, Project Manager)
Project Governance	We have a project management office (PMO). It's in its infancy, but it is there to oversee projects. We have an intranet monitoring system which we use for tracking our projects in terms of budgets, tolerances, activities, updates, documents and stuff like that. (#6C, Project Manager) There would be overall governance from that office. Other people would report into that office on an ad-hoc basis. There are some formal projects that are running formally out of there. (#6C, Project Manager) There was a project sponsor, the Director of the associated department. I suppose they would have held the budget if you like. (#6C, Project Manager) We have project teams and then we have project boards. So the project teams would normally meet weekly and the project boards would normally meet monthly or more often if necessary. The project board would be made up of the project executive, senior supplier – customer if you like and a number of people who would have a vested interest in it. So, we would report on all our projects on a monthly basis to those groups and would meet monthly or bi-monthly for issues and updates and things like that. So all our projects are governed with that mechanism. (#6C, Project Manager) Stakeholders tend to slip away or they're not interested in it anymore or whatever and that you'd lose a bit of the focus on it and you get swamped. That's usually what happens with it. I can identify a number of projects that that has happened with and continues to occur with. (#6C, Project Manager)

	We have only two dedicated project managers and the rest of us are governed on one hand by services and the other side with development so if things like today are going crazy, services take precedent and projects slip. (#6C, Project Manager)
Top Management Support	No. That would have lain with us, the IT Department. [responsibility for the project] It's a project that's beginning to get delayed now and the knock on projects may never happen because the profile of the stakeholders is changing. (#6C, Project Manager) No, the steering group would have been at the director level, but none of them would be on the UMT – University Management Team. (#6C, Project Manager)
PPM	One of the ones that would have been high profile here is Academic Simplification which is basically looking at all our processing of students – the CAO to the end if you like. So the business identified a stream of 4 or 5 key projects that would devolve over the coming years and they went into the mix of Academic Simplification. Move on two years and there's one major project out of that – the Curriculum simplification piece, but a lot of the other projects haven't gone off the board yet. (#6C, Project Manager)

Case Study 7

Theme	Exemplary Quotes
IT Governance	The very large IT projects would come from strategic board direction. The student, finance, HR and identity management would have come from a strategic direction that the college wants to or has to go in. Those big projects come from the top down. (#7C, Project Manager) The rest of them will come from a mixture of - someone with a pet project that manages to get it done but we try to avoid that - or another part of the organisation that identifies a need for a system. But you have to get into our process - do your business case, show that you have the budget, show that you have resources to dedicate to it. We have to show that IS services have the resources to dedicate to it. When we satisfy ourselves that all of that is in place. (#7C, Project Manager) Our project proposal must show what it's trying to do relates to the strategy of the college and what benefit it is going to give to the college. Benefits will normally be linked to our strategic themes - student experience, improved research performance, improved admin efficiencies, greater cash flow, more student registration - so they'll be very firmly linked back to the overall objectives of the college. More and more we're getting to the point where you've got to be able to show hard numbers around that. (#7C, Project Manager)
Project Governance	We developed a PMO within the department as well. We began to put all projects through that office. So we set that up with limited success, but generally speaking we got our projects more in line than what they would have been before. (#7C, Project Manager) There's a project board for each of the projects, then there's executive officers and then the executive board. So there's a sort of a hierarchy of governance if you like. It can get a bit unwieldy at times - there can be too much of it, but that's generally the way it works. So we have a well-defined process here. (#7C, Project Manager) We have a framework adopted as well. We're reviewing that at the moment. It was developed more or less for fairly big projects. We found that it wasn't as suitable for a smaller project that might take 6 to 8 weeks and involve one or two people. We're reviewing it now to make it a bit leaner and a little bit easier. (#7C, Project Manager) It's not always rigorously applied. Some people don't like it. Some people try to get away with it. For the larger stuff generally speaking it is, but for some of the smaller ones people might think that it is an overhead or they just mightn't want to do it. I think it was getting a bit

	unwieldy so I think if we make it a bit leaner we might get more buy-in from people. (#7C, Project Manager) There were clear reporting lines. There was a project board, a sponsor who is the CFO, a very strong PM and a good team - well committed. (#7C, Project Manager) Other bits that can be left out is the whole organisational change management that goes with it - people tend to focus on the technology and forget about the business change - that's certainly been a problem. (#7C, Project Manager) What they can be inclined to do in a university is ask for something and then back off as if it's going to appear by magic. There's no commitment. So what you need is full time engagement. (#7C, Project Manager) The other thing we do as projects are going along is quality assurance reviews. So they give us a better comfort as to how the project is doing. So we use independent QA to do that – PWC or Ernst and Young. We have our own QA person here as well and she would do the smaller ones. So the QA reports would go to the project boards as well and they would get a feel for how the project is going. (#7C, Project Manager)
Top Management Support	Project boards in the college are a bit funny because they are made up of a mixture of insiders and outsiders and academics and administrators. So usually the head of the business area that the project is dealing with would be the sponsor of the project. That's usually what we would call an administrator at director level. We're moving more and more of having independent chairs of the project boards and maybe one or two other external members of the board as well. They would influence it but they can't make an executive decision. Those are made by the sponsor. (#7C, Project Manager) Yeah the sponsor would be ultimately responsible and they would also be accountable for it. (#7C, Project Manager) In some ways we have too much reporting. Project team level, project board, executive officers and executive board. You could almost argue that there's too much of it. We're trying to streamline reporting. So if I get a report from a Project Team leader that should almost move up automatically rather than having to keep re-writing it. They should be all getting the same view of the project. (#7C, Project Manager)

PPM	We're trying to move it to PPM, where you take the themes of the college and we're actually trying to begin to group projects in terms of that idea of PPM. They beauty of that is that you can relate your investment to the particular strategic themes. (#7C, Project Manager) The thing I think about that in a college - because there's so much big stuff to be done - if you prioritise on the same set of criteria there's some stuff you'll never do. So what I think is more appropriate is a graduated prioritisation system so that it would enable us to help people that would never get a look in. (#7C, Project Manager)