The Outsourcing of IT Functions in Irish Based Companies

Abstract

Companies are continually striving to improve performance and reduce costs within their business. Outsourcing of different functions of a company, such as manufacturing, marketing, etc, is a growing trend and the outsourcing of Information Technology (I.T.) functions has now become more prevalent as outsourcing is seen as a cost effective approach to managing an organisation (Quinn, 2013; Windrum, et al. 2009; Javalgi, et al, 2009). The objective of this paper was to understand what frameworks or models are currently in use and develop a model based on available literature and test its suitability. By taking a qualitative research approach by conducting semi structured interviews with managers in Irish based companies, a number of key learnings have been identified which will help managers evaluate which functions are suitable for outsourcing.

The conducted research delivered three key findings. Firstly, of the companies interviewed, none of them currently use any form of framework or model however each one confirmed that this was an issue and that they should be using a framework or model to make this decision. This leads to the second key finding. Each of the participants were presented with a proposed outsourcing decision framework based on existing literature. Each element of the framework was discussed and each of the participants agreed that this was a valid model which they would use for future evaluation of IT functions if it were available to them.

During the discussions of the elements it became clear that the participants felt a scoring mechanism should be in place for each elements especially the risks and benefits. By including this it removes an element of subjectivity from the evaluation and gives a clearer view which would be the correct decision. This covers the third key finding in the research, elements of the proposed framework which can be changed.

From the reach conducted it is clear that the proposed framework is valid, however further research is recommended as the number of participants in the research was low compared to the number of companies in Ireland and to validate that the participants views correlate with all companies in the different industries.

Declaration

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Chapter 1 - Introduction

Companies are continually striving to improve performance and reduce costs within their business. Outsourcing of different functions of a company, such as manufacturing, marketing, etc, is a growing trend and the outsourcing of Information Technology (I.T.) functions has now become more prevalent as outsourcing is seen as a cost effective approach to managing an organisation (Quinn, 2013; Windrum, et al. 2009; Javalgi, et al, 2009).

Outsourcing is primarily viewed as a cost-cutting exercise and outsourcing functions to lower cost service providers can have a negative effect on the performance and quality of the service (Quinn, 2013). However, the literature on this topic also suggests a number of positive reasons such as access to intellectual depth, innovation, new opportunities, quality and reliability (Gunasekaran et al, 2015; Quinn, 2013), which can be important to a company.

The literature also states that core functions or competencies should be retained while any non-core functions or competencies are deemed suitable for outsourcing (Manning et al, 2008; Gilley et al, 2000). While there is evidence in companies taking this approach, there is not one clear process for companies to follow to deem a function as a core function (Perry et al, 1993; Barnes 2007) and if this is considered when evaluating functions to be outsourced

Through the literature available it is clear that companies across all sectors are increasing the level of outsourcing which includes the outsourcing of IT functions. However, in available research there is no clear indication of a framework or model which is used to evaluate the IT functions of a company in terms of ascertaining which are suitable to be outsourced.

The literature on outsourcing decision frameworks/models identifies a number of proposed frameworks or models which can be used to reach a decision on outsourcing of IT functions. However each of the models identified through research had limitations and did not consider all elements identified in the research such as motivations, benefits, risks, core competences, outsourcing models, etc.

1.1 Research Aim

The aim of this proposed research is to develop a framework for outsourcing decision based on existing frameworks identified in the existing literature. This framework will identify the main motivations of outsourcing, the key factors which need to be considered and all benefits and risks which need to be taken into account when evaluating which functions of the IT department are suitable for outsourcing. The proposed framework will then be presented to management level employees in Irish based companies to evaluate the application of this model on the decision making process. Finally the research will look to understand what frameworks or models currently in use within Irish based companies.

1.2 Research Questions

In order to achieve the aim outlined above, the following research questions were devised. These questions focus on testing the proposed outsourcing decision framework, gain an understanding of models or frameworks currently in use and discover any additional changes to the framework from a practitioner viewpoint.

Question 1:

What methods are currently used by Irish based companies to decide which IT functions are suitable to outsource.

Question 2:

In Ireland, will the proposed framework help a company evaluate and select which IT functions are suitable for outsourcing.

Question 3:

Are there any other elements or factors which need to be considered in the evaluation of the IT functions which are not included in the proposed framework.

1.3 Research Methods

A qualitative approach to the research was taken. This is a similar methodology approach which was used in other similar cases studies (Lam 2009, Kavanagh, 2014; McTernan, 2015) where interviews were used in identifying motivations, benefits and risks of outsourcing based on different companies experiences.

Interviews were conducted with six managers who have outsourced or been involved in the outsourcing decision of IT functions within their companies. They are based in five different companies across four different industries in Ireland. For the interviews a proposed framework was developed and presented to each of the managers and a theme sheet was developed based on the literature review. These were then used to develop the discussion through the use of a semi-structured interview (Spinks and Reid, 2011a).

All names of participants, their companies and any third party companies have been kept anonymous, in line with similar past research (Lam 2009, Kavanagh, 2014; McTernan, 2015). This ensured an open and honest environment where the participants outlined their true thoughts on this subject.

1.4 Research Limitations

For this research, convenience sampling was used on a small number of managers based in five companies across four industries. This sample gave insight into a number of companies based in Ireland and all managers interviewed had experience in the outsourcing of IT functions which made them excellent participants to interview. However, it is recommended that further research be conducted as this is a small sample compared to the number of industries not included and in most cases the industries covered only had one participant representing their views which might not represent the whole industry.

Also, for the purposes of the study the implementation of outsourcing will not be included in the scope.

1.5 Structure

The remaining chapters are structured as follows. Chapter 2 is a review of the literature available on the topic of outsourcing and an understanding of IT functions. This is followed by Chapter 3 the research questions to address the gaps identified in the literature in terms of outsourcing decision frameworks/models. Chapter 4, details of the research methodology used will be outlined, this will explain why the particular methodology was used for this research. Chapter 5 will highlight the findings from the research conducted which will give an insight into the feasibility of the proposed framework. Then Chapter 6, the discussions section will show how the research conducted fits in with the literature on topic. The last section, Chapter 7, will outline the conclusions and recommendations for the proposed outsourcing decision framework.

Chapter 2 - Literature Review

The primary focus of this literature review is to investigate and understand the research on why and how a company can select which services to outsource from within their IT department including which functions to select for outsourcing, the methods/models used and the success factors they want to achieve. Also this review will look to identify any gaps within the literature where further research is required.

The literature review begins with developing an understanding or definition of the term outsourcing before moving on to setting out the primary motivations in which the outsourcing may occur. This research is focused on IT functions of a company and so a discussion of the different functions within IT are examined with a view to ascertaining those that can be outsourced. The literature then moves to a discussion of a number of outsourcing models available to companies, the benefits and challenges that are derived from outsourcing including the impact on the relationships between these IT functions if they are a mixture of outsourced and in-house. Finally a framework will be presented for testing on current management in a number of Irish based companies that contain an IT department.

2.1 Outsourcing: An Introduction

"Outsourcing refers to the purchase of services from another firm" (Ang and Inkpen, 2008). For this literature review, the term outsourcing will refer to any instance when a company delegates activities to another company. This review will not look to distinguish between outsourcing and offshoring, which refers to the delegation of services/production to a foreign country (Garner, 2004), for the purposes of this research they will be treated as the same.

The concept of outsourcing is not new, in 1776, Adam Smith (1827) formulated a theory of competitive advantage, proposing the notion of hiring cheaper labour in less developed countries as a method of cost cutting which is often discussed as a benefit of outsourcing (Aron and Singh, 2005). Hätönen and Eriksson (2009) stated that it was not until the 1950's that an outsourcing strategy was evident in high-tech manufacturing sector and it still took until the 1980s before outsourcing was evident

on a wider scale. It was at this time that outsourcing became more prevalent in IT (Hätönen and Eriksson, 2009), with many companies outsourcing services such as desktop support, call centres and application development (Tan and Sia, 2006). Bardhan and Kroll (2003) noted that in the 1990's there was an increase in outsourcing with the software sector transferring significant activity outside their companies.

2.2 Information Technology: IT services and which can be outsourced

In order to ascertain the impact of outsourcing IT, an understanding of the different IT functions and their importance is required to establish the suitability of outsourcing those functions. Manning et al (2008) and Gilley et al (2000) note that if a function is considered to be part of a core competency for a company, then it should not be outsourced as the company should be focusing on its core competencies to maximize operational efficiency. However, this has been challenged by Methta et al (2006) who states that by gaining access to critical resources through outsourcing, can lead to improved performance, meaning that some functions of core competencies can also be outsourced.

Gartner (2012) states that IT services can be segmented into three main categories: business process services, application services and infrastructure services. If outsourced they're referred to as business process outsourcing (BPO), applications outsourcing (AO) and infrastructure outsourcing. Each of these can be further broken down into individual services such as IT Service Desk, Application Support, WAN/LAN, Email Services, etc.

2.3 Motivations for Outsourcing

There are a number of motivations that prompt companies to consider outsourcing of IT. In literature reviewed it is evident that outsourcing is viewed as offering a competitive strategy which is suitable for all different sized companies across different industries (Javalgi, Dixit and Scherer, 2009).

Researchers such as Quinn (2013) and Gunasekaran et al (2015) noted that outsourcing offered more than cost savings, it also offered access to intellectual depth, innovation, new opportunities, quality and reliability. Amiti and Wei (2005) noted that

companies can outsource inefficient elements of their service which could also offer them comparative advantage. While the literature outlines a number of different benefits, there is a wider acceptance of the more common motivations for outsourcing

Lacity et al (1994) outlined 4 main categories of motives for outsourcing which are: Financial, Technical, Business and Political. Lonsdale and Cox (1998) identified five main motivations as cost reduction, convert fixed costs to variable, focusing resources on core activities, benefits of supplier investment/innovation and improving time to market. While Quelin and Duhamel (2003) also agree that cost reduction is a primary motivation they also argue that flexibility is also a motive. Finally Kremic et al (2006) state that the three main motives are cost driven, strategy drive and politically driven outsourcing. While other sources also outline similar motives, for the purpose of this study the motives will be divided into the three categories: Financial, Strategic and Political.

2.3.1 Financial

Financial motivations for outsourcing is commonly identified throughout all available literature as the primary motivation. Kakadadse and Kakadadse (2002), Kremic et al, (2006) and Hätönen and Eriksson (2009) all propose that reducing costs is an important motivation when considering outsourcing. Similarly Belcourt (2006) and Quelin and Duhamel (2003) also state that improving cost controls is a similar financial motivation for outsourcing.

In all cases the push to provide services for less by taking advantage of a lower cost services provided by outsourcing partner is seen as a key motivation factor when companies are looking to provide their own services cheaper.

2.3.2 Strategic

Strategic motivations cover a large number of different motivations which have been identified in the literature. These include:

- Focusing on a company's core resources (Agha, S. 2012)
- Improving the quality of the service been offered (Juga, et al. 2010)
- Gaining access to new technologies and talent from the market (Dad and Iqbal. 2013)
- Increasing the flexibility a company can have in terms of the service they offer (Schneider and Sunyaev. 2016)
- Removing problem functions (Kremic and Tukel. 2006)
- Improving the time to market for their services (Li et al. 2006).

While some of these factors can impact costs they are viewed as proven reasons for a company to pursue in order to increase the company's growth both financially and in terms of the services they offer. When deciding on outsourcing a company can pursue an outsourcing strategy which can deliver one or a number of the outlined motivations

2.3.3 Political.

While public companies are more susceptible to political motivations, private companies can also be impacted by factors outside their control which can motivate a company towards outsourcing.

Agendas of elected officials or governments, reaction to public opinion and national\international trends can all prompt both private and public companies to consider outsourcing

2.3.4 Motivation Summary

While all the motivations outlined above can prompt a company to consider outsourcing, a company must carefully consider all the risks and benefits that they bring. They must also ensure that the benefits that they will achieve will outweigh the risks in both the long-term and short-term.

2.4 Outsource Decision Framework

The proposed aim of this research is to develop a framework for outsourcing decision based on existing frameworks identified in the existing literature. In order to develop the framework or model the following frameworks were identified for their suitability in helping a company decide on outsourcing of IT functions. An important element of the decision, which has been identified in the literature, is the concept of core competencies.

2.4.1 Core Competencies

A core competency is defined as "a harmonized combination of multiple skills and resources that distinguish a firm in the marketplace" (Prahalad and Hamel, 1990). In terms of IT functions, core competencies are deemed the functions which enable a company to achieve the aim of distinguishing themselves in the marketplace. The literature states that core functions or competencies should be retained while any non-core functions or competencies are deemed suitable for outsourcing (Manning et al, 2008; Gilley et al, 2000). For a company to decide which functions they want to outsource, they must establish which are part of core and non-core competencies. Cronk and Sharp (1995) state that the basic assumption is that IT is not one seamless whole and that if elements of IT are found in the core competencies then they should not be outsourced to in order to protect the companies competitive advantage. However, Park and Wu (2009) propose that core functions which do not contribute to a company's profit should also be considered for outsourcing. So once again there is no clear indication on which functions are suitable for outsourcing.

The outsourcing of core and non-core functions is a central theme throughout the literature and it is clearly identified as an important factor to consider when selecting functions to outsource.

2.5 Current Frameworks

There are a number of different frameworks/models which have been proposed to help companies to decide which IT services are suitable for outsourcing. As discussed, Quinn (1992) and Quinn and Hilmer (1994) advocate outsourcing of services that do not contain core intellectual properties that give a company its competitive advantage. They propose examining each service to see if the company is supplying it at the highest possible standard and if not, then it is suitable to be outsourced. Perry et al. (1993) built on this position by defining a concept of unit of competitive advantage

(UCA). This approach, as opposed to Quinn's, focuses on each process. This looks to classify each process to see what level of competitive advantage it gives the company.

Perry et al. (1993) proposes a matrix analysis, Figure 1. For this, the function is firstly separated into Value-added and Essential support work then classified as Proprietary or Generic. Cronk and Sharp (1995) propose dividing the IT function into services and infrastructure and then use Perry's matrix to analyse each section. This will then deliver a classification of each service, as outlined by Gartner, in terms of their suitability to be outsourced. Each service which falls into the Contract out quadrant would be suitable for outsourcing. Also services which fall into the Broker quadrant can also be considered.

Framework for outsourcing decision

Value-added support work	Provide (Develop best internal capability possible)	Broker (Develop ongoing access to the best capability possible)
Essential support work	Maintain (Manage internal capability to meet cost and quality standards)	Contract out (Monitor to secure compliance)
	Proprietary capability	Generic capability

Figure 1: Framework for Outsourcing Decision. (Source: Perry et al, 1993)

A number of similar matrix models have since been proposed. Barnes (2007), Figure 2, also separates the services into a matrix where the level of strategic value and criticality of the service is measured to determine which are suitable for outsourcing. In this case they are separated into Novelty, Proprietary, Commodity and Utility.

For this model Proprietary services are retained in-house as they are determined to be part of the core competency. Utility services, while of high criticality, are readily available from an outsource partner with services in Commodity also suitable for outsourcing. The final quadrant is Novelty and services in this area can be outsourced but if they are specialised the option to outsource could prove too expensive.

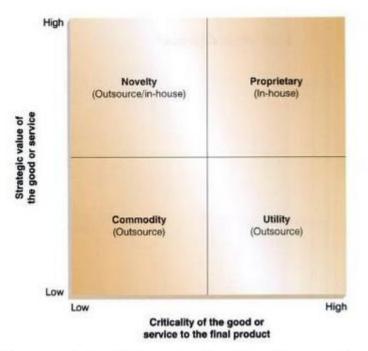


Figure 2: Framework for Outsourcing Decision. (Source: Barnes, 2007)

There are also other processes proposed to evaluate if a service can be outsourced. Lacity and Hirschheim (1993) proposed an outsourcing evaluation process, Figure 3. This process evaluates a service in terms of what external vendors offer and evaluates them against the in-house service offering. If the external vendor is preferable then that service can be outsourced.

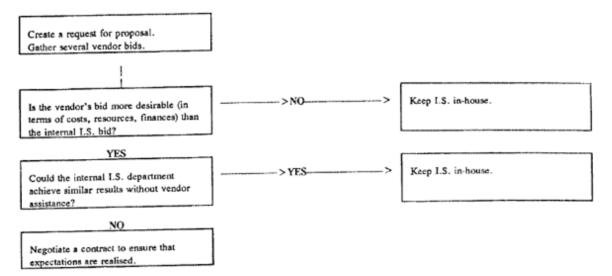


Figure 3: Proposed outsourcing evaluation process. (Source: Lacity and Hirschheim, 1993)

Kremic and Tukel (2006) propose a different outsourcing decision framework, Figure 4. Their process shows the typical elements of an outsourcing decision and that

motivation, risks, benefits and factors are all reviewed when a service is be considered for outsourcing.

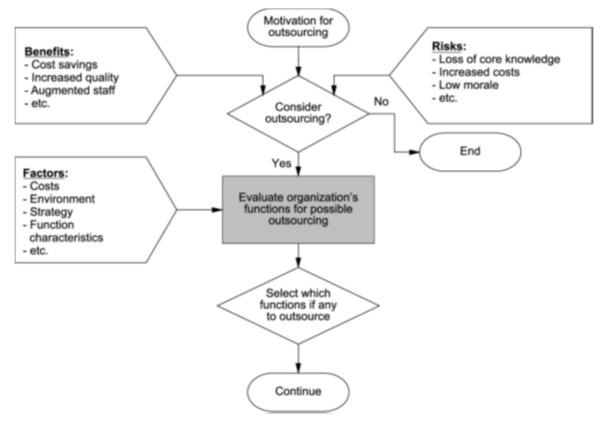


Figure 4: Proposed outsourcing decision framework. (Source: Kremic and Tukel, 2006)

While all reviewed literature agree that each service needs to be evaluated in order to ascertain it is suitability to be outsourced and most agree that services which are integral to core competencies should be retained in-house, there is no one clear framework or evaluation process available for companies to decide which services can be outsourced.

In order to develop a framework based on the literature review it is proposed to use the outsourcing decision framework identified by Kremic and Tukel (2006) as the base framework and build on the elements identified in other frameworks which need to be included.

2.6 Outsourcing Models

As outsourcing becomes more widespread, the number of models available has increased. Lacity and Willcocks (1998) discussed models such as Total outsourcing and Selective outsourcing. Lacity and Hirschheim (1993) also proposed models such as Co-operative sourcing, Gallivan and Oh (1999) proposed complex sourcing and Dewire (2000) proposed a model of supplying a service for the hosting and management of an application from a central managed facility which has now evolved into cloud computing. Finally, Oshri (2013) proposes captive centers, were companies retain control of the function but is located offshore to retain cost advantages. Once a company decides on outsourcing there are numerous different options available to meet their requirements.

However, each outsourcing model brings its own benefits to a company. For example, Lacity et al (1996) highlighted the value of selective outsourcing as companies can get vendors to manage lower value IT services while it manages higher value tasks. Oshri (2013) notes with captive centers, the company retains full control over the service. Other models such as total outsourcing offers large initial cost reductions by substituting expensive in-house labour with cheaper outsourced labour (Windrum, et al. 2009). Selecting the right resource model is critical to ensure the success of outsourcing. However, similar to the decision to outsource, no one model is viewed as a leading model, with each having its own benefits which need to be analysed.

In terms of a decision framework the examined literature has identified the outsourcing model as a key factor in the success of outsourcing functions. However none of the frameworks proposed by Lacity et al (1993) or Kremic et al (2006) propose adding this into their decision models. It is proposed to add the consideration of the outsource model into the proposed framework as it has been identified as key and needs to be included. By not having this as part of the framework it would leave a gap in the consideration process.

2.7 Dominant Factors

As per Kremic and Tukel's (2003) proposed model once a company has identified a function as a candidate for outsourcing they propose that the function is then evaluated

to ascertain if it is suitable to be outsourced. The following Figure 5 breaks the factors into four categories:

- Strategy
- Cost
- Function Characteristics
- Environment

TABLE I.—DOMINANT FACTORS FOR THE PUBLIC ORGANIZATION OUTSOURCING DECISION				
number		Description/descriptive question	Relative importance	
	Strategy			
1	Core	How core is the function to the department or facility?	10	
2	Critical knowledge	How important is it to maintain intimate internal knowledge about the function?	10	
3	Lack of internal resources	How available are internal resources to perform the function?	10	
4	Quality impact	What is the likely impact of outsourcing on current quality?	10	
5	Flexibility impact	What is the likely impact of outsourcing on overall flexibility?	8	
	Cost			
6	Relative cost	The internal costs required to perform the function relative to the expected costs of purchasing the service from a supplier.	10	
	Function Characteristics			
7	Complexity	How complex is the function?	5	
8	Integration	How integrated is the function with other processes and systems?	5	
9	Asset specificity	How much value do durable goods used or generated by the function have outside of that function?	5	
10	Structure	How structured is the function?	5	
11	Employees impacted	How many employees are displaced if the function is outsourced?	5	
	Environment			
12	External skill availability	How readily can the necessary skills be found externally?	10	
13	External politics	Are there external political pressures pushing for or against outsourcing the function?	5	
14	Internal politics	Are there internal political pressures pushing for or against outsourcing the function?	5	
15	Manager preferences	Are there DM preferences for or against outsourcing the function?	5	
16	Legal	Are there legal obstacles, contracts, or agreements impacting the function?	5	
17	Competitor's actions	Are competitors outsourcing similar functions?	5	
18	Conflict of interest	How likely is it that a conflict of interest would be created by outsourcing the function?	5	
19	Degree of uncertainty	How much uncertainty exists in the environment?	5	

TABLE L. DOMINANT FACTORS FOR THE BURLIC ORCANIZATION OUTSOURCEUS DECISION

Figure 5: Dominant Factors (Source: Kremic and Tukel, 2003)

Each factor is weighted by relative performance in order to identify which should be considered most when evaluating the function. In order to complete the evaluation each factor needs to be considered and the outputs will feed into the decision to outsource. Each of these factors when considered can also identify benefits and risks of outsourcing.

2.8 Benefits

As discussed, an initial benefit for outsourcing was to reduce costs (Hätönen and Eriksson, 2009). However over time other important benefits have been realised. As noted, a company can focus on its core competency to gain competitive advantage over other companies. By spending time on non-core functions, it can reduce a company's competitive advantage (Dad and Iqbal, 2013).

Companies can gain expertise which are not currently in the company by engaging outsource partners, thereby saving the company time and money in sourcing and training staff. (Amiti and Wei, 2005). Also if a company's willing to outsource to another country/region they can take advantage of local work times meaning the company can operate across time zones and which can lead to an overall performance improvement. (Gupta, 2009). Outsourcing also provides greater flexibility, reduction in capital expenditure and access to new technology (Kakabadse and Kakabadse, 2000).

Dad and Iqbal (2013) also noted other benefits such as economies of scale, quality of scale and quality improvements. Similarly Kremic et al (2003) also through the literature identified similar benefits which can be realised through outsourcing. For the purposes of the proposed model, Figure 6 outlines the list of benefits which will be included for consideration in the decision process based on those documented by Kremic et al (2003):

Number	Benefit
1	Cost Savings
2	Reduced Capital Expenditure
3	Capital infusion
4	Transfer fixed costs to variable
5	Quality Improvement
6	Increased Speed
7	Greater flexibility
8	Access to technology/infrastructure
9	Access to skills and talent
10	Augment staff
11	Increased focus on core functions
12	Get rid of problem functions
13	Copy competitors
14	Reduce politic pressures or scrutiny
15	Legal compliance
16	Better accountability/management

Figure 6: Benefits of Outsourcing (Source: Kremic et al, 2003)

When choosing to outsource, a company must understand what benefits they are looking to realise from their selected approach to outsourcing so these can be used to confirm whether the outsource approach was successful.

2.9 Risks

When identifying functions which can be evaluated for outsourcing it is important to ascertain the associated risks of that decision. While Dad and Iqbal (2013) spoke of the advantages of focusing on core competency, they note that culture can impact success in terms of business etiquette, communications, etc. Also Currie, et al, (2008) note some customers of the company could see outsourcing purely as cost cutting, which could impact on the brand and reduce customer confidence in the company.

Loss of knowledge in the company is a real concern when outsourcing services (2001), as over time key knowledge could be lost to the outsource partner which in turn could

increase their power in the relationship. Roberts (2001) and Kakabadse and Kakabadse (2000) note that selecting the wrong outsource partner is also a potential risk. If the expected quality of the service is not delivered, it can impact the company brand and performance. Lee and Kim (1999) state the quality of the partnership between the company and the outsource partner is critical in ensuring the success of outsourcing.

Finally authors such as Harrison and McMillan (2006) and Kakabadse and Kakabadse (2000) note that as outsourcing becomes more prevalent in a company it can affect employee morale and staff retention which will impact on the company performance levels. A company must closely manage the relationship between the outsource partner and internal staff in order to make the partnership successful.

For the purposes of the proposed model, Figure 7 outlines the list of risks will be included for consideration in the decision process based on those documented by Kremic et al (2003):

Number	Risk
1	Unrealized savings or hidden costs
2	Less flexibility
3	Poor contract or poor selection of partner
4	Loss of knowledge/skills
5	Loss of control/core competence
6	Power shift to supplier
7	Supplier problems
8	Losing customers, opportunities or reputation
9	Uncertainty/changing environment
10	Poor morale/employee issues

Figure 7: Risks of Outsourcing (Source: Kremic et al, 2003)

Similar to the process of identifying the benefits, a company must understand what potential risks which could impact the company by selecting to outsource. Unless all risks are understood and mitigations put in place they can impact on the success of the outsourcing decision.

2.10 Conclusion

From literature reviewed, there is not one clear outsourcing decision framework which can deliver a company guaranteed success when deciding to outsource. Perry et al (1993), Barnes (2007) and Lacity et al (1996) outline outsourcing evaluation processes and matrixes to allow companies determine which IT services could be outsourced. However there is no predefined list of which functions are suitable for outsourcing, companies must use a selected process or matrix on each IT service to decide if it is suitable for outsourcing.

While most authors agree, a company should retain services which are part of the core competencies in house, Park and Wu (2009) propose that core functions which do not contribute to a company's profit should also be considered for outsourcing. So once again there is no clear indication on which functions are suitable for outsourcing.

Once the decision is made there are a number of different models proposed (Lacity and Willcock, 1998; Lacity and Hirschheim, 1993; Gallivan and Oh, 1999; Dewire, 2000) which a company must evaluate to ascertain which are suitable for their selected outsourced activities. Each one carry's its own benefits and weaknesses.

Hätönen et al (2009) state the many benefits a company can realise by outsourcing with cost cutting been proposed as a primary reason while Kakabadse et al (2000) outline some of the risks such as the impact on staff morale, which also needs to be considered as a factor when a company is making the decision to outsource. In both cases, it is not fully evident what a company should and should not do in order to achieve the benefits or minimise the risks. In order to be successful, a company must fully understand these and put in place a strong in-house capability with the skills and knowledge to make the decisions to achieve the benefits and mitigate against the risk of outsourcing (Cronk and Sharp, 1995)

By combining the different models and elements together, a proposed outsourcing decision framework was created, which can be tested to see if all elements identified are considered when evaluating if a function is suitable for outsourcing. This proposed outsourcing decision framework uses Kremic and Tukel (2006) outsourcing decision framework uses Kremic and Tukel (2006) outsourcing decision framework as its base, however there are two key elements identified in the literature which were not in Kremic and Tukels (2006) framework. These are Core Competency and Outsourcing Models.

Core Competency

While the existing model highlights this consideration when discussing motivation for outsourcing, Park and Wu (2009) also state that core functions which do not contribute to a company's profit should also be considered for outsourcing. Other literature also suggests that core competencies should be evaluated for outsourcing. Based on this an additional step was added to the function to identify if the function is core or non-core as is done through Perry's framework (1993).

Outsourcing Model

Numerous authors such as Lacity and Willcocks (1998), Lacity and Hirschheim (1993), Gallivan and Oh (1999), Dewire (2000) and Oshri (2013) have identified different outsourcing models which can be used by a company. Each have outlined the benefits and risks of selecting the suggested models so it is important that the available outsourcing model also needs to be considered when evaluating if a function is suitable for outsourcing. It is clear that for different functions, different outsourcing models could be required.

From the literature reviewed, not including core competencies and outsourcing models as considerations in the evaluation of IT Functions to be outsourced is a clear gap in the existing models/frameworks. Therefore they have been added to the proposed outsourcing decision framework. The proposed outsourcing decision framework will be presented in Chapter 3.

The next steps are to take the proposed outsourcing decision framework and present it to practitioners to test is validity.

Chapter 3 - Proposed Model and Research Question

3.1 Proposed Model

Figure 8 is the proposed outsourcing decision framework which is based on Kremic and Tukels (2003) model but includes the two key elements identified in the literature review which they didn't include, Core Competencies and Outsourcing models. By including these elements into the model it addresses the gap identified during the literature review.

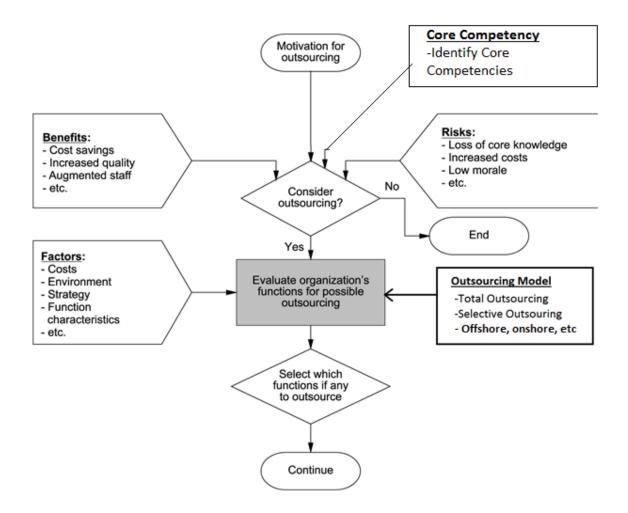


Figure 8: Proposed Outsourcing Decision Framework (Based on Multiple Sources)

Figure 9 outlines the literature sources which support each element of the proposed outsourcing decision framework.

Model Element	Literature Source
Motivations for	Kremic and Tukel (2006)
Outsourcing	Gunasekaran et al (2015)
	Quinn (2013)
	Lacity et al (1994)
	Lonsdale and Cox (1998)
	Quelin and Duhamel (2003)
	Kakadadse and Kakadadse (2002)
	Hätönen and Eriksson (2009)
	Belcourt (2006)
Outsourcing Decision	Kremic and Tukel (2006)
Framework/Model used	Perry et al. (1993)
	Barnes (2007)
	Lacity and Hirschheim (1993)
Core Competencies	Manning et al. (2008)
	Gilley et al. (2000)
	Cronk and Sharp (1995)
	Park and Wu (2009)
Benefits	Kremic and Tukel (2006)
	Hätönen and Eriksson (2009)
	Dad and Iqbal (2013)
	Amiti and Wei (2005)
	Gupta (2009)
	Kakabadse and Kakabadse
	(2000)
	Kremic et al (2003)
Risks	Kremic and Tukel (2006)
	Currie, et al. (2008)
	Dad and Iqbal (2013)

	Roberts (2001)
	Kakabadse and Kakabadse
	(2000)
	Lee and Kim (1999)
	Harrison and McMillan (2006)
Factors	Kremic and Tukel (2006)
Outsourcing models	Lacity and Willcocks (1998) Lacity and Hirschheim (1993) Gallivan and Oh (1999) Dewire (2000) Oshri (2013) Windrum, et al. (2009)

Figure 9: Elements of the proposed Outsourcing Decision Framework and their literature source

3.2 Research Question

Companies in Ireland are continually striving to improve performance and reduce costs within their business. The outsourcing of IT functions has become more prevalent when companies are reviewing their organisational structure and costs. Outsourcing these IT Functions is seen as a cost effective approach to managing the organisation.

The key objective of this research is develop and test a framework which can be used by companies, based in Ireland, to decide which IT functions can be outsourced. While research has been conducted for other countries (Apte, 1997; Machado, D. 2009; Lam, 2009), there is limited research into how Irish based companies make the decision to outsource IT functions. The research will endeavour to develop and evaluate a proposed outsourcing decision framework for companies and then test it on Irish based companies.

The research aims to understand how companies select which functions are outsourced and which remain in-house and what outsourcing models are selected.

The framework will outline the motivations to outsource, all factors which need to be considered and the associated benefits and risks of outsourcing those functions.

The following questions will be researched to meet the key objectives:

Question 1:

What methods are currently used by Irish based companies to decide which IT functions are suitable to outsource

Question 2:

In Ireland, will the proposed framework help a company evaluate and select which IT functions are suitable for outsourcing.

Question 3:

Are there any other elements or factors which need to be considered in the evaluation of the IT functions which are not included in the proposed framework.

Chapter 4 - Research Methodology

Quinlan (2011) outlines a number of different research methodologies and associated data collection methods. It outlines the different detailed research methodologies including approaches and examples on how to gather data from the relevant experts on the chosen subject, which in this case is outsourcing frameworks/models.

Through reviewing the various literature on outsourcing frameworks (Lacity et al, 2008; McKendrick, 2013) it is clear that a qualitative approach to the research was taken. A similar methodology approach was used in other similar cases studies (Lam 2009, Kavanagh, 2014; McTernan, 2015) where interviews were used in identifying motivations, benefits and risks of outsourcing based on different companies experiences.

Therefore a similar qualitative research approach has been taken with this work. Interviews were conducted with six managers who have outsourced or been involved in the outsourcing decision of IT functions within their companies. They are based in 5 different companies across 4 different industries in Ireland. For the interviews a proposed framework was developed and presented to each of the managers and a theme sheet was developed based on the literature review. These were then used to develop the discussion through the use of a semi-structured interview (Spinks and Reid, 2011a). All information that was gathered through notes and audio recordings were then analysed where clear patterns were identified in terms of how the decision is made and the benefits/risks of outsourcing.

4.1 Sampling and Sampling Procedures

4.1.1 Sample

For this case study, convenience sampling (Saunders et al, 2012) was used to select the managers to be interviewed. Convenience sampling is a non-probability sampling technique where the participants are selected based on their accessibility to the researcher. In this case each of the participants was selected as the researcher had already developed contact through previous networking events. The six selected candidates were spread across 4 industries and represented 5 different companies. In each case they are an Irish based company with an I.T department which has undertaken some degree of outsourcing of IT functions. This provided the case study with a wide enough selection of companies and industries to outline outsourcing practises undertaken. In each case the managers were middle/senior management level who had experience in the decision process of selecting IT functions to be outsourced, which meant they would be able to provide valuable insight to the practical decision making process of outsourcing. As this case study is based on Irish companies, all managers are working in Irish based companies which was a similar focus taken in previous case studies (Lam 2009, Kavanagh, 2014; McTernan, 2015) where a single country approach was taken (Kinkel, 2014). The participants were presented with a cover letter and participation sheet in advance of the interviews outlining what it would entail as per Appendix A. (Trinity College Dublin, 2017)

4.1.2 Sample criteria and participants

The participants were selected based on their level of experience in the decision making process for outsourcing within their companies and industries. In each case there were different levels of outsourcing and different models used by the companies, therefore they would have a broad experience on this topic. Figure 10 outlines the details of the participants who were selected to be interviewed for this study.

Interviewee	Job Title	Industry	Jo Description	Interview
				Date and
				Length
Participant A	Infrastructure	Energy	Management of all	23 rd June 2017
	Support		IT Infrastructure	33 minutes 26
	Manager		(Servers, Networks,	seconds
			storage, etc) which	
			has contains off-	
			shore monitoring	
Participant B	Senior	Utilities	Senior Manager of	
	Manager, IT		IT Support	
	Services		department and central in decision	seconds
	Support		making for	
			outsourcing of roles	
			and managed	
			services	
Participant C	Portfolio	Services	Manager	27 th June 2017
	Project	Retail	responsible for	62 minutes 12
	Manager		delivering all	seconds
			projects for	
			company and	
			requires outsourcing	
			of functions to	
			deliver projects	
			needing scalability	
	A 11	1 1/11/1	of resources	a a thu a a a t
Participant D	Application	Utilities	Management of all 3 rd party hosting	29 th June 2017
	Support Managor		- p	32 minutes 57
	Manager		applications for the company with a	seconds
			percentage	
			percentage	

			managed by outsourcing partner	
Participant E	Help Desk and Deskside support manager	Banking	Manager responsible for 1 st line support and all PC, Laptop and Thin client hardware. Service desk currently outsourced and Deskside support a managed service	
Participant F	Solution Architect Manager	Retail	Manager responsible for design of all IT solutions. Inputs to the decision for outsourcing and managed services	

Figure 10: Participant details

Participant A

This participant is responsible for the implementation and management of all Infrastructure (servers, storage, LAN/WAN, etc) for a large energy based company based in Ireland for over 40 years. As a result of an expansion in market share, an increased level of service offerings is required which requires an increase to infrastructure to support these services. This has resulted in a level of outsourcing of support services on the existing estate to free internal resources to manage and implement new requirements. Also due to the emergence of new technologies such as cloud services a review of the support model raised the prospect of an increase of outsourcing within the company.

Participant B

This participant is a senior manager responsible for all IT support services for a Utility company based in Ireland for the last 90 years. This person manages all elements of support from Infrastructure, to Enterprise level applications to Desk side support. This person has been a key decision maker in the outsourcing of a number of the functions with elements of support now based in India. They have also progressed a number of managed service based solutions with 3rd party companies. They have also managed a small scale expansion of IT services to the UK which required a level of outsourcing to facilitate the company's expansion plans. They have over 20 years' experience in the IT industry.

Participant C

This participant is a middle manager responsible for the delivery of IT projects for their company which provides numerous services to clients all around Ireland from their central hub. This includes both upgrades and the implementation of new services been offered by the company. As portfolio manager all project manager's report to this person and as the level of investment increases this has resulted in a number of these projects been outsourced and delivered by external project managers. As the number of competitors increase in this market the company is continually looking to deliver more services at lower costs which has resulted in an increase to outsourcing of the IT functions. As the company looks to enter new markets the level of investment will continue to increase and this person has been tasked with reviewing outsourcing options to deliver this investment.

Participant D

This participant is from the same company as participant B. This person is responsible for the management and support of over 500 internal business applications. As the number of applications has increased as the company offers new services the support model of the existing applications was changed with a selection of the non-strategic applications been outsourced to 3rd party companies. As the level of outsourcing increased a review was conducted with a central outsourced support centre been proposed. This person was central to the decision process when the applications were been evaluated for their suitability to be outsourced.

Participant E

This manager is responsible for the management and support of all company PC's, Laptops, Thin Clients and the Citrix environment used to deliver applications such as Microsoft office. This company is primarily based in Ireland with recent overseas branches been closed which has resulted in a reduction of services required in this area. The company has already outsourced all hardware support to a 3rd party company based in Ireland and this manager is responsible for the management of this agreement to ensure all SLA's are met. Also as a result of the success of this model other areas under his management are been investigated for outsourcing options in terms of the monitoring of the services with the possibilities of outsourcing to companies based in India.

Participant F

This manager works for a company in the retail sector who have a number of stores nationwide as well as an online retail footprint. This manager and his team are responsible for the design and development of new IT based services as required by the business. As part of this design a key consideration is the on-going support of these services and in recent time the possibility of outsourcing these services from the beginning has been proposed. This manager inputs into the feasibility of outsourcing these new services and is viewed as a key decision maker in this area.

Each of the managers interviewed have practical experience in outsourcing of IT functions and in all cases have been involved in the decision making process to outsource. While they were not involved in the initial company decision, they have been responsible for the decision to outsource individual functions. On a daily basis they work on the front line of the IT operations but are also involved in the strategic direction of the IT department in their companies. For these reasons they are viewed as strong candidates to interview due to their relevant experiences.

4.1.3 Confidentiality

The topic of confidentiality was dealt with early in the research as it was decided that all interviewees, their companies and any 3rd party companies they conduct business with would be kept anonymous and not identified in the dissertation. This was confirmed with each interviewee at the beginning of the interview. This approach was also used in similar case studies on outsourcing due to the sensitive nature of the topic (Lam 2009, Kavanagh, 2014; McTernan, 2015).

For each of the interviews as well as notes been taken, all interviews were recorded but it was agreed in advance that any reference to companies would not be included in the dissertation. All recordings were kept secured and at no point did the interviewees ask for any copies or transcripts of the interviews. Each participant signed a consent form as per Appendix B (Trinity College Dublin, 2017)

4.2 Instrumentation

A Theme sheet was created based on the key areas identified in the proposed framework and in the literature. The theme sheet included proposed questions to guide the semi-structured interviews through the different themes to be discussed with the participants. Figure 11 shows the theme sheet, with the source of the literature from which the questions were derived. The theme sheet was used to ensure all the elements of the proposed framework are discussed in order to gain the interviewees experience and opinions. This allowed the interview to flow well while ensuring all relevant areas were discussed.

This is considered a good method to gain an understanding of an issue from the individual's point of view, and to gain their view of the proposed framework and an understanding of previous models used and the feasibility of using the framework in Irish companies (Boyce and Neale, 2006; Spinks and Reid, 2011b), thereby giving the researcher detailed data and creating a strong platform for the analysis.

Theme	Literature Source	Q.	Question
		No:	
Background	N/A	1	Outline your experiences of
			outsourcing IT Functions
Motivations	Kremic and Tukel (2006)	3	What do you see as the key
for	Gunasekaran et al (2015)		motivations for outsourcing?
Outsourcing	Quinn (2013)	4	For the proposed model there are 3
	Lacity et al (1994)		major categories for outsourcing:
	Lonsdale and Cox (1998)		Cost, Strategy and Politics. Do you
	Quelin and Duhamel		agree?
	(2003)	5	How much influence do they have
	Kakadadse and		on the outsourcing decision
	Kakadadse (2002)		
	Hätönen and Eriksson		
	(2009)		
	Belcourt (2006)		
Outsourcing	Kremic and Tukel (2006)	6	What Framework/Model's do you
Decision	Perry et al. (1993)		currently use, if any?
Framework/	Barnes (2007)	7	Do you see a benefit in using a
Model used	Lacity and Hirschheim		framework/model?
	(1993)		
Core	Manning et al. (2008)	8	Should Core Competencies be
Competenci	Gilley et al. (2000)		identified as part of this decision
es	Cronk and Sharp (1995)		framework
	Park and Wu (2009)	9	Would you consider it important that
			they are identified when selecting
			suitable functions to outsource
		10	If a function is a core competency
			should it be marked as unsuitable
			for outsourcing
Benefits	Kremic and Tukel (2006)	11	Do you agree with the benefits
			outlined in the model

	Hätönen and Eriksson (2009)	12	What additional benefits would you expect?
	Dad and Iqbal (2013)	13	Which are the key benefits\success
	Amiti and Wei (2005)		factors achieved by you through
	Gupta (2009)		outsourcing
	Kakabadse and		
	Kakabadse		
	(2000)		
	Kremic et al (2003)		
Risks	Kremic and Tukel (2006)	14	Do you agree with the risks outlined
	Currie, et al. (2008)		in the model
	Dad and Iqbal (2013)	15	What additional risks need to be
	Roberts (2001)		considered?
	Kakabadse and	16	What are the main risks you've
	Kakabadse		faced when outsourcing
	(2000)		
	Lee and Kim (1999)		
	Harrison and McMillan		
	(2006)		
Factors	Kremic and Tukel (2006)	17	Do you agree with the factors
			outlined in the model when
			evaluating functions to outsource
		18	Are there additional factors which
			need to be considered
Outsourcing	Lacity and Willcocks	19	Do you agree with the outsourcing
models	(1998)		models outlined in the model
	Lacity and Hirschheim	20	Is the existing outsourcing model
	(1993)		used in your company sustainable?
	Gallivan and Oh (1999)		If not, why not?
	Dewire (2000)		
	Oshri (2013)	21	What is your opinion on what would
	(Windrum, et al. 2009)		make your company's outsourcing

			model more sustainable in the long- run?
		22	Should on-shore, off-shore, near- shore or managed services types of
			outsourcing be considered when
			evaluating if an IT function is suitable to be outsourced
Future for IT	Boyce and Neale (2006)	23	In what ways do you believe
functions in	Spinks and Reid (2011b)		outsourcing is positive for the Irish
Ireland	Kremic and Tukel (2006)		industry?
		24	In what ways do you believe
			outsourcing is negative for the Irish
			industry?
		25	Do you think the outlined
			framework/model is suitable in
			deciding which functions can be
			outsourced for Irish based
			companies

Figure 11: Theme sheet with proposed questions

4.2.1 Recordings

In line with taking notes, all interviews conducted were recorded. There were no ethical or confidentiality issues with the recording of the interviews. All recordings were done via iPhone and then stored on the interviewers laptop were they will be available if required for up to March 2018. From the recordings one interview was fully transcribed and is available in the appendix. Due to time constraints notes and quotes were taken from the recordings and presented in the results.

Recording the interviews did not affect the openness or honesty of the interviewees as they had been advised any reference to them, their company or their 3rd party outsourcing partners would be removed for confidentiality reasons. In order to facilitate this any references in the transcripts which could identify any of these parties has been removed. This was in line with the agreement between the interviewer and interviewees in advance of the interviews.

4.3 Limitations

4.3.1 Bias

The interviewer is an employee at the same company as participant B and D. While it was agreed by the interviewers manager that the interviews could be conducted it was also agreed that all names and 3rd parties associated with the company would be kept anonymous. The interviewer has a professional relationship with both of the interviewees therefore bias on the topic cannot be excluded.

As the themes and interview questions had been standardised for all participants it ensured that the same structure was followed therefore the participants at the interviewees company would not have been able to lead or alter the conversations.

4.3.2 Size

The sample size of 6 participants across 5 companies based in Ireland provides a limited view of IT outsourcing across industries. This is a small sample compared to the number of industries not included and in most cases the industries covered only had one participant representing their views which might not represent the whole industry.

4.4 Interviews Structure

As previously stated it was agreed in advance that the names of the participant, their company/colleagues and any 3rd party company mention would be kept anonymous in the research. As this is a sensitive topic to companies and particularly their employees unless this was agreed in advance the participants would not have agreed to be interviewed. However by keeping this anonymous to this degree it insured that the participants were open and provided full disclosure on the topic (Mohiuddin and Zhan, 2010). At the beginning of the interview it was agreed that the recordings would only be used to facilitate the note taking on the theme sheets.

All interviews were conducted face to face and were limited to 1 hour due to participant's schedules which was agreed in advance of the interview. The key topics

identified in the theme sheets were presented in advance of the interview to the candidates however proposed questions were not.

A semi-structured approach to the interview was decided upon in advance of the interviews. Spinks and Reid (2011a) argue that conducting semi-structured interviews will allow the researcher to gain a better understanding of the topic and give more flexibility to the interview allowing for certain topics to be questioned further for clarity if required.

Once the theme sheet and questions were developed, they were reviewed by two colleagues of the author to ensure they covered the key themes outlined in the literature which were required to answer the proposed research questions. Through the two methods of capturing the information, note taking and recording, it allowed the interviews to flow freely without the need to pause for confirmation of certain quotes.

During the interview the proposed framework was presented and under each element, the interviewer outlined the key findings from the literature. The interviewee was then asked questions of each of these elements which are the basis of the findings.

4.5 Data Analysis

In order to capture all the data collected during the research there were two approaches used. First, a theme sheet which was developed with key themes and outlined questions was used to capture key quotes from each of the participants. The theme sheets were then reviewed and formatted to present the key findings and trends from the participants.

The second approach was each interview was recorded and each of the recordings were stored on a laptop. After the interviews, each recording was replayed and the theme sheet was updated with any additional key comments. One interview was transcribed and is available in the Appendix however due to time constraints the other 5 were not however the theme sheet and quotes used in the research findings came from these interviews.

By using these two methods it allowed all the data to be analysed and all the key findings and trends from the participants to be presented without the loss of any relevant information. These findings are presented in the following chapters and are key for the results, discussion and conclusion sections of this dissertation. Each manager interviewed was advised that their name, their companies name and any third party company mentioned throughout the interview would not be included in the dissertation. It was also agreed that any colleagues names mentioned during the interview would also be omitted. A deductive approach was used for the analysis where the information collected was grouped together so trends and patterns could be identified (Elo and Kyngäs, 2008).

4.6 Summary of Methodology

For this dissertation a qualitative research approach was selected, which was in line with previous case studies on the topic of outsourcing (Lam 2009, Kavanagh, 2014; McTernan, 2015). Six managers were selected and a semi-structured interview approach was taken which focused on key themes which had been identified in the literature. All the interviews were recorded with notes taken throughout which discussed the proposed outsourcing decision framework/model. As the names of all involved parties and their companies were kept anonymous and confidential, there were no ethical issues/considerations needed to be addressed.

Chapter 5 - Research Findings

The interviews undertaken provided an industry view of the motivations, benefits and risks of outsourcing IT functions in Irish companies which could then be used to populate a decision model/framework for the outsourcing decision. Through the literature review a framework was developed which contained a number of key themes. It is this framework and its themes which were the basis of the interview, with an array of questions used to get the participants view of the proposed outsourcing decision framework.

This chapter briefly summarises these responses to the proposed framework and its key themes which were identified in the literature review. It will outline the participant's responses and trends that emerged in the discussions on the proposed model and its key themes.

5.1 Results Overview

The interviews focused on 8 themes which were identified through the literature review with 6 of the themes forming the basis of the proposed Outsourcing Decision Framework. The first theme was the motivation to outsource and the participants were given three types of motivation: cost, strategy and politically driven. Each participant called out cost been an important motivation but in most cases argued that strategy should be more important. For most participants politically driven motivation did not really feature to the same degree.

The next theme discussed in the interview was the use of frameworks by companies in deciding which IT functions were suitable for outsourcing. All participants agreed that a framework such as the one proposed would be an excellent resource to use in the decision making process and would provide a structured consistent approach. However for all the participants, they had not used any form of outsourcing decision framework in the past when they were selecting IT functions to outsource. While a number of frameworks had been identified throughout the literature on this topic from the research conducted it seems none had been adopted by Irish businesses so far. An important theme that emerged during the interviews was the identifying of core competencies. Each of the participants agreed that a function should be identified as core/non-core however there was no clear agreement on the outsourcing of core competencies. Some of the participants argued you should retain these in-house with others arguing that all IT functions should be considered for outsourcing even if they had been identified as a core competency.

The benefits and risk themes were very much in line with what had been identified in the literature and the participants viewed these as extremely important when weighing up the decision to outsource an IT function. Each of the participants agreed with most of the identified benefits/risks which the exception of one or two and in each case they proposed a number of benefits and risks to be added to the list. An important finding from the interviews which had not been identified in the literature was that each of the benefits and risks needs to be weighted or scored. This would give more support to the decision framework. This finding was identified during the first interview and when asked of the other participants they all agreed that this would offer excellent value in the framework.

The factors theme followed next in the Outsourcing Decision Framework. This provided a full list of 19 dominant factors which need to be considered when evaluating the IT function for its suitability to outsource. The participants noted that this was an excellent set of factors to be considered and that having each one weighted, added to the value of the list. In most cases they agreed on the factors identified but there was some debate on a few of the assigned weightings.

The outsourcing model was the final theme of the outsourcing decision framework which was discussed. This theme drew a number of different responses, with different models currently in use however there was no consistent approach in place. Each felt that it was an important factor to be considered with some participants suggesting that no one model should be adopted by companies but rather each function should be reviewed with the best model to suit it chosen.

The final theme discussed was on outsourcing in Ireland and is not an element of the Outsourcing Decision Framework but is considered an important theme for this dissertation. Bias was evident in this theme in so far as participants who were in favour

of outsourcing quickly identified more positives than negatives however each of the participants felt that a model like the proposed framework presented to them would be beneficial to Irish companies looking to make the decision of outsourcing IT functions.

5.2 Results against Themes

5.2.1 Motivations for Outsourcing

The literature highlights a number of motivations for outsourcing with cost driven, strategy driven and politically driven motivations been the main motivations identified (Quinn, 2013; Gunasekaran et al, 2015; Amiti and Wei, 2005; Kremic, et al, 2006). The proposed model stated that these three were the primary motivations for outsourcing and the participants widely agreed with two of the three.

All interviewees agreed that the outlined costs and strategy driven motivations were definitely valid in terms of a company deciding to investigate the outsourcing options.

"Strategy most important however cost motivations are generally ranked first." Participant A

"I agree with costs and strategy driven motivations." Participant F

However there was debate about the impact of politically driven motivation as outlined in the literature. In some cases the participants did not see it as a valid motivation in comparison to the first two.

"I agree with cost and strategy but not necessarily political motivations." Participant B "I see both cost and strategy been motivations but in my thinking political wouldn't be as big a motivation" Participant E

"I agree with the Cost and Strategy based motivations but not necessarily the political motivations." Participant C

For two of the participants they did identify the impact of politically driven motivation and in both cases called out the bandwagon effect driving the decision within the company. "Strategy most important however cost motivations are generally ranked first. However Political follows Cost due to bandwagon effect of everyone else outsourcing so we have to do." Participant A

"Definitely agree with cost and strategy. Have seen the political one in terms of the bandwagon effect where companies are following each other." Participant D.

When participants were questioned on the level of influence each of the motivations outlined had on the outsourcing decision, Cost was seen as the primary motivation even though in most cases they felt that a strategic motivation should be considered more important.

"Strategic motivations have a big influence on the motivation to outsource but you can't ignore the cost motivations." Participant B

"I would say it would strategy driven more than a cost motivation to outsource" Participant E

However participant A and D both called out that the bandwagon effect in the political motivation had a greater influence than strategic.

"Cost and Politics greatly influence outsourcing decision and the agenda to outsource is currently not take from a strategic view. CIO and CEO drive it politically and then strategically justified" Participant A

"Cost and Politics greatly influence outsourcing decision and the agenda to outsource is currently not take from a strategic view. CIO and CEO drive it politically and then strategically justified." Participant D

From the interviews, while all agreed that cost and strategic motivations were more valid, the politically driven motivations cannot be ignored. Also while each acknowledge the importance of cost saving they feel that strategic motivations should be the key motivations in the outsourcing decision and be ranked higher than the other two.

5.2.2 Outsourcing Decision Framework/Model used

In the reviewed literature, Perry et al. (1993) and Barnes (2007) both identified models to ascertain what elements can be outsourced and which must be retained in-house. Lacity and Hirschheim (1993) built on this notion by developing a flowchart to map the framework decision but it was Kremic and Tukel (2006) who developed a full Outsourcing Decision Framework which looked to evaluate a number of elements as part of the decision process. For this case study two elements that Kremic and Tukel did not have, Core Competencies and Outsourcing Model, but featured in other frameworks were added to this composite model which was presented to the participants.

When questioned on what outsourcing decision frameworks the participants had previously used when evaluating and selecting IT functions to outsource, it became clear very quickly that in all cases no models were used. In some cases they had considered elements which are identified in the proposed model but not in a structured manner.

"No models directly used in the decision but elements such as benefits and risks would have been considered." Participant B

And in one particular case it was the standard procurement process that was used and the participant pointed out that the same procurement process is used to purchase hardware, software, etc. He stated that it is not really suitable for the purposes of identifying IT functions to outsource as it deals with the implementation of the decision and the selection of the outsource provider.

"There was no real model available when I outsourced our Application Packaging service for example. This went through our standard procurement process." Participant C

When questioned if they would use a framework such as the one proposed to them, they all agreed strongly that they would and to have an Outsourcing Decision Framework which evaluates each IT function would be very beneficial. "Yes as it would validate that we are focusing on the right information to ensure we are achieving the desired benefits." Participant C:

"Definitely needed for any medium or large movement towards outsourcing." Participant D

"Yes I can see the benefit as it asks the right questions and can guide you through the process." Participant E

"Yeah I do as in the past decisions were made and functions outsourced without understanding the motivations and benefits of the decision." Participant F

And for one participant they introduced a basic framework to help in the decision process in relation to outsourcing a function to a 3rd party. While it was used successfully for this decision, it was not used to evaluate other IT functions.

"Absolutely, would have proposed a decision support framework for SaaS." Participant A

It is clear from the interview process undertaken that, while none of the participants currently use a decision framework, all of them would be very keen to use a framework such as the proposed one to identify and evaluate functions to be outsourced.

5.2.3 Core Competencies

In the model proposed by Kremic and Tukel (2006) they discuss focusing on core competencies as a strategic driven motivation for outsourcing. However if the motivations are cost or politically driven, evaluating core competencies is not considered. Manning et al (2008) and Gilley et al (2000) both state that a company must establish which are core and non-core competencies as part of the decision process. For this reason identifying core competencies was added to the proposed framework and is included as part of the initial review of the IT functions.

When the participants were questioned on the importance of establishing which functions are core competencies they all agreed that this was a crucial step which needs to be completed first as it has an influence on the impact of the benefits or risks which are identified.

"Yes as this is something a company would need to know anyway." Participant C "It is key to identify core competencies during the decision process." Participant D "Yes as every function needs to be evaluated and a key part of that is understanding if it is a strategic function or not." Participant F

While all participants agree the importance of identifying IT functions as core/non-core competencies there were mixed views on the question of outsourcing core competencies. In terms of the 6 participants interviewed, it was an even split with 3 suggesting they can be outsourced and 3 saying they should not.

"No it should remain in-house under our own control." Participant A "Depending on how stable the function is in some cases core competencies can be outsourced." Participant B "If a function is very strategic then you shouldn't consider outsourcing it as it is what differentiates you from the market." Participant C "Never say never but not in the first tranche. Can be considered in the future when all processes are bedded down." Participant D

Within the literature while more propose retaining the core competencies in house (Cronk and Sharp, 1995) there is also an opinion if they do not contribute to a company's profit they should be outsourced (Park and WU, 2009). Both these opinions were identified during the interviews however none of the participants had outsourced any IT functions which were deemed core competencies.

5.2.4 Benefits

Numerous authors, such as Kremic et al (2003) and Kakabadse and Kakabadse (2000), have identified many benefits which can be achieved through outsourcing of IT functions. For the purposes of the proposed framework these were grouped and presented as a list of 16 different benefits. While the participants agreed broadly with the list, there were a number which they felt were not benefits from their perspective.

"Agree with most with the exception of reducing political pressure, legal compliance and the accountability/management." Participant D

"I do with must except I don't see copying competitors as a benefit. Also speed/technology mightn't be applicable to lower value functions." Participant E *"I don't agree with copying competitors been a benefit but the rest I would agree with."* Participant F

They also suggested a number of other benefits which were not included in the list but could be considered when reviewing the functions for their suitability to outsource. These proposed benefits focused primarily on staff and the benefits of outsourcing on them individually and the company.

"There is also a benefit in terms of individuals, were there is less reliance on one person, removes the need for succession planning and your less prone to long-term sick leave." Participant B

"Staff motivation is a big benefit with the option of reskilling staff which would make them more marketable. This would also have a big internal benefit to the company that staff would be willing to take on new skills to deliver new services for the company." Participant C

"The opportunity for staff to take on higher value roles and responsibilities" Participant D

"Covers all of them but a big benefit is allowing the retained staff to focus on other areas." Participant F

This can be classed as an important benefit as it mitigates against risks such as poor morale by allowing staff to be reskilled in new key areas which increases their market value and increases the company's skill set. While it fits closely to the staff augmentation benefit it is a benefit in itself and should be included in the benefits list of the proposed framework.

The participants were also asked which benefits they achieved when they outsourced an IT function. There were numerous benefits listed but the three which were listed the most were:

- Cost savings
- Increased flexibility for the function in terms of been able to scale up and down when required
- Access to new skills and technology which are not currently in the company which saves time and money as existing staff do not need to be trained in these areas

For all participants interviewed they achieved multiple benefits and for each of them the service has remained outsourced as they are continuing to achieve those benefits.

5.2.5 Risks

Similarly to the benefits section, numerous authors have outlined a number of risks to outsourcing IT functions which can impact a company. A list of risks was developed which incorporated the views identified in the literature including Roberts (2001) noted the risk of selecting the wrong outsource partner, Currie, et al, (2008) discussed the risk to the brand and Kakabadse and Kakabadse (2000) discussed the impact of staff morale. The final list developed and presented to the participants as part of the proposed framework contained the ten main risks of outsourcing which have to be considered when understanding the suitability of outsourcing the IT function.

When the participants were questioned about the validity of the list, four of them agreed that all the risks identified were valid and that as part of any outsourcing of functions, mitigation actions would need to be implemented in order to protect the company against these risks.

"Agree that they are all valid risks." Participant B "Yes but each can be mitigated against such as the procurement process protecting against selecting a poor service partner or loss of knowledge been mitigated by have knowledge transfer back to staff." Participant C "All the outlined risks are valid." Participant D

However Participant A did not agree with all the risks identified if the function been outsourced was identified as a non-core competency

"Agree with most of list but less flexibility and Uncertainty/Changing environment not a big risk if the function been outsourced is not a core competency." Participant A When the participants were asked if there were any additional risks which need to be considered each participant outlined a risk which was not on the original list. Participant A discussed the benefit of flexibility which outsourcing gives to meet an increasing spend on new projects. However, this can lead to a risk in supporting an ever increasing IT footprint.

"When you leverage additional capacity to deliver projects you don't accommodate an increase in capital to provide the additional support needed." Participant A

Participant B and C discussed the transfer of knowledge from existing staff to the outsourcing partner. While the risk of employee morale has been identified this risk centres on staff not sharing knowledge which would then put the operation of the service at risk.

"Operational risk to the change management element where disgruntled staff can impact the transition by not sharing knowledge. Also if vendor are not managed well due to lack of skills in this area this can pose a risk." Participant B "When it is the first time to outsource a lack of knowledge or skills in the area of outsourcing can be a risk." Participant C

Participant E discussed the timing of outsourcing as being a risk as technology is changing at a rapid pace that outsourcing at the wrong time can put the service at risk if changes in technology are not managed correctly.

"I think timing is a risk where you need to outsource at the right time and especially as technology is changing so fast it can be a risk" Participant E

Participant F also outlined the risk of the agreed contract and the reality of the service. Once the contract is in place for the outsourced function, the company are tied to that agreement and in his experience if it is not completely clear to both parties what's expected this can lead to conflict which can lead to an operational risk. "The reality of what's expected against what's agreed in the contract. Unless both parties are clear from the outset it could cause issues and so can be classed as a risk" Participant F

When participants were questioned on which risks they had encountered in outsourcing services, the two which were listed most were poor staff morale and hidden or unrealised costs.

"Minor issues with outsource supplier but mainly poor morale among employees who viewed this as a threat. Also the loss of flexibility to the function as provider was rigid in terms of support outlined in the contract." Participant D

"Unrealized costs where when we outsourced we got hit with a lot of unexpected costs which we had to pay." Participant E

"Morale was very poor in some of the cases and that had to be managed carefully. There were hidden costs which we hadn't expected that we had to manage and in a small number of cases we lost customers by outsourcing certain functions" Participant F

In all cases the participants encountered these risks on their initial moves towards outsourcing. However as their experiences increased they mitigated against these through different measures such as contract/vendor management and developing staff in more key functions which reduced the fears of outsourcing.

5.2.6 Factors

Kremic and Tukel's (2003) developed a list of 19 dominant factors, which were presented to each of the participants, these were used to evaluate the suitability of outsourcing the proposed IT function. All participants agreed that this was a comprehensive listing of factors and by weighting each of the factors on importance, this would give a strong position when determining the suitability of outsourcing the IT Function.

"Yes they are all important factors but if your costs benefits are neutral then the strategic factors are very important. Also areas such as integration and complexity should be weighted higher" Participant C While there was some discussion around a couple of the weightings and the importance of the political factors, in general the participants agreed with the literature in terms of the list and its weightings.

5.2.7 Outsourcing Models

In the literature authors such as Lacity and Willcocks (1998) and Lacity and Hirschheim (1993) presented a number of different outsourcing models which can be used by companies. Each of the different models has its own risks and benefits and so the type of model selected should be considered an important factor when selecting an IT function to outsource.

A number of models were presented to the participants and all agreed that they are valid outsourcing models to be considered for outsourcing of IT functions.

"Yeah I think they are all valid outsourcing options" Participant D "Yes I agree that those are the main models for outsourcing" Participant E

However there was concern with selecting some of the models especially if it was the company's first move towards outsourcing. Participant A and C both stated that moving to a total outsourcing model would be a big risk in their opinion.

"Total outsourcing not realistic and a selective outsourcing approach should be taken. Also once you decide to outsource it should be off-shore not on-shore." Participant A

"Depends on the level of risk a company wants to take as they would need to be very confident before progressing to total outsourcing" Participant C

For the five companies that the 6 participants represent, none have moved towards a total outsourcing model which is in line with the previous comments about the apprehension of using that type of model. In most cases they have used a selective on-shore/off-shore model for the functions they have outsourced.

"We would use more of a selective approach to outsourcing which we manage closely to ensure it continues working" Participant F

"We use a selective approach with a mixture of onshore and offshore. Maintaining this approach would give the best chance of success" Participant D

When the participants were queried on how they think their outsourcing models can be kept sustainable there were a number of valid points expressed. These ranged from strong management/co-ordination of the outsource partner to commitment to the outsource decision at all levels in the company. These views were similar to the literature in terms of making outsourcing a success.

"Commitment with the outsourcing model to give confidence that the company won't repeal the decision" Participant A

"See how other companies are outsourcing as while you don't want to be led by competitors it is important that you are taking advantage to any benefits of new proposed outsourcing models" Participant B

"Building up trust in the outsourcing models used and mitigate against the potential risks" Participant D

"Co-ordination on-site with the outsourced function is critical. Even if they service is outsourced off-shore a member of the outsource partner needs to be onshore to ensure the functions work well together with in-house provided functions" Participant F

Finally when it was put to the participants, the importance of understanding which model will be used as part of the evaluation of the IT function to be outsourced, all agreed that this was a crucial step. A number of participants stated that different functions could require different models and that it would not be a case of one model suits all.

"You have to consider the model when deciding whether to outsource. The outsourcing model can't be considered in isolation after the decision has been made to outsource the function. It is an important part of the decision process" Participant A "Yes as you need to know what models are be considered as part of the decision. In some cases different models would be suitable for different functions" Participant B

5.2.8 Future of IT Functions in Ireland

Each of the participants were asked, for companies based in Ireland, would a framework such as the proposed framework presented to them help companies with the decision making process for outsourcing of IT functions. Each of them fully agreed that this would provide companies, especially those taking their first steps towards outsourcing, a structured and clear process to follow which would highlight all the benefits and potential risks a company will need to consider as part of the decision process.

"Yes as it gives a better understanding on strategic/non-strategic competencies when deciding on outsourcing" Participant C

"Definitely as a structured decision framework would give companies an understanding of what is suitable" Participant D

"Yes as it gives more depth to understanding the decision and helps you consider all the potential benefits and risks" Participant F

The participants were then questioned on the positive and negative impact outsourcing can have on companies based in Ireland. Similar to the benefits outlined in the literature there were a number of positives a company can achieve especially a new or small company where the ability to upskill certain skill sets in-house takes a lot of time and money.

"It enables start-ups to gain access to IT skills that they can't afford to develop themselves. It also removes the costs such as sets, PC's, etc as all this is manged by the 3rd party." Participant A

"It is a great model for greenfield sites and depending on a company's risk appetite there are good options available so investment can be spent elsewhere" Participant C *"It allows an expansion of the volume of work a company can achieve. Also there are costs savings achievable which is of benefit to companies, especially new start-ups"* Participant F

They also acknowledged that when a company needs to expand quickly or ramp up for a particular period of time to meet an unexpected demand the use of outsourcing offers that flexibility.

However the participants also outlined a number of negatives with proceeding towards an outsourcing model. In a more global sense they see a push to outsource work/skills towards India which is a negative for the Irish economy.

"It can lead to exploitation and drives the economy down if the outsourcing trend continues towards India." Participant A

Also they have seen situations where the supplier of the service has all the power in the relationship which weakens the company's position especially when contracts need to be renewed.

"Placing all services into outsourcing it can leave a company exposed to the supplier who would retain the power in the relationship" Participant B

Finally they call out the impact it can have on staff morale which if not managed effectively can greatly impact the performance of the company.

"Staff morale can be impacted. For critical infrastructure there can be operating losses if you are reliant on outsource partner" Participant D

"Staff morale is a big issue which would need to be mitigated through a change management process where you bring staff along on the journey" PE:

For this topic there was a bias evident towards outsourcing with participants who disagree with outsourcing presenting more negatives. While those that supported the outsourcing of IT functions outlining more of the positives companies can achieve.

5.2.9 Overall Model

At the end of the interviews the participants were asked to reflect on the overall framework and outline if there were any elements which they felt needed to be modified. In all cases they said that for the benefits and risks sections a scoring mechanism should be added. Some suggested a weighting similar to the factors

section while others discussed using a low, medium and high scoring for the importance of each benefit/risk. By incorporating some form of scoring it could move the analysis away from a subjective based analysis. A scoring mechanism would give a better understanding of which scores higher, Benefits or Risks, which would support the decision of which functions are suitable for outsourcing.

5.3 Research Findings Summary

This chapter gave an understanding into the qualitative research which was conducted with the six participants for this dissertation. The proposed Outsourcing Decision Framework was presented to the participants and a number of themes taken from the literature were used to discuss the merits of each of the elements of the framework. These interviews were critical to the research as it offered a practitioner view on the research taken from the literature.

Each of the participants gave an open and frank view on the proposed framework and offered their opinions on which elements were practical or not in their working environment and in an Irish context.

The following table, Figure 12, outlines each of the questions asked under each theme and the key points from the participants. These findings are the basis for the discussion in the next section.

Theme	Q.	Question	Key Responses
Background	1	Outline your	Participant A (PA): Over 20 years IT
		experiences	experience with 7 years outsourcing
		of	experience
		outsourcing	Participant B (PB): Over 30 years IT
		IT Functions	experience with 15 years outsourcing
			experience
			Participant C (PC): Over 20 years IT
			experience with 5 years outsourcing
			experience

			ParticipantD (PD):Over 10 years ITexperiencewith 4years outsourcingexperienceParticipantE (PE):Over 15 years ITexperiencewith 5years outsourcingexperienceParticipantF (PE):Over 20 years ITexperiencewith 15years outsourcing
Motivations for Outsourcing	2	What do you see as the key motivations for outsourcing ?	 experience PA: Cost is a primary motivation. Perception that we can save money PB: Freeing up resources for critical strategic roles PC: There is a big financial benefit by utilising outsourcing PD: The potential costs savings and to deliver large Capex programs where you can free staff to deliver project work PE: In situations where staff are filling functions which are repetitive and of low value PF: Costs, scarcity of resources and the inability to deliver a service are all motivations
	3	For the proposed model there are 3 major categories for outsourcing: Cost, Strategy and	 PA: Strategy most important however cost motivations are generally ranked first. However Political follows Cost due to bandwagon effect of everyone else outsourcing so we have to do. PB: I agree with cost and strategy but not necessarily political motivations PC: I agree with the Cost and Strategy based motivations but not necessarily the political motivations.

	Politics. Do you agree?	PD: Definitely agree with cost and strategy. Have seen the political one in terms of the bandwagon effect where companies are following each other PE: I see both cost and strategy been motivations but in my thinking political wouldn't be as big a motivation PF: I agree with costs and strategy driven motivations. I have seen politically driven motivation used for the wrong reasons to pursue outsourcing
4	How much influence do they have on the outsourcing decision	 PA: Cost and Politics greatly influence outsourcing decision and the agenda to outsource is currently not take from a strategic view. CIO and CEO drive it politically and then strategically justified PB: Strategic motivations have a big influence on the motivation to outsource but you can't ignore the cost motivations PC: Definitely agree that costs have a big influence on motivating a company in this direction but using outsourcing to develop and train staff is also a big motivation PD: Cost driven has the most influence followed by a push to focus on core competencies. However the bandwagon effect of following industry trends in this direction can also influence the decision PE: I would say it would strategy driven more than a cost motivation to outsource

			PF: It is a combination of each which influences the decision as opposed to only one element
Outsourcing	5	What	PA: Not aware of a framework to make a
Decision		Framework/	decision to outsource
Framework/		Model's do	PB: No models directly used in the decision
Model used		you	but elements such as benefits and risks would
		currently	have been considered
		use, if any?	 PC: There was no real model available when I outsourced our Application Packaging service for example. This went through our standard procurement process. PD: None really as personally I have experienced a small level of outsourcing PE: No, we haven't used any to the best of my knowledge PF: No we don't currently
	6	Do you see a benefit in using a framework/ model?	 PA: Absolutely, would have proposed a decision support framework for SaaS PB: Yes at it would help define the decision process PC: Yes as it would validate that we are focusing on the right information to ensure we are achieving the desired benefits PD: Definitely needed for any medium or large movement towards outsourcing PE: Yes I can see the benefit as it asks the right questions and can guide you through the process PF: Yeah I do as in the past decisions were made and functions outsourced without

			understanding the motivations and benefits of the decision
Core	7	Should Core	PA: Yes they should
Competenci		Competenci	<u>PB:</u> Yes as it is very important to identify the
es		es be	strategic and operationally critical functions. In
		identified as	some cases core competencies can become
		part of this	legacy or tried/tested and could be outsourced
		decision	PC: Yes as this is something a company
		framework	would need to know anyway
			PD: It is key to identify core competencies
			during the decision process
			PE: Yeah you should understand this from the
			start
			PF: Yes as every function needs to be
			evaluated and a key part of that is
			understanding if it is a strategic function or not
	8	Would you	PA: Need to be identified in advance.
		consider it	Company must understand its highest value
		important	competencies before talking to outsourcing
		that they are	partners. They would want to get access to the
		identified	competencies that give them most control
		when	over their own destiny
		selecting	PB: Yes definitely
		suitable	PC: yes as you need to understand if it is a
		functions to	strategic function or not
		outsource	PD: Yes as you could outsource a function
			which is core and shouldn't have been
			PE: You need to understand if they are
			strategic within your business which is an
			important factor if you are evaluating functions

			PF: Yes it is important as if it is not done it can
			·
			lead to issues further down the line after the
			decision is made
	9	If a function	PA: No it should remain in-house under our
		is a core	own control.
		competency	<u>PB</u> : Depending on how stable the function is
		should it be	in some cases core competencies can be
		marked as	outsourced
		unsuitable	PC: If a function is very strategic then you
		for	shouldn't consider outsourcing it as it is what
		outsourcing	differentiates you from the market
			PD: Never say never but not in the first
			tranche. Can be considered in the future when
			all processes are bedded down
			PE: It should but it can be continually reviewed
			in case the situation changes
			PF: They can be considered if managed
			correctly
Benefits	10	Do you	PA: Not convinced on the cost based benefits
		agree with	but I do agree with the other benefits outlined
		the benefits	on the list
		outlined in	PB: yes I can see each of these been benefits
		the model	of outsourcing
			PC: Yes I would agree, it seems to be a fairly
			comprehensive list however I would say less
			strategic rather than problem functions
			PD: Agree with most with the exception of
			reducing political pressure, legal compliance
			and the accountability/management
			PE: I do with must except I don't see copying
			competitors as a benefit. Also

		speed/technology mightn't be applicable to lower value functions <u>PF:</u> I don't agree with copying competitors been a benefit but the rest I would agree with
11	What sadditional benefits would you expect?	 PA: No additional benefits. The list is fairly comprehensive PB: There is also a benefit in terms of individuals, were there is less reliance on one person, removes the need for succession planning and your less prone to long-term sick leave PC: Staff motivation is a big benefit with the option of reskilling staff which would make them more marketable. This would also have a big internal benefit to the company that staff would be willing to take on new skills to deliver new services for the company PD: The opportunity for staff to take on higher value roles and responsibilities PE: The list has already captured all benefits I would expect PF: Covers all of them but a big benefit is allowing the retained staff to focus on other areas
12	Which are the key benefits\suc cess factors achieved by you through outsourcing	 PA: They key factors achieved were: Increased flexibility as projects need to scale up and down quickly Access to skills and staff not currently in the company Augment staff in terms of freeing internal staff to take up other roles

Get rid of problem functions where we
are struggling to have the skills to
support the function and its proving to
costly
PB: The key factors we achieved were:
Resourcing flexibility
 Access to skills not in the company
Gave increased focus to our strategic
functions
PC: The main benefits I achieved through
outsourcing were:
Risk mitigation for the service
 Cost savings was important but
secondary
• Meant less investment in staff in that
area
PD: The main benefits achieved were:
Cost savings
Quality and speed of delivery
The flexibility to increase and decrease
resources as needed
Getting access to skills and talents as
opposed to developing them quickly
PE: The three main ones we achieved were:
Cost savings
Reduction on capital expenditure
Augment staff which freed them to take
on higher value work
PF: The main benefits I saw where:
Access to new skills and technology
Cost savings

			 Increased Speed and flexibility for the function
Risks	13	Do you agree with the risks outlined in the model	 PA: Agree with most of list but Less flexibility and Uncertainty/Changing environment not a big risk if the function been outsourced is not a core competency PB: Agree that they are all valid risks PC: Yes but each can be mitigated against such as the procurement process protecting against selecting a poor service partner or loss of knowledge been mitigated by have knowledge transfer back to staff PD: All the outlined risks are valid PE: Yeah it is a comprehensive list PF: Yes all valid
	14	What additional risks need to be considered?	 PA: When you leverage additional capacity to deliver projects you don't accommodate an increase in capital to provide the additional support needed PB: Operational risk to the change management element where disgruntled staff can impact the transition by not sharing knowledge. Also if vendor are not managed well due to lack of skills in this area this can pose a risk PC: When it is the first time to outsource a lack of knowledge or skills in the area of outsourcing can be a risk. PD: Vendor/supplier lock-in especially in the case of non-performance but this can be mitigated against

	15	What are the main risks you've faced when outsourcing	 PE: I think timing is a risk where you need to outsource at the right time and especially as technology is changing so fast it can be a risk PF: The reality of what's expected against what's agreed in the contract. Unless both parties are clear from the outset it could cause issues and so can be classed as a risk PA: Lack of maturity as the business didn't see the value of the IT functions PB: An increased operational risk PC: Resistance to change from staff was a huge risk we had to manage. Also the risk of losing the partner at the end of the procurement process also had to be managed PD: Minor issues with outsource supplier but
		outsourcing	losing the partner at the end of the
			flexibility to the function as provider was rigid in terms of support outlined in the contract. <u>PE:</u> Unrealized costs where when we outsourced we got hit with a lot of unexpected costs which we had to pay.
			PF: Morale was very poor in some of the cases and that had to be managed carefully. There were hidden costs which we hadn't expected that we had to manage and in a small number of cases we lost customers by outsourcing certain functions
Factors	16	Do you agree with the factors	PA: Yes with the first two strategy factors, Core and Critical Knowledge been the most important

	outlined in	PB: Yes with the strategic factors been the
	the model	most critical to consider
	when	PC: Yes they are all important factors but i
	evaluating	your costs benefits are neutral then the
	functions to	strategic factors are very important. Also
	outsource	areas such as integration and complexit
	outsource	should be weighted higher
		PD: The factors outlined look fine however the
		internal politics and managers preferenc
		would be weighted higher in my organisation
		PE: Yes I would agree with the list expect
		politics is of little importance. I would rate
		complexity and integration higher.
		PF: Yeah they would be the key factor
		needed to be considered
17	Are there	PA: The list seems to be fairly comprehensive
	additional	PB: Change management impact but thi
	factors	could be covered under internal politics
	which need	PC: The external skills which are available t
	to be	fill the model are also an important factor t
	considered	consider
		PD: It is a comprehensive list but would nee
		to look at competitors returning to nor
		outsourcing and why
		PE: It could be covered but an important factor
		to consider is trusting a company to deliver
		service to the same high standards yo
		service to the same high standards yo already deliver it
		service to the same high standards yo already deliver it <u>PF:</u> Not really as the list covers them all bu
		already deliver it
		already deliver it <u>PF</u> : Not really as the list covers them all be

Outcouroing	10		DA . Total outcoursing not realistic and a
Outsourcing	18	Do you	PA: Total outsourcing not realistic and a
models		agree with	selective outsourcing approach should be
		the	taken. Also once you decide to outsource it
		outsourcing	should be off-shore not on-shore.
		models	PB: Agree that each of these models are valid
		outlined in	<u>PC:</u> Depends on the level of risk a company
		the model	wants to take as they would need to be very
			confident before progressing to total
			outsourcing
			PD: Yeah I think they are all valid outsourcing
			options
			PE: Yes I agree that those are the main
			models for outsourcing
			PF: Yeah they are all valid approaches
	19	Is the	PA: Currently minimal level of off-shoring
		existing	which can be increased and needs to be more
		outsourcing	clear
		model used	PB: Currently an off-shore model and a blend
		in your	of models for different functions could be used
		company	PC: As long as its selective it is but there is a
		sustainable	big effort required in the transition process to
		? If not, why	ensure success
		not?	PD: We use a selective approach with a
		not:	mixture of onshore and offshore. Maintaining
			this approach would give the best chance of
			success
			PE: We operate a near total model which is
			fairly well established and once managed
			correctly is sustainable
			PF: We would use more of a selective
			approach to outsourcing which we manage
			closely to ensuring it continues working

20	What is your	PA: Commitment with the outsourcing model
	opinion on	to give confidence that the company won't
	what would	repeal the decision
	make your	PB: See how other companies are
	company's	outsourcing as while you don't want to be led
	outsourcing	by competitors it is important that you are
	model more	taking advantage to any benefits of new
	sustainable	proposed outsourcing models
	in the long-	PC: Defining the strategic elements and
	run?	ensuring they are retained
		PD: Building up trust in the outsourcing
		models used and mitigate against the
		potential risks
		PE: Undergoing a maturity assessment to
		ensure its still meeting its benefits/goals
		PF: Co-ordination on-site with the outsourced
		function is critical. Even if they service is
		outsourced off-shore a member of the
		outsource partner needs to be onshore to
		ensure the functions work well together with
		in-house provided functions
21	Should on-	PA: You have to consider the model when
	shore, off-	deciding whether to outsource. The
	shore, near-	outsourcing model can't be considered in
	shore or	isolation after the decision has been made to
	managed	outsource the function. It is an important part
	services	of the decision process
	types of	PB: Yes as you need to know what models are
	outsourcing	be considered as part of the decision. IN some
	be	cases different models would be suitable for
	considered	different functions
	types of outsourcing be	PB: Yes as you need to know what models are be considered as part of the decision. IN some cases different models would be suitable for

		when evaluating if an IT function is suitable to be outsourced	 PC: Yes PD: Yes as the models used is important especially if considering outsourcing core competencies PE: I don't think this should be a factor to be considered PF: Yes as you need to make sure the model is suitable for that function
Future for IT functions in Ireland	22	In what ways do you believe outsourcing is positive for the Irish industry?	 PA: It enables start-ups to gain access to IT skills that they can't afford to develop themselves. It also removes the costs such as sets, PC's, etc as all this is manged by the 3rd party. However the positives are limited in my view. PB: It can be very advantageous with different models suiting different businesses. While only part of the solution, outsourcing is very advantageous PC: It is a great model for greenfield sites and depending on a company's risk appetite there are good options available so investment can be spent elsewhere PD: The bottom line is important and if it shows a good return on investment it can be very beneficial to companies. It also gives companies the opportunity to focus on their core competencies PE: Outsourcing can fill the gap between where a company is to where it wants to get. Also the ability to augment staff is a good advantage

		PF: It allows an expansion of the volume of work a company can achieve. Also there are costs savings achievable which is of benefit to companies, especially new start ups
23	In what ways do you believe outsourcing is negative for the Irish industry?	 PA: It can lead to exploitation and drives the economy down if the outsourcing trend continues towards India. PB: Placing all services into outsourcing it can leave a company exposed to the supplier who would retain the power in the relationship PC: If contracts are not managed correctly and the company doesn't have a clear understanding of what they are buying this can have a negative impact on the outsourcing service which can damage a company PD: Staff morale can be impacted. For critical infrastructure there can be operating losses if you are reliant on outsource partner PE: Staff morale is a big issue which would need to be mitigated through a change management process where you bring staff along on the journey PF: If it is not managed well it can lead to supplier issues and in some cases outsourcing doesn't deliver on expectations
24	Do you think the outlined framework/ model is suitable in	PA: This would be a very useful toolPB: YesPC: Yes as it gives a better understanding onstrategic/non-strategic competencies whendeciding on outsourcing

		deciding	PD: Definitely as a structured decision
		which	framework would give companies an
		functions	understanding of what is suitable
		can be	<u>PE:</u> yes I do
		outsourced	PF: Yes as its gives more depth to
		for Irish	understanding the decision and helps you
		based	consider all the potential benefits and risks
		companies	
Additional	25	Do you think	PA: More of a quantities approach could be
Question		that a	taken for the benefits and risks. Maybe a $5*5$
		scoring	matrix approach. This scorecard could then
		matrix	show if benefits outscore the risks or vice
		should be	versa and would be less suggestive
		included for	PB: Yes, moving away slightly from been
		the benefits	suggestive based you can score each benefit
		and risks	and risk as high, medium or low to see which
		sections to	scores higher
		give a	PC: Yes there should be a weighted score for
		clearer	benefits and risks
		understandi	PD: Weightings would be beneficial in seeing
		ng on which	how benefits and risks score against each
		scores	other
		higher	PE: It would be better to have weightings
			against them to understand which side is
			scoring higher
			PF: Yes I think a scoring mechanism is good
			and maybe there could also be minimum
			thresholds which need to be achieved.



Chapter 6 - Discussion

For this chapter the key findings outlined in the previous chapter will be reviewed further against the research questions outlined for this dissertation. From the research which was conducted there were three key findings.

6.1 Key Finding 1: Outsourcing Decision Framework

The proposed outsourcing decision framework was based on Kremic and Tukel (2006) framework however there were two key elements which were identified elsewhere in the literature which were added to the framework, Core Competencies and Outsourcing model (Perry's, 1993; Lacity and Willcocks, 1998; Lacity and Hirschheim, 1993; Gallivan and Oh, 1999; Dewire, 2000; Oshri, 2013)

This proposed outsourcing decision framework was presented to the participants to give their opinion on whether it is a suitable framework to evaluate IT functions in terms of selecting them to be outsourced. This is linked to research question 2:

"In Ireland, will the proposed framework be suitable to assist a company evaluate and select which IT functions are suitable for outsourcing."

From the interviews conducted with the participants it was very clear that they all saw value in using the proposed outsourcing decision framework for deciding which functions are suitable to be outsourced. As the participants discussed each of the elements it was noted that this provided a structured and measured approach to what they have been doing on more of a subjective and ad-hoc approach to date. While participant D had tried to use the procurement process to structure an outsourcing decision he agreed that it did not cover many of the key elements such as those identified in the proposed framework. For each of the other participants they had no model or framework which they could use.

For the proposed framework there were two key elements added which were not in the model proposed by Kremic and Tukel (2006) but had been mentioned in other literature, Core Competencies and Outsourcing Models. Each of the participants felt that one of the first steps as per the proposed model should be to understand if the IT function been considered for outsourcing is a core or non-core competency. Understanding this was important for two different reasons for the participants. For half of the participants they felt this needed to be identified as if it was a core competency it should not be outsourced and should be marked as unsuitable for outsourcing. For the other participants they felt it was important as they would consider it for outsourcing but would need to take a stronger approach to the management of this with the outsourcing partner.

The other element added to the framework was the outsourcing model. Each of the participants agreed that it was very important that this was included in the evaluation of the IT function. This was due to the opinion that different functions might require different models and that the outsourcing model of a company cannot be made in isolation to evaluating the functions. While it can lead to a company having different models the participants felt this was a crucial step to the outsourcing of the IT function been successful.

6.2 Key Finding 2: Current Outsourcing Decision Frameworks

During the research it became clear very quickly that none of the participants were familiar with the models proposed in the literature (Kremic and Tukel, 2006; Perry's 1993; Lacity and Hirschheim 1993). As we discussed the proposed framework in each case this was the first time a framework was presented to them that could help their companies evaluate IT functions to determine if they are suitable for outsourcing. This leads into the 1st research question:

"What methods are currently used by Irish based companies to decide which IT functions are suitable to outsource."

As discussed previously participant D used the procurement process which he stated was used for buying any services, software or hardware in the company to outsource an IT function within his area. While this covered some elements of the benefits and risks, he stated that it really is not a suitable model to use for this decision. For each of the other participants, there was no framework or model used in the decision process for outsourcing of IT functions. Similarly to participant D, they would have considered certain elements such as the risks and benefits but they had no structured approach. From their knowledge, they had stated they were unaware of any models used by other companies to help with this decision.

As stated while they currently do not use any framework or model for deciding or evaluating which IT function to outsource, they all agreed that they would use the proposed model if it was available to them. They also agreed that a structured approach like the proposed framework would give them a clear understanding around the benefit and risks they want to achieve and the set of factors outlined would help evaluate the functions fully to reduce the risk of outsourcing the function.

6.3 Key Finding 3: Elements missing from proposed framework

The third key learning from the research leads to the third research question which was proposed:

"Are there any other elements or factors which need to be considered in the evaluation of the IT functions which are not included in the proposed model."

As the interviews progressed it was clear that all seven participants agreed with the elements of (Kremic and Tukel, 2006) framework which were Motivation for Outsourcing, Benefits, Risks and Factors. They also agreed that adding the Core Competency and Outsourcing model elements (Perry's, 1993; Lacity and Hirschheim, 1993) to the framework were very important as part of the decision process. When the participants were asked what additional elements could then be added to improve the model, each one felt that there was no elements missing which would need to be considered.

They did outline a number of different benefits and risks but they agreed that the proposed outsourcing model has all the required elements and factors which need to be considered when making this decision. The only change proposed was that for the Risks and Benefits elements, a scoring mechanism should be put in place to understand if the Benefits were outweighing the Risks or vice versa. By scoring each

Risk or Benefit with either a numerical score or label them High, Medium or Low it would remove an element of the subjectivity on the analysis and at the end would give a clearer picture of which scored higher. This would mean that any function whose benefits scored higher than the risks identified it would be suitable for further evaluation to be outsourced.

6.4 Other Findings

There have been a number of additional findings which have not been covered in the above key learnings. While the research questions have covered all the main findings, these additional findings from the research are worth mentioning due to their value.

From the literature, the primary motivation identified for proceeding with outsourcing is cost (Dad and Iqbal, 2013). However, a number of other motivations have been identified such as Strategic motivations (Kremic and Tukel, 2006) have also been identified as very important. From the interviews with the participants, while they identified cost reduction as being important they all felt that this decision should be driven from a Strategic standpoint as opposed to be driven by cost reduction. The participants discussed that if the decision was based totally on cost that it would increase the level of risk associated with the function and in some cases could impact the overall services supplied. Therefore they felt that for this decision while costs are important, the strategic motivations were more important.

While all the participants agreed that the risks outlined (Kremic and Tukel, 2006) as part of the framework were comprehensive there were a number of additional risks which they identified that need to be considered. Firstly, a company's lack of experience in outsourcing. If they do not enlist or develop the right skillset which is needed for outsourcing of services it can lead to issues with the contract and its agreements. In some cases the company and supplier can have two different understandings of what the contract means which can lead to issues. Also if the internal staff are not managed correctly this can also produce additional risks. As already identified it can lead to morale issues however another risk is the retention of knowledge by staff and the refusal to transfer their knowledge to the outsource partners. If managed correctly and the benefits to staff are outlined it can mitigate against this risk, however for a company proceeding with outsourcing for the first time, this is a valid risk.

Similarly, there were additional benefits proposed by the participants that were not part of the proposed framework (Kremic and Tukel, 2006). In some cases the IT functions being supported internally are dependent on an individual and a benefit of outsourcing would be the removal of the reliance placed on this person. Also by outsourcing lower level IT functions and getting staff to focus on the higher level roles, participants stated that this would help with staff morale as the staff members would get to upskill in new areas. This would be of benefit to the company but more importantly benefit the individual as they would gain new skills and knowledge.

Finally, all the participants stated that when reviewing the risks identified in the framework (Kremic and Tukel, 2006) and also the new risks they outlined, they felt it was important as part of the process that each of these be mitigated against from the outset. They stated, that as a company identifies the risks which are deemed high, actions need to be taken to reduce the impact of these risks from the beginning.

6.5 Limitations

The research on this topic can benefit by conducting a more extensive review of the key findings with a bigger sample size. The selected participants were representing 5 companies across four industries and while they were knowledgeable and had a lot of experience on the subject, a larger sample from across a number of industries would be required to ensure the views expressed does represent Irish based companies. Any additional research should continue to include middle management as per the sample taken for this research but also should include more senior management in Irish businesses. This would ensure a full understanding of the outsourcing process is captured, especially on the frameworks currently in place to assist the decision process. As currently the findings show no frameworks or models are being used.

6.6 Discussion Conclusion

From the research which was conducted there were three main findings presented. Firstly, a proposed outsourcing framework model was presented to the participants and each element was reviewed. From this review they agreed that this outsourcing model would be suitable to use for deciding which IT functions were suitable for outsourcing. Most importantly they agreed that the core competency and outsourcing elements added to the model were important and the decision to outsource could not be made without considering them.

The second key finding was to gain an understanding of current frameworks or models which were used in the outsourcing of IT functions. Currently, with the exception of a procurement process, there are no models in place for any of the companies interviewed, even though a number of frameworks and models currently exist in the literature reviewed. When questioned on whether they should use a framework such as the one presented, all participants agreed that they should.

The third key finding focused on any elements of the proposed model which the participants felt needed to be changed. All participants agreed that all elements identified were valid and should be retained however there was a proposal that the benefits and risk elements should be scored to help make the decision to outsource. By having each one scored it would be clearer if the benefits outweigh the risks and it would remove a level of subjectivity.

The above were the main three findings outlined in the research, however there were a number of additional findings presented. These outlined preferences to be more strategic in motivations to outsource rather than been cost driven. Additional benefits and risks not outlined in the model were identified and that any risks identified through the process need to be mitigated against.

Chapter 7 - Conclusions and Recommendations

The outsourcing of IT functions has become more prevalent over the last number of years for companies (Hätönen and Eriksson, 2009). Many IT functions such as desktop support, call centres and application development (Tan and Sia, 2006) were all targeted for outsourcing with the primary motivation being cost reduction (Kremic et al, 2006). Over time these motivations have developed with both strategically driven and politically driven motivations, which has resulted in a further increase in the level of outsourcing (Kremic et al, 2006). The literature reviewed focused on these three primary motivations with a number of factors within each of them. These factors outlined different reasons why a company decides to outsource their IT functions.

As the need for outsourcing increases, the research was focused on understanding what models or frameworks a company uses to decide which functions are outsourced and which remain in-house. From the literature reviewed, there were a number of different frameworks and models which companies could use to evaluate this decision. However a composite framework was developed, as no current model had all the elements deemed necessary in the literature. This composite framework was based on Kremic and Tunkel's (2006) model but introduced two key elements identified elsewhere in the literature which were deemed important, core competencies (Perry, 1993) and outsourcing models (Dewire, 2000; Oshri, 2013).

From the primary research conducted, this composite framework was reviewed by managers working in different Irish based industries who have experienced outsourcing. They agreed that this framework would provide them with a structured approach to deciding which functions can be outsourced and that all elements identified within the framework where valid and required for the decision. All participants interviewed stated that currently they have not used any models or frameworks in making this decision in the past and where unaware of any companies, based in Ireland, using the types of models identified within the literature

7.1 Aim

The aim of this paper was to present and test an outsourcing decision framework which was developed from existing models identified in the literature. By creating this composite framework, the goal was to ensure all elements are considered in this decision process. In order to meet this aim, primary qualitative research through semistructured interviews were conducted on 6 managers based in five different companies in Ireland. Each of the selected managers had experience in outsourcing IT functions to varying degree throughout their careers.

By selecting these managers, who had gone through the process of outsourcing IT functions, meant they were in a strong position to critique the proposed framework and offer their opinion on whether it is suitable to be used to inform the decision on outsourcing of IT functions. By having managers who, in a work environment, are faced with the practicalities of this decision means that the framework will be tested from a practitioner viewpoint as well as a literature based viewpoint.

Based on the research which was conducted, it appears that a qualitative approach to the research in the form of interviews was the best method to gain an insight into the outsourcing decision. By conducting interviews it allows for a better level of research as different areas can be focused on during the interviews that are deemed important. This is useful in identifying any areas in the proposed framework which required further analysis or understanding. If a quantitative approach was taken, while a larger sample would have been taken there would have been no opportunity to fully test the model and gain key insights into certain elements.

7.2 Themes

From the literature and models/frameworks reviewed, there were eight themes identified which were the basis of the interviews. In order to address the research questions each of the themes were discussed during the interviews. Through this there were three key findings which addressed each of the questions. The first research question looked to understand what existing models or frameworks companies are currently using:

"What methods are currently used by Irish based companies to decide which IT functions are suitable to outsource."

From the interviews with the participants it is clear that they are unaware of any outsourcing decision frameworks or models currently in use.

The second question related to the proposed framework which was developed from the literature:

"In Ireland, will the proposed framework help a company evaluate and select which IT functions are suitable for outsourcing."

As discussed, this was presented to the participants and each agreed that the proposed framework would give a clear and structured approach to making a decision on which IT functions can be outsourced.

Finally, the third question asked the participants to propose any changes to the framework which was presented to them:

"Are there any other elements or factors which need to be considered in the evaluation of the IT functions which are not included in the proposed framework."

While all the participants agreed that the elements identified in the model were correct they stated that a clearer scoring mechanism should be included for the benefits and risks which would remove some subjectivity from the analysis.

While the themes were important in addressing the research question, they also identified other findings which are worth noting. All participants identified the fact that companies need to focus on strategically driven outsourcing rather than a cost driven approach. The participants also identified additional benefits and risks which were not included in the framework and finally that any risks which are identified should have mitigation actions included to reduce the impact of these risks.

7.3 Recommendations

The primary aim of this paper was to present an outsourcing decision framework which can be used by companies to successfully decide which IT functions are suitable for outsourcing. The research has identified the following key recommendations which achieve this aim.

The proposed composite framework should be used by companies to identify which of their functions are suitable for outsourcing. It is clear from the research that each company is different and while one company could outsource a function such as Email it may not be suitable for another company to follow suit. The proposed framework will help companies evaluate each of their own functions from their viewpoint. This will make the selection process more successful. By identifying clearly all the benefits and risks, a company will understand from the beginning what they are trying to achieve and what risks they will need to mitigate against.

Another important recommendation is focused on the area of core competency. It is recommended that a company evaluate all IT functions and identify which are core and non-core competencies. The company will then need to make a decision on whether it is willing to outsource core competencies as the level of risk will increase. This can be done on a case by case basis as, per the literature, some sources propose the outsourcing of these core competencies if the benefits outweigh the risks.

Finally, it is recommended that further research be conducted on the proposed outsourcing decision framework. For this paper, research was limited to five companies in four different industries. Further research should be conducted on more companies within those industries and any additional industries present in Ireland. By getting a larger sample of companies who have outsourced IT functions it will contribute further to validating the proposed framework. An element of the additional research would be for companies to take the proposed framework and evaluate their IT functions to fully test the framework. This would ensure the framework is covering all elements of the decision from a practitioner viewpoint.

References:

Agha, S. (2012) 'Effect of Core Competence on Competitive Advantage and Organizational Performance' International Journal of Business and Management, Vol. 7, No. 1; January 2012

Amiti, M. and Wei, S-J. (2005) 'Fear of Service Outsourcing: Is It Justified?'. *Economic Policy*: pp.308-347.

Ang, S. and Inkpen, A. (2008) 'Cultural Intelligence and Offshore Outsourcing Success: A framework of Firm-Level Intercultural Capabilities'. *Decision Science*, 39(3), pp. 337-358.

Aron, Ravi; Singh, Jitendra V. (2005) "Getting Offshoring right". Harvard Business Review. Dec2005, Vol. 83 Issue 12, p135-143. 9p

Apte, U.M., Sobol, M.G., Hanaoka, S., Shimada, T., Saarinen, T., Salmela, T. and Vepsalainen, A.P., (1997). "IS outsourcing practices in the USA, Japan and Finland: a comparative study". Journal of information technology, 12(4), pp.289-304.

Bardhan, A. and Kroll, C. (2003) 'The New Wave of Outsourcing'. Fisher Center Research Reports, pp. 1-12.

Barnes, David (2007) "Operations Management: An International Perspective", 1st Edn, London, Pub: Cengage Learning EMEA.

Boyce, C. and Neale, P., 2006. Conducting in-depth interviews: A guide for designing and conducting in-depth interviews for evaluation input.

Cronk, J. and Sharp, J. (1995) "A framework for deciding what to outsource in information technology". Journal of Information Technology, 10, pp. 259-267

Dad, A. and Iqbal, Z. (2013) 'Outsourcing: A Review of Trends, Winners and Losers and Future Directions'. *International Journal of Business and Social Science*, 4(8): pp. 91-107.

Dewire, D.T. (2000) "Application service providers", Information Systems Management, Vol 17, No 4, pp14-19.

Elo S and Kyngäs H. (2008). "The qualitative content analysis process", Journal of Advanced Nursing, Volume 62, Issue 1, Pages 1–137

Garner, C. Alan (2004), "Offshoring in the Service Sector: Economic Impact and Policy Issues," Economic Review, Third Quarter, Federal Reserve Bank of Kansas City, 5.37.

Gallivan, M. J., and Oh, W. (1999). "Analyzing IT outsourcing relationships as alliances among multiple clients and vendors". Proceedings of the 32nd Annual International Conference on System Sciences, Hawaii.

Gartner (2012) IT services - Gartner IT glossary. Available at: http://www.gartner.com/it-glossary/it-services/

Gilley, Matthew K. and Abdul Rasheed. "Making More by Doing Less: An Analysis of Outsourcing and Its Effects on Firm Performance." Journal of Management 26 (Issue 4 2000): 763–90.

Gubrium, J. F. and Holstein, J. A. (Eds.). (2002). Handbook of Interview Research: Context and Method. ThousandOaks, CA: Sage.

Gunasekaran, A., Irani, Z., Choy, K.L., Filippi, L. and Papadopoulos, T., 2015. Performance measures and metrics in outsourcing decisions: A review for research and applications. International Journal of Production Economics, 161, pp.153-166. Gupta, A. (2009) 'The 24-Hour Knowledge Factory Paradigm: The Evolving Model for Offshoring Based on Strategy, Economic, Legal, health, Technical, and Other Considerations'. Social Science Research Network, 18 Sept.

Harrison, A. and McMillan, M. (2006) 'Dispelling some Myths About Offshoring'. Academy of Management Perspectives, 20(4): pp. 6-22.

Hätönen, J., and Eriksson, T. (2009). 30+ years of research and practice of outsourcing – exploring the past and anticipating the future. Journal of International Management, 15 (2), pp.142-155.

Javalgi, R. R. G., Dixit, A., and Scherer, R. F. (2009). Outsourcing to emerging markets: theoretical perspectives and policy implications. Journal of International Management, 15 (2), pp. 156-168.

Juga, J. Juntunen, J and Grant D, (2010) "Service quality and its relation to satisfaction and loyalty in logistics outsourcing relationships", Managing Service Quality: An International Journal, Vol. 20 Issue: 6, pp.496-510,

Kakabadse, A. and Kakabadse, N. (2000a), "Sourcing: new face to economies of scale and the emergence of new organizational forms", Knowledge and Process Management, Vol. 7 No. 2, pp. 107-18.

Kavanagh, L. (2014) 'Outsourcing in the financial services industry: An exploratory study into the changing trends within the sector'. *Masters thesis, Dublin, National College of Ireland*

Kinkel, S. (2014) 'Future and impact of backshoring - Some conclusions from 15 years of research on German practices'. Journal of Purchasing and Supply Management, Volume 20: pp. 63-65.

Kremic, T. and Tukel, O.I. (2006) 'Assisting public organisations in their outsourcing endeavours: A decision support model', International Journal of Integrated Supply Management, 2(4), p. 383.

Lacity, MC. and Willcocks, LP. 1998. "An empirical investigation of information technology sourcing practises: Lessons from experience", MIS Quarterly, 23(3), pp. 363-408

Lacity, M.C. and Hirschheim, R.A. (1993) Information systems outsourcing: Myths, metaphors and realities. 1st edn. New York: John Wiley and Sons.

Lacity, M.C., Hirschheim, R.A. and Willcocks LP. (1994) Realizing outsourcing expectations. Information Systems Management. The Practice of Outsourcing, pp 37-58

Lacity, MC. Willcocks, LP. and Feeny, D.E. 1996. "The Value of Selective IT Sourcing." Sloan Management Review, Spring 1996, pp. 13-25

Lam, R. (2009) 'Impact of outsourcing on IT professionals: A case study of role change in The City of Oslo (Norway)'. *Dissertation in Degree of Master of Science, Brunel University*

Lee, J.-N. and Kim, Y.-G. (1999) 'Effect of partnership quality on IS Outsourcing success: Conceptual framework and empirical validation', Journal of Management Information Systems, 15(4), pp. 29–61.

Li, S. Ragu-Nathan, B. Ragu-Nathan, T and Subba Rao, S. 'The impact of supply chain management practices on competitive advantage and organizational performance.' Omega, Vol. 34 Issue 2, p107-124, 18p

Machado, D. (2009). "Outsourcing decision-making aspects considered by IT departments in Brazilian companies". International journal of production economics, 122(1), pp. 305-311.

Manning, S., Massini, S. and Lewin, A. (2008) 'A Dynamic Perspective of Next-Generation Offshoring: The global Sourcing and Science and Engineering Talent'. *Academy of Management Perspectives*, 22(3): pp. 35-54.

McTernan, David (2015) "Outsourcing in the financial services industry: A study of outsourcing strategies and their effects on performance, reputation and on relationships." Master's thesis, Dublin, National College of Ireland.

Mehta, A., Armenakis, A., Mehta, N. and Irani, F. (2006) 'Challenges and Opportunities of Business Process Outsourcing in India'. *Journal of Labor Research*, 27(3): pp. 324-338.

Mohiuddin, M. and Zhan, S. (2010) Firm Level Performance of Offshore Outsourcing Strategy of Manufacturing Enterprises: A Research Agenda. Competition Forum, 8(1), pp. 13-27

Oshri, I. (2013) 'Choosing an Evolutionary Path for Offshore Captive Centers'. MIS Quarterly Executive, 12(3): pp. 151-165.

Park, D. and Wu, L. (2009). 'Dynamic outsourcing through process modularization'. *Business Process Management Journal*, 15(2): pp. 225-244.

Perry, L.T., Stott, R.C. and Smallwood, W.W. (1993) Real Time Strategy: Improvising Team Based Planning for a Fast-Changing World. (John Wiley, New York)

Prahalad, C.K. and Hamel, G. (1990) "The core competence of the corporation". Harvard Business Review. 68(3): pp. 79-91 Quinn, J. (2013) 'Strategic outsourcing: leveraging knowledge capabilities.' Image 34.

Quinn, J.B., (1992). The intelligent enterprise a new paradigm. *The Executive*, *6*(4), pp.48-63.

Quinn, J.B. and Hilmer, F.G. (1994) "Strategic outsourcing", Sloan Management Review, 35, pp. 43-55

Roberts, V. (2001), "Managing strategic outsourcing in the healthcare industry", Journal of Healthcare Management, Vol. 46 No. 4, pp. 239-49.

Saunders, M; Lewis, P; Thornhill, A (2012). Research Methods for Business Students (6th ed.).

Schneider, S and Sunyaev, A. (2016) 'Determinant factors of cloud-sourcing decisions: reflecting on the IT outsourcing literature in the era of cloud computing' Journal of Information Technology, Volume 31, Issue 1, pp 1–31

Smith, A (1827), 'An inquiry into the Nature and Causes of the Wealth of Nations', Harvard Classics, Vol. 10, vol. New York: P.F. Collier and Son Company.

Spinks, N and Reid, B (2011a). In-depth interviews. Henley Business School.

Spinks, N and Reid, B (2011b). Research designs. Henley Business School.

Tan, C., and Sia, S. K. (2006). Managing Flexibility Outsourcing. Journal of the Association for Information Systems, 7 (4), pp. 179-206.

Trinity College Dublin, TCD (2017) Template for participant consent form. Trinity College Dublin

Trinity College Dublin, TCD (2017) Template for participant information sheet. Trinity College Dublin

Windrum, P., Reinstaller, A. and Bull, C. (2008) 'The outsourcing productivity paradox: Total outsourcing, organisational innovation, and long run productivity growth', Journal of Evolutionary Economics, 19(2), pp. 197–229

Appendix A: Cover Letter and Participation Sheet

Date: 12/06/17

Dear Participant:

I'm writing to extend an invitation to participate in research I am conducting for my Masters in Management course I am undertaking in the National College of Ireland. As discussed, I will outline the details of the research and what your involvement would be if you accept my invitation to take part.

As you area aware, over the last number of years the level of outsourcing within IT departments of companies has increased in order to achieve a number of factors such as cost reductions. My study will look at how an IT function of a company is selected to be outsourced in terms of the models or frameworks which guide these decisions. This will be focused on Irish based companies. For this study I will present an outsourcing decision framework based on the literature available on this topic and look for your feedback.

As discussed, your participation in this research is totally voluntary and can be stopped at any time. The whole interview process would be expected to take approximately 1 hour of your time in an agreed location. At any time if you don't want to answer a particular question or want to stop the interview, that will not be an issue and will have no negative consequences. With your permission the interviews will be recorded on my phone to allow me supplement my note taking. All information gathered will be kept confidential and your anonymity will be maintained throughout the process. Any data collected will be retained till March 2018 and only the researcher will have access to it. After that time all information will be deleted.

If you have any questions in relation to the research or need any other information before we proceed please contact me on 087 662 7601 or email dermot.mangan@esb.ie.

I very much look forward to speaking with you and thank you in advance for your assistance in this research.

Sincerely,

Dermot Mangan

The Outsourcing of IT Functions in Irish Based Companies

Introduction:

As discussed I am inviting you to take part in a research study on the outsourcing of IT functions. The following information will outline why the research in this area is been conducted and what your involvement will be for this research. Please carefully read the following information and feel free to ask any questions or clarify any points of information.

Research Background:

I'm completing a Masters in Management in the National College of Ireland and am conducting a case study which focuses on the outsourcing decision frameworks or models available to companies in Ireland.

For the purposes of this research you will be presented with a proposed outsourcing decision framework and asked questions in relation to the elements in the framework. You will be asked to give insight into the feasibility of all elements and if there are any elements missing which you consider important. You will also be asked for models or frameworks in your company and other Irish based companies that you are aware of.

Interview Process:

As part of the interviews you will be presented with the proposed outsourcing decision framework and asked questions under the following themes:

- Your Background Information
- Motivations for Outsourcing
- Outsourcing Decision Framework/Model used
- Core Competencies
- Benefits
- Risks
- Factors
- Outsourcing models
- Future for IT functions in Ireland

You have been asked to participate in this research as you have first-hand experience in the outsourcing of IT functions within your company. Please note that participation is completely voluntary and that at any point you have the right to stop the interview without any consequence. Any information which has been gathered at that point will be destroyed.

Confidentiality:

All information collected from you during the interview process will be kept confidential and your anonymity will be maintained at all times. Any mentions of you, your company or any 3rd party companies you mention will not be published. If there is any requirement to reconsider this anonymity you will be contacted in advance and written consent will be requested. If no written consent is given the information will remain anonymous. All information such as recordings will be stored on the researchers laptop which is password protected. Any notes taken will be transcribed and stored on the laptop and the written copies will be destroyed. All information gathered will be retained till March 2018 and destroyed after that time.

A signed consent form will be given to you in advance of the interview outlining these details. Please read it carefully.

Final Dissertation:

The dissertation will be made available online on National College of Ireland's website and will be available to you to read if you wish.

Regards

Dermot Mangan

Appendix B: Consent Form

The Outsourcing of IT Functions in Irish Based Companies

Consent to take part in research

I..... voluntarily agree to participate in this research study.

- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me in writing and I have had the
 opportunity to ask questions about the study.
- I understand that participation involves reviewing a proposed outsourcing decision framework and giving honest opinions on its feasibility.
- I agree to my interview being audio-recorded.
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by ensuring names, company names and any 3rd party companies are not disclosed in the dissertation.
- I understand that disguised extracts from my interview may be quoted in in the research findings and discussion sections of the dissertation.
- I understand that signed consent forms and original audio recordings will be retained in Dermot Mangan's laptop which is password secured until March 2018 at the latest.
- I understand that a transcript of my interview in which all identifying information has been
 removed will be retained until March 2018 at the latest.
- I understand that under freedom of information legalisation I am entitled to access the information I have provided at any time while it is in storage as specified above.

Signature of research participant

Signature of participant	Date

Signature of researcher I believe the participant is giving informed consent to participate in this study

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Signature of researcher Date